



Promoting Poverty Reduction and
Environmental Sustainability

THE 3xM APPROACH

Bringing Change Across Micro, Meso and Macro Levels



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The Economic Change, Poverty, and the Environment Project

Launched in early 2001, the project engaged partners in China, El Salvador, Indonesia, South Africa, and Zambia, to identify and address rural environmental degradation and poverty, and assist local communities and governments to improve natural resource management and raise incomes. The program focused on the interactions among local (micro), provincial/state (meso) and national/ international (macro) driving forces and institutions.

This guide is based on experiences from the WWF-MPO Economic Change, Poverty and the Environment Project and the following publications:

- *Poverty is Not a Number; The Environment is Not a Butterfly* (WWF-MPO, 2001)
- *Analyzing the Political Economy of Poverty and Ecological Disruption* (WWF-MPO, 2004)
- *Changing the Political Economy of Poverty and Ecological Disruption* (WWF-MPO, 2005)
- *Escaping Poverty's Grasp: The Environmental Foundations of Poverty Reduction* (EarthScan, 2006)

Funding for this project was provided by the European Commission, the Dutch Ministry of Foreign Affairs (DGIS) and the Swedish International Development Agency.

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(Also known as World Wildlife Fund)

Acknowledgements

This publication is both a condensed version of the recently released book, *Escaping Poverty's Grasp: The environmental foundations of poverty reduction* (EarthScan 2006) as well as a more detailed presentation of the methodology, the 3xM Approach, that underlies the work presented in the book. It has required the dedicated efforts of the staff of WWF's Macroeconomics Program Office to present this approach in an accessible, attractive format that will hopefully allow this publication to become an effective tool in promoting poverty reduction and environmental sustainability. I would like to extend special appreciation to Dawn Montanye, Brent Nordstrom and Kym Park for their contributions in writing case study examples that highlight the methodological steps, reworking various drafts of the text and helping develop the format of the final publication. My many thanks to other MPO staff members, including Pablo Gutman, Owen Cylke, Marta Miranda, Jonathan Cook, Sarah Davidson, and Pamela Stedman-Edwards, who reviewed numerous drafts and offered many suggestions to make this a user friendly manual. I would also like to recognize the contributions of Wu Yusong, project leader in China, for her help in distilling the examples drawn from the field work in Yunnan Province. I am additionally grateful to the work of all the country teams who participated in this project. I would also like to express my gratitude to members of the WWF Network, notably Claude Martin, Kim Carstensen and Tony Long, for their long-standing dedication to ensuring that WWF's conservation programs are grounded in efforts to improve the well being of the most vulnerable social groups. Finally I would like to thank Maria and Sese-Paul Design for their creativity and artistry in laying out the publication in an engaging, compelling format.

David Reed, Ph.D.
May 2006

Introduction

As we move into the 21st century, few challenges are greater than improving the welfare of the poor around the world and ensuring that our use of the environment is sustainable. Reducing poverty and protecting the environment will provide enduring benefits to all of humankind, now and in the future.

Many important steps have been taken in past decades to address the twin challenges of reducing poverty and addressing humankind's deepening impact on the natural environment. Those steps are reflected in the commitment of new public financial resources, reorientation of development strategies, and signing of multilateral environmental conventions. The 2005 World Summit reaffirmed the centrality of the Millennium Development Goals and the commitment of the international community to reduce poverty and strengthen the environmental dimension of development.





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It is paradoxical that, despite the public commitments, we still face many challenges in finding effective means to address these universally subscribed goals of reducing poverty and strengthening the environmental fabric of the planet. Over the years, many poverty-environment projects have proven quite successful at the local level, but their contributions, unfortunately, have been washed away by economic policy and institutional changes enacted at higher levels of government. In many situations, new competitive pressures associated with the global economy have led governments to emphasize large-scale agricultural and industrial programs to generate sorely needed foreign currency, although often at the cost of disregarding the needs of the rural poor and the environment.

Many of the economic and policy changes taking place over the past several decades have opened opportunities for privileged economic and political groups in developing countries that have more direct access to decision-making processes and are well positioned in domestic markets. While economic reforms have improved traditional economic indicators in many countries, they have done little to create environmental stability and open real economic opportunities to those poor in whose name the programs are justified.

WWF has found that addressing issues associated with economic and policy change is essential to effecting lasting improvements in poverty-environment dynamics. We have also found that civil society and development agencies have not had an adaptable intervention approach that links pro-poor, pro-environment change at the local level to urgently needed changes in national development policies. To a large extent, we have had little choice but to accept policies formulated in national capitals or international development agencies that are designed and implemented from a top-down perspective—not designed to address the environmental and economic needs of local communities.

In the following pages, we offer an approach that is premised on placing the economic and environmental needs of the rural poor at the center of development strategies. This approach links needed changes at the local level to higher-level changes, that is, changes at subnational and national levels that will ensure supportive policies and institutional arrangements for environmental protection and poverty reduction.

We call this approach the *3xM Approach* because it links changes across the micro (local), meso (subnational), and macro (national/international) levels of a given country. Its overarching purpose is to remove political, economic, and institutional obstacles so that the rural poor can compete more effectively in the emerging economic order and strengthen management of natural resources and ecosystems.

Poverty-Environment Dynamic

We view poverty as a dynamic social relationship among economic and political actors in a given society reflecting competition among individuals, diverse groups, economic agents, and the state, as each seeks to accumulate wealth and economic power. In that context, we consider poverty to be the result of the competitive process in which many competitors are deprived, over time, of assets and opportunities to improve their living standards and are pushed to the margins of political processes, be it through displacement from productive lands, political exclusion, new economic conditions and changes in terms of access to and control over natural resources on which their livelihoods directly depend. Improvements to both livelihoods of the poor and natural resource management require changing the social relations embedded in natural resource management regimes and increasing access of the rural poor to those assets.

Micro, Meso, and Macro

The interactions across local, subnational, and national levels—what we call the micro, meso, and macro levels—are complex and are shaped by diverse, even competing, influences. To reflect that complexity, the 3xM Approach suggests that harmonizing changes across the three levels is a requisite for promoting enduring poverty reduction and natural resource management improvements. Below we highlight the essential factors that need to be addressed on the three levels.

The Micro Level: Poverty-environment dynamics at the local level are often the most visible and transparent. It is comparatively easy to see how land, water, fisheries, and forests are being used at the local level and to identify which individuals and companies are using those resources. It is equally apparent when communities' survival needs are exerting excessive pressure on the natural resource base. That relative transparency does not mean that poverty-environment dynamics are simple. There are usually many diverse groups, individuals and institutions needing and competing for natural resource wealth. Actors often located far from local communities are making decisions and using natural resources in ways that are not sustainable and do not reduce poverty.

The Meso Level: The meso level refers to institutions and policies that lie between the local and national levels. At times, meso institutions are transmission mechanisms passing down higher-level decisions. Depending on the country and circumstances, meso level institutions, including government offices at the district or provincial level as well as subnational offices of ministries and government agencies, exert considerable autonomy in decision making. For example, development corporations are semiautonomous agencies financed by ministries to develop and implement investment programs at the subnational level. A wide range of regulatory, legal, and taxation measures are also designed and managed at the meso

level. Of course, political figures and economic actors directly influence poverty-environment relations at this level.

The Macro Level: The macro level refers to the policies, development strategies, and institutional arrangements operating at the national level that shape opportunities and impose constraints on communities and economic actors. National policies are complemented, at times, by policies and strategies promoted by international institutions and private corporate interests at the international level. Over the past two decades, these policies and strategies—including privatization, fiscal reform, and market liberalization—have reshaped the ways governments, private companies, and individuals compete and generate income. In particular, trade promotion and export-led policies have altered national growth strategies and, in many countries, have increased pressure on natural resources. Institutional changes, including decentralization, political reforms, and changing natural resource tenure regimes, have altered the way decisions are made regarding rural development and natural resource management. In distinct and often indirect ways, these policy and institutional changes significantly influence the way that poor people generate incomes and have access to and manage their surrounding environment. These changes are transmitted down to affected communities at the local level, often without their prior knowledge, understanding, or consultation.

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The 3xM Approach was built on experiences carried out by local partners in the extremely diverse countries of China, Indonesia, El Salvador, Zambia, and South Africa.

Organizational partners included WWF Offices in China and Indonesia; nongovernmental organizations PRISMA in El Salvador and IUCN in South Africa; and a private consultancy, Mano, in Zambia.

The rural poor in each of the countries were not able to respond to the new economic conditions despite their efforts to produce for and enter new markets. They lacked access to markets, technology, capital, and information, while additionally being constrained by both new and old institutional and political barriers. In these conditions, the poor had few alternatives but to use up their own natural resources, including cutting down forests, exhausting fishing grounds, and depleting soils, in order to survive. Partners worked with many communities, agencies, and organizations across the three levels of their respective societies seeking to change the political, economic, and ecological dynamics that impeded effective economic and political participation of the rural poor.

The experiences in the five countries, carried out over a four-year period, gave rise to what we have called the 3xM Approach and its four basic principles:

1. Building an effective intervention strategy for changing poverty-environment dynamics requires carrying out rigorous economic, ecological, and institutional analysis that cuts across micro, meso, and macro levels.
2. Changing the dynamics mentioned above begins with removing obstacles at the local level that prevent the poor from competing economically, improving natural resource management, and participating in the political processes.
3. Establishing a coherent policy and institutional context in which local initiatives can thrive requires aligning policies and institutional arrangements at subnational and national levels.
4. Building alliances between rural communities and a wide range of advocates, experts, and supporting institutions in urban areas is needed to effect policy and institutional changes.



What can the 3xM Approach do for you?

The power of the 3xM Approach comes from linking efforts to reduce poverty and improve natural resource management at the local level to changing policies and institutions at higher levels in a society, resulting in long-term, sustainable solutions.

The 3xM Approach is designed to help practitioners at the community level understand how existing government policies and institutions can block or strengthen their efforts to reduce poverty and improve resource management. The 3xM Approach is designed to help change agents promote reforms that address directly the political and economic factors at meso and macro levels that tend to work against the interests of the poor and the environment.

The 3xM Approach helps to identify and build alliances and partnerships with a wide range of supportive advocates, experts, and political actors. Above all, the approach helps to bring in additional skills and political influence by highlighting linkages between rural communities and urban advocates who can strengthen the voice of the rural poor in regional and national capitals where policies are made.

Finally, the 3xM Approach helps community groups and development agencies plan for sustained engagements that can unfold over many years. Bringing about change across the micro, meso, and macro levels requires persistence and a long-term horizon. This approach builds longer-term strategies by ensuring that financial and political sustainability are integral parts of all intervention plans.



Carrying out the 3xM Approach usually requires the capacities of a multidisciplinary team with expertise in economics, poverty, and the environment.



Putting It into Practice

In the following pages, we present the constituent elements of the 3xM Approach. There are two distinct stages. The first stage presents four steps for carrying out the action-oriented analytical work across the micro, meso, and macro levels and determining initial interventions. The second stage, also with four steps, refines interventions to change prevailing conditions in a given society. Beginning with local actions and pushing upward to higher policy and institutional levels, it sets in place actions designed to change relations and policies at the micro, meso, and macro levels of society, often through alliances with urban-based partners and advocates. Carrying out the 3xM Approach usually requires the capacities of a multidisciplinary team with expertise in economics, poverty, and the environment.



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In presenting the 3xM Approach, we offer a methodological framework, not a rigid prescription, which must be adjusted and tailored to local conditions, available resources, and the capacity of implementing groups and agencies. There are many reasons for insisting on adaptation to local conditions, including the following:

- Poverty–environment dynamics at the micro, meso, and macro levels vary considerably in each country and require research approaches tailored to those unique conditions.
- The relative influence of economic policies and institutional arrangements in each country varies as well, and therefore reliance on quantitative analysis or qualitative analysis alone easily leads to important distortions and omissions in research findings.

- Research teams have different experiences and capabilities, and, in fact, research culture in a given country often does not allow for the adoption of a single, prescribed methodology.

The analytical approach is usable across many cultures and countries because it emphasizes identifying specific questions that must be answered in the course of the research and intervention process. You will find these questions at the end of each step.

Stage I Conduct Action Oriented Analysis

- i Analyze Poverty-Environment Dynamics at the Micro Level
- ii Analyze the Influence of Meso Level Institutions
- iii Establish Linkages to Macro Policies and National Institutions
- iv Interpret the Results

Stage II Design and Implement Interventions

- i Translate Analysis into Intervention Plans
- ii Implement Direct Interventions at the Micro Level
- iii Influence Meso Level Institutional Arrangements
- iv Influence Macro Level Policies and Institutions

A young man with dark, curly hair is shown from the chest up, standing in a lush green forest. He is wearing a dark t-shirt and has a large bundle of green beans slung over his shoulder. He is holding a long, thin spear or stick in his right hand. The background is filled with dense foliage and trees.

STAGE I:

Conduct Action Oriented Analysis



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EXAMPLE: Throughout this guide, examples from the China experience will serve to illustrate various stages of the 3xM Approach. The China experience was focused in Deqin County. Isolated in the mountainous northwest corner of China's Yunnan province, it is an extremely rugged and diverse area that comprises part of the temperate forests ecosystem of Southwest China. Baimaxueshan Nature Reserve, expanded in the year 2000 to cover one-third of the county, protects a biologically rich sample of mountain forests and river systems with thousands of endemic plant and animal species.

Socioeconomically, Deqin is a poor and sparsely populated rural area. Almost all of its 60,000 inhabitants are classified as ethnic minorities, with Tibetans alone accounting for more than 80 percent of the population. Households depend on subsistence farming, even though suitable farmland is scarce (0.1 hectares per person). Up to 30 percent of households are in food deficit for four to six months of the year.

For these indigenous communities, mountain forest areas are a traditional source of basic survival goods: wood for fuel and construction, water for drinking and irrigation, grasslands for yak grazing, nontimber forest products such as mushrooms and other wildlife for collection and sale. Annual cash income in 2001 averaged \$60 per capita.

The analytical stage is designed to identify the principal constraints on both rural poverty reduction and improved natural resource management at micro, meso, and macro levels. It is designed to facilitate development and implementation of strategic interventions to address those constraints at all three levels and create supportive conditions in which economic growth and natural resource management can flourish on a sustainable basis. Equally important, the analytical work is intended to cut across—then integrate—economic, institutional, and ecological factors from which effective interventions can be designed. Ultimately, the analysis should provide an integrated understanding, allowing organizations and agencies to remove major obstacles that have, in the past, prevented rural communities from managing their resources sustainably and increasing their incomes. The analysis focuses on the interaction of social groups, private actors, and the state in their pursuit of economic wealth and political power. Specifically, the key analysis is to understand how the rural poor interact with other economic and political actors, and how natural resources and the environment have figured into their livelihoods strategies.

While the summary presented identifies four sequential analytical steps, it is possible to employ a variety of paths and methodologies to achieve the integrated, coherent understanding of poverty-environment dynamics in respective locales and countries. The starting point of the analysis may be national development frameworks or, alternatively, research may start with surveys and data gathering at the local level, then move upward to the meso and macro levels. Whichever sequence is used, the goal of analysis is to ensure coverage of all factors influencing the poverty-environment dynamics.



EXAMPLE: The government's objectives in rural areas were to protect some of the fragile resources, but often at the neglect of the poor rural communities that depend on them for survival. Employment in a state-owned and centrally directed logging company was the main source of cash income for local communities and revenue for Deqin County. After a 1998 countrywide logging ban, cash flows withered dramatically, and a three-fold increase in the size of the nature reserve placed many of the county forests off limits to the local population. Conflict between villagers and local government agencies increased.

EXAMPLE: Baimaxueshan Nature Reserve in Deqin County is approximately 220,000 hectares. However, reserve staff totals only 40 people. Each reserve officer, therefore, is responsible for 5,500 hectares of reserve land. This human resources shortage not only limits the reserve's ability to enforce logging regulations, it also precludes engaging in community affairs coordination.

i. Analyze Poverty-Environment Dynamics at the Micro Level

The geographic size and the number of inhabitants in selected areas can vary significantly. Regardless of the geographic coverage, the following research techniques are particularly useful at the local level.

Establish a historical context

It is important, as a first priority, to define the historical evolution of local poverty-environment dynamics. This historical context provides a vital path to understanding the evolution of current dynamics shaping livelihoods and the environment.

Establish a quantified baseline of socioeconomic conditions

Research teams must build data sets that quantify local socioeconomic conditions. Even if previous research and surveys are available, the data may not cover all of the areas for which information is required. Whenever possible, additional income data from relevant government offices, development agencies, and private companies should be obtained.

Deepen the analysis of environmental problems

The socioeconomic baseline provides a statistical yardstick and trend lines for understanding the status and evolution of living conditions in the chosen localities. This foundation needs to be complemented by in-depth analysis of the evolution of environmental problems. Additional studies such as analyses of forestry management, history of land ownership, and dynamics of access to water may be required to enhance understanding of these critical issues.



Analyze the influence of a multitude of local institutions

It is important to interpret the influence of the multitude of institutional relations (organizations, laws, governance arrangements, local traditions, etc.) to decipher poverty-environment dynamics. Options to achieve this include using institutional surveys designed to map institutional arrangements in the community and to higher-level agencies. Quantitative analysis and questionnaires provide particularly insightful information.

Conduct qualitative analysis of social and economic dynamics

Data gathering provides a snapshot of living conditions, but qualitative analysis provides a more interactive interpretation about the way things actually work at the local level. Qualitative analysis can provide the most helpful understandings about real-life dynamics among community members and between the community and outsiders.



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Interpret the results of the micro level research

The most important part of local analysis is the process by which the researchers interpret the data and qualitative information gathered. There is no simple or uniform method to guide this interpretation. In many cases, construction of institutional maps and interpretative models proves highly useful in explaining the relations among the many actors and institutions, identifying origins of obstacles and pinpointing higher-level influences that may require further analysis in later stages of implementation.

The answers to these questions will inform action at the micro level:

- At the local level, what are the main social actors (including diverse groupings of the poor), government offices, private sector entities, and other civil society organizations, and what functions do they play in shaping local development dynamics?
- What are the features of the local natural environment, and what are the key environmental issues affecting the welfare and livelihoods of local groups and individuals?
- What are the principal dynamics of the local poverty-environment relations, and what are the main drivers of those relations?



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EXAMPLE: As in most upland minority areas, access to formal education is limited. Women in particular (who are chiefly responsible for animal rearing, fuel and water collection, and other domestic tasks) have high rates of illiteracy (around 80 percent) and little ability to gain access to technical knowledge and training. Due to language constraints and high rates of illiteracy, wage labor opportunities outside the village are rare. A meager cash income is derived from the sale of fuel wood and edible fungi foraged in the forest. Housing, animal pens, water pipes, and other basic infrastructure are all constructed from forest timber.

EXAMPLE: The poor face particularly complicated poverty-causing situations. Local communities are facing downward pressure on their livelihoods from the logging ban and extension of the reserve boundaries. In addition, direct economic factors are accompanied by issues such as environmental degradation, lack of health care, tax burdens, access rights, and unfavorable local policies. Because of their own limited capacity, reserve authorities act as little more than forest guards and are unable to consider effects on or input from local communities. This often resulted in conflict between forest reserve authorities and villagers.

EXAMPLE: Provincial-level institutions were considered the meso influential factors. This is due to their roles both as implementers and adapters of central directives to local levels, and as quasi-independent policy-formulating organs. Based on conventional assumptions about resource use and management, authorities tend to consider local people as one of the greatest threats to the forest and its wildlife. Reserve laws and related regulations are therefore often targeted to limit the access rights of local people.

EXAMPLE: The hierarchical structure of Chinese political and administrative arrangements makes the task of interpreting the role of meso institutions comparatively easy. The researchers, following up on information from local authorities, established contacts with provincial managers of appropriate ministries and government agencies. Interviews carried out with a range of managers provided much-needed information about the responsibilities and limits of provincial managers and how they transmit national policy to local levels. Perhaps the most significant outcome was the researchers' understanding of the limits that were placed on district and county officials, as well as on managers of the forest reserve, in terms of being able to experiment with new forest management relations and altering relations with local communities. This information allowed the researchers to chart the path that needed to be followed to propose and implement new forest management regimes at the local level.

ii. Analyze the Influence of Meso Level Institutions

Analysis at the micro level should offer an understanding of the basic dynamics that shape the day-to-day livelihoods of the rural poor and natural resource use. The second analytical step focuses on the space between the local and national levels, the meso level, which frequently includes district and provincial influences and actors that have direct influence on the local poverty-environment dynamics.

Conduct institutional analysis

Identify the scope of influence and decision making that district- and provincial-level authorities exert in shaping behavior and opportunities of local communities. Questionnaires and interviews are often the most effective ways of determining whether authorities in meso level institutions make and enforce decisions or if they simply transmit orders from the national level. This information can be vital to understanding which decision makers have to be influenced to change established policy and institutional arrangements and to understanding the limits of decision-making power in each institution.

Identify key actors

Carry out qualitative analysis to identify other influential organizations, companies, and individuals either creating obstacles or opening opportunities for local communities. This analysis includes interviewing land and business owners, members of political associations, trade and business groups, and social organizations. This qualitative analysis is often summarized through political mapping that identifies the influence and functions of these actors and organizations.

The answers to these questions will inform action at the meso level:

- What are the principal institutions and social relations at the meso level that influence micro development dynamics?
- Who are the main actors in driving those relations, and how do they exert their influence?
- How do meso level decisions get transmitted down to the micro level, and how are they influenced by macro level decisions/conditions?

iii. Establish Linkages to Macro Policies and National Institutions

The impacts of economic policies and national institutional reform can be strong and often pervasive.

Macroeconomic policies

Macroeconomic policy reforms can take many forms, such as privatizing state-owned enterprises, dismantling state marketing boards, restructuring government subsidies and investment programs, changing exchange rate policy and liberalizing the country's trade regime. Such macroeconomic reforms are often accompanied by changes in land tenure laws, natural resource management regimes and political decentralization and pricing, among other changes, which have direct impacts on access to and management of natural resources. Analyzing changes in macroeconomic policy is essential to understanding the priorities of the national government and the importance given to rural development, poverty reduction and natural resource management.

Sectoral policy reforms

While macroeconomic reforms can establish more general trends, sectoral policies for forests and agriculture, for example, can have far more direct bearing on local livelihoods and natural resource use. Analysis of sector policies requires constructing the previous policies prevalent in the sector and identifying specific changes associated with the new policies. Effects of sectoral reforms still working their way through the economy or institutions may leave direct impacts uncertain.

Institutional structures, arrangements, and reforms

Institutional structures, arrangements, and reforms establish the specific terms on which the rural poor could interact with markets, authorities at all levels, and ultimately with one another. Institutional arrangements and structures establish terms for acquiring transportation, registering enterprises, paying taxes and bribes, gaining access to forests and water, having permission to cultivate land, establishing sites for residential dwellings, and so on. Analyzing institutional reforms poses particular challenges because formal legislation and regulations often differ from the way reforms are actually translated into practice.

Interpret the impact of macro level policies and institutions

Following completion of macro level analysis, it is necessary to integrate these new understandings into conclusions drawn from the micro and meso level analyses. Interpretation means establishing linkages downward from national dynamics to the local poverty-environment nexus.

The answers to these questions will inform action at the macro level:

- What is the relationship between these higher-level institutions and policymakers and the meso level institutions and actors?
- What are the main economic and development policies that currently influence the development options and opportunities of local actors, and how are those policies transmitted to the local level?
- How to do national institutional arrangements create conditions and opportunities whereby the local poor can improve their livelihoods and manage their surrounding environment?



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EXAMPLE: In China, rural poverty and rapid urbanization are intimately interlinked. Economic reforms promoting industrialization and export-driven growth have raised the incomes of over 500 million workers who have migrated from the countryside to urban areas. By the same token, political arrangements, tax systems, social policies and incentives have kept the economic benefits of China's rapid growth from reaching the rural poor. In addition, unregulated industrialization has cast an ever wider environmental shadow over rural areas, weakening the environmental fabric in rural areas and thereby increasing vulnerabilities of poor communities to economic shocks and natural disasters.

EXAMPLE: Due to the Chinese government's growing commitment since the early 1980s to protecting biodiversity and upper watersheds, the conflict between protected areas and local people's welfare has grown. More than 30 million poor people now live in and around China's nature reserves. Without security of use rights, locals exploit natural resources opportunistically and have no incentive for sustainable management. In poverty-alleviation initiatives, government agencies emphasize top-down approaches and outsider intervention, ignoring the possibilities for self-organization and self-development in poor areas.

EXAMPLE: Heavily dependent on natural resources for their daily livelihoods, local people are not able to achieve sustainable livelihoods or sustainable resource management systems due to lack of empowerment in decision-making processes and lack of official recognition of rights-based local initiatives at the meso and macro levels.



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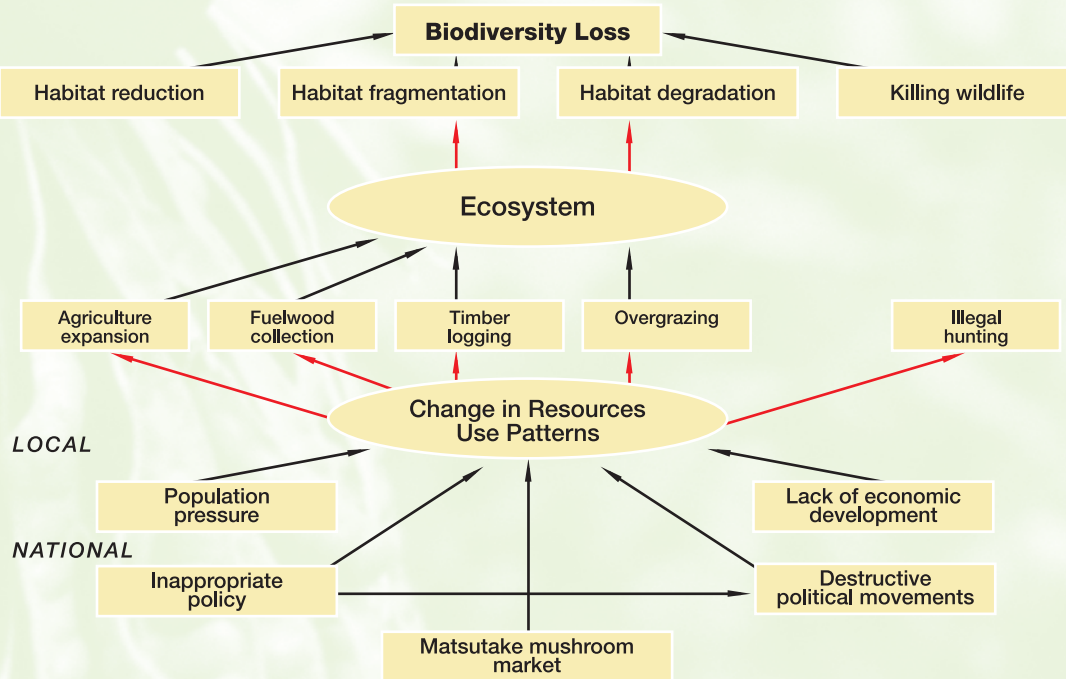
iv. Interpret the Results

On completing analysis at the micro, meso, and macro levels, and in preparation for articulating strategic interventions, it is important to set aside a distinct work period to review and interpret the gathered material. The following activities can be used in that interpretive effort to translate analysis into substantive intervention plans.

Interpretive maps and institutional charts

Interpretive maps trace the impact of different influences from the macro down to the micro level. These maps often include an array of influences covering policies, institutions, and agencies, and specific actors such as ministers or department heads. Institutional charts trace the lines of accountability and decision-making at the three levels.

Example of an Interpretive Map



Example of an Institutional Chart

Lead Groups

Oppose (-)

District Agency A
Political Opposition Party
Certain Community Figures

Neutral (0)

District Agency B
Provincial Agencies
National Decision Makers
International Institutions

Favor (+)

Local Communities
Private Sector
County Agency
Donors

Support Groups

Private Sector (benefiting
from current system)

Civil Society

Policy matrices

The intersection of policies can be captured in matrices that explain transmission lines and final impacts. Frequently a combination of three to five policy vectors converge at the local level to determine land tenure regimes, resource management systems, fiscal distribution mechanisms, and market openings.

Identification of principal obstacles to poverty reduction and sustainable resource management

Interpretation involves a quantitative assessment through weighing many identified influences and their relative impacts on status and opportunities. There are no simple guidelines to these conclusions except to affirm the importance of a variety of perspectives in this dialogue.

Written presentation of the analytical work

Preparing a written summary of the analytical interpretation is essential because it establishes the justification for designing subsequent interventions. That written analysis can later be corrected and expanded as a more accurate understanding of local and national dynamics evolves through project implementation. Moreover, a rigorous written summation is the basis on which external reviewers can assess and critique both the analytical foundations and intervention plans.

The answers to these questions will inform the intervention planning:

- What are the dynamics among actors and institutions at these three scales or levels?
- What is the relative influence of various policies and institutions, and how are those policies transmitted to lower institutional and social levels?





STAGE II:

Design and Implement Interventions

i. Translate Analysis into Intervention Plans

This next step is a guide for sorting through numerous options before identifying final work plans.

Identify key factors that shape interventions

Invariably, the inventory of possible interventions will cover activities at the local, subnational, and national levels. These options should be presented without predetermining which of them will actually be undertaken. Examples of such options may include the following: expose rent-seeking activities, increase decision-making authority of local communities, work with government offices to strengthen enforcement capacity, acquire legal support to strengthen claims of villages in legal disputes over natural resources, seek mediation for conflicts within and among communities, clarify legal rights and responsibilities regarding natural resource use, strengthen entrepreneurial capacity of local organizations, seek redistribution of natural resource rents to local communities, develop joint ventures with private companies, and so forth.

Match interventions with political possibilities and existing capacity

Often options require interventions beyond the power and resources at hand. The process of sorting through options requires a rigorous categorization of intervention options and a process of identifying the requirements of pursuing each option. The importance of matching what is necessary to improve livelihood conditions with what changes are within the groups' capacity to influence cannot be overemphasized.

Choose final intervention strategies

The previous exercise of matching resources with requirements of each intervention option may narrow considerably the range of final choices. A final set of possibilities can be presented in a log frame to outside advisors, potential partners at the respective levels, and communities to ensure that outputs are realistic and would generate significant improvements to the well-being of local communities and the surrounding environment. Other options for gathering input include the following:

- a) Establish a national advisory committee to provide complementary or contrary perspectives on the analytical work and proposed strategies.
- b) Organize an international advisory committee of experts from the southern and northern development agencies to review the proposed intervention strategies.
- c) Elicit individual support from experts who specialize in project planning to ensure that the proposed intervention objectives are clearly articulated and feasible.

POTENTIAL INTERVENTIONS COULD INCLUDE:

- Exposing rent seeking activities
- Increasing decision-making authority of local communities
- Working with government offices to strengthen enforcement
- Acquiring legal support to strengthen villages' claims in disputes over natural resources
- Seeking mediation for conflicts within and among communities
- Clarifying legal rights and responsibilities regarding natural resource use
- Strengthening entrepreneurial capacity of local organizations
- Seeking redistribution of natural resource rents to local communities
- Developing joint ventures with private companies



EXAMPLE: WWF China chose to promote community forest co-management. At the local level, co-management is based on traditional knowledge, customs, and practices in preserving forests and local agro-ecosystems. Rules, guidelines, and social organizations are established and reestablished in response to the ever-changing socioeconomic and political situations and conflicts affecting local control of forest resources.

EXAMPLE: In August 2002, the WWF China team organized a co-management training course with Chiang Mai University in Thailand. Participants, who came from provincial and county levels, included the government officers from the Yunnan Forestry Department, the Yunnan Poverty Alleviation Office, the Deqin County People's Government, and the Baimaxueshan Nature Reserve Bureau. The course mainly focused on the discussion of principles, types, and methods of co-management, along with conflict resolution techniques. The training helped government officers at various levels to gain a better understanding of co-management issues and provided a valuable communication channel between them.

The answers to these questions will inform intervention strategies:

- What are the most important institutional, policy-related, or economic changes that are required to create opportunities for the rural poor in the selected localities?
- What are the potential changes that can be addressed through direct interventions in association with this project?
- What are the required changes beyond the scope and influence of this project, and who would be required to remove the higher-level obstacles?



ii. Implement Direct Interventions at the Micro Level

Direct intervention options are so diverse that they defy simple categorization. Nonetheless, our partners gave consistent attention to the following areas of work as they intervened at the micro level.

Build human capital

It is critical to increase the understanding of local communities and their leaders of the surrounding social, economic, and ecological environment. This involves taking local community members on interviews, meeting local and regional authorities, and discussing conditions with others in neighboring communities. The next step is to focus on providing direct training and capacity-building workshops and seminars to address recognized limitations and conflict within the communities.

Build social capital

By “social capital” we mean the multiple organizations and means by which social groups work together in pursuit of shared objectives. Therefore, strengthening social capital has come to mean building organizations, negotiating objectives, forging partnerships, and mobilizing resources for collective purposes.

Build alliances at the micro level

Creating dynamic working relationships with a wide range of organizations and individuals among local stakeholders is necessary to strengthen the ability of communities to improve their living standards and natural resource management.

Lobby local governments

Although a time-intensive endeavor requiring effort to break through institutional rigidity and appeal to authority interest, local lobbying is an essential process.

Promote local enterprises

A central concern of national partners was exploring opportunities for expanding or creating new business opportunities for local communities. Without the promise of increased income and economic opportunity, local communities are often unwilling to engage in the processes of change required to alter their current situation. Ensuring long-term economic improvement necessarily implied improving the management of and investment in the natural resource assets on which their livelihoods depended.

EXAMPLE: On-the-ground demonstration work was considered an essential part of the project in China for several reasons. A key aspect of on-the-ground work was providing training related to instituting the co-management system.



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EXAMPLE: WWF-China worked with forest reserve managers and more than 30 communities to provide community co-management training and establish small businesses inside the Baimaxueshan Forest Reserve. The success of those economic endeavors was a determining factor in fostering community support for a co-management structure and improving forest resource management. The formation of a matsutake mushroom dealers' association significantly improved marketing opportunities for the mushroom producers inside the reserve. Matsutake mushroom production is now jointly managed by more than 70 subvillages, and community incomes have increased by five- to ten-fold.



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EXAMPLE: The Baimaxueshan Nature Reserve Management Bureau proposed to adjust past institutional arrangements to support future co-management activities in the Baimaxueshan area. After a lengthy application process, the Nature Reserve Bureau established a new department in charge of research and project implementation related to community development. Now, community-based resource management issues are formally considered as one of the main objectives of work within the official management system, paving the way for improved sustainable forest management and reduced conflict.

iii. Influence Meso Level Institutional Arrangements

Although the definition of meso institutions varies significantly, influencing these institutions is pivotal. In state-driven hierarchical societies, the lines of accountability, function, and scope from national policymakers to provincial and district authorities, and then to lower-level organs such as county and village authorities, are quite clear. In decentralized systems, increased authority and decision-making power among provincial and district officials can make those officials very reluctant to yield any of their newly acquired power. Because the power of meso level institutions varies considerably from one society to the next, the types of interventions employed at this level likewise differ significantly.

Impact budget priorities

A shared intervention priority is influencing the allocation of financial resources managed by provincial or district governments so that rural communities can plan and implement specific development programs that are in keeping with national priorities and are also tailored to local needs and conditions. Poverty-alleviation programs, environmental rehabilitation, and infrastructure programs are frequent targets of advocacy activities.

Coordinate with other community organizations

A priority for meso level engagement is promoting coordination with other community organizations, developing regionwide planning mechanisms, and engaging regional trade associations in economic development initiatives. Given that these coordination mechanisms are usually weak or nonexistent, dedicated efforts are required to ensure continuity in activities at this level.



iv. Influence Macro Level Policies and Institutions

Promote economic policy changes

When countries undergo major economic changes such as reducing the economic role of the state, liberalizing domestic markets, and pursuing export-oriented growth strategies, the rural poor are frequently excluded from the benefits of new incentives and market structures. Under such circumstances, advocacy designed to provide direct economic and resource management opportunities for the rural poor becomes the linchpin for preventing further political and economic marginalization.

Promote institutional reforms

Changing institutional arrangements often requires a two-fold approach. Often, changing relations, regulations, and legal processes inherited from institutions that were created many decades earlier and that do not further the needs of local communities becomes a first priority. In addition, redirecting and altering newly created institutional setups can become an intervention priority if those institutional arrangements further marginalize rural communities while benefiting privileged economic and political groups.

Build strategic alliances at the national level

Success in accomplishing reforms hinges on building dynamic alliances with influential constituencies. Three approaches are important in this process:

a) Partnerships with National Advisory Committees

To be effective and enduring, intervention programs have to cut across all three levels, bringing about changes on the ground while creating supportive institutions and policies at higher levels. Creating a national advisory committee from the very outset of implementing interventions can prove critical in building political and technical support to guide implementation during all stages of work.

b) Partnerships with Donor Agencies

Poverty-reduction and environmental-sustainability themes have been actively promoted by development agencies in the past. Working with representatives of these agencies and local partners funded by them is vital to effecting local- and national-level changes.

c) Alliances with Urban Organizations, Institutes, and Experts

The political marginalization of rural communities requires a dedicated effort to forge enduring relationships with groups and individuals who have expertise across many disciplines. These include policy-oriented advocacy groups, political leaders, parliamentarians, research institutes, producer associations, and a wide range of civil society organizations.

EXAMPLE: In China, national advisory groups provided the critical link to replicating the positive local experiences and creating a policy dialogue at the highest levels of government on links between poverty alleviation and environmental management. Members of the national committees were selected because of their political and institutional standing and their influence on public policy issues. As project results emerged from local and district levels, these influential members became enthusiastic advocates for policy and institutional reforms in various government agencies. The project also provided forums and facilitated dialogue among the Chinese government, other Chinese organizations, and international experts to raise awareness and exchange experiences of how environment-poverty challenges might be addressed in China, including focusing on the prospects for national legislation that recognizes community rights.



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Conduct public awareness campaigns

Building public awareness campaigns is often the last stage of the program. This is primarily because when local reform programs prove successful, it is necessary to communicate the concepts to other potential stakeholders. Additionally, alliances are created with important groups and advocates in national capitals, and influencing national political targets requires more public pressure to demonstrate that proposed reforms enjoy public support.

Ensure sustainability

Reforming national institutions, improving economic policies, and increasing the political influence of rural groups are long-term endeavors that require years, if not decades. To keep the processes of change going over that longer period, it is necessary to establish sustainability objectives and strategies from the outset of the intervention process. These initiatives can help to ensure that alliances and financial, government, and institutional support will remain in place to support continuation of the project after its formal completion.



Lessons

Of the many lessons derived from implementation of the 3xM Approach, the following were shared by partners across the five countries.

Economic Growth Is a Prerequisite for Improved Natural Resource Management

Interventions in the five countries underscored the fact that it is very difficult, if not impossible, to improve natural resource management over the long term unless a process of economic growth is under way that raises the incomes of the rural poor. For this reason, the 3xM Approach placed a premium on identifying and supporting economic growth opportunities at the local level. By the same token, economic growth initiatives were predicated on sound, sustainable natural resource management that would be controlled by locally owned or administered institutions.

The Centrality of Institutional Change

In some countries, the economic impacts of integrating national economies into global markets took time to reach rural communities. Elsewhere, economic impacts, particularly regarding agricultural commodities, were immediate and profound. As a consequence, we found it difficult to generalize about how to respond to economic changes and to promote strategies supporting the economic status of rural communities. In contrast, we saw that institutional changes, often linked to economic reform programs, had more immediate and tangible impacts on rural communities. These impacts were expressed through reform of natural resource tenure laws, water policies, decentralization plans, change in legal systems, and political reforms, among others. As a consequence, all partners ultimately gave priority attention to the institutional changes taking hold so that rural communities could be brought back from the political and economic margins of their societies.





The Political Dimension of Interventions

Our partners uniformly recognized that a major dimension of their intervention activities was to strengthen the voice and influence of rural communities in economic, political, and natural resource affairs. Their activities sought to build and diversify the levers and means of intervening so that the rural communities could better defend their interests relative to privileged groups and economic actors. The experiences highlighted the conclusion that reducing poverty and improving natural resource management required strengthening the political influence of the rural sector.

Building Rural-Urban Alliances

One of the principal mechanisms for strengthening the influence of the rural sector was building a constantly expanding network of alliances and partnerships with urban organizations and individuals. Establishing the national advisory committee at the outset gave communities a solid foundation for strengthening and diversifying political and economic opportunities. Particular areas for which technical and political expertise were sought included legal analysis and defense, political analysis, lobbying, public mobilization, contacts with markets and private companies, and support from government officials. A proactive alliance-building process was required at the micro, meso, and macro levels to achieve many of the project objectives.

Building Social Capital

The lack of financial, natural, and man-made capital obliges communities to increase their influence by pooling resources and joining in communally driven activities. Such efforts to build social capital provided a springboard for other activities, such as strengthening alliances with other groups, starting new businesses, and negotiating with government officials.

Scaling Up Successful Projects

The 3xM Approach embodied a unique understanding of the “scaling-up” process. From the outset, interventions were designed to cut across three societal levels, beginning with on-the-ground improvements and moving upward to influence national policies and institutions. What was needed thereafter, however, was strong support by national governments and private companies so that the poverty-environment improvements could be implemented on a wider geographic scale. This required a sustained campaign at the national policy level so that changes could be embedded in national laws and regulatory systems.

Need for a Long-Term Horizon

Although changes at the local level took root within a few years, consolidating policy and institutional reforms at the meso and macro levels required considerably more time. For this reason, broader, longer-term outcomes required establishing “sustainability strategies” from the project’s outset to ensure the continued engagement of local partners and their allies over a protracted period of time.



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A Final Note

Through the specific examples accompanying the stages of the 3xM Approach, we have tried to illustrate how analysis and direct interventions changed the welfare of the rural poor and the management of the surrounding environment.

As we look to the future, it is clear that environmental scarcities—whether of water, energy, carbon sinks, or ecosystem services more generally—will increase in coming years. Competition for those scarce resources is already intensifying.

We believe that the 3xM Approach can provide a useful tool in helping the rural poor compete more effectively in this coming period of increased environmental scarcity. The approach has demonstrated its usefulness in identifying local environmental needs of the rural poor and organizing negotiation processes with privileged political and economic groups so that the interests of the rural poor are successfully defended and environmental sustainability is achieved.

The 3xM Approach

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This publication was produced with support from:



European Commission



Netherlands' Ministerie van Buitenlandse Zaken (DGIS)



Swedish International Development Agency (Sida)

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