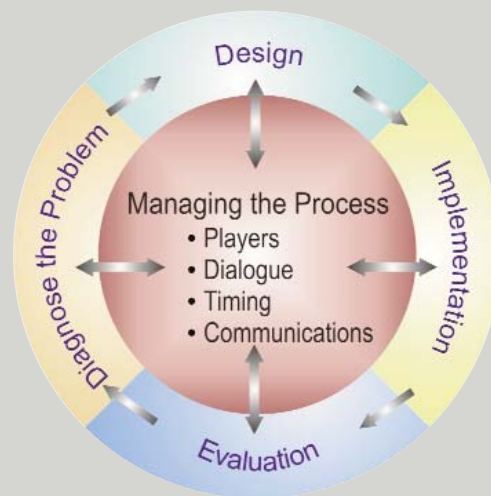




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# POLICY REFORM LESSONS LEARNED: TEN YEARS OF ECONOMIC GROWTH RELATED POLICY REFORM ACTIVITIES IN DEVELOPING COUNTRIES

Case Studies



**JUNE 2007**

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# ACRONYMS AND ABBREVIATIONS

APCP	Agricultural Production and Credit Project
ANGAP	Malagasy NGO
ASDG-II	Agriculture Sector Development Grant-Phase II (ASDG-II)
C4EP	Central and Eastern Europe Environmental and Economic Policy
CBC	Community-based conservation
CBO	Community-based organization
CCAD	Central American Commission for Environment and Development (Comisión Centroamericana para el Ambiente y el Desarrollo)
CDIE	Center for Development Information and Evaluation
CEE	Central and Eastern Europe
CGIF	Consultative Group on Indonesia Forestry
DEMO	Development of Environmental Management Organizations
DFE	Donor Forum on Forestry
EAPS	Environmental Action Program Support
EEAA	Egyptian Environmental Affairs Agency
EEPP	Egyptian Environmental Policy Program
EMS	Environmental management system
ENRAP	Environmental and Natural Resources Accounting Project
EPB	Environmental Protection Bureau
EPF	Egyptian Environmental Protection Fund
EPIQ	Environmental Policy and Institutional Strengthening IQC
ESP	Environmental support plan
EU	European Union
FAO	Food and Agriculture Organization (UN)
G-7	Group of seven highly industrialized nations (Canada, France, Germany, Italy, Japan, United Kingdom, and United States)
G/ENV	Global Environment Bureau
GIS	Geographic Information system
GTZ	German Development Agency

ICAS	Interstate Committee on Saving the Aral Sea
IFI	International financial institution
IMAZON	Instituto do Homem e Meio Ambiente da Amazonia (Institute for Man and the Environment of the Amazon)
IMF	International Monetary Fund
IPP	Independent power producer
ISO	International Organization for Standardization
JCDT	Jamaica Conservation Development Trust
KAP	Knowledge, attitudes, and practices
LEAP	Local environmental action plan
M&E	Monitoring and Evaluation
MBMPT	Montego Bay Marine Park Trust
MoE	Ministry of Environment
MPWWR	Egypt's Ministry of Public Works and Water Resources
NEAP	National Environmental Action Plans
NEPT	Negril Area Environmental Protection Trust
NEPRA	National Electric Power Regulatory Authority
NIS	Newly Independent States
NGO	Non-governmental organization
NRM	Natural resources management
NRM2	Natural Resources Management II
NRMP	Natural Resources Management Program
OECD	Organization for Economic Cooperation and Development
PFC	Power Finance Corporation
PBDAC	Principal Bank for Development and Agricultural Credit
PHARE	European Union's CEE assistance program
PROARCA	Projecto Ambiental Regional para Centroamérica (Central American Protected Areas Systems)



PROPER	Program for Pollution Control, Evaluation, and Rating
PVOs	Private and voluntary organizations
SEPA	China's State Environmental Protection Agency
UEAUES	Urban Environmental Quantitative Examination system
U.S.	United States
USEA	U.S. Energy Association
USAID	United States Agency for International Development
WAPDA	Water and Power Development Authority
WHO	World Health Organization
WPT	Wildlife Policy of Tanzania
WMA	Wildlife Management Area
WRI	World Resources Institute



# SECTION I: MANAGING THE POLICY PROCESS

Involve the Players

Conduct Open and Flexible Policy Dialogue

Get the Timing Right

Communicate Effectively



# INVOLVE THE PLAYERS

## CASE I IMPLEMENTING AN AMBITIOUS STRUCTURAL ECONOMIC REFORM AGENDA IN POST-SUHARTO INDONESIA REQUIRES POLITICAL CHAMPIONS AND LONG-TERM COMMITMENT

In February 1998 in the midst of the Asia economic crisis, the IMF and the World Bank drew up a plan to tie a large, emergency foreign reserves guarantee for Indonesia to a wide-ranging structural adjustment program. The two international financial institutions, with the assistance of a group of leading

### TYING REFORMS TO DONOR

#### ASSISTANCE— *While*

*Indonesia agreed to a slate of reforms to access foreign reserve guarantees, many reforms were doomed or delayed by the lack of consensus building among key decision-makers and stakeholders*

donors including USAID, tried to capitalize on the collapse of Indonesia's banking system by tying the assistance to a set of structural economic and financial reforms that donors had long been urging the government to implement. These reforms included the breakup of monopolies in key agricultural and forestry import and export sectors, banking reform, corporate debt and bankruptcy legal reform and the privatization of key state enterprises in transportation and military goods, amongst many others. Indonesia agreed, under duress, to the tie-in

proposal and the reforms were specified in a Presidential Decree, signed by President Suharto and by the then Head of the IMF, Michel Camdessus and known as the Memorandum of Economic and Financial Policies (MEFP).

The IMF/World Bank consultation and drafting process for the reform package was undertaken very quickly and in relative secrecy, mainly with the Ministry of Finance and Bank Indonesia, the central bank. Many of the Indonesian line ministries, which would be responsible for implementing the reforms, were not consulted about them, much less the general public. Though nearly all of the reforms listed in the Memorandum were quickly put into law through Presidential Decree, many of them also required major restructuring of industries, the sudden introduction of competition from foreign imports (e.g. basic foodstuffs) or the lifting of export bans (e.g. on oil palm) that protected important domestic industries.

The onset of the wide-ranging reforms, in the midst of a major currency crisis, which indeed was the catalyst to the reform measures, served to exacerbate greatly the impact of the economic crisis and led to the resignation of President Suharto only two months into his seventh term. While a number of the reforms — created with the stroke of a pen — were able to be

implemented because they removed an import or export restriction, many of the most important reforms in the agriculture, forestry and state enterprises sectors remained stalled for years because they required significant restructuring of the industries involved, all of which were controlled by politically powerful elites and government bureaucrats which would lose from any significant changes. Meanwhile, the social and economic damage done by enacting such a severe and wide-ranging set of reforms during an economic crisis actually prevented many of the reforms from being fully implemented because a) the government's attention was diverted to providing for emergency employment and social safety net programs and b) the affected industries pleaded that restructuring would undermine their capacity to bring in needed foreign exchange to stabilize the economy.

In retrospect, a targeted and more deliberately phased reform program that focused as much or more on the political prerequisites to economic and financial reforms, identified and engaged key political reformers, and was better coordinated with other reforms such as decentralization, resource tenure reform, and reform of the government bureaucracy (some of which eventually did occur years later) would have likely avoided much of the subsequent economic chaos and social disruption to the country.

## CASE 2 THE IMPORTANCE OF BUILDING A CONSENSUS FOR POLICY CHANGE: ECUADOR'S AGRARIAN DEVELOPMENT LAW OF 1994

In Ecuador, agrarian reform that initially had been regarded as a radical policy change was accepted virtually without dissent once all affected parties were included in policy discussions. As has been the norm throughout Latin America, policymaking in Ecuador has not been characterized by extensive consultation with stakeholders. However, the acceptance and implementation of Ecuador's Agrarian Law of 1994 is an example of the shift in perception that can take place when stakeholders are active participants in dialogue and the design of a policy reform.

In the years leading up to 1994, the shortcomings of group tenure arrangements had come under increased scrutiny in Latin America. A bewildering array of laws and regulations prevented *comunas* and *ejidos* (community groups) from dividing assets among members and engaging in normal real estate transactions. Since communal land could not be bought or sold, and therefore could not be used as collateral for a loan, access to formal financial markets was precluded as well.

Following Mexico's lead and heeding the advice of international consultants, the Ecuadorian government made major changes in its communal property arrangements in 1994. Those changes were incorporated in the *Ley de Desarrollo Agrario* (Agrarian Development Law), which the national legislature adopted.

In this case, leaders of some well-organized indigenous groups argued that their voices had not been heard. They responded by organizing a national strike, which brought normal business to a standstill for several days.

Ecuador's head of state, Sixto Durán-Ballén, decided that the best course of action was to suspend the new law pending review by a special presidential commission. The commission, which included indigenous leaders, promptly engaged in the sort of discussion that should have preceded passage of the law. As a result, the new law, which allowed private parcels to be created out of communal holdings, remained largely intact.

**BUILDING CONSENSUS FOR POLICY CHANGE—***Failure to build consensus among indigenous groups in Ecuador led Head of State Sixto Duran Ballen to suspend the new communal property law and form a special presidential commission to engage indigenous leaders.*

## CASE 3 DONOR COORDINATION IN INDONESIA'S FORESTRY CRISIS

A unified and coordinated effort by donors successfully encouraged counterparts in Indonesia to participate in a focused dialogue to consider a slate of policy reforms in the forestry sector. This example of attempts at donor coordination in reform of the forestry sector in Indonesia describes the evolution and difficulties of coordinated efforts due to weak regulation, corruption and lack of accountability of the enormously powerful Indonesian forestry sector under the 30-year Suharto regime.

**ORGANIZING A FORUM FOR DONOR COORDINATION—***From 1996–2000, donors organized the Consultative Group on Indonesia Forestry as a forum for policy dialogue and donor program coordination.*

Despite this troublesome legacy, a number of donors worked in the forestry sector for more than ten years to promote best practices and encourage policy reforms in sustainable forestry and protected area management. From 1996 to 2000, a group of donors to Indonesia, called the Consultative Group on Indonesia Forestry (CGIF), sponsored a forum for policy dialogue and donor program coordination and planning with the Department of

Forestry. Though NGOs were excluded and the CGIF remained peripheral to the real decision-making processes on production forestry, it was nevertheless very important in structuring donor assistance to deal with the catastrophic El Niño forest fires in 1997–1998 and helping the department develop appropriate regulatory decrees to implement the forestry-related parts of the IMF economic reforms of early 1998.

Under the World Bank's sponsorship, the CGIF remained active in promoting policy reform but was continually frustrated by the Forestry Department's reluctance to reform. In early 2000, the CGIF mandated a "Special Session on Forestry" and developed an eight-point plan that amounted to a virtual ultimatum to enact serious forestry sector reform or face a withdrawal of assistance, including a structural adjustment loan.

Thereafter, the Indonesian government was in turmoil with rapid decentralization, frequent cabinet changes, and a steady deterioration in rule of law. This frustrated donor efforts, for the smaller but more active Donor Forum on Forestry (DFF), to get the government to implement the eight-point plan. The history of the CGIF and the smaller but more active DFF underline the fact that demanding far-reaching political reforms, such as land tenure reform or dismantling the forestry

industry over a short timeframe, is practically doomed to failure.

The Department of Forestry was weak and lacking in credibility with other departments, such as finance and trade and industry, resulting in a number of policy reforms never even being addressed. It also failed to package its support through smaller initiatives with various departments—as opposed to just the Forestry Department—to ensure that a number of small successes could build enough confidence and momentum to enable the successful tackling of larger, more political issues. And it failed to insist on the involvement of a broader group of stakeholders, notably private sector concessionaires, forest community representatives, and NGOs—though it is also true that central government also resisted this.

Finally and decisively, donors were not actually willing to reduce overall levels of financial assistance to Indonesia as they had warned. So, without a credible policy "stick," efforts at serious reform were much less likely to succeed.

The urgency of the forestry crisis in Indonesia led to the DFF strategy of coordinated dialogue. Although it has had only limited success to date, the strategy has clearly been much more politically visible and successful than the previous uncoordinated approach.

# CONDUCT OPEN AND FLEXIBLE POLICY DIALOGUE

## CASE 4 FAO INVOLVES WOMEN IN POLICY DIALOGUE TO BETTER ADDRESS GENDER DIFFERENCES IN THE DESIGN OF ASIAN FORESTRY PROJECTS

A series of policy dialogues conducted by FAO resulted in a restructuring of forestry projects to account for differences in gender, culture, and socioeconomic conditions.

In the early 1980s, assistance to developing countries in Asia focused attention and resources on considering the role of women in the

### UNDERSTANDING THE ROLE OF GENDER IN FOREST

**MANAGEMENT** – *A series of workshops organized by the FAO for six participating countries helps demonstrate to local ministries, international agencies and NGOs the importance of understanding the different roles of men and women when designing forestry projects.*

use of forest resources—and showed that women acquire and utilize forest resources differently than men, even with complementary roles in families and communities. To account for these differences, FAO undertook a program to promote dialogue and

stimulate input from policymakers and training institutions.

FAO selected eight forestry projects from six Asian countries; all involved local participation components and cooperative project managers. Each study team included a member from a local social science group familiar with gender issues, a member from a training institution, and a technical advisor who held a high-ranking, policy-level post in the forestry sector. The following steps were taken in each country:

- Specialists in gender and training with representatives from FAO made a field visit to each project and established dialogue with project staff.
- Gender and training specialists from each country attended a workshop on writing participatory case studies, drafted an analysis framework, and designed project studies. The framework included questions in four areas: (1) the development context—what is getting better and what is getting worse? (2) women's and men's activities and roles—who does what? (3) women's and men's access to and control over resources—who has what and who needs what? and (4) forestry actions needed—what should be done to close the gaps between what women and men need and

what development delivers?

- Frequent meetings for each national team identified activities that failed because project staff interacted differently with men and women, in some cases providing advance information about the arrival of seedlings only to men and not to women who were responsible for planting and watering seedlings. Until project staff improved their communications with women, new seedlings had a low survival rate.
- Gender and training specialists evaluated the forestry projects and developed case studies that demonstrated that project effectiveness was enhanced when account was taken of the socioeconomic context and gender differences.
- Further workshops established ways to incorporate gender information in future training, participating projects, and the ministries. Videos, case studies, training materials, and policy discussion papers were developed.

FAO's substantial investment in this activity resulted in related institutions helping to train local ministries, international agencies, and NGOs and assisting with other projects. Forestry officials have been focal points for support of gender analysis.



## CASE 5 SHARING INTERNATIONAL EXPERIENCE ENHANCES POLICY DIALOGUE TO IMPROVE WATER QUALITY IN ROMANIA

**A**s Romania engaged in efforts to improve water management during its transition to a market economy in the 1990s, a series of policy roundtable discussions featuring international experience and expertise helped policymakers identify and reach consensus on appropriate models. This led to passage of the 1996 Water Law, based on the principle that the beneficiary pays and designed to move Romania to full-cost pricing of water services.

In the Communist era, piped water in Central and Eastern Europe was unpriced or underpriced, unmetered, and sometimes unavailable from suppliers who were not accountable and not responsive to household preferences or local conditions. With decreasing central budget allocations and inadequate revenue generation, suppliers had no funds to repair or expand water supply and distribution systems. Subsidized prices and unmetered systems also resulted in excessive water use and waste—and the overall deterioration of water service.

In Romania, the C4EP project organized policy dialogue events to examine options, develop the new water law, promote its passage, and support its implementation. To initiate the dialogue, a roundtable featured foreign experts who presented water management models from the United States, the United Kingdom, and France. The Romanians then considered which aspects of the various models would be most appropriate for their situation and used this information to draft the new legislation. The roundtable process also facilitated the development of a consensus among stakeholders and decision-makers.

The new law dealt with finance, accountability, and decentralization. Accountability and decentralization were enhanced by community river basin committees vested with the power to set priorities for and approve all water projects in their area. The basin committees included locally elected officials and water consumers and producers. Public participation is mandated and protected under the law, as is

freedom of information. A series of public debates held around the country reviewed the draft charter for the river basin committees, and public comments were incorporated during a three-day internal roundtable to finalize the regulations.

**SHARING INTERNATIONAL EXPERIENCE ENHANCES POLICY DIALOGUE—***A series of policy roundtable discussions in Romania led to the passage of the 1996 Water Law that introduced water pricing and expanded management responsibilities for river basin authorities.*

# GET THE TIMING RIGHT

## CASE 6 START SMALL FOR EARLY SUCCESSES: A BITE-SIZED APPROACH TO TRADABLE PERMITS IN THE CZECH REPUBLIC

Legal and institutional reforms take time and often involve controversial measures that require long-term support. This case from the Czech Republic shows how an incremental approach built momentum for more extensive reforms with a set of initial improvements, allowing reformers to gain support and understanding of

**PILOT PROGRAMS  
DEMONSTRATE EFFECTIVENESS  
OF POLICY INSTRUMENTS —**  
*C4EP was able to convince the Czech Ministry of Environment to consider pollution trading through a step-by-step approach featuring the simulation of a small-scale market for production trading and a study tour to observe U.S. trading programs.*

more controversial measures over time.

During 1994–1997, C4EP worked with the Czech Ministry of Environment on policy development for air pollution control. Initially, C4EP evaluated various policy options for air pollution control,

based on interviews with policymakers and an analysis of available air emissions data. A report was prepared outlining the pros and cons of various options, including revisions to the charge system, pollution permit trading and full-cost pricing of energy and energy inputs. While reaction to the report from policy makers was positive, some hesitated to adopt the recommendations despite the projected economic benefits.

This hesitancy reflected, at least in part, the degree to which some of the proposals represented radically different policy approaches for the Czech Republic. Full-cost pricing of energy and energy inputs, though efficient from an economic standpoint, was a radical, and hence controversial, departure from historically subsidized energy prices. A program of tradable air pollution emissions permits relied on the creation of a well-functioning market for the buying and selling of permits, similar to the nascent Prague stock exchange, the success of which was still being evaluated. Other potential programs required legislative changes.

Seeing some of these roadblocks, C4EP adopted a step-by-step policy advisory approach. For the option of tradable emissions permits, C4EP and the Ministry of Environment established a pilot project that

simulated trading in a particular area of the Czech Republic. Through computer modeling of trades using actual cost data from thirty facilities, the project demonstrated two key points: first, that a small-scale market for trading could be established by natural supply and demand among the facilities; and, second, that cost savings of at least 15 percent could be realized through trading as an alternative to facility-wide compliance with emissions standards.

In addition to the pilot project, C4EP cooperated with the U.S. Energy Association (USEA) in sponsoring a study group from the Czech Republic to observe U.S. pollution permit trading programs. Czech experts also attended USAID regional conferences on tradable permits sponsored by C4EP and USEA, all of which helped to contribute to an understanding of these programs.

More recently, the Czech Ministry of Environment has expressed a willingness to consider intra-firm trading, an initial step toward possible permit trading on a larger scale in the future. The inclusion of language allowing for tradable permits was considered in air legislation being prepared for 1998.

## CASE 7 OFFICIALS IN 10TH OF RAMADAN CITY, EGYPT, INVOLVE STAKEHOLDERS AT EARLY STAGE TO DEVELOP A MUNICIPAL ENVIRONMENTAL MANAGEMENT SYSTEM

One of the keys to the successful adoption of the environmental management system (EMS) of Ramadan City, Egypt, was the early involvement of stakeholders in dialogue focused on characterizing the city's environmental problems, possible solutions, and sharing of responsibility for implementing and financing improvements.

**EARLY ENGAGEMENT OF STAKEHOLDERS RESULTS IN GREATER ACCEPTANCE—***In the 10th of Ramadan City in Egypt, early gathering of stakeholders including private industry, city officials, and national environmental agency representatives helped define roles and responsibilities, created an incentive system for improving environmental management and built support for a monitoring system for continuous improvement.*

Thirty-eight industries in one of Egypt's industrial cities, 10th of Ramadan, in 2001 began implementing an EMS based on the

international voluntary environmental management standard, ISO 14001. The resulting ISO 14001 Preparatory Program was based on existing command and control regulations, combined with voluntary market-based incentives.

An EMS is a concept originally developed by the private sector in organizations such as the International Standards Organization for the management of industrial wastes. Because EMS provides a framework for defining the roles and responsibilities of stakeholders and mechanisms for monitoring, evaluation, and continual improvement, it offers a comprehensive methodology for improving urban environmental management as well. The Egyptian Environmental Affairs Agency (EEAA) and the 10th of Ramadan Board of Trustees, together with the USAID-funded Program Support Unit (PSU), worked on developing an integrated environmental management structure in the 10th of Ramadan City. One aspect of this work established procedures for an environmental fund for the city, which could be used to help finance local environmental improvements, with financing provided by the private sector and leveraged by a matching contribution from the Egyptian Environmental Protection Fund. EEAA anticipated that the city's fund would serve as a model that could be replicated in other new

communities faced with similar environmental and financial challenges.

The 10th of Ramadan gathered stakeholders including private industry, city officials, and national-level environmental officials to define roles and responsibilities, create an incentive system for improving environmental management, and build a monitoring system for continued environmental improvement. These systems were all based on existing command and control regulations, combined with market-based incentives for improved environmental management. The EMS approach to urban environmental management, in this case, has allowed local action to define and assure its integration to larger regional and national policy. The EMS strengthens environmentally related policy implementation by providing a demonstration vehicle for other local governments and by integrating national policy into local initiatives. Overall, such an approach could improve urban environmental management by integrating both "bottom-up" and "top-down" approaches, thereby creating a win-win situation for all stakeholders.

# COMMUNICATE EFFECTIVELY

## CASE 8 INVESTMENTS IN INFORMATION SYSTEMS HELP MADAGASCAR BUILD CAPACITY TO MONITOR AND ASSESS DEVELOPMENT IMPACTS

Donor investments in internal project monitoring can yield significant benefits to counterparts if designed to track

**USING INFORMATION MANAGEMENT SYSTEMS TO BUILD INSTITUTIONAL CAPACITY—Investments in aerial and satellite imagery, GIS and global positioning system (GPS) technology, surveys and analyses improved the capability of the Madagascar authorities to monitor soil and water quality, protection of biodiversity, and maintenance of forest cover. It also helped support government discussions with prospective mineral investors.**

impact as well as implementation. This may require larger investments in monitoring (above the 10 percent of project budget “rule of thumb”) and the use of more sophisticated and costly monitoring methods.

In general, environmental programs have invested in evaluation, monitoring, and analysis because the nature of the programs often

demands improved monitoring capability as an objective in its own right. The policy concerns—improved soil and water quality, protection of biodiversity, and maintenance of forest cover—often lend themselves to aerial photography, satellite (LANDSAT) imagery, geographic information system (GIS) investments and other measurement activities that can represent significant investments. Often these investments are not just to track program impacts over the life of the donor investment, but to improve the capability of the country itself to monitor the environment, to assess impact from developmental programs, and to improve strategic planning and implementation.

A good example of this is in Madagascar, where as part of their longstanding environmental program in support of the country’s National Environmental Action Plan the USAID Mission invested heavily in aerial and satellite imagery, GIS and global positioning system (GPS) technology, surveys, and analyses. One of the largest investments in the sector by USAID over the last two decades, the cluster of contracts and grants included a number of significant informational components. Investments since 1990 included the development of a national biodiversity GIS system, designed to become an integral component of ANGAP, the Malagasy NGO that has

evolved into the country’s Park Service, as well as numerous surveys, mapping exercises, and site-specific GIS mapping efforts.

The USAID Mission and its partners considered monitoring to be a key component of the program’s internal operations, in essence one of the developmental “results” being supported, not just an ancillary function needed only for donor reporting. It was seen to be essential in carrying out their policy reform work, especially in tracking progress, letting them judge whether policy changes were indeed having the anticipated impact. More important, having such information, and the expertise to properly assess it, monitoring was considered to be one of the Mission’s environmental objectives. This has had a series of major impacts; most importantly, to give the government a major weapon to wield in discussions with new multinational mineral investments.

This improved information base in the environment also significantly improved the USAID Mission’s ability to consider how best to merge the environmental and agriculture portfolios into a new strategic objective. The same database also was used to provide common ground for evaluating program impact across sectors for the Mission’s other Strategic Objectives.

## CASE 9 EGYPT BUILDS SUPPORT FOR AGRICULTURAL POLICY REFORMS BY SHOWCASING STAKEHOLDER BENEFITS

To respond to stakeholders' concerns about controversial agricultural policy reforms, the government of Egypt evaluated and publicized the positive impacts of reforms on farm incomes. The USAID-funded Agricultural Production and Credit Project (APCP) was initiated in 1986 with the goal of assisting Egypt in increasing agricultural production,

**COMMUNICATING BENEFITS TO STAKEHOLDERS—***To respond to farmers' concerns about controversial agricultural policy reforms, the Egyptian Ministry of Agriculture evaluated and publicized the positive impact of reforms on farm incomes. Subsequent monitoring uncovered additional benefits in farm productivity and more effective use of key agricultural inputs.*

farm incomes, and agricultural exports. In addition to technical assistance, the APCP included a provision for cash transfer tied to the achievement of ex ante policy reform benchmarks. The project was divided into two stages. During the first phase (1987–1989), the project

stressed the removal of price and market controls and delivery orders for 10 major and minor crops. For the second phase (1990–1994), policy reform benchmarks included quantifiable targets such as increasing procurement prices for cotton to 66% of the economic price, removal of procurement quotas on rice and all subsidies on agricultural inputs, and several related to agricultural subsidies provided by the state-owned Principal Bank for Development and Agricultural Credit (PBDAC).

From the outset of the APCP, USAID and the government of Egypt cooperated in the design of the policy reform program as well as the plan to monitor implementation of the reforms and track their environmental and economic impacts. To meet program objectives, the APCP design included several components. First, the Egyptian government and USAID reached agreement on the policy benchmarks, the means of verification, including the use of indicators and evaluation methods, and the formulas for matching cash transfer amounts to verified results. Second, the Egyptian government participated actively in monitoring implementation of the program and associated policy reforms. Most significantly, the PBDAC conducted an extensive survey of farmers twice a year to provide a “snapshot” of the

impacts of reforms on farm-level indicators related to income, production, and production costs. Third, USAID-funded agricultural policy experts visited Egypt three or four times a year to review progress in implementing policy reforms, assess indicators, and evaluate sectoral impacts.

In retrospect, the APCP resulted in significant beneficial changes to Egyptian agriculture that have included increased incomes and productivity and more effective use of key inputs—land, water, and agricultural chemicals. In addition, the well-conceived implementation monitoring plan has enabled USAID and Egyptian government to conduct a comprehensive evaluation of the impacts of the APCP, documented in *Egypt's Agriculture in a Reform Era*, Lehman B. Fletcher, ed.



# SECTION II: WORKING WITH THE POLICY PROCESS

Diagnose the Problem

Design the Policy

Implement the Policy

Evaluate the Policy





# DIAGNOSE THE PROBLEM

## CASE 10 ANALYTICAL CAPACITY FOR PROBLEM DIAGNOSIS MAY BE NEEDED TO ENSURE THAT INVESTMENT DECISIONS ARE SOUND: NOVOKUZNETSK, RUSSIA

In some cases analytical capacity for diagnosing a problem needs to be developed before the problem can be properly analyzed and an appropriate reform program designed.

In September 1993, a joint World Bank–USAID sponsored team composed of USAID staff and consultants provided by the project visited Novokuznetsk to work with city officials, scientific and technical institutions, public interest groups, and industrial managers to assess the local environmental action plan (LEAP) prepared for that city in the late 1980s. It concluded that, while technically adequate, implementation of the LEAP would be impeded by a profound change in the economic situation associated with the breakup of the Soviet Union.

The issue centered on the economic viability under market conditions of major investment projects called for in the LEAP (the price for which was estimated at \$1.2 billion), and of the

enterprises slated to make the investments. The problem was that the plan had been formulated before privatization of state enterprises that followed the demise of the Soviet Union and did not reflect new realities, namely a) the marked decline in the demand for the heavy industrial products Novokuznetsk-based enterprises produced, b) increases in the cost of production, and c) limited capacity to raise the huge sums required both to make the industrial enterprises competitive and to reduce pollution as a result of the Russian government's inability to provide capital combined with reduced capacity of the enterprises themselves to self-finance investments.

### ASSESSING PROGRAM

#### IMPLEMENTATION IN CURRENT

**ECONOMIC CONTEXT—***The Novokuznetsk Local Environmental Action Plan (LEAP), prepared prior to the break-up of the Soviet Union anticipated that enterprises would need to make environmental investments of \$1.2 billion. With the shift to market conditions, implementation of the LEAP required a reassessment of costs and priorities.*

# DESIGN THE POLICY

## CASE 11 CASH TRANSFERS ARE CATALYSTS FOR EGYPTIAN POLICY REFORM PROGRAMS

For several years, USAID has supported macroeconomic and agricultural policy reforms in Egypt. Recently, a similar program was initiated for the environment. These sector reform programs provide technical assistance to the Egyptian counterpart ministries and agencies to facilitate the adoption of significant and sustained policy reforms. A cash transfer mechanism—tying cash to the successful adoption of policy measures—has been an important incentive in the sector reform programs, providing counterpart agencies with much needed resources outside the normal budget cycle while enabling USAID to press for reforms.

USAID's sector reform programs have all involved a similar structure featuring close cooperation with Egyptian counterparts in identifying the reform agenda, a targeted technical assistance program and cash transfers. With its Egyptian partners, USAID has negotiated tranches of policy measures that have resulted in the transfer of hundreds of millions of dollars to Egypt. Technical assistance is provided to help counterparts design, implement and monitor reforms. If policy measures are achieved within a specified timeframe, the U.S. transfers cash in amounts agreed in earlier bilateral negotiations. For example, if most (but not all) of the policy measures are achieved in the tranche, some portion of the total amount (say 80 percent) would be transferred.

To be successful, these sector reform programs must meet two challenges.

First, the slate of policy reforms must result in real and sustainable benefits to Egypt. Current policies and options for reform must be carefully analyzed based on international experience; they must also be discussed thoroughly with policymakers and stakeholders to ensure that they are grounded in Egyptian political, economic, social, and cultural realities and that potential obstacles to reform can be addressed. The outcome of this process is a set of realistic policy measures that can be endorsed by the Egyptian counterparts in negotiation of each tranche. Second, the cash transfer must benefit the counterparts responsible for achieving the policy measures.

Although cash transfers are often effective, this mechanism also has some weaknesses. Most importantly, cash transfers may create the expectation that counterparts must be rewarded for adopting reforms, even though the reforms should stand on their own merit. This can make it difficult for other donors to press for reforms if they are not able to offer financial incentives. Also, not all USAID missions or other donors have the resources to offer large cash transfers.

However, even small amounts may still have a catalytic effect. Also, in the Egyptian programs, there is a time lag between when the cash transfer is made and when resources become available to the counterparts. When U.S. currency is transferred to an account controlled by the Ministry of Finance, it can be used to retire

official U.S. debt (up to 25 percent) or purchase U.S. commodities. When commodities are purchased, the U.S. vendor is paid out of the “dollar account” and the equivalent amount in local currency is transferred to the counterpart agency or ministry. Thus, only a portion of the initial cash transfer is received by the counterpart, and then only months or even years after the policy measure has been achieved. Also,

### INCENTIVIZING POLICY REFORM THROUGH CASH TRANSFERS

*In Egypt, a cash transfer mechanism—tying cash to the successful adoption of policy measures—has been an important incentive in sector reform programs, providing counterpart agencies with much needed resources outside the normal budgeting cycle.*

even after the local currency is received by the counterpart, there is no assurance that individual departments that had achieved the measures will gain access to these financial resources. Because of the uncertainty surrounding the timing and receipt of local currency, counterparts at the departmental level may value “brick and mortar” projects more highly than policy assistance.

## CASE 12 POLICY DESIGN IN ECONOMIC TRANSITION: OVERCOMING THE POOR CLIMATE FOR INVESTMENT IN CENTRAL AND EASTERN EUROPE AND THE FORMER SOVIET UNION

The economic transition in Central and Eastern Europe and the former Soviet Union provided a number of illustrations of the effect that prolonged recession and sluggish market reforms can have on the pace of investments in municipal services and pollution abatement.

Among the economic factors that led to a virtual cessation in investment in the former Soviet Union and

**OVERCOMING POOR CLIMATE FOR ENVIRONMENTAL INVESTMENTS—***Loss of historical markets, protracted periods of recession and poorly functioning capital markets were causes for declining environmental investments in the former Soviet Union and Eastern European countries. In response, these countries have designed policies that phase in stricter standards and set up environmental funds to subsidize environmental investments.*

decreased levels in Central and Eastern European countries were the following:

- Loss of historical markets for both inputs and outputs, followed by new barriers in trade resulting from the creation of new countries and borders, with the flow of goods monitored by customs services.
- Protracted periods of recession, reduced per capita incomes, high rates of inflation, and under-employment coupled with a rigid, immobile labor market and a severely stressed social safety net.
- Poorly functioning capital markets that focused mainly on servicing official government debt and currency transactions. When loans were available, they were characterized by short repayment periods and high interest rates.

These factors seriously constrained investment in the municipal services sector of countries hardest hit by the economic downturn. Among enterprises, capital and operations and maintenance expenditures declined precipitously, with many enterprises resorting to economic triage to maintain bloated labor forces and keep production lines open. Investments in municipal

environmental services, which must increasingly rely on user charges and local taxes as national governments devolve authority to municipalities, were also been seriously curtailed because households and businesses were unable to pay user fees that fail to cover even operations and management (O&M) expenditures adequately.

Countries in the region have taken account of economic realities in designing environmental policies. Stricter standards were phased in to allow adequate time for facilities to comply, environmental funds were established to provide subsidized financing for investments, and donors were encouraged to provide investment support in addition to technical assistance.

## CASE 13 AGREEMENT FOR HIGHER TOURISM OPERATOR FEES IN GALÁPAGOS REACHED BY EXTOLLING BENEFITS OF PROTECTING ECOLOGICAL RESOURCES

**PROVIDING DIRECT BENEFITS FROM MANAGED TOURISM DEVELOPMENT—Stakeholders supported a 30-fold increase in fees for accessing the Galapagos Islands in Ecuador once they understood the higher fees would support local projects and conservation measures.**

An ecotourism industry that generates tens of millions of dollars in foreign exchange each year has thrived on the Galápagos Islands for decades. In the early 1990s there were initial fears that increasing the berth fees for cruise ships to operate in the Galápagos would be detrimental to tourism. Stakeholders changed their perception once they understood that increased fees would be used to aid, not inhibit, local development, while protecting ecological treasures. Ecuador's Institute of Forestry and Natural Areas (INEFAN) administers the Galápagos and determines access fees to the park. Domestic and foreign visitors pay well-established entrance fees. But in the early 1990s, tourism industry payments to INEFAN were scrutinized more carefully.

In 1991, a researcher working on a USAID contract in Ecuador carried out a study revealing that yearly berth fees (patentes) paid by cruise ship operators were extremely low. For example, patentes paid by large vessels, which could carry up to 100

guests and had annual net revenues of at least \$1.5 million, were under \$1,000.

In August 1992, these findings were presented to INEFAN's new director, who responded by calling a meeting for representatives of conservation organizations, the tourism industry, and various government agencies. All agreed that the existing patentes were too low, but no consensus was reached on an appropriate increase. During the course of negotiations, municipal officials, concerned that higher fees might cause industry cutbacks, were won over with the promise that some additional revenues would benefit local projects. Industry representatives agreed to the policy change because additional monies would be spent on effective conservation measures. By the end of the meeting, all agreed on raising the annual per-berth fee from \$6 to \$200.

## CASE 14 POWERFUL INTERESTS DERAIL REGULATORY REFORM OF ELECTRIC POWER IN INDIA

This example from India underlines the fact that stakeholders who are excluded from dialogue early in the process of designing policy reforms often reject implementation of the reform package.

In 1997, USAID implemented the Regulatory Reform and Restructuring Program in India directed at creating independent electric power regulatory commissions at the national level and within individual states and unbundling state-owned

**WINNING OVER AFFECTED ENTITIES—***State-owned electricity board unions and state governments resisted national efforts to privatize state owned utilities and create independent electricity regulatory commissions in India because of anticipated downsizing and loss of control, respectively.*

electricity boards into separate generation, transmission, and distribution companies. The primary goal was to move state-owned utilities to the private sector, thereby creating the opportunity to substantially increase sector efficiencies. The regulatory role would be twofold in this program, acting as overseers of the power sector reform and functioning as conventional regulatory commissions of the reformed sector.

During the design phase of the program, USAID consulted with ministries and received enthusiastic support for the goals of the program. A commitment was secured from the Ministry of Power to establish a unit within that ministry that would lead the reform effort in India and also function as the program counterpart with USAID. A second counterpart organization, the Power Finance Corporation (PFC), agreed to assist in selecting states that would participate in the restructuring program.

India had instituted a program to attract private investment into power-sector generation before starting the reform program. This program was intended to solve serious power shortages throughout much of the country. Since few power generation projects reached advanced stages, the government concluded that the early focus on power generation was mistaken and that the focus should have been on resolving the significant distribution problems. The Regulatory Reform and Restructuring Program was thus designed to address the perceived failure of the earlier power-sector assistance program.

The assistance enabled the drafting of legislation that allowed the creation of independent regulatory commissions, and provided simplified processes for individual states to create commissions. At the end of the project, ten such commissions were in operation. This success can be attributed in part to the desire of politicians to shift the criticism attached to electricity tariffs from themselves and the offer by the PFC

to award concessional loan rates to state electricity boards if the state established a regulatory commission. Whatever the reasons, the commissions developed into professional organizations in a very short time. USAID contributed to this success by providing significant training and assistance. An interesting, and unexpected, outcome of this project was the interest and participation of the public in commission hearings, which gave the public a voice it had never had in the past.

The restructuring aspect of the regulatory reform program was less successful. Although the government and USAID were firmly behind the program, the decision to reform the state electricity boards depended on state action. The states had not participated in the original development of the program and were mostly unwilling to give up the authority they had over the power sector. State electricity board unions were opposed to restructuring because it led to privatization and subsequent downsizing. Several strikes were held opposing any changes to the state electricity boards. Although PFC nominated several states for restructuring assistance, all but one was turned down by USAID. At the end of the program, Orissa was the only state that had successfully restructured and partially privatized its power sector—and this without assistance from the program.

Overall, while there appeared to be full and widespread support for the program as designed, an inability to get states to accept assistance was a major shortcoming of the project.



# IMPLEMENT THE POLICY

## CASE 15 UNREALISTIC AMBIENT STANDARDS IMPEDE IMPLEMENTATION IN THE FORMER SOVIET UNION

In the 1980s, the Soviet Union developed an extensive system of ambient standards for air, water, and soil. While acclaimed as the toughest standards in the world, government authorities could not implement them as, in many cases, control was not technically or economically practical.

Ambient standards were developed and implemented for hundreds of individual air pollutants, water pollutants and solid waste. Standards often were set at levels that were fully protective of human health, meaning that the pollutant concentration should be sufficiently low to ensure that no adverse human health effects—morbidity, mortality, mutagenicity, developmental disabilities—would result.

These ambient standards were far stricter than those recommended by the World Health Organization or implemented by most Western countries. Apart from the ideological baggage attached to these strict standards, there were also fundamental differences between the methodologies behind the standards and those implemented in Western countries. In the Soviet Union, the standards were established by the State Committee on Health based on human physiological responses to various pollutants and the determination of de minimis levels at which no adverse response could be expected. In setting these ambient standards, no consideration was given to the technological or economic feasibility of achieving the standards. In Western countries, ambient standards allow for very small “acceptable” health risks (such as

one cancer case per million population) and consider costs and existing technology in establishing emission or technical standards designed to achieve the standards.

The use of strict ambient standards as long-term goals, while commendable, created difficulties in setting emission standards for industrial facilities. Emission standards were supposed to be set at levels that would ensure that the ambient standards were met. For air, ambient concentrations were to be measured at the edge of the sanitary protection zone (typically one kilometer from a facility’s property boundaries). Several difficulties were encountered in making these determinations. First, few of the ambient standards could be monitored, which meant that theoretical dispersion models would need to be relied on to estimate ambient concentrations. Second, for those pollutants that could be measured, no account was taken for background levels or pollutant transport. Third, the emission levels needed to meet the ambient standards could only be achieved by discontinuing the offending activity. As a result, emission levels set by authorities and reflected in a facility’s “ecological passport” were the result of negotiations between the authorities and facility managers. Their main purpose was to establish the basis for payment of pollution charges and often did not require facilities to adopt any pollution control measures.

In effect, the policy as it was designed could not be implemented. This

undermined the credibility of the authorities and created a mentality among facilities that, by paying their pollution charges for non-compliance, the responsibility for addressing environmental concerns shifted to the authorities that controlled the revenues that facilities paid. As the newly independent states began to

**SETTING REALISTIC STANDARDS THAT CAN BE IMPLEMENTED—***The Soviet Union's extensive standards for ambient air, water, and soil quality in the 1980s exceeded World Health Organization guidance and standards in Western countries but were not technically feasible or affordable. The governments of the newly independent states have abandoned the former system of standards and now are adopting more realistic standards.*

develop their own environmental policies following the dissolution of the Soviet Union, a central theme among donors providing assistance to countries in the region was to reduce the number of standards and revise the stringency of remaining ambient standards in order to match these standards to technologies and production processes.

## CASE 16 DEVELOPING INVESTMENT STRATEGIES TO SUPPORT COMPLIANCE SCHEDULES IN CENTRAL AND EASTERN EUROPE

Environmental investment strategies are a recent development, designed to address the need to analyze the demand for investments and other expenditures and the supply of financing for those purposes. They play an important role in ensuring that compliance schedules are realistic and informing discussions on how to mobilize financing.

As part of the Environmental Action Programme (EAP) for Central and Eastern Europe launched at the Lucerne meeting of environmental ministers in 1993, the participating countries agreed to prepare national environmental action plans (NEAPs). These NEAPs enumerated and ranked priorities, described necessary policy reforms and institutional strengthening activities, and identified the investments and other actions required to achieve priority environmental objectives.

A major weakness of NEAPs has been their limited attention to the assessment of the costs of proposed actions and the development of realistic plans for mobilizing and efficiently allocating the financial resources to support required investments and other activities. Recognizing these shortcomings, the EAP Task Force supported the development of a pilot investment

strategy in Lithuania in 1997. The purpose of this pilot was to demonstrate the potential use of a strategy narrowly focused on the supply and demand of financing for investments in municipal services and pollution abatement.

One weakness of the Lithuania pilot strategy was the lack of well-defined goals and targets, complicating the task of determining the demand in each of the sectors analyzed. However, the preparation of the Lithuanian Approximation Strategy in 1997–1998 provided a set of goals articulated at the level of individual EU directives. In 1999–2000, a second investment strategy was prepared for Lithuania that examined the demand and supply for investments in the water, wastewater, and municipal waste sectors in sufficient detail to determine realistic compliance schedules, identify specific sources of financing that would be used for investments, and analyze the affordability of the proposed expenditure program. The strategy also enabled policymakers to better understand potential financing obstacles (particularly on the domestic side) and the range of supporting activities that would be needed to develop and implement the slate of investments proposed in the strategy.

The EU, in recognition of the potential role of the types of analysis included in financing strategies, issued a communication in 2001 requiring Central and Eastern European countries seeking EU membership to prepare financing strategies to support requests for longer compliance periods for each environmental directive. In ongoing negotiations between accession countries and the European Commission, transition periods of up to ten years were requested for the so-called “heavy investment” directives (urban water and wastewater, landfill directives).

### HARMONIZING INVESTMENT STRATEGIES WITH IMPLEMENTATION

**SCHEDULES—***An assessment of the cost of water, wastewater and municipal solid waste investment needs in Lithuania resulted in developing a realistic compliance schedule for meeting EU requirements.*

## CASE 17 REVENUE ENHANCEMENT SUPPORTS RED SEA SUSTAINABLE TOURISM DEVELOPMENT

The government of Egypt recently considered revenue mechanisms that would provide adequate, sustainable resources to ensure effective management of Red Sea protectorates.

Although Egypt's central government is charged with management of natural protectorates in the Red Sea, a substantial share of the costs historically have been financed by donors, including USAID. Under the Egyptian Environmental Policy Program (EEPP), USAID encouraged the government to assume responsibility for a larger share of these costs. Given the rigidities in the public budgeting process, a number of non-budgetary options were considered to increase the financial independence of the management system of the natural protectorates.

In recent years, USAID has supported efforts to manage Red Sea coral reefs with both technical and financial assistance. The comprehensive program helped to establish the Ranger Program to monitor diving activities and install and maintain an extensive system of mooring buoys to protect the coral reefs from damage from boat

anchors. Initially, USAID supported both investments with financial assistance, purchasing boats, buoys, and other equipment; providing technical assistance to train rangers; and financing the installation of the buoys in the dive areas near Hurghada. USAID did not plan to finance these investments in the future and the EEPP worked with officials to explore alternative financing mechanisms that would not only support the investment programs but also sustain other management expenditures.

A number of revenue mechanisms were considered, including:

- Expanded system of user and entrance fees;
- Promotion and development of ecolodges;
- A concession for the mooring buoy system;
- marketing of videos, CDs, and publications;
- Development and marketing of local handicrafts and other community-based income generating projects;
- Development of visitor centers, camping areas, concessions, and training facilities.

**REPLACING DONOR SUPPORT WITH OTHER MECHANISMS TO SUSTAIN IMPLEMENTATION—**  
*The Egyptian Environmental Affairs Agency is exploring a number of revenue mechanisms in order to sustainably finance their management expenditures for the Red Sea coast.*



## CASE 18 RESPONDING TO A NEW POLICY IN ROMANIA REQUIRES CAPACITY BUILDING AT LOCAL AND NATIONAL LEVELS

One of the most difficult policy and institutional challenges facing economies in developing and transition countries has been their integration into global or regional trading regimes. For the nations of Central and Eastern Europe (CEE), accession and integration into the European Union (EU) went beyond trade and involved substantial political integration, an objective which USAID supported. While the process of political integration was difficult, CEE countries viewed the positive impacts on their economic growth prospects as substantially outweighing the considerable transition costs and partial loss of sovereignty. For example, USAID's assistance program in Romania focused on policy reform and the capacity to implement flexible, market-oriented regulatory approaches in agriculture, water and the environment. USAID's program complemented the EU's assistance program, which focused more on capacity building for the legal harmonization and accession process.

Romania's governance system is bimodal: national level ministries and agencies have parallel structures at the county or judet level, of which there are forty-two. As part of the EU accession process, Romania was required to show how its legislation and governance structures would be transposed to comply with those of the EU. While most EU Directives were compatible with Romania's administrative structure, a few mandated management systems based on geographical zones that often overlapped administrative

boundaries. For example, the Water Framework Directive emphasizes water basin management and the Nitrates Directive requires the creation of "nitrate vulnerable zones" (NVZ) — areas which required special management efforts.

USAID decided to focus its efforts providing capacity-building at the judet level because the Nitrates Directive required the preparation of local action plans, groundwater modeling exercises, best management practices assessments, and nitrate levels monitoring. The Agency recognized that providing support for policy and legal changes at the national level would be inadequate if judet level capacity building — which was where the pollution was — was not also addressed. Thus, USAID's Agricultural Pollution Reduction Activity (APRA, 2002–2004) was designed to work at both the judet and national levels, particularly in the NVZs. National level capacity building complemented the judet level, focusing on standards, training programs for local officials and disseminating a code of good agricultural practices, amongst others. APRA focused special attention on developing a protocol for nitrate testing and training national water authority officials. This project also helped to prepare the code, develop guidance on the process for preparing local action plans and the required content of these plans. The latter was drawn from the results of a pilot for the NVZ in Calarşa Judet, bordering on and draining into the Danube River. The pilot demonstrated the type of analysis

needed to develop best management practices to reduce nitrate pollution.

APRA's technical assistance identified two areas where capacity building was required before implementation could proceed effectively. First, while preparing the monitoring protocol, the project team discovered that central and local authorities were not conducting groundwater quality tests

**CAPACITY BUILDING TO IMPLEMENT NEW POLICY—*In Romania, joining the European Union required major changes in laws and new governance institutions. To deal with nitrates pollution in agriculture, capacity building was needed to develop new institutions, capabilities and procedures at the local level as well as policy guidance and support at the national level***

correctly, largely because of the lack of portable testing equipment and pumps (to remove a column of water before sampling). As a result, the project purchased a vehicle, outfitted it for use in water quality testing and provided training in proper testing procedures under the new monitoring protocol.

Second, while assisting Calarşa Judet in assessing best management practices, the project team undertook a variety of modeling and

simulation exercises. The results were quite surprising. Even with the most stringent management practices, the NVZ would not be able to meet the requirements of the Nitrates Directive because the sources of the problem were many and dispersed: (1) the legacy of intensive livestock operations during the 1980s; (2) lack of proper wastewater treatment upstream (Bucharest), and (3) poor management of rural household wastes. The analysis showed that Romania's nitrate issues couldn't be resolved simply by implementing good agricultural practices (which the Nitrates Directive focuses on) and indicated the need to develop and sustain effective local capacity to model groundwater and simulate best management practices across a variety of sectors.

## CASE 19 PROSPECTS FOR IMPROVED RESOURCE MANAGEMENT IN NIGER ENHANCED BY REFORMS THAT GENERATE LOCAL ECONOMIC BENEFITS

In the face of Niger's rapid population growth and associated resource depletion, restoration of both rural income and the environment requires a policy framework that recognizes a new set of balancing mechanisms. Provided that a favorable policy environment is in place, improved natural resource management can contribute to sustainable increases in production as well as a diversification of sources of rural income. A combination of improved resource management, small-scale infrastructure development, and the increased availability of external inputs, including chemical fertilizers and credit, can extend the horizon of sustainable increases in per capita production for at least another 20 to 40 years.

Since 1950, at least 4 million hectares of vegetated land in Niger has been converted to agriculture. In areas lacking investment in improved forest management, harvesting and consumption of forest products are well above sustainable levels, as a result of increasing demand for forest products and the shrinking area of natural woodlands. The gap is being filled by resource mining, which is depleting the resource stock and further aggravating imbalances between consumption and sustainable yields.

A central strategic question for policymakers remains: Does Niger have the biophysical capacity to restore the ecological equilibrium and support a growing population? The answer has two parts: (1) biophysical

capacity can support real per-capita growth in agricultural output for the next generation if improved land-use management practices are widely adopted, including eventual use of external inputs; and (2) this success is biophysically feasible, but it cannot be separated from changes in the incentive system, the cost-benefit equation of specific land-use and investment choices, the growth of markets, and trade and commercial production.

Since 1990, following a series of critical policy reforms and as annual crop production became extremely constrained, the number of farm households adopting improved natural resources practices accelerated sharply. Interviews with several hundred villagers from 1987 to 1994 indicated that household-level economic impacts were the dominant factor in adopting the improved natural resource management and related production practices. New opportunities that alter the local incentive structure—such as the devaluation of the CFA franc, the growth of urban markets, and regional economics and trade (particularly with Nigeria)—also provided a dramatic impetus to the transition from rain-fed subsistence agriculture to input-based, commercial production systems that incorporate improved natural resource management practices.

Under the pressure of rapid population growth, traditional balancing mechanisms no longer work. Soil mining, a practice that extracts more nutrients from the soil

than are put back, has been documented in several scientific studies throughout the Sahel, including studies by the Royal Tropical Institute and the Centre for Agrobiological Research, both based in Holland. Over the last generation, unsustainable levels of crop production have been achieved through shortened fallow periods and associated soil mining. However, the long-term costs include an accelerating loss of resiliency in the ecological system.

### LINKING IMPROVED RESOURCE MANAGEMENT TO LOCAL ECONOMIC BENEFITS—

*Interviews in several hundred villages in Niger from 1987 to 1994 indicated that household-level economic impacts were the dominant factor in adopting improved natural resources practices and related production practices.*

# EVALUATE THE POLICY

## CASE 20 FAO: LOOKING FOR IMPACT BEYOND THE LIFE OF THE PROGRAM IN INDIA

A series of policy evaluations of FAO's social forestry programs in India and other countries indicated that the conclusions formulated in earlier evaluations changed when the reforms were reevaluated years after the assistance programs had ended.

One difficulty faced by any environmentally related policy reform program is the time lag between the policy reforms and environmental impact. In most cases, if evaluations are timed to coincide with the termination of donor assistance (as donors often pay for such evaluations), evaluations may have to use proxies of impact, or predict impact on the basis of "enabling conditions" which have been shown to be effective in leading to long term change. While the use of proxies and developmental hypotheses to predict biophysical impact can be useful when funding is constrained by five-year funding cycles, experience shows that unintended impacts can occur that change the possible impact in ways that cannot be predicted, or monitored.

In the late 1980s, FAO decided to look back at the impact of a series of programs initiated in the 1970s, well after the formal funding for the social forestry program dried up. In the case of India's Gujarat District, FAO had supported an innovative effort to promote agroforestry,

included policy reform that permitted the local control of tree planting and harvesting. By the end of the assistance program, evaluations universally applauded the success of the program. For years after the program was completed, the Gujarat forestry program was heralded as an agroforestry success story—a clear best practice.

On reviewing the program well after its completion, it was clear that the changes to the region were indeed significant—large numbers of trees were being planted and sold throughout the region. The program had indeed had a major positive impact in the region, but one fundamentally different than had been expected—instead of providing opportunities for the poorest of the poor, the greater impact was with the rural middle class who were able to take advantage of the new policy environment to plant woodlots. The access to new wood resources by the rural poor though did not significantly increase. In fact to some extent their access rights diminished as the amount of biomass grown in the region increased. The program had indeed been able to change the region's enabling conditions, but what was not anticipated was which economic group was going to be able to take advantage of these conditions, to the detriment of the program's nominal beneficiary group.

**REVISITING THE RESULTS OF EARLY EVALUATIONS—***The Gujarat District social forestry program in India promoted agroforestry and permitted local control of tree planning and harvesting. Initial findings that the program was successful in providing access to new wood resources by the rural poor were later found to mainly benefit the rural middle class that was able to take advantage of the incentives to plant woodlots.*

## CASE 21 MACROECONOMIC POLICIES AFFECT THE SUCCESS OF FORESTRY POLICIES IN GUATEMALA

The analysis of the foreign exchange and interest rates and their effect on the forestry sector provided Guatemalan policy makers with insight on where and how both macroeconomic and forestry policy need to be adjusted to provide the enabling conditions for profitable forestry investments.

As part of its ongoing environmentally related policy support to the government of Guatemala, the EPIQ team examined legal and financial impediments to the economic viability of forestry-related investments. The team conducted a study to analyze the impact of macroeconomic policies on the forestry sector, to provide the basis for a more informed policy dialogue in the forestry sector and in macroeconomic reforms. The information generated by the study was used not only to guide changes in the current forestry policy, but also to advance the discussion of needed macroeconomic adjustments.

Forest production has never been a profitable venture in Guatemala due in great part to macroeconomic distortions and the high cost of production. In 1997, the Guatemalan government established forestry incentives (PINFOR) to stimulate investment in the forestry sector. PINFOR provides payments for reforestation and for natural forest management (for production as well as for conservation). In exchange for the incentive payments, recipients were required to implement sustainable forest management practices.

Specifically the study analyzed how the distortions on the exchange rate affected the economic viability of investments related to the conservation of renewable natural resources, investments that were generally considered to be long term. The study analyzed secondary information and data to obtain an approximation of the probable values of economic distortions that affect the exchange and interest rates in Guatemala. This value combined with estimates of the cost of production and income generated in pine forestry plantations for sawn wood, allowed the team to calculate values of distortion impacts on the profitability of plantation forestry.

The study found that in spite of the adoption of a flexible exchange rate system (introduced in 1989), the tendency to overvalue the quetzal (Q), compared to the U.S. dollar, continued to grow reaching 22.6 percent overvaluation by 1996, thus generating distortions in the exchange rate. Additionally, the active nominal interest rate, also deregulated in 1989, rose from 13.4 percent (1980–1989) to an average of 21.2 percent during 1990–1999. The risk of inflation and continued political instability in Guatemala were found to be the key factors in these rate increases. The effect of these distortions reduced the net actual value of forestry plantations from a profit of Q 1,651.10 per hectare to a loss of Q 8,223.85 per hectare.

Although PINFOR was not expressly designed to ameliorate the effects of macroeconomic distortions, in

practice, it has helped offset these effects by increasing the net value of plantations receiving the forestry incentives, as compared to forestry activities not benefiting from the program. It was found that in plantations receiving benefits under PINFOR the profit increased by Q 701.70 per hectare, despite the observed distortions, on a undistorted scenario this benefit would be Q 11,499.4 per hectare. The study concluded that by eliminating these distortions and continuing with the PINFOR incentive program, pine forestry plantations could become an economically viable investment.

### ASSESSING THE EFFECTS OF MACROECONOMIC POLICIES—

*The effect of distortions in the Guatemalan foreign exchange rate were not originally considered in the government's forest incentives program that included payments of reforestation and natural resource management in exchange for recipients implementation of sustainable forest management practices.*



## CASE 22 USE OF INDICATORS IN MONITORING AND EVALUATION: NIGER AGRICULTURE SECTOR DEVELOPMENT GRANT, PHASE II

**D**uring the design of potentially complex policy reform programs, the desire to address the underlying problems and development challenges in a comprehensive manner needs to be weighed against the need to limit the program to what can be managed and tracked in a practical manner. Research and analysis may lead one to formulate a development hypothesis that is conceptually sound, but program assistance must contend with institutional constraints and a host of other potential obstacles in monitoring and reporting. For

### USING INDICATORS IN MONITORING AND

**EVALUATION—***The higher level results of the Niger Agricultural Sector Development Grant Phase II, such as adoption of improved practices, biophysical changes, and improvements in socio-economic well-being, were not monitored and evaluated because program managers were obliged to spend so much time tracking, monitoring, and reporting to satisfy the multitude of program conditionalities.*

example, the soundness of the development hypothesis underlying the program design and the fundamental importance of the program activities supported by Agriculture Sector Development Program, Phase II (ASDG II) enabled the program to make significant progress in achieving its objectives and in improving the management of natural resources in Niger. However, the results and impacts of the program were not easily discerned in the midst of the lengthy documentation required for the satisfaction of the too numerous program conditionalities. In time, the difficulties inherent in capturing and conveying the program's impact amid the myriad activities that needed to be documented eroded political support within USAID for continued funding of the program.

A number of innovative programs at the time in environment and natural resource management (E/NRM) were being designed with a view towards achieving specific results, based on a flexible, rolling design. In order to track the intermediate results achieved and adjust the program design, a considerable effort was invested in monitoring a set of key indicators. These indicators were developed to help identify results achieved at different levels, as a function of the analytical framework for E/NRM programs that had been developed by USAID's Africa Bureau.<sup>4</sup> The framework included five

levels of anticipated results or impacts:

- Socio-economic indicators to track progress against the longer term goals related to improving the well-being of target populations.
- Bio-physical indicators, to track progress in reducing environmental degradation and in increasing the productivity of natural resources.
- Adoption of practices, to track changes in the rate of adoption of improved NRM practices that were positively correlated with positive environmental and socio-economic impacts
- Establishment of enabling conditions which favor the adoption of improved practices, with indicators to track selected policy and institutional changes
- Mobilization of actions that contribute to the establishment of enabling conditions, and to the subsequent higher rates of adoption of improved practices and positive environmental and socio-economic impacts.

USAID/Niger funded ASDG II with the aim of supporting the actions needed to establish the key enabling conditions for widespread adoption of improved NRM practices in Niger. The program was national in scope, and included \$20 million in non-project assistance and \$8 million in project assistance. Although the program was terminated early before

all the tranches had been disbursed, in the wake of a coup d'état in January 1996, a number of valuable lessons were learned with respect to the use of non-project assistance and associated monitoring and evaluation activities.<sup>5</sup>

ASDG II was intended to contribute to longer term rural development objectives through the strengthening of decentralized, democratic, community-based land use planning and local development activities, and through the diversification and intensification of land use. The development hypothesis for ASDG II was based on a series of field level assessments of agricultural programs and related NRM initiatives in the region which had been identified, documented and analyzed through a series of assessments, strategic reviews and lessons learned studies. The program was based on the premise that rural producers would invest in NRM practices, provided they resulted in demonstrable benefits in terms of increased incomes.

The program design was comprehensive in scope, endeavoring to establish all of the key enabling conditions thought to be necessary for the increased adoption of NRM practices in Niger. In total, there were 86 conditionalities tied to the \$20 million in non-project assistance. While the scope and number of

conditionalities was laudable from conceptual standpoint, it also proved too problematic with respect to program implementation. By putting so many components into one program, the large number of institutions that were responsible for the various areas targeted by the program led to the organization of several layers of relatively unwieldy program management structures.

The monitoring and evaluation system reflected the overall complexity of the program, and engendered a number of challenges in monitoring and reporting upon the achievements of the program. Because the technical support team and program managers were obliged to spend so much time tracking, monitoring, reporting, promoting and supporting actions required to satisfy program conditionalities, little time was available to assess and monitor the progress in achieving the higher level results of the program (in terms of adoption of improved practices, biophysical changes, improvements in socio-economic well-being).

Unlike some programs using non-project assistance, ASDG II stipulated that the funds to be released upon satisfaction of the conditionalities would have to be programmed and used in support of the overall program objectives, and not simply turned over to the treasury of the government of Niger. This enabled

the various institutions involved in carrying out the program activities that satisfied the conditionalities to directly benefit from the non-project disbursements. The government was quite supportive of this innovation. However, it added to the number of conditionalities and overall complexity, as it required all the various institutions to meet and agree on the manner in which the funds would be allocated and programmed, in advance of a given disbursement. It also built up expectations and even a certain dependency on these non-project funds (as work plans and annual budgets for GON agencies were developed on the assumption that non-project funds would be forthcoming), which resulted in frustrations and disappointments when USAID was delayed in its processing of the voluminous paperwork submitted to document the satisfaction of the conditionalities. The process would have worked much more smoothly had there been fewer conditionalities, and a streamlined process for monitoring compliance as well as a rolling verification of the satisfaction of each conditionality.

4 See The NRM Framework: what it is, what it does, and how it works with an example from the field. By Fred R. Weber, AFR/TR. September 1991.

5 See ASDG II NRM and Institutional Turn-over Plan, prepared for USAID/Niger by IRG, December 1996, and Impact et Durabilite des Reformes et Realisations SDSA II, par Ibrahim Ba et Mamadou Maman, consultants, September 1996.

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