

Social Analysis Guidelines in Natural Resource Management

Incorporating Social Dimensions into Bank-Supported Projects



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SOCIAL DEVELOPMENT DEPARTMENT
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Acronyms and Abbreviations

AFR	Africa Region
ANS	Adjusted Net Savings
APL	Adaptable Program Loan
ARD	Agriculture and Rural Development Department
CAS	Country Assistance Strategies
CBNRM	Community-Based Natural Resource Management
CBO	Community-Based Organization
CDD	Community Driven Development
CEPF	Critical Ecosystems Partnership Fund
CI	Conservation International
CSA	Country Social Analysis
CSO	Civil Society Organization
DFID	Department for International Development
DPL	Development Policy Loan
EA	Environmental Assessment
EAP	East Asia & Pacific Region
ECA	Europe & Central Asia Region
EEAA	Egyptian Environmental Affairs Agency
ESMF	Environmental and Social Management Framework
ESW	Economic and Sector Work
FAO	Food and Agricultural Organization
GDP	Gross Domestic Product
GEF	Global Environment Facility
GNS	Gross National Savings
IAD	Institutions and Development
IASCP	International Association for the Study of Common Property
ICDP	Integrated Conservation and Development Project
ICR	Implementation Completion Report
IDF	Institutional Development Fund
IFC	International Finance Corporation
IUCN	International Union for the Conservation of Nature
JSDF	Japanese Social Development Fund
LCR	Latin America & Caribbean Region
LEG	Legal Department
LIL	Learning and Innovation Loan
MIGA	Multilateral Investment Guarantee Agency
MNA	Middle East & North Africa Region
MSC	Marine Stewardship Council

MSP	Medium-Sized Grant Program
MTR	Mid-Term Review
NGO	Non-Governmental Organization
NRM	Natural Resource Management
NTFP	Non-Timber Forest Product
OED	Operations Evaluation Department
OM	Operational Manual
OP/BP	Operational Policy/Bank Procedure
PAD	Project Appraisal Document
PBA	Program-Based Approach
PCD	Project Concept Document
PCN	Project Concept Note
PHRD	Policy and Human Resource Development
PPF	Project Preparation Facility
PRA	Participatory Rural Appraisal
PREM	Poverty Reduction and Economic Management Department
PROFOR	Program on Forests
PRS	Poverty Reduction Strategy
PSIA	Poverty and Social Impact Analysis
QAG	Quality Assurance Group
RRA	Rapid Rural Appraisal
RTD	Right to Development
SA	Social Analysis
SAM	Stakeholder Analysis Matrix
SAR	South Asia Region
SIL	Specific Investment Loan
SUF	Special Use Forest
SWAp	Sector-Wide Approach
TA	Technical Assistance
TBNRM	Transboundary Natural Resource Management
TBPA	Transboundary Protected Area
TNC	The Nature Conservancy
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
WRI	World Resources Institute
WWF	World Wildlife Fund

Preface

The World Bank is committed to improving the quality of social analysis and participatory processes in the projects it supports. This is reflected in the new business model for Social Development in the World Bank, “Empowering People by Transforming Institutions” (2005), which presents three strategic priorities: Improved macro level processes; better projects; and better grounding through research and capacity building. Better projects mean “improved development effectiveness of investment lending through more comprehensive and efficient mainstreaming of social development into project-level processes and analyses as well as strengthening the social development thematic portfolio.”

In an attempt to help structure and systematize this process, the Social Development Department has in recent years worked on developing guidance to Bank staff and clients on the application of social analysis and the integration of social dimensions within Bank operations. One outcome of this has been the *Social Analysis Sourcebook*, published in 2003. The Sourcebook explains how Bank teams can assess the social context and shows how governments and other stakeholders can undertake Social Assessments for specific projects. By explicitly addressing issues such as social diversity and gender, institutional norms and behavior, stakeholder analysis and participation, and social risk, projects are more likely to contribute to equitable and sustainable development.

Social Analysis in the World Bank has grown over the years from focusing largely on adverse impacts and compliance with social safeguard policies (involuntary resettlement, and impacts on indigenous peoples), to a more comprehensive framework for Bank-supported projects and programs. The attention to avoiding and mitigating adverse impacts of development interventions remains as important as ever, but this is now incorporated into a broader focus on opportunities, constraints and risk to development that arise from the social context.

While the focus of the *Social Analysis Sourcebook* is on incorporating social development issues in a project cycle, frameworks and guidance have also been developed for more macro-level social analysis. This is done at the program and policy level through Poverty and Social Impact Analysis (PSIA), which analyzes distributional impacts and the role that informal institutions, social relations, and power structures play in the reform process. At the country level, Country Social Analysis (CSA) informs the Bank’s portfolio, and provides inputs to the Bank’s Country Assistance Strategies (CAS) as well as to client countries’ Poverty Reduction Strategies (PRS).

As a follow up to the Sourcebook, the Social Development Department is producing a series of sector- and theme-specific guidance notes for social analysis. The purpose is to ensure that advice related to social development issues is relevant and timely, addresses the key social concerns and opportunities in particular sectors, and is well integrated with the project cycle at all stages. The notes also discuss policy and institutional aspects of particular sectors. These aspects may in some cases be addressed through other instruments than projects, such as country-level policy dialogue, or Development Policy Loans.

The purpose of this guidance note is to provide an overview of the salient social issues relating to natural resource management (NRM) sector activities and to discuss practical ways of applying social analysis in the design, implementation, and monitoring and evaluation of Bank-financed NRM operations. Natural

resource management demands attention to crosscutting and cross-sectoral issues, perhaps to an even greater degree than other areas of development. Many natural resources are subject to multiple uses by multiple users with overlapping and contested claims, evoking a plethora of social, institutional, and governance issues. This note presents a conceptual framework for social analysis in NRM projects and offers task teams useful information and guidance on how to integrate social analysis into each part of the NRM project cycle. The note may also inform meso- and macro-level social analysis, as noted above.

The NRM guidance note was developed with several audiences in mind. It is addressed primarily to social scientists within and outside the Bank who are expected to assist our clients—Bank task managers and project authorities in borrowing countries—in integrating social dimensions into the NRM sector. A second audience will be Bank task managers themselves, as well as other members of project teams, working in the NRM sector. The guidance note will also support country managers and sector managers in ensuring that their task teams consider social development dimensions adequately in the design and implementation of Bank-supported NRM operations. Finally, the note is expected to be of use to governments, civil society and other stakeholders in considering how best to integrate attention to social issues in their development efforts.

As with all guidelines, the actual application of the framework and suggestions provided here will depend on the local context and available resources. This is not intended as a rigid blueprint, and judgment and flexibility are required in every situation. But we hope this guidance note will provide a good starting point and contribute to better project outcomes.

I. Natural Resource Management and the World Bank

For the purposes of these guidelines, the NRM portfolio comprises of projects or programs that involve the allocation and use of renewable resources under the general headings of land, water, forests, and biodiversity.

Under the Bank's current administrative structure, NRM projects can fall within one or more sectors, some of which are overarching, for example, Forestry; Irrigation and Drainage; General Agriculture, Fishing, and Forestry; General Water, Sanitation, and Flood Protection. But projects with substantial NRM activities can also bring into play a number of sub-sectors, as well as themes in the Environment area such as Biodiversity, Land Management, and Water Resources Management. In practice, natural resources do not observe sectoral boundaries, and from an operational perspective, the divisions between land, water, forests, and biodiversity are frequently blurred. An example of this is found in a water management project that harmonizes the use of soil, water, and vegetation in a watershed area. Many investment projects feature some combination of environmental conservation and production boosting objectives, as in the case of the once-popular integrated conservation and development projects (ICDPs).¹ Accordingly, these guidelines consider both the conservation and productive aspects of NRM.

From region to region great variability exists, in part because the designation of a project as NRM straddles the administrative separation between the Environment and the Agriculture & Rural Development families. For example, NRM projects in certain parts of the Europe & Central Asia region (ECA) may largely involve arable soils conservation and water salinity management for irrigation, whereas in the Latin America & Caribbean region (LCR) projects may involve preserving areas of high endemism (i.e., areas containing a number of species that are unique to them) in protected areas.

REGIONAL NRM ISSUES

*Africa*²

In the Africa region (AFR), perhaps more than in any other region, the World Bank's mission of fighting poverty with lasting results is inescapably linked to environmental protection and improved management of renewable natural resources. African livelihoods and national economies rely mainly on agriculture and on extraction of mineral and biological resources, and there are few alternatives or options to compensate when these are lost.

¹In attempting to reconcile local- and regional-level development needs with the biodiversity conservation objectives of protected areas, ICDPs were actively promoted by conservation organizations and development agencies in the mid-1980s. They then appeared to lose popularity in the wake of a spate of studies that showed that few of the first-generation ICDPs had managed to reach their conservation goals. However, as Mogelgaard (2003) and other observers have noted, it is the term "ICDP", rather than the approach itself, that has fallen out of favor. ICDPs can take on many forms, and many core elements of the ICDP model—such as community engagement and the promotion of economic alternatives—continue to be supported in the fields of conservation and NRM. This is significant since these are the very elements that tend to make ICDPs responsive to the concerns of a wide assortment of conservation stakeholders (World Bank, 2003b: 13-14).

² Adapted from The World Bank--

<http://Inweb18.worldbank.org/ESSD/envext.nsf/41ByDocName/EnvironmentintheRegionsSub-SaharanAfrica>.

In both rural and urban settings, it is the poor who are most affected by the loss of natural resources and the deterioration of environmental services and who are most at risk from natural disasters that can be aggravated by environmental degradation. Yet the natural resource base is steadily deteriorating, with some of the world's highest rates of soil degradation and with loss of forests, rangelands, wetlands, and fish and wildlife populations.

Millions of rural Africans are dependent on natural resources for food security and meager incomes. An important challenge is the building of capacity in Africa for environmental management. Much of the work done so far has been at the public level, but more effort is anticipated to involve the private sector and to alert Africans to ways in which successful management of the environment can enhance development progress.

*Eastern Europe & Central Asia*³

The Europe & Central Asia region (ECA) has the largest land area and the largest forested area of any of the Bank's regions, covering nine time zones and 27 million square kilometers. The region is characterized by its diversity in the terms of ecology, social structure, and wealth. In addition, the 27 countries in the Europe and Central Asia Region face a highly diverse set of environmental challenges, including:

- Severely deteriorated water and wastewater services
- Water pollution from agriculture and industry
- High energy inefficiencies
- Hazardous and industrial waste management problems
- Urban air pollution
- Deteriorating oil pipelines
- Poor natural resource management

All of the ECA countries have faced social upheavals since beginning the transition to a market economy 14 years ago, and several have faced dramatic declines in GDP and increasing poverty. Each country has had to adapt rapidly to the breakdown of the former centrally planned economy and the consequent formation of newly independent states. One strength the region has is that most of the countries have well-educated populations with stable or even declining populations.

*East Asia & the Pacific*⁴

The East Asia & the Pacific (EAP) region is blessed with a rich and varied natural resource base, including productive fisheries, vast areas of forests, and good soils. However, these resources have been heavily exploited in the drive for development and in many cases they are now in a deteriorated state. For

³Adapted from The World Bank--
<http://Inweb18.worldbank.org/ESSD/envext.nsf/41ByDocName/EnvironmentintheRegionsEuropeandCentralAsia>.

⁴ Adapted from The World Bank--
<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/EXTEAPREGTOPENVIRONMENT/0,,contentMDK:20265448~menuPK:536082~pagePK:34004173~piPK:34003707~theSitePK:502886,00.html>.

example, World Bank estimates of Adjusted Net Savings (ANS) in EAP countries (a measure of changes in all assets) are significantly lower than Gross National Savings (GNS), which is the traditional measure and does not account for natural assets. In Vietnam the GNS is reported as 34 percent, while ANS estimates are around 29 percent (2002). This difference suggests that natural resource depletion may be having a serious impact on the rate of wealth accumulation in many EAP countries.

The decline of natural resources is perhaps most striking in the forestry sector where logging is contributing to significant rates of forest loss. Indonesia's rate of deforestation almost doubled between 1985 and 1997, from 1 million to 1.7 million hectares per year. Water resources are also a problem. In the Philippines it is estimated that 58 percent of groundwater is contaminated and declines in surface and groundwater quality are evident in many other EAP countries. NRM issues also extend to coastal areas; for example, in Indonesia 40 percent of the country's coral reefs are considered to be seriously damaged, while only 5 percent are undisturbed.

*Latin America & the Caribbean*⁵

NRM projects having biodiversity conservation aims predominate in the LCR region. One recent study found that of the total World Bank Group investments in biodiversity from 1988-2003, nearly half (45 percent) went to this region. The key environmental issues in the Latin America & Caribbean region include: (i) urban-industrial pollution; (ii) mismanagement of natural resources in areas of existing and new settlement, and the consequent loss of terrestrial and marine biodiversity; and (iii) the high vulnerability of urban and rural populations to natural disasters.

The causes of degradation include the poor socio-economic condition of large segments of the region's population, the high dependence of many economies on the exploitation of natural resources, limited institutional capacity to enforce environmental regulations and policies, inappropriate pricing and subsidies, unclear property rights, weak economic incentives, limited participation by stakeholders, few partnerships with polluters, and limited data and planning methodologies.

*Middle East & North Africa*⁶

From an environmental and natural resources point of view, the Middle East & North Africa region (MNA) is characterized by: 1) large non-renewable oil and gas reserves; 2) arid and semi-arid climate; 3) freshwater resource scarcity; 4) rapid urbanization and increasing air pollution; and 5) large rural populations without safe water and sanitation.

Water has always been of central concern to life in MNA. Early civilizations emerged along the Tigris-Euphrates and Nile, and the struggle for water shaped life in desert communities. But concerns of the past are dwarfed by those of the present century. Burgeoning populations are placing unprecedented pressures

⁵ Adapted from The World Bank--

<http://Inweb18.worldbank.org/ESSD/envext.nsf/41ByDocName/EnvironmentintheRegionsLatinAmericaandtheCaribbean>.

⁶ Adapted from The World Bank--

<http://Inweb18.worldbank.org/mna/mena.nsf/f34b224d37365b3f852567ee0068bd93/46bcc40bfb210a3a85256949006dece?OpenDocument>.

on the resource, calling urgently for new approaches to water planning and management if escalating conflicts are to be avoided and if environmental degradation is to be reversed.

The MNA region is disproportionately endowed with natural resources. The region is among the richest in oil and gas reserves, but also one of the poorest in renewable water resources. It continues to rely excessively on natural resources for its sustainable development. The MNA countries share the following long-standing natural resource issues, which differ only in magnitude and severity between the countries:

- Water scarcity and quality
- Land and coastal degradation and desertification
- Weak institutional and legal framework

*South Asia*⁷

The South Asia region (SAR) is home to almost half of the world's poor and is a focal area for Bank support to reduce poverty. Poverty in South Asia is inextricably linked to the management of environmental and social development issues. Attention to sustainable natural resources management (including water resources management) and pollution management, especially in connection to outcomes of improved livelihoods, reduced environmental health risks, and reducing vulnerability among the region's poor, is essential. This inevitably involves focusing on assisting sub-regions and sectors in watershed and forest management, land and water management, fundamental reforms required for long-term environmentally and socially sustainable irrigation and drainage, tariff reforms, institutional reform, and river basin planning and management in an integrated water resources management framework.

ANALYTICAL FRAMEWORKS FOR NRM

Development specialists from various disciplines have put forward a number of analytical frameworks for understanding NRM problems in different contexts, and for devising and implementing appropriate solutions. Depending on how they are applied, these frameworks can help in the choice of strategic entry points for both analysis and intervention. Therefore, it is well worth the time and effort of social scientists to become familiar with them. Some of the more recognized ones include:

- **Opportunity-empowerment-security** – This framework has grown out of research in the World Bank relating to the multi-dimensional nature of poverty, which has been set out most explicitly in *World Development Report 2000/2001: Attacking Poverty*.⁸ It concentrates on reducing poverty by promoting economic opportunity, facilitating empowerment, and enhancing security with actions at the local, national, and global levels.
- **Land and resource rights**⁹ – This framework goes hand in hand with the increasing attention to human rights in international development circles. It focuses on creating the effective pre-

⁷ Adapted from The World Bank--

<http://intranet.worldbank.org/WBSITE/INTRANET/SECTORS/INTRANETENVIRONMENT/0..contentMDK:20268732~menuPK:623589~pagePK:210082~piPK:210098~theSitePK:244352,00.html>.

⁸ World Bank (2001).

⁹ See Geisler (2002).

conditions for sustainable and socially just NRM decision-making, by granting new rights and/or enforcing legal protections for poor people having customary claims to lands and resources.

- **Institutions and development**¹⁰ – This long-standing framework, abbreviated “IAD” by Elinor Ostrom and her collaborators, focuses on how rules (institutions) and attributes of the natural and social world combine to shape development outcomes.
- **Sustainable livelihoods**¹¹ – This framework identifies five core asset categories or types of capital upon which micro-level economies are built. It seeks to gain a realistic understanding of how local people endeavor to convert these assets into positive livelihood outcomes, and combines this analysis with a consideration of other issues (arising, for example, from the “vulnerability context”) that impinge on the sustainability of livelihood choices.
- **Environmental entitlements**¹² – This approach grew out of research at the Institute of Development Studies in the UK. It focuses on the behaviors which result from rules and is based upon three key elements – endowments, environmental entitlements, and capabilities – and how the relationships between them are mediated by various institutions. It is oriented to the elements that make for the successful design and implementation of community-based sustainable development projects.
- **Assets and capabilities**¹³ – Like “sustainable livelihoods,” this framework analyzes livelihoods, focusing on the ways in which rural people attempt to a) expand their asset bases by engaging with other actors through relationships governed by the logics of the state, market, and civil society, and b) deploy and enhance their capabilities both to make living more meaningful and to challenge dominant resource use and management regimes in society.

Although the analytical frameworks above have emerged from diverging theoretical orientations, they overlap in certain important ways. All of them are concerned, to varying degrees, with some combination of empowerment, entitlements, assets (both tangible and intangible), rights, capabilities, and institutions. The last three frameworks are quite closely related, as they have been heavily influenced by the work of Amartya Sen on capital assets and capabilities, as well as on the impact of intangibles (such as values) on economic rationality more broadly.¹⁴

NRM FINANCING OPTIONS

There are a variety of mechanisms for soliciting funds for conservation and NRM. These include budget allocations by government agencies or large NGOs, private donations, environmental taxes, and user fees. In the Caribbean, for example, a number of marine parks and marine protected areas depend on user fees levied on scuba divers and, in one case, on yacht charters to support their operations.¹⁵ In another example involving the private sector in Egypt, the private sector is helping to finance an Environmental Cost Recovery Charge Program to benefit the National Park and Protectorate Network in South Sinai. A charge

¹⁰ See Ostrom (1998).

¹¹ See Carney (1998).

¹² See Leach, Mearns and Scoones (1997).

¹³ See Bebbington (1999).

¹⁴ See Sen (1982; 1985).

¹⁵ Geoghegan (1995).

is levied by each hotel and passed onto their hotel guests. The receipts are submitted monthly to the Egyptian Environmental Affairs Agency (EEAA) and then deposited in a special fund accessible to Network managers.¹⁶

- **Conservation trust fund** – This is a permanent endowment used to support conservation activities. Conservation trust funds are established as independent legal entities outside of government, and are managed by an in-country board of directors composed of technical experts and various representatives from government agencies, local NGOs, local business groups, and outside donors.¹⁷ Endowments set up with the help of international donors are invested to produce a steady stream of income for supporting conservation activities. Annual investment income from the endowment can be supplemented by revenues raised on an ongoing basis from conservation fees or earmarked taxes collected from tourists and other natural resource users. For example, financing through the Peruvian Fund for Protected Areas has strengthened and extended that country’s protected area network. An anticipated debt-for-nature swap with the U.S. will provide additional support for the Fund.

The World Bank has assisted in establishing several national trust funds, using GEF financing as a part of the co-funding. Trust funds in Bolivia, Peru and Mexico support protected area networks. Trust funds have also been set up to meet the training needs of protected area staff (Bhutan), to support a biodiversity grants program (Brazil), and to benefit protected areas in the Transcarpathian Region (Ukraine).

- **Debt-for-nature swap** – This is another means for accessing large pots of money. It involves purchasing foreign debt at a discount, converting the debt into local currency, and using the proceeds to finance local conservation activities. These swaps are designed to free up resources in debtor countries for much needed conservation activities.¹⁸ They can occur between two governments (referred to as “bilateral” swaps) or they can involve an NGO as an intermediary (referred to as “commercial” swaps). For example, the Bolivian government and Conservation International (CI) in 1987 signed their first debt-for-nature swap agreement. Under that agreement, CI was able to acquire US\$ 650,000 of Bolivian external debt at a discounted price of \$100,000. In return, the government undertook to provide the Beni Biosphere Reserve with maximum legal protection and to create three adjacent protected areas. It also agreed to provide \$250,000 in local currency for management activities in the Beni Reserve.¹⁹ As of 2003, \$3.54 billion in debt had been forgiven in exchange for \$1.07 billion in environmental funds through bilateral debt-for-nature swaps. NGOs purchased \$167.8 million of debt in exchange for \$112.6 million in conservation funds through commercial debt-for-nature swaps.²⁰

In mainstreaming environmental sustainability in its operations, the Bank has employed a range of lending and non-lending instruments and sources of financing for NRM. These include trust fund granting, guarantees (via MIGA), Economic and Sector Work (ESW), etc. Partnerships with the private sector are also possible, although this is happening mainly through projects and mechanisms established

¹⁶ Pearson (1995).

¹⁷ For more information, see Spergel (1995); Pagiola et al (1997); World Bank (2003b).

¹⁸ Moyer (2003).

¹⁹ Resor (1997).

²⁰ Moyer (2003); World Wildlife Fund Center for Conservation Finance (n.d.).

in the International Finance Corporation (IFC).²¹ In addition, there have been various efforts to leverage outside resources for NRM through strategic alliances such as the Pilot Program for the Brazilian Rain Forest, the Critical Ecosystems Partnership Fund (CEPF) for high biodiversity areas, and PROFOR for forests. These coexist with longer-standing donor partnerships like the Alliance for Forest Conservation and Sustainable Use (also known as the “Global Forest Alliance”) and the International Coral Reef Initiative.

Most free-standing Bank-assisted projects that primarily involve biodiversity conservation are financed through the Global Environment Facility (GEF).²² In the past decade the GEF has committed \$4.5 billion in grants and leveraged an additional \$14 billion from other donors for projects in three major focal areas: Biodiversity, International Waters, and Climate Change. Some reviews have found that of all Bank-based investments in support of NRM, GEF projects are the most likely to involve the participation of community-based organizations (CBOs), NGOs, and scientific institutes; in fact, the GEF has the ability to provide financing directly to NGOs via its medium-sized grant program (MSP).²³ Full-sized grants starting at \$1 million, by contrast, are more likely to go to governments in support of large-scale efforts, such as integrated planning for multinational water bodies. Other studies of GEF operations have found relatively modest participation of the private sector, though this seems likely to increase in coming years.

²¹ For some examples, see World Bank (2003b: 15).

²² The GEF was established in the early 1990s as a joint initiative of the World Bank and the United Nations (represented by UNDP and UNEP). It complements traditional development assistance by covering the incremental costs incurred when a national, regional, or global development initiative also has environmental objectives. The Facility is governed by a Council of 32 member groups, most of which are from beneficiary countries. A Scientific and Technical Advisory Panel reviews project proposals and advises the member groups on investment decisions.

²³ Diamond et al (2004: 23-4). In addition to the MSP, the GEF Small Grants Program, administered by UNDP, provides grants of up to \$50,000 each to NGOs and CBOs.

II. Social Issues in the NRM Sector

A number of issues and trends currently inform and condition the work of NRM specialists at the World Bank. While many of these concerns discussed below overlap with other areas of development work, they nevertheless take on a particular significance within the NRM context, and therefore, it is important for social scientists and other specialists concerned with the social dimensions of NRM to be aware of them.

MEDIATING CONFLICTS OVER OWNERSHIP AND USE OF RESOURCES

Because natural resources are such an important source of value for so many people, it is of little surprise that politics and power relations should strike at the heart of NRM. Conflicts of various kinds and at multiple levels are the norm rather than the exception. Typically, NRM involves changes not just in the physical management of natural resources, but also in the rules and regulations affecting their management. Questions of governance, ownership, and use and access rights become critical.

With regard to NRM investments, managing or developing a natural resource always starts with a consideration of who exercises *de facto* and *de jure* control over that resource. Once this is understood, it becomes considerably easier for the analyst to see how competing and overlapping claims to resources could affect the design and execution of a given NRM intervention. A number of typologies have been developed to explore the modalities of the two types of resource control.²⁴ Traditionally, the emphasis has remained on the set of rights that underlie private property ownership, or tenure. The primary right is the use right, though the access, transfer, exclusion, and enforcement rights are also important to consider and understand. These rights do not always have to come in the same set, or “bundle.” In fact, both theorists and practitioners are increasingly debating the conditions under which it makes sense to “break apart” property rights bundles—devolving certain rights to individual or collective owners while allowing the state to retain others.

Land tenure provides the basis for the control of many natural resources (topsoil, freshwater, plants, animals), and one common typology for distinguishing the different types of land tenure is provided in Box 1.

²⁴ For some representative examples, see McCay (2000) and research promulgated by International Association for the Study of Common Property (IASCP).

Box 1: Forms of Land Tenure

- **Private** - owned by an individual, corporation, or institution. Private ownership provides an incentive to maintain and continue to benefit from a property's resources, but also allows for destructive lands practices without giving a voice to others who may be affected by the owner's decisions.
- **Communal** - owned collectively by a defined group of individuals, such as a village, tribe, or commune. Communal ownership may more efficiently distribute resources among those dependent on them, but it can be harder to define, govern, and enforce in the formal legal terms increasingly demanded by modern state authorities.
- **State** - owned by the government. State ownership can allow diverse elements of the public to benefit from the land's resources, but states frequently lack the capacity to manage their lands efficiently, particularly to respond to public and commercial demands.
- **Open access** - owned by no one. However, most land that appears to have open access is actually state or communal land where the state or community lacks the ability to enforce rules about its use. Open access lands are often subject to heavy and unsustainable use, but may constitute one of the few resources available for landless and low-income families.

Source: Adapted from Burger et al (2001) and others, as cited in UNDP et al (2003: 10). The authors note that, in practice, these forms of land ownership are not mutually exclusive, but can appear in a variety of combinations, often with conflicting rights and obligations.

In much of Africa, Latin America, and South and East Asia, state-sanctioned, titled land ownership is a relatively unusual concept, especially for indigenous and traditional peoples, small farmers, and other rural populations. Many development projects have attempted to promote security of tenure by helping individuals to legally register or gain titles to lands they were using for a long time, or to which they had a traditional claim. But such initiatives – which is sometimes driven by Western-influenced notions of what is most likely to foster the productivity and investment increases that poor countries need to grow – may ignore customary use arrangements that have served local populations in one form or another for generations.²⁵ As a result, forced and often abrupt shifts away from traditional practices to private ownership systems have fueled pitched battles among local communities, government agencies, and commercial interests.

Of course, achieving or maintaining security of land tenure is just one element of local-level livelihood strategies. For the landless and other very poor groups, access to “common property” or “common pool” resources can be just as important. The inherent problem with open access regimes is that they can lead to overuse. Today this “tragedy of the commons” effect is seen most clearly in the state of global fish stocks.²⁶ In several cases, however, a direct relationship between the use of common property resources and over exploitation has been called into question. Where traditional ownership systems remain intact, few resources are truly “open access.” Most are governed through social and institutional arrangements that recognize the advantages of sharing resources among a limited number of community members with

²⁵ UNDP et al (2003: 11). In one example of this in East Asia, the Indonesian government overlooked traditional forest tenure arrangements (known as *adat*) in selling timber concessions to private loggers, angering local residents (UNDP et al, 2000). In other examples derived from research in Africa, the codification of customary tenure “fossilized” inherently fluid traditional systems and led to unintended consequences (Berry, 1994).

²⁶ In many parts of the developing world, fishermen have relatively open access to fishing areas and little effective regulation of their activities. Competition for fish and lack of sanctions for over fishing have left many stocks depleted (UNDP et al, 2003: 12).

prescribed rules of behavior.²⁷ Increasingly, NRM specialists are showing an appreciation for such arrangements, and are exploring how they might be incorporated into strengthened land and resource tenure regimes.

SHIFTING CONTROL THROUGH COMMUNITY-BASED NRM

In the 1960s and 1970s, international organizations lent their support to the creation of institutions (e.g., environmental affairs agencies, regulatory bodies, scientific institutes) that would buttress the roles of developing country governments in planning and implementing NRM activities. Since then, however, practitioners concerned with NRM have found that central governments have not always been up to the task of managing natural resources effectively. In the best of cases, governments acting in good faith have been hobbled by limited capacity to enforce environmental laws and regulations. In other cases, the managerial priorities of national, subnational, and local government officials have contradicted each other, or have been undercut by elite interests looking to siphon off resources from rural areas, either for their own consumption or for export on world markets. Consequently, natural resource managers have found that increasing the role of local people in managing their own resources through decentralization is often a viable alternative to top-down models of NRM.

In the context of NRM, this “downward shifting” in decision-making authority and management control has been pursued in Bank operations through Community-Based Natural Resource Management (CBNRM), which communities become responsible for managing natural resources within a designated area. Community members – often assisted and monitored by outside technical specialists – utilize and protect natural resources within established guidelines or according to a detailed, mutually agreed plan.²⁸ The CBNRM approach has contributed to important innovations in forestry projects, with collaborative forest management (or “social forestry”) as well as community-based agroforestry, taking place in countries such as India, Mexico, and Papua New Guinea. In water management, it has led to a proliferation of micro-watershed management projects, which can be more productive and easier to manage than projects that cover entire watersheds. And in land management, it has enhanced outcomes in projects seeking to boost the productivity of degraded rangelands in Africa and the Middle East, by incorporating the preferences of nomadic and sedentary pastoralists. Bank-supported CBNRM projects – especially those utilizing rural development funds, community conservation funds, and the like – share many similarities with Community Driven Development (CDD), a product line that is making significant inroads in all of the Bank’s regional portfolios.

Note that NRM decision-making can be decentralized to local government units (e.g., at the municipal or district level) in addition to or instead of local communities or user groups.²⁹ This distinction has important implications for equity and stakeholder relations in NRM operations and needs to be recognized up front. Either way, decentralization might be justified on the grounds of promoting social justice, realizing efficiencies, or doing some combination of the two. Decentralization has been shown to empower the rural poor by strengthening their voice to demand greater accountability from the institutions charged with the use and allocation of natural resources. Decentralization has also built on

²⁷ UNDP et al (2003: 12).

²⁸ World Bank (2004a: 223).

²⁹ Some observers (e.g., Wyckoff-Baird et al, 2000) have also described decentralization as the transfer of decision-making authority to intermediaries such as for-profit entities and NGOs.

local-level capacity, energy, and knowledge to establish more cost-effective systems for NRM. While both these types of outcomes can complement each other, the analyst needs to realize there may be very different imperatives driving them. This, in turn, may require the promotion of modes of decentralization that are truly responsive to the needs of all stakeholders, with an emphasis on the poor and vulnerable among them.³⁰

After all, there are a number of ways decentralization can go awry. Sometimes it is more rhetorical than actual, occurring in a way that leaves central government officials in charge of NRM decision-making. Such “hollow decentralization” can be seen in cases where a protected areas agency or international conservation NGO operating at some distance from a new national park establishes its conservation agenda, which local communities are then expected to carry out. Decentralization can also fail to fulfill its promise when NRM management control is shifted to district- or municipal-level officials who are unaccountable to community members.³¹ Even when good-faith efforts to decentralize to communities are made, power can end up being concentrated in the hands of local elites.³² And while decentralization can be expected to reduce information and transaction costs in a way that has a positive net effect on the environment (by reviving traditional farming methods that promote more varied land use), this is not an assured outcome. For these and other reasons, decentralization may not always be the most effective way to achieve socially or environmentally sustainable development.

NAVIGATING VERTICAL AND HORIZONTAL LINKAGES IN NRM PROJECTS

In the NRM context, the notion of “scale” refers not just to the need to understand the distribution of benefits and costs of purposive interventions for various stakeholders operating at multiple levels (though this is very important). Nor does it refer just to centralization vs. decentralization of decision-making authority for NRM. Fundamentally, it is rooted in the recognition that a large number of marginal changes in local-level resource management can have aggregate impacts, for good or for ill, at the regional or global level. But it also recognizes that overarching policy and regulatory frameworks matter, since they help the analyst trace the origins of existing patterns of NRM, and subsequently to determine which types of NRM regimes are possible and which are not. Both these realizations have led many specialists to conclude that the best way to use NRM as a generator of “global public goods” is to engage in conservation and sustainable use partnerships for policy reform and operational action at multiple levels – micro, meso, and macro.

In the conservation field, there is a distinct trend toward “scaling up.” This is a reflection of a fairly recent shift in thinking about conservation and NRM. Natural resources are no longer seen as discrete entities existing in isolation from larger habitats, but are increasingly considered from a basin or eco-regional perspective, and analyzed in terms of social, economic, and ecological systems.³³ This idea is finding an expression in at least two kinds of operations:

³⁰ The CDD for Agriculture and NRM online toolkit provides some guidance on how this might be done; see for example <http://essd.worldbank.org/essdint.nsf/20ByDocName/BasicDesignPrinciplesDelegatecontrol>

³¹ Larson and Ribot (2004: 9).

³² For examples of this in Kenya and Nepal, see Kellert et al (2000).

³³ World Bank (2004a: 215).

- Transboundary Natural Resource Management (TBNRM). This has been rather loosely defined as “any process of cooperation across boundaries that facilitates or improves the management of natural resources (to the benefit of all parties concerned).” Bank-based examples include the Nile Basin Initiative, a regional water utilization partnership of all ten countries bordering the Nile, the Conservation in the West Tien Shan Mountains project in Central Asia, involving Kyrgyz Republic, Kazakhstan, and Uzbekistan, and the Mesoamerican Biological Corridor program, involving all of the countries of Central America.
- Projects taking place within the limits of Transboundary Protected Areas (TBPAs), which refers to areas of land and/or ocean that straddle one or more boundaries, between two or more states and/or subnational units. Examples include South Africa/Lesotho/ Mozambique Conservation Areas project; and the Romania/Ukraine Danube Delta Biosphere Reserve project.³⁴

In NRM projects with more productive aims (particularly agriculture), there has been a shift away from the traditional focus on food production and self-sufficiency, to a broader agenda that incorporates both poverty reduction aims and environmental quality concerns. The emphasis here, at least within the Bank, has been on moving away from public sector-directed approaches to those in which both local-level and private-sector actors have a greater influence in the policies and actions needed to promote agricultural competitiveness and growth. As with conservation-oriented projects, this has involved some horizontal broadening in that increasingly operations are including activities along a longer “value” or “commodity” chain in which post-production management (storage, processing, and marketing) assumes greater importance.³⁵ Along the vertical axis, the policy and institutional context has become more important and institutional and policy changes (such as the removal of subsidies) are being touted as the way to create “enabling environments” for successful market-based approaches to agricultural production and NRM. An example of the latest generation operation would be a sustainable agriculture project with community subprojects that attempts to link changes in land-use practices with national-level policy or regulatory reforms.

While the recent broadening and deepening of scale in NRM is both admirable and timely, it is important to note that working across multiple scales and levels can give rise to various problems. What might make sense from the point of view of sectoral comprehensiveness and effectiveness might not result in the best social development outcomes. Scaled up conservation involves more stakeholders, greater administrative complexity and, potentially less representative and accountable forms of governance. For example, because transboundary initiatives are often driven by regional bodies, powerful donors, or large NGOs (typically, international conservation organizations), their implementation can mean a return to command-and-control modes of planning and management, as in recent attempts to create “super parks” that aim to exclude or resettle local residents.³⁶ Institutional reform and capacity building can be exceedingly difficult – a point that has been frequently observed in assessments of Bank-sponsored NRM operations, at least in the environment sector.³⁷ Moreover, certain policy reforms – such as the removal of input subsidies in order to promote increased competitiveness in the agricultural sector – can have a disproportionate impact on poor farmers.

³⁴ Griffin et al (1999) and Sandwith et al (2001), quoted in Diamond (2002b: 2); World Bank (2003b: 17).

³⁵ See the CDD for Agriculture and NRM online toolkit, <http://essd.worldbank.org/essdint.nsf/20ByDocName/AgNRMIntheCDDcontextTheAgNRMerspective>

³⁶ Diamond (2002b: 4).

³⁷ See for example, Redwood et al (1998).

INTEGRATING CONSERVATION AND DEVELOPMENT IN NRM PROJECTS

One of the more challenging economic issues related to NRM is the conflicts inherent in promoting biodiversity conservation at the same time as promoting economic development. Since the 1990s, the rapid worldwide creation of parks and protected areas, the assumption was that NRM projects could pursue either conservation or “productive” developmental objectives, but not both. Following the rise of the notion of sustainable development in the early 1980s, practitioners and interested stakeholders alike began to call for more integrated approaches, leading to the development of the ICDP model.³⁸ In linking conservation with development and poverty alleviation, ICDPs represented an attempt to devise win-win solutions by drawing upon the most promising features of both imperatives. More recently, the conservation-development divide has been challenged further – even as the standard-issue ICDP has received harsh criticism. Challenges to that dichotomy have taken different forms and come from disparate quarters.³⁹ And yet, it is often important (not to mention realistic) for the analyst to recognize that tensions between conservation- and development-oriented goals are often relevant to NRM, and to know how to deal with the resulting “trade-offs.”

At the micro level, trade-offs can arise in the context of requiring communities to change established patterns of resource use, or to accept restrictions of access to lands and resources. A minimal strategy can center on substitution. For example, the provision of electricity or biomass energy may eliminate overuse of timber for firewood.⁴⁰ But a growing number of practitioners have argued that the most lasting solutions, especially in projects with conservation objectives, consist in engaging local groups in the development of “alternative livelihoods.” This can be tricky, as there are a number of factors that affect uptake. Most factors are rooted in the nature of the income-generating activities proposed and the configuration of local-level interests and abilities. In the case of terrestrial ecosystems, projects have attempted to involve community members in the direct management of parks and protected areas first as by employing them as park rangers; second, encouraging their exploitation of non-timber forest products (NTFPs) such as legumes, fruits, nuts, or honey; and third assisting them in the establishment of microenterprises like crafts vending, cultural shows, or lodging oriented to tourists.⁴¹

With a few notable exceptions, as in Costa Rica, ecotourism has generally not lived up to its potential.⁴² Recent research on attempts to link ecotourism to alternative livelihoods development, specifically in the coastal-marine context, has found that such efforts have the greatest chance of succeeding when they involve both the enhancement and/or diversification of existing livelihoods and the prudent development of alternatives, rather than the diversion of local populations into entirely new activities.⁴³ It is also important to consider the types of complementary actions that need to be instituted at the meso and macro levels, including the building of institutional capacity and the development of policy frameworks for conservation.

³⁸ Mogelgaard (2003: 5).

³⁹ The critics include indigenous and traditional peoples who oppose the creation of strict-protection parks that overlap with their lands; practitioners who have pushed for sustainable logging, ecoagriculture, and similar approaches; and theorists who argue that treating all conservation efforts as fundamentally developmental is the only way to ensure their long-term viability.

⁴⁰ World Bank (2004b: 367).

⁴¹ For example, see Wells and Brandon (1992)

⁴² Pagiola et al (1997: 29).

⁴³ Whittingham et al (2003).

While not free of risks of their own, direct payments can be made to those who own or control land and natural resources for the “service” of conserving critical biodiversity. This arrangement can take various forms, such as land purchases, easements, and the purchase of development rights. In the marine fisheries industry, buyback programs have emerged, whereby the government buys back fishing licenses – and sometimes fishing equipment or entire boats – to keep fisherman from harvesting endangered species of fish. In another example of a program that is being piloted in several countries, particularly in Latin America, upstream farmers are compensated for the proper conservation of a watershed area with payments from downstream beneficiaries such as industries, urban residents, or downstream farmers using water resources. The simple logic behind such payments is that farmers should pay for the use of natural resources and for “negative externalities” they produce (such as agricultural pollution), but should be compensated for “positive externalities” they produce (such as reforestation).⁴⁴ The direct payments approach is the centerpiece in the Bank- GEF-supported Costa Rica Ecomarkets project, which provides support to that country’s elaborate Environmental Services Payment program.⁴⁵

A number of other market-based mechanisms have been developed for encouraging conservation and sustainable NRM. These mechanisms seek to overcome policy failures through trade. Certification programs, for example, are becoming increasingly prominent. The Green Globe 21 certification program was established to certify hotels that meet certain sustainability practices.⁴⁶ The Green Globe 21 brand has become attractive to consumers because it signifies the judicious use of resources, good relations with primary resource users at the local level, and a lower environmental impact. Similarly, in the marine fisheries industry, a certification program has been developed by the Marine Stewardship Council (MSC) to recognize well-managed and sustainable fisheries and to generate consumer preference for seafood products bearing the MSC label. The application of criteria developed by the Forest Stewardship Council for certifying wood and other forest products serves a similar function in the timber industry.

Whether a project is largely driven by conservation or productive objectives, its economic dimensions need to be understood in their fullest sense. Such an understanding has clear implications for CBNRM operations. Economic incentives can be very important to communities, but they are not the only incentives valued locally.⁴⁷ To refer back to the ecotourism example, communities have sometimes found that the negative impacts of ecotourism – a large influx of tourists, greater income inequality, increased pollution, and rising local prices – outweigh the benefits resulting from the project.⁴⁸ Also, despite the ability of market-based approaches to overcome policy and regulatory shortcomings, they can often be inequitable. Forest certification can fail to work when standards are set so high that low-income producers and small enterprises are effectively excluded from the system.⁴⁹ Tracing the links between economic forces and the socio-cultural systems that sustain and condition them can be a difficult task. Yet, when it comes to NRM interventions, this is invariably essential.

⁴⁴ World Bank (2004a: 215).

⁴⁵ Pagiola et al (2004: 11).

⁴⁶ See <http://www.greenglobe21.com/>

⁴⁷ Diamond and Platais (2002: 3).

⁴⁸ Pagiola et al (1997: 29). This points to a deficiency in mainstream economic models that most social scientists are well aware of: they often have difficulty accounting for the intangible value (or even “meaning”) that natural resources can have for local groups.

⁴⁹ A. Molnar, personal communication.

ADDRESSING HUMAN RIGHTS IN NRM

The concept of rights has stimulated complex theoretical debates in a number of disciplines. Since the early 1990s, it has also become prominent in debates around means and ends in economic development. Rights are widely characterized as legitimate claims that give rise to corresponding obligations or duties. They can be organized into different “rights regimes” made up of overlapping sets of norms and claims that are recognized by authority structures operating at different levels. While engaging in NRM necessarily involves any one of a number of rights regimes, there has been a trend toward consolidation, in which formerly distinct sets of civil and political rights on one hand, and economic and social rights on the other, are grouped together under the general rubric of “human rights.” Human rights depend mainly upon nation states for their legitimacy and enforcement, even as their articulation has taken place at the transnational level.⁵⁰

Human rights-based perspectives and assumptions are gaining ground in discussions regarding NRM project design, implementation, and monitoring and evaluation. This is especially relevant to participatory rural development and conservation projects involving communities that depend on certain resources for their economic viability (on the market or “use” side) and/or for their spiritual and cultural development (on the non-market or “non-use” side). The link between human rights and sustainable livelihood development has been explored in the analytical work and applied in the operations of large development-oriented organizations such as DFID, CARE, and Oxfam.

At the macro level, legal scholars and activists have looked to human rights law as a model for the progressive development of international environmental law, as well as for an independent legal strategy for protecting the environment.⁵¹ This approach has been enshrined in such prominent statements as the 1992 Rio Declaration on Human Rights and the Environment, whose Principle 10 calls upon states to provide information to the public on environmental quality, allow potentially affected people to participate in environmental decision-making, and implement measures to remedy environmental harm. Moreover, language on the need to uphold human rights while also protecting the environment has appeared in more targeted international environmental agreements, such as the 1992 Convention on Biological Diversity.

The World Bank has not been immune to these trends. After many years of focusing on the promotion of economic growth as an enabler of the fulfillment of economic and social rights, it has started to recognize that the converse is also true: that is, that equitable, sustainable development cannot take place where human rights are consistently violated. Many of the concerns influencing the design of risk-diagnosis and management techniques that feed into, among other things, the social safeguard policies are founded on human rights principles. Departments as disparate as LEG, PREM, and ARD have been paying increasing attention to human rights-based approaches to poverty reduction.

⁵⁰ Moser and Norton (2001).

⁵¹ Picolotti and Taillant (2003).

III. Starting Points for Social Analysis in NRM Projects

The recent *Social Analysis Sourcebook*⁵² lays out the importance of why the Bank undertakes social analysis in each of its sectors. The Natural Resource Management (NRM) sector, perhaps more than others, offers the social scientist a complex, multi-dimensional arena in which to analyze the social impacts of a Bank projects. For social scientists, the integrated nature of many of the Bank's NRM projects and programs will require them to have wide-ranging environmental and operational knowledge of the different natural resources, project objectives, and even geographic settings (as in the example of coastal resources management that involves urban areas). Similarly, the multi-scale, multi-level nature of the projects will require them to bring all their cross-disciplinary skills to bear on working with government officials on institutional capacity building, policy frameworks, and regulatory reform, as well as with community and municipal authorities on local-level institutions, participatory processes, and conflict resolution mechanisms. The social problems generated by the implementation of NRM projects can at times be overwhelming, as the social environment is often charged with competing stakeholders for limited resources; this is particularly true in the case of projects with conservation aims. To add to these difficulties, rarely is the funding available to address each stakeholder's concerns. These particular nuances increase the value and relevance of social analysis to NRM projects, and challenges all specialists engaged in social analysis to provide inputs and recommendations that are practical, targeted, and timely.

The social analysis agenda at the Bank has increasingly become more systematic and upstream. One of the goals of the recently approved Social Development Strategy is to improve social analysis at the macro level by incorporating social development into country poverty reduction or development strategies, policy dialogue, Bank country assistance strategies (CAS) and Bank-financed policy lending. Among the many forms of "macro-social analysis," several are applicable to Bank-supported NRM operations involving policy or regulatory reform. These include:

- **Poverty and Social Impact Analysis (PSIA)** – This refers to the analysis of the distributional impact of policy reforms on the well-being of different stakeholder groups, with an emphasis on the poor and vulnerable among them. PSIA utilizes multiple social and economic analytical tools and is conducted ex-ante to inform the design of the reforms and to address the risks both to and from the implementation of the reform. Examples of its application in NRM include Cotton Reform in Chad, which looked at the impact on rural farm families of privatizing the parastatal responsible for managing national cotton production; Land Reform in Cambodia, which examined the poverty alleviation potential of legally transferring vacant public lands to poor households; and Forestry Reform in the D.R.C., which will look at the impact on community forest management systems and rural livelihoods of proposed decision-making mechanisms for allocating land, revenues, and benefits from forest areas.
- **Country Social Analysis (CSA)** – This involves the identification and examination of development opportunities, constraints, and risks that arise from the social context of a given country. CSA can be undertaken as stand-alone analytical work or as an integral part of other diagnostic ESW. It serves to produce specific policy and program recommendations or to provide

⁵² World Bank (2003c).

inputs into a Poverty Reduction Strategy Paper or Country Assistance Strategy, and should therefore be done upstream. One notable example of its usefulness is the CSA from Paraguay, which shows how historically weak governance and the concentration of land ownership in that country has combined with the expansion of the agricultural frontier to degrade agricultural lands and add to the vulnerability of the rural poor (including indigenous peoples).

Detailed guidance on the use of these methodologies for analyzing interventions with NRM concerns or objectives is beyond the scope of this paper. Nevertheless, it is important to note that social scientists working on SWAs or DPLs will need a considerably expanded “tool kit” for social analysis. To begin with, they need to be familiar with public policy formulation issues. They also need to be well versed in the identification of political economy risks. Considering the distribution of wealth, power, and interests in a given context is possible through the use of qualitative methodologies associated with traditional stakeholder or institutional analysis. But dealing with quantitative datasets and using quantitative (or “non-contextual”) data collection and analytical techniques becomes more common. To avoid losing a sense of the personalized nature of the impacts caused by the given reform, the analyst does well to take a cue from integrated forms of analysis such as participatory poverty analysis, making sure that the information collected via qualitative research methods is given proper weight, and that findings are triangulated to the greatest extent possible.

Social Scientist’s Role in NRM Social Analysis

The basic goal of the social scientist working on a NRM project, or on any Bank-supported intervention, is to help design and sustain operational products and processes that alleviate poverty by promoting equity of opportunity and access, socio-cultural compatibility, genuine participation, strong institutions, social risk management, and social impact monitoring and evaluation. In the context of preparing and implementing a NRM intervention, social analysis provides the following:

- Modes of inquiry that call attention to salient social issues and raise the type of questions that can lead to more inclusive project design, sound institutional arrangements, fewer social risks, and ultimately more sustainable project outcomes;
- Set of methods and tools that capture vital information about socio-cultural dynamics at different times in the project cycle, thereby providing continuous feedback and ensuring the project meets its poverty alleviation objectives.

The social scientist’s location, designated role, experience, and abilities will determine how s/he is able to apply the concepts, methods, and tools offered by SA. Analysts who are positioned far enough upstream (whether in the Bank or in implementing entities in the civil or public sectors outside of the Bank) will be able to participate in the critical task of prioritizing investments and selecting and designing interventions. This includes social scientists working as project team leaders for projects with NRM components. Those who work on downstream technical advisory or review functions (e.g., safeguards review) are more likely to deal with interventions that are at varying degrees of development but are otherwise set, at least in terms of their design and objectives. Still, the judicious use of social analysis should provide the analyst with information s/he can use to trace the shape of project performance (especially as its social aspects are

concerned), and to provide inputs and advice to project authorities, task teams, and Bank managers as needed.

To ensure that social analysis provides an accurate and comprehensive view of the NRM project, Bank social scientists use five conceptual entry points to initiate and structure their consideration of the social opportunities, constraints, and risks implied by different types of NRM operations:

- Social diversity and gender
- Institutions, rules, and behavior
- Stakeholders
- Participation
- Social risk

What follows is a discussion of the distinguishing features of each of these entry points in relation to NRM, and how to apply these points to the project cycle.

SOCIAL DIVERSITY AND GENDER

Socio-cultural diversity is a vitally important entry point with respect to NRM. At this point in human history, the notion of wholly pristine habitats is a myth; virtually every type of land, water, forest, or biodiversity resource that might be included in a Bank-financed NRM project is going to bear some kind of human imprint. The IUCN reported nearly 20 years ago that most of the world's protected areas are inhabited, and in some parts of Latin America, that figure runs as high as 86 percent. Agricultural work, whether it consists of primary production or off-farm activities, has traditionally been the lot of diverse segments of many developing societies. Even in macro-level operations where the participation of local communities is minimal, taking NRM decisions still requires the interaction of distinct groups of people in government, civil society, and the private sector. Resource management processes, then, are necessarily embedded in a larger social context where beliefs, norms, and behaviors are conditioned by differences in race, class, ethnicity, caste, religion, gender, and age. SA shines a light on those differences and ensures that NRM interventions build upon them where possible and desirable.

As implied above, dealing with socio-cultural diversity at the local level is an integral part of doing CBNRM, whether it take the form of community forestry, microcatchment management, wildlife co-management, integrated coastal management. Many rural areas that are rich in natural resources and/or high in biodiversity are occupied by indigenous peoples, tribal or ethnic minorities, or traditional “forest-dwelling” peoples. Whether they have long-standing claims to the lands they live on or are relatively recent arrivals, these peoples tend to exhibit high degrees of dependency on natural resources. Native communities can be interspersed with settlements of colonists having a range of racial/ethnic make-ups, ownership rights, and resource use practices. Where the colonists have been in an area long enough to devise their own low-impact adaptations to local environmental conditions, they may come to be seen as “traditional” and be readily assimilated by the native or existing inhabitants (as in the case of the Peteneros of northern Guatemala). Each of these populations can be analyzed and understood in terms of the social capital they have built, based on their shared historical experiences, belief systems, family ties, reciprocity relationships, and labor divisions. And far from being unitary, each can demonstrate significant internal divisions, based on shifting relations of power and interest with respect to NRM.

In cases where resource-related conflicts emerge between local communities and government or other outside entities, understanding the racial, ethnic, or religious dynamics involved can greatly aid in anticipating how the conflicts will play out. The same is true for understanding disagreements among different levels of government, or between government and private sector actors, regarding resource ownership patterns, extraction rights, and allocation and pricing. Under certain conditions, struggles over resource extraction can boil over into violent conflict or even war, with opposing sides drawn along ethnic or religious lines – as in the case of timber extraction in the newly created state of Jharkhand, India, or of the water wars in the Middle East. Social scientists working on scaled-up NRM or in sites with a history of inter-ethnic strife need to be aware of the structure of ethnic and religious diversity, the relative value of the resources to be managed to different groups, and the history of political relations. They also need to be versed in different strategies for conflict management and mediation, which can be operationalized via participation strategies, conflict resolution systems, grievance mechanisms, and the like.

Issues stemming from the involvement of indigenous peoples in NRM operations can be particularly sensitive. Numerous ethnographic studies have revealed that, where levels of cultural reproduction are high, different peoples, tribes, or ethnic minorities display an intimate familiarity with and deep respect for their biophysical surroundings. Indigenous peoples tend to feel a strong connection to their land, as it serves as a locus of both personal and group identity. They also tend to favor communal over individual forms of land and resource ownership, and tend to look down on the accumulation of material goods.⁵³ Such preferences are far from absolute, having resulted from uneven processes of cultural conflict and adaptation that have been mediated, in many cases, by the forces of colonization. Nevertheless, the fact remains: many traditional and indigenous communities are still living in relative harmony with their environments, and see their own long-term survival as inextricably linked with the continued health of their lands, waters, crops, medicinal herbs, etc. This can present some interesting challenges to project managers, since it contrasts quite starkly with the division between human beings and nature that is prevalent in so much of Western economic and social theory. It also gets at questions of values, spirituality, and other intangible dimensions of NRM that are difficult to measure but are nevertheless significant.

There have been several concerted efforts to study and build upon the vast store of indigenous peoples' specialized knowledge about the natural environments in which they live. The Bank's Traditional Knowledge for Development program was established in the Africa Region to explore ways that local traditional or indigenous knowledge can be used to design more culturally appropriate development interventions.⁵⁴ A key tenet of the revised Indigenous Peoples safeguard policy (OP/BP 4.10) is that certain forms of indigenous knowledge can have significant market value, and that indigenous peoples should be able to share in the benefits derived from the commercial development of such knowledge. Increasingly, of course, the commercialization of indigenous knowledge brings up issues of intellectual property rights, which intersect with principles expressed in international legal conventions and private sector-driven attempts at "bioprospecting." In order to help project authorities avoid unnecessary conflicts, social scientists will have to understand the issues involved well enough to help design appropriate consultation strategies and benefits sharing arrangements.

⁵³ Uquillas and Eltz (2004: 18).

⁵⁴ See

<http://web.worldbank.org/WBSITE/EXTERNAL/WBI/EXTCEERD/0,,contentMDK:20275212~menuPK:548817~pagePK:64168445~piPK:64168309~theSitePK:542906,00.html>

Gender is a particular expression of socio-cultural diversity that “cuts across” the categories of difference discussed above. Both of the concerns most commonly associated with analyzing gender differences – that is, an appreciation of the relative roles, rights, and responsibilities of both men and women on one hand, and an appreciation of the constraints, risks, and exclusion experienced by women on the other – are relevant to NRM. In many developing societies men are in a dominant position with respect to NRM decision-making, regardless of the scale of a particular project. Yet this does not mean that they have a monopoly on the actual use of natural resources at the local level.

In fact, in most rural areas it is the women who walk long distances to collect fuel, fodder, water, and building materials; manage livestock and home gardens for subsistence purposes; and fish in estuaries, rivers, and streams. In the forested regions of sub-Saharan Africa and other parts of the developing world, women also tend to accumulate more substantial knowledge on the use of trees, plants, and non-timber forest products. Men, on the other hand, are more likely to engage in hunting, swidden or sedentary farming, and offshore fishing. They may not know as much as women, but some of them, in their capacity as political or spiritual leaders, are often more visibly active in community life, whereas women are more likely to participate in (and, at times, exert decision-making power through) informal women’s groups.

Box 2: Good Practice Example – Egypt Second Matruh Resource Management Project

This project aims to improve the livelihood of disadvantaged rural people in northwestern Egypt through community development, capacity building to access services, and conservation of natural resources in a sustainable manner. Social analysis conducted during the Project Concept stage of the Second Matruh Resource Management project identified women’s empowerment as a critical factor for achieving the project objectives. Based on the findings of the social analysis, the project component incorporated capacity building activities for women. The project plans to promote women’s involvement in the planning and implementation process. To support this involvement, the project will include training on participatory planning processes and on the roles and responsibilities of formal community representatives. As a part of the women’s capacity building activities, the project will support girls’ education and literacy classes for women. In addition, communities will be required to make a specific resource allocation for women’s development activities and the staff of the Gender Unit will help the women to prioritize their development activities.

Sources: Saito (2004); World Bank (2004a).

These differences are significant because they can lead to gender-specific priorities for resource allocation and conservation in a given area. Project designs that fail to build on incentive structures in a gender sensitive manner can lead to environmentally sustainable but socially inequitable outcomes. For example, the rezoning of common property areas near poor communities may make it necessary for local women to travel greater distances and enter into restricted areas (such as a nature preserve) in order to collect wood fuel. They would do this not only at greater risk to themselves, but also to their families, as they would have less time left over for income-generating activities, farming, and household and child-rearing responsibilities. By the same token, successfully integrating women into NRM processes – for instance, by providing opportunities for women to farm crops for which they have a traditional preference – can lead to greater food security at the household or even the community level. This is because their particular (socially constructed) roles tend to give them an advantage over men in reconciling the imperatives of economic well-being, environmental sustainability, and human development.

INSTITUTIONS, RULES, AND BEHAVIOR

Institutional analysis goes hand in hand with the other forms of analysis discussed above. Some practitioners in fact would put it up front with stakeholder analysis. This is consistent with the view of institutions as the “rules of the game” that regulate relationships among different stakeholders and their organizations.⁵⁵ But institutions have also been described as “regularized patterns of behavior” that emerge from underlying social structures, or as a combination of behavior (in the form of “easily identifiable roles”) and the rules that govern it. All these definitions overlap and have something to offer the social scientist examining the institutional context of a NRM operation. Indeed, the failure to account for both formal rules/behavior (laws, regulations, roles, etc.) and informal rules/behavior (social norms, personal codes of conduct, etc.) can lead to operational designs that are unworkable, or to a project’s susceptibility to conflict or corruption.

Institutional analysis for NRM might entail looking primarily at the interrelationships between formal organizations, as in a scaled-up conservation project involving multiple donors, government agencies, NGOs, and coordinating bodies. Or it might require a consideration of national legal or regulatory frameworks that influence the way land-use decisions are taken at the subnational level. It might even involve examining the discrepancy between formal and informal practices in the public sector, as when rangers charged with enforcing the boundaries of a national park accept bribes to allow for illegal timbering there. In many cases, however, analysis of institutions involves identifying norms, rules, and codes that are implied rather than expressed, and gauging their influence on actual behavior. For this reason, institutional analysis requires keen sensitivity and insight on the part of the analyst.

Promoting sustainable resource management often depends on inducing changes in the behavior of primary resource users and other stakeholders. Accordingly, it becomes of primary importance to look at the incentive structure attached to different components of a NRM project. Consider a rural development project with agrarian agency officials, extension agents, input suppliers, commercial plantation managers, and small farmers as key stakeholders. The varying responses of these social groups to a project component that involves afforestation in a degraded agricultural area depend on the institutional dynamics that regulate relationships within and among them. If the project is a good fit with the institutional arrangements in effect, benefits can flow as they should and goodwill and cooperation can increase all around. As a result, existing levels of social capital – defined here as positively reinforcing attitudes and behavioral norms, shared values, reciprocity, and trust – can be reaffirmed or further developed.

⁵⁵ World Bank (2003c: 16).

Box 3: Good Practice Example – Jharkhand Participatory Forest Management Project

The Jharkhand Participatory Forest Management Project team organized a stakeholder workshop during project preparation to agree on a common framework for the Social Assessment, to strengthen skills and capacity of workshop participants to contribute to the Social Assessment, and to promote understanding and build consensus about the project among different stakeholder groups. The participants in the workshop included senior government officials, Forest Department staff, NGO staff and activists, tribal leaders and community members, academics, and media representatives.

The workshop participants provided valuable inputs to the Social Assessment. One of the recommendations of the workshop participants was to strengthen tribal institutions present in the project area. Traditional tribal governance structures with a system of communal forest ownership exist in many villages of the project area. This system functions well in many traditional villages of Jharkhand, but in other less “homogenous” areas, the system has broken down. The workshop participants noted that traditional tribal institutions do not always accord adequate rights to participation and decision-making by women, and thus a need exist to focus on gender issues.

Source: Kvam and Nordang (2005).

Static maps, process maps, and counterpart matrices are some of the tools that the analyst can use to understand institutional relationships in a NRM project. Such an understanding can translate into project mechanisms that encourage political, administrative, and public accountability; transparency via regular information sharing and the disclosure of select official documents; and local-level capacity building based on training in civic education and advocacy techniques. The inputs provided by institutional analysis can also help project teams determine the best way to equip communities and local-level governments with the skills needed to manage resources in a sustainable and productive manner. This is especially important in cases of decentralization of NRM decision-making. In fact, the strength of institutions at the local level has been found to be a predictor of project performance in CBNRM interventions. A number of mechanisms outside of standard project financing can be tapped to fund such efforts. These include grants from the Institutional Development Fund (IDF), which are normally made to governments, and the Small Grants Program, which are made directly to CBOs and NGOs.

Increasingly, institutional analysis for NRM is not just about looking at micro- and meso-level interrelationships. As implied earlier, changes in the natural resources and environmental management fields are making questions of institutions and governance at the macro level just as critical. Growing public and scientific awareness of the links between global environmental quality and human needs is only part of the reason. The impulse to leverage scarce financing and enhance effectiveness by scaling up and working in partnerships makes up much of the rest of it. These trends have combined to put NRM specialists in touch with a relatively new set of concerns – lack of public accountability, perverse incentives, weak governance, sectoral disarticulation, etc. – as well as with the need to come up with appropriate strategies, methods, and tools for dealing with them. Consequently, it is now understood that investing effectively in NRM involves the consideration of a host of issues relating to the policy and regulatory environment for managing resources: property and access rights, subsidy arrangements, taxation laws, regional investment policies, and more. It is also understood that there are basic “enabling conditions” that can help create the political climate for proactive policy change.

This shift in policy emphasis is reflected in the changing portfolios of the major development donors, including the World Bank. The objectives and forms of both investment and policy-based lending are rapidly evolving, to the point where the line separating them is progressively blurred. Modeled on existing standards and systems in borrowing countries, new Program-Based Approaches (PBAs) have emerged. These approaches are intended to fit within the borrower's poverty reduction planning framework and typically have country-level policy reform, institutional reform, and capacity building as their aims. In the World Bank, these approaches have manifested themselves largely in sector-specific operations known as SWAps (Sector-Wide Approaches). Though most SWAps are processed as investment lending projects in the social sectors, they are beginning to crop up in the NRM portfolio, mainly in the Agriculture and Water sectors.

Adjustment lending remains an important financing modality for the Bank. Although it is now called "development policy lending" (DPL), the name change reveals a stronger emphasis on improved governance, better public sector management, and reform of social sectors such as health and education. This clearly has important implications for institutions and NRM – whether the changes sought are direct (adjusting an export tax on timber, or removing a fertilizer subsidy) or indirect (financial sector reforms that change the size and composition of federal expenditures for NRM).

STAKEHOLDER INTERESTS

One of the first steps in conducting social analysis for NRM is to consider the individuals and groups that have an interest or a "stake" in decisions affecting resources management in the project area. Stakeholder analysis is an effective way of identifying the full range of actors in the public, private, and civil sectors that have something to gain or lose from, or that are in a position to influence, the proposed NRM intervention.

The range of stakeholders in a project will depend on a number of factors, chief among them its approach, scale, source of financing, and geographic extension. For example, in a project built on the CBNRM model, small farmers, poor women, indigenous peoples, and similar groups are likely to be important stakeholders, whereas in a sectoral adjustment project with an institutional reform component, the Ministry of Agriculture or Forestry might be the primary stakeholder. In another example, conservation projects with financing from a GEF mid-size grant are more likely to involve civil society stakeholders, whether as technical advisors (scholars, universities), monitors (research institutes, local NGOs), or project implementers (large international NGOs).

The individuals who comprise the stakeholder groups can be associated through formal or informal ties, thereby constituting formal or informal institutions. Also, they can be directly involved in the intervention or be external to it, as in the case of the media. They may be supportive of the intervention or wish to subvert it, as in the case of a geology ministry that wants to grant mining concessions for an area that the protected areas ministry plans to designate as a national park.

Table 1: Example of Stakeholder Matrix: Georgia Forest Development Project⁵⁶

Stakeholder Group	Dependence on Forest	Use of Forest	Top Issues of Concern	Opinion of Government	Knowledge and Participation
General Population	Heavy	Wood Fuel & Sales, Food, Construction	Low Income, Unemployment, Transport	Mixed	Low
Poorest	Greatest	Fuel wood	Low Income, Unemployment, Transport	Resist Restrictions	Lowest
Middle Poor	Heavy	Wood Cutting and Selling Fuel wood	Low Income, Unemployment, Transport	Critical Resist Restrictions	Medium
Least Poor	Least Heavy	Buying Fuel Wood	Electricity and Health Care	Critical	Higher
Loggers	Heavy	Logging			
NGOs					
Environmental Organizations	Heavy	Issue Cause	Forest Degradation	Critical Distrustful	Highest Knowledge, Some exclusion
Hunters	Light	Hunting			
Government	Heavy	Responsibility Budget	Licensing Restriction, Nature Preserves and Privatization, Decentralization and Budget Enforcement	Mixed	Mixed
National Agencies	Heavy	Responsibility Budget		Mixed	Mixed
Municipal Agencies	Heavy	Responsibility		Critical	Mixed
Local Employees	Heavy	Responsibility Bribes		Critical	Mixed

Because NRM actions are so often intertwined with politics, an important part of stakeholder analysis is to consider authority structures and power dynamics in the relationships between and among stakeholders. Since the natural resources treated by purposive interventions tend to have multiple users with overlapping or competing claims to those resources, it makes sense to build the list of stakeholders from an understanding of patterns of resource use and ownership. Once it is determined who the relevant stakeholders are, the social scientist can compare their interests and relative influences on NRM policies through the use of a stakeholder analysis matrix (SAM) (see Table 1).

In order to assist key stakeholders – be they in the public, civil, and private sectors – to work together in pursuit of project goals, social development specialists need to provide strategies and

⁵⁶ See World Bank (2002b: 96).

frameworks for viable consultation, participation, negotiation, and conflict management. Particular strategies for participation will depend on the range of stakeholders that need to participate, which in turn depends on the objectives of the operation and the scale at which participatory processes are likely to operate. After determining this, the social scientist will be able to examine how different stakeholders can participate in the opportunities created by a NRM project, and how their assets and capabilities can be leveraged to build on modes of participation that already exist in the project area.

PARTICIPATION

Social analysis is concerned not simply with ensuring that “participation happens.” Attention to quality of participation is also necessary. Although projects in the Bank’s NRM portfolio tend to be more participatory than projects in other sectors, there have been notable shortfalls. Internal reviews have found that, while the participation of poor stakeholders in NRM projects has increased markedly since 1996 (especially in GEF projects with community-level activities), its quality and effectiveness had not always kept pace. For every project that adopts collaborative approaches or aims at community empowerment, there are several that fail to do so. Where participation is not too rushed and superficial, it tends to be confined to the preparation stages of a project. Moreover, too few projects have made use of participatory monitoring and evaluation mechanisms.

For anyone familiar with the vast literature on participation, the reasons for this underperformance will also be recognizable. The causes usually cited are rooted in one underlying fact: the continuing tendency to treat participation as an “add on” to a project at a time when the confluence of decentralization, rights-based approaches to NRM, and local resource ownership and use patterns are making it increasingly unfeasible to do so. As an example of this last item taken from forest conservation, recent research has found that 11 percent of the global forest estate is legally owned or administered by communities. This accounts for about 22 percent of forests in developing countries and is three times the amount of forest owned by private individuals or firms. Therefore, it should be little surprise that long before the Bank and other donors appear on the scene “participation” is already happening at the local level – often in the context of bottom-up NRM initiatives. Some conservationists have responded by conceiving of participation in terms of jointly planned efforts resulting in local autonomy/self-management, regardless of the scale of the undertaking.

In helping with NRM project design, Bank social scientists can acknowledge these realities by making sure each stage of the project allows for the most appropriate level of inclusion and participation for each stakeholder. They should also endeavor to ensure that participation in the project is adequately budgeted in terms of both time and money. Policy and Human Resource Development (PHRD) and Japanese Social Development Fund (JSDF) financing can sometimes be used to support the development of Social Assessment outputs like participation and consultation frameworks. Opposition to full and genuine participation in a project can sometimes be softened through the valid (if somewhat unoriginal) claim that the outright incorporation of participatory mechanisms is likely to save project authorities time, money, and headaches later on.

Box 4: Good Practice Example – Vietnam Forest Sector Development Project

The Social Assessment of the Conservation Fund for Vietnam Forest Sector Development Project included examination of several aspects of participation. Its analysis of legal framework for participation of commune authorities in forest sector development showed that the legal framework supports the participation of farmers and other local stakeholders. The assessment also revealed the interest of the Forest Protection Department and the Special Use Forest (SUF) management representatives in engaging local people more effectively in conservation activities.

The Forest Protection Department and SUF management representatives expressed interest in learning about forest co-management models, which are applied in other countries. Many of the project sites were already practicing some form of co-management. For instance, management boards hire local people on a contract basis for forest protection duties and community members are aware of forest products that they are not permitted to collect. The assessment demonstrated that the law restricting people's use of forest resources is not being fully implemented. In practice, informal local-level agreements existed on what local communities can and cannot collect from local areas. Harvesting, which is tacitly permitted by forest protection staff, reflects the use patterns of those people who are most reliant on the forest for subsistence.

The conservation needs assessment provided a forum for strengthening forest conservation activities and an opportunity to introduce a consultative process with local people in conservation planning. Based on the findings, the Social Assessment team recommended the following:

Technical Assistance (TA), in addition to the Conservation Fund, will provide a good opportunity for SUF management authorities to gain expertise and to develop mechanisms for working with local people. The Conservation Fund could further foster this type of activity by prioritizing proposals for funding that involve local people in negotiated resource use and co-management of resource within the SUF. These processes will also safeguard against the risk of SUF management authorities enforcing restrictions on resource use rather than strengthening existing precedents for local negotiation.

Source: Socialist Republic of Vietnam (2003).

Because of the multidimensional significance that natural resources have for their primary users, any operation that does not effectively recognize local populations as stakeholders could be at risk of irrelevance, or worse, in the face of adversarial actions on their part. There are numerous examples of this kind of “negative” or “perverse” participation in the Bank’s NRM portfolio, in both recently completed and ongoing projects. Recognizing and dealing with negative participation is an acknowledgment that the project implementation process is unpredictable, leading to outcomes that may be considerably different from those envisioned by project authorities. In a project beset by high levels of popular opposition, social scientists are well placed to ease into the “honest broker” role. This could involve facilitating meetings between aggrieved stakeholders and representatives of the project implementing entity, preparing a careful analysis of the source of the conflict for colleagues on the task team, or helping Bank managers appreciate the full range of response options in such situations.

SOCIAL RISKS

Of the five possible types of social risks that inhere among NRM operations, three of them – vulnerability risks, political economy risks, and institutional risks – are project specific. Vulnerability risks tend to be the most common and are discussed in more detail below. Political economy risks occur when powerful stakeholders act to undermine project implementation or capture project benefits, as in cases of hollow decentralization where decision-making power over natural resources remains in the hands of a central government ministry. Institutional risks include inappropriate institutional arrangements, weak capacity,

and complexity, as with integrated rural development project containing an unwieldy number of components and multiple conditionalities.

Two other types of social risk – country risks and exogenous risks – are often beyond the control of project authorities, but because they derive from the context in which a project is prepared, they must be considered through social analysis and dealt with during the appraisal stage. Country risks could include a domestic political crisis or increases in social tensions. Examples of exogenous risks are the threat of war at the regional level, shocks to the external environment (such as a natural disaster), or a regional economic crisis. The Bank has created a Conflict Analysis Framework based on a series of indicators that can be useful in determining a society’s sensitivity to conflict.⁵⁷ If most or all of the conflict indicators are present, a more detailed conflict analysis is recommended before undertaking the project.

A project-specific social risk is like the pesticide runoff that could result from an attempt to intensify agricultural production: the analyst wants to try to predict the extent to which it will be caused by project actions, and to propose measures to prevent or mitigate it insofar as possible. Numerous vulnerability risks may arise in the context of a NRM project, no matter what its type, size, scale, or objectives. For example, a CDD project proposing changes in resource ownership or use arrangements could have a profound adverse impact on indigenous peoples in a particular area – especially if their cultures are weak as a result of historical patterns of discrimination or marginalization. A SWAp project involving a seemingly modest adjustment in the macro-policy environment – the removal of a key regulation, say, or the levying of a tax – could have a similar impact, once the indirect effects of the action become known.

Stakeholder and institutional analyses are valuable for identifying likely sources of vulnerability risk. Beyond these, there is a plethora of tools and techniques for assessing and managing the types of project-specific risks that can crop up in NRM operations. Emergency Recovery Loans and similar operations (such as flood protection projects) have risk mitigation components built into them. The Social Protection group has developed a range of measures and tools for reducing local-level vulnerability to risk, expressed mainly in terms of household income loss. Gender assessment starts from the premise that, due to gender-based disparities in access to natural resources in most areas, project managers need to take steps to ensure that NRM interventions do not place poor women and children at a further disadvantage. The Bank has pioneered a framework for gauging and counteracting the impoverishment risks deriving from the forced removal of populations from national parks and protected areas. Its core concerns drawing on elements of the Bank’s safeguard policy on Involuntary Resettlement; this framework has recently been applied to a series of conservation experiences in Central Africa.

The World Bank’s safeguard policies have served as the most concrete vehicles for identifying and addressing social risks in NRM projects. They are “concrete” in the sense that, where they are found to apply, they require that both task teams and client government carry out a series of specific measures, toward the end of preventing and mitigating undue harm to people and the environment as a result of Bank-supported operations. In addition to their specificity in terms of assessments, instruments/plans, and mechanisms, the great advantage of these policies is their

⁵⁷ See <http://www.worldbank.org/caf>

coverage: with a few exceptions, all operations financed in whole or in part by Bank loans or guarantees have to be screened for safeguard-related impacts. Thus, a triggered safeguard creates what could be considered operational entry points for SA, allowing for a limited amount of social inquiry in projects without Social Assessments or other more substantial forms of analysis.

There a number of safeguard and related operational policies that might be triggered by a NRM project. These include OP/BP 4.04 on Natural Habitats, OP/BP 4.36 on Forests, OP/BP 7.50 on Projects in International Waterways, and OP/BP 4.01 on Environmental Assessment (EA). However, there are three safeguard policies that address social risks – and particularly vulnerability risks – most explicitly: OP/BP 4.10 on Indigenous Peoples, OP/BP 4.11 on Physical Cultural Resources, and OP/BP 4.12 on Involuntary Resettlement. As such, these policies tend to be of greatest concern to social development specialists. The policy provisions that are most relevant to NRM in each case are listed in Annex 1.

While mandatory, the application of the Bank safeguard policies usually does not present social scientists with chances to go beyond the “do no harm” approach serving as the minimal acceptable standard. To really deal with the social risks and opportunities presented by NRM projects, it is necessary to bring a broader social analytical approach to bear on the issues involved. The section that follows describes how this can be fruitfully done during each stage of the life cycle of a project.

IV. Integrating Social Analysis into the NRM Project Cycle

PROJECT IDENTIFICATION AND DESIGN

Prescriptive procedure at the Project Concept Note Stage

The Project Concept Note (PCN) stage is a logical starting point for identifying social issues related to a proposed NRM project. A Project Concept Note must enumerate social issues related to the project area and propose steps for an in-depth understanding of social issues that are critical for achieving social development outcomes of the project. It must include indicators to monitor intended social benefits and development outcomes and risks. In addition, the Bank’s social scientists provide guidance for tailoring the project to achieve the social development outcomes during the process of PCN preparation and through the standardized PCN and safeguards review process.

Options at the Project Concept Note Stage

A project team conducts a Rapid Social Assessment to identify social issues of a NRM project area, the potential impact in the project intervention, and also works to develop monitoring indicators of the project impact. The Rapid Social Assessment would normally draw on Country Social Analysis (CSA), or other upstream macro-level social analysis, where available. A Rapid Social Assessment is a shorter and an upstream version of the Social Assessment. It is the responsibility of the borrower, and it primarily involves a review of existing data sources to provide the project team with information on socio-economic qualities and trends of the project area. The Rapid Social Assessment can also incorporate fieldwork, depending on time and budget availability.

Table 2: A Rapid Social Assessment requires attention to the following social dimensions of the NRM project

Social diversity and gender	▪ Are there any vulnerable groups among the stakeholders?
	▪ What is the gendered nature of the resource use?
Institutions, rules, and behavior	▪ What are the different types of NRM institutions present in the project area?
	▪ What are the skill/capacity differentials within each institution?
Stakeholders	▪ Who are the key stakeholders and decision makers in the study area?
	▪ What are their roles, responsibilities, interests?
	▪ How do the stakeholders interact among themselves?
	▪ How significant are the targeted resource(s) for each of the stakeholders, e.g., the patterns and trends in their ownership and use of the resource(s)?
Participation	▪ Who will participate in the project activities?
	▪ What are the constraints and opportunities for participation of the different groups in the project area?
Social risk	▪ What are the potential risks the project is likely to trigger?

	<ul style="list-style-type: none"> ▪ What are the potential risks to achieving project development outcomes?
Safeguard policies	<ul style="list-style-type: none"> ▪ Is the project likely to trigger any of the Bank’s operational policies (OP/BP)? <ul style="list-style-type: none"> ○ Presence of indigenous people and their collective attachment to natural resource in the project area will trigger OP 4.10 (Indigenous Peoples). ○ Impact on physical cultural resources in the project area will trigger OP 4.11 (Physical Cultural Resources).⁵⁸ ○ Likelihood of land appropriation, restriction of access to public parks and protected areas, and physical displacement will trigger OP 4.12 (Involuntary Resettlement).
	<ul style="list-style-type: none"> ▪ Is the project approach to safeguard issues adequate?

The findings of the Rapid Social Assessment feed directly into the selection and structure of the PCN components. The Rapid Social Assessment also assists in planning a Social Assessment at the project preparation stage. A Social Assessment may not be necessary in projects where social issues and impacts of an NRM project are negligible. The decision to conduct a detailed Social Assessment depends on the findings of the initial assessment regarding the important project variables. These include, but not are limited to, the size of the project area, the socio-cultural make-up of the target population, the existing pattern of land and resource use, the objectives of the NRM intervention, and the availability of budget resources for carrying out the Social Assessment.

Additional Considerations

- The following types of NRM projects will benefit from the application of an expanded set of tools for social analysis:
 - Projects that attempt to take a scaled-up approach to NRM;
 - Projects that have a sector-wide approach to address NRM problems; or
 - Projects aimed at reforming national policy and regulatory frameworks for NRM.
- Various factors related to planning and logistics need consideration in the following types of NRM projects:
 - Projects that use a CDD approach, and comprise a number of processes, inputs, and outputs that are specific to subprojects development;
 - Projects involving decentralization.

PROJECT PREPARATION AND APPRAISAL

Based on the social issues highlighted at the PCN stage, a detailed Social Assessment is conducted at the project preparation and appraisal stage. The safeguard policy on Environmental Assessment, OP/BP 4.01, refers to the need for social analysis in the projects that have adverse environmental impacts. Given that such impacts are likely to have socially harmful consequences, the NRM project team can benefit from a synergetic approach toward social and environmental assessments.

The Social Assessment is the responsibility of the borrower or the grantee. Ideally, the consulting team that conducts the Social Assessment is comprised of social scientists trained in qualitative and quantitative research

⁵⁸ This policy is still in draft form, and is expected to be approved soon. The standing policy is actually OPN 11.03 on Cultural Property.

techniques. In addition to substantive analytical tools, Social Assessments use participatory tools to increase stakeholder understanding and ownership of projects. Such participatory tools include those found in beneficiary assessment and participatory rural appraisal (PRA).

Table 3: A full Social Assessment requires attention to the following social dimensions of the NRM project

<p>Social diversity and gender</p>	<ul style="list-style-type: none"> ▪ How are beliefs, norms, and behaviors related to NRM influenced by socio-cultural variations?
	<ul style="list-style-type: none"> ▪ What is the ability of different stakeholder groups (race, class, ethnicity, caste, religion, gender, and age) to take full advantage of project benefits?
	<ul style="list-style-type: none"> ▪ What are the natural resource management problems, and how relevant are they from a gender perspective?
	<ul style="list-style-type: none"> ▪ What are the roles of men and women in natural resource use? What are the rights of men and women in their household/community?
	<ul style="list-style-type: none"> ▪ Who values a particular resource and why?
	<ul style="list-style-type: none"> ▪ How would the project benefit men and women differently?
	<ul style="list-style-type: none"> ▪ How would any adverse impacts of the project affect men and women?
	<ul style="list-style-type: none"> ▪ What incentives can be provided for communities to address inclusion of poor and marginalized groups? <p>Outputs of this analysis will facilitate in designing project activities to address gender issues, such as maximizing participation of both women and men, reducing gender inequities in the distribution of project benefits, and establishing indicators for project monitoring and evaluation.</p>
<p>Institutions, rules, and behavior</p>	<ul style="list-style-type: none"> ▪ How do formal and informal institutions regulate natural resource control and access in the project area? What are the formal and informal rules that regulate relationships among different stakeholders?
	<ul style="list-style-type: none"> ▪ What are the skill/capacity differentials of and within each institution?
	<ul style="list-style-type: none"> ▪ What are the natural resource management problems of the project area?
	<ul style="list-style-type: none"> ▪ What resource ownership and access regimes are in place in the project area?
	<ul style="list-style-type: none"> ▪ Are there competing and overlapping claims to land and natural resources? Have these claims resulted in conflicts?
	<ul style="list-style-type: none"> ▪ What institutions mediate conflict related to natural resource use in the project area? What institutional arrangements can be made to manage conflicts that are likely to be triggered by the project?
	<p>Findings of this assessment would reveal if the existing incentive structures are compatible with the stated objectives of the project. If they are not, appropriate adjustments can be made in the project design.</p>

<p>Stakeholders</p>	<ul style="list-style-type: none"> ▪ Who owns the resources? ▪ Who depends on resources, and for what? ▪ What are the roles, needs, and interests of each natural resource user group (men, women, and youth; indigenous, ethnic, and tribal groups; and user and other economic activity groups)? ▪ What are the current patterns of natural resource use and management in the project area? What kinds of patterns existed in the past? ▪ What are the likely trends in future natural resource management and use (that is, in the absence of any interventions)? ▪ What are the distinct natural resource use patterns and trends of the poor and vulnerable groups in the area? <p>A stakeholder matrix would enumerate the project stakeholders and their stakes in the proposed project. The information drawn from this assessment would facilitate in designing activities that target project benefits to all the natural resource user groups, including poor and marginalized groups.</p>
<p>Participation</p>	<ul style="list-style-type: none"> ▪ What are the traditional and customary forms of participation in the project area? Are certain groups excluded from community activities in the project area? ▪ What incentives and mechanisms are needed to encourage participation of excluded groups? ▪ How do the intermediaries – local leaders, village chiefs, officials – interact with poor and marginalized groups in the project area? ▪ What is the likelihood of elite capture of the project benefits and how can such a situation be avoided? ▪ What mechanisms can be set up in the project to disseminate information to and channel any grievances of the community members? ▪ What are other constraints and opportunities for participation in the project activities? <p>The most common output of this assessment is a participation and consultation plan or framework. The content and objectives of the framework depend on the mix of stakeholders. The NRM project may need a plan that puts an emphasis on engaging a broad range of stakeholders through regional policy dialogues, donor coordination meetings, multi-stakeholder workshops, and the circulation of issues or position papers.</p>
<p>Social risk</p>	<ul style="list-style-type: none"> ▪ What are the short and long term risks that different stakeholder groups are likely to face because of the project intervention? ▪ What are the threats to the success of the proposed project intervention? <p>The most common output here is a risk management or mitigation plan that ensures inclusion of vulnerable groups (e.g., women, herders, and youth) in the decision-making process.</p>

Safeguard policies	<ul style="list-style-type: none"> ▪ Is the proposed NRM project likely to trigger any of the Bank's operational policies (OP/BP)? <ul style="list-style-type: none"> ○ Indigenous Peoples, OP 4.10: A Social Assessment is mandatory for the borrower, if the Rapid Social Assessment reveals the presence of indigenous peoples and their collective attachment to natural resources in the project area. The borrower uses the results of the Social Assessment to prepare an Indigenous Peoples Plan or an Indigenous Peoples Planning Framework. ○ Physical Cultural Resources, OP 4.11: If initial environmental assessment identifies physical cultural resources issues, the borrower must prepare an EA report with a cultural resources component, as a condition of project appraisal. This must include a physical cultural resources management plan. If there is an Environmental Management Plan, then it must incorporate the physical cultural resources plan. ○ Involuntary resettlement, OP 4.12: For the involuntary restriction of access to parks and protected areas, the borrower must prepare a Process Framework during the appraisal phase of the project, and an action plan during the implementation phase. If the project has a likelihood of physical displacement, the borrower must prepare a Resettlement Action Plan (when the zone of impact is known) or a Resettlement Policy Framework (when the zone of impact is not known by appraisal).
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Some regions, notably AFR, use an integrated Environmental and Social Management Framework (ESMF) to address safeguard issues in projects with multiple subprojects. The ESMF includes subproject-screening procedures that rapidly screen all subprojects for potential negative environmental and social impacts. These procedures use checklists and mitigation measures that can be adapted for all the subprojects. Examples of ESMF use are found in the Kenya Western Kenya Integrated Ecosystem Management and Benin National Community Driven Development projects.

Additional Considerations

- Relevance of the Social Assessment findings can be enhanced by integrating some of the findings of the environmental assessment, such as biodiversity surveys or inventories, stream flow surveys, species composition assessments, vegetative cover mapping, and analyses of changes in land use patterns.
- In the past, there have been debates on how to obtain GEF co-funding for conservation projects that have alternative livelihood programs and other community-based activities but do not show clear benefits for the global environment. According to its charter, GEF cannot finance local benefits; it can only finance “incremental costs in relation to defined global benefits.” However, there are indications of this restriction becoming less rigid because of the conceptual and practical difficulties of isolating global benefits. Portfolio and thematic reviews conducted by the GEF, in addition to external research, have concluded that for outcomes of conservation interventions to be sustainable, their designs have to incorporate the needs and interests of local people.

Box 5: Tips for Financing Social Assessment

The Japan-sponsored Policy and Human Resource Development (PHRD) Fund is a traditional source of grant to finance project preparation. The PHRD grants are executed by the borrower, and are commonly used to fund technical assistance, capacity building activities, and human resources development. An example of a NRM project that has received funding for social development-related issues is the Moldova Community Forest Development project, in which grant funds support communications and public awareness building activities.

Banks funds from the Project Preparation Facility (PPF) can be used to finance feasibility studies, technical assistance, and goods and services required to complete project preparation. The PPF funds are executed by the borrower, and are considered an advance on a loan, which must be repaid within five years if the Bank decides not to finance the project. Thus, task teams need to help the borrower weigh the responsibilities and advantages of using the PPF with those related to trust fund grants and bilateral technical assistance.

A similar type of grant, the Project Preparation and Development Facility (PDF) Grant can be used in the preparation of GEF-funded projects. Block A grants are available for the preparation of medium-sized projects and Block B and C grants are available for the preparation of full-sized projects.

Social Assessment Inputs to the Project

- *Inputs to the Project Appraisal Document (PAD):* The results of the Social Assessment are discussed in section D.6. of the PAD and summarized in one of its technical annexes. The possibility of conflict over resources, corruption, weak governance, etc. is discussed in section D.5. of the PAD on “Critical Risks” and “Possible Controversial Aspects.” The section includes a matrix that lists the inherent risks and assesses their likely impact on the project outcomes.

If the appraisal stage does not involve a Social Assessment, then section D.6. of the PAD needs to state key social issues and how the project will address them. The social scientists must specify the best possible institutional arrangements for achieving project goals, the most appropriate design for the technical assistance component (especially as it concerns capacity building for vulnerable groups), and the most effective mechanisms for stakeholder consultation and participation in the project.

- *Inputs to the Operational Manual (OM):* The findings of the Social Assessment provide critical inputs to the operational manual of the project. The OM describes institutional arrangements and procedures that are consistent with the social development strategies. The social scientist who implements the Social Assessment must participate in the preparation of the operational manual to ensure that the findings of the social analysis are incorporated in the OM.
- *Inputs to other policy dialogue:* The social development priorities that emerge from the Social Assessment can be reflected in policy dialogue between the borrower and the Bank. This can be especially helpful in investment projects that also involve policy or regulatory reform, or in transboundary projects requiring multi-state cooperation for the development of regional NRM standards and norms. Combined with data on the project’s macro-social context, the results of a rigorously done Social Assessment can help to inform a stand-alone

piece of ESW, or serve as an input into Country Assistance Strategy, Public Expenditure Review, or Poverty Reduction Strategy Paper exercises.

Safeguards Clearance

Bank social scientists, in their capacity as social safeguards reviewers, approve and clear the PAD, if the approaches stated in the PAD adequately address the social safeguard issues triggered by the project. They also assist project teams to comply with the information-sharing and instrument-disclosure requirements specific to each safeguard policy.

NEGOTIATIONS AND APPROVAL

The social scientist should participate in project negotiations, if possible, to ensure that the agreements on critical social issues related to the NRM project are reflected in its legal covenants. The social scientist also needs to ensure that the agreements related to the rules and procedures for addressing social issues have been included in the operational manual.

EFFECTIVENESS AND IMPLEMENTATION

Once a project becomes effective, the operational value and relevance of social analysis increases. There are multiple examples of NRM interventions that appeared to have sound designs, but were unsuccessful in achieving their social development objectives. Social analysis conducted during project supervision will capture vital information about the socio-cultural impacts at different stages of the project. This provides continuous feedback on the process and outcome indicators established for measuring project performance, based on which midstream adjustments can be made on the implementation arrangements.

SUPERVISION AND MONITORING

Social and economic impacts can occur at different stages of project implementation. Some NRM project activities are likely to result in short-term, transitory impacts, while others may result in longer-term impacts. Therefore, NRM projects will benefit from regular supervision to assess project impacts and to make necessary adjustments in programmed project activities.

Box 6: Tips for Financing Supervision

There are a number of financing mechanisms that Bank staff can tap into to bolster the social development outcomes of an NRM intervention. They include donor-designated trust funds, consultant trust funds, and the various programs (such as the Institutional Development Fund, IDF) under the Development Grant Facility umbrella. More information is available in the Bank's Operational Manual and in the various internal statements on trust funds.

The Japanese Social Development Fund (JSDF) can be used to support capacity building and other social development activities in Bank-sponsored NRM projects, especially those in low-income countries. The JSDF grant encourages participation of local communities and Civil Society Organizations (CSOs) in the projects and can be executed either by CSOs or the borrower. The executing agency can procure the services of CSOs in implementing specific grant activities.

Safeguards Monitoring

All of the social safeguard policies contain provisions for supervision, monitoring, and evaluation of safeguard issues during implementation. Supervision can take place according to a pre-established plan (as in the case of Regional Action Plans for Resettlement Supervision), or according to the impact mitigation or benefit generation measures that are outlined in the applicable safeguard instruments. During the supervision, the social scientist monitors the implementation of the project components that were designed during the appraisal stage and ensures that new activities become effective as required. For example, in the case of CDD projects with multiple subprojects, social scientists must ensure that the mechanism for screening such subprojects for social safeguard impacts is in effect. In another example, the development of a Process Framework needs to be followed up by the borrower's preparation and implementation of a plan that describes the actions to compensate people whose access to parks and protected areas has been restricted.

Table 4: Monitoring and supervision mission requires attention to the following social dimensions of the NRM project

Monitoring implementation of equity-related project goals specified in the project design	<ul style="list-style-type: none"> ▪ Have resources (funds and personnel) been approved and assigned for capacity building of indigenous peoples, women, and other marginalized groups? ▪ Have responsibilities related to activities that are responsive to different marginalized groups been assigned to specific project staff?
Monitoring implementation of institutional development in the project	<ul style="list-style-type: none"> ▪ Are formal and informal local-level institutions involved in the project activities? Have local NGOs and community-based organizations participated in project activities and management? ▪ Have capacity issues of local institutions been addressed by the project activities?
Monitoring stakeholder response to the project activities	<ul style="list-style-type: none"> ▪ What were the responses of different stakeholders, and what changes are needed in the project design to address stakeholder responses?
Monitoring implementation of equitable participation	<ul style="list-style-type: none"> ▪ Do participants (as managers, implementers, and beneficiaries) include people from ethnic and religious minorities, and from the poorer sectors of the community? ▪ What proportion of beneficiaries is made up of women, the poor, and the marginalized?
Monitoring and addressing problems encountered during implementation	<ul style="list-style-type: none"> ▪ What potential risks identified during project planning have actually been encountered during implementation? What unforeseen situations involving risk have occurred? What measures have been taken to mitigate these risks? ▪ Have project activities negatively affected relationships between stakeholders in unexpected ways? What measures have been taken to adjust activities accordingly, or to resolve conflicts that have occurred? ▪ Have necessary adjustments and changes been made to correct approaches and alter techniques, or to adapt project components, that were deemed unsuccessful or problematic by stakeholders?

MID-TERM REVIEW (MTR)

The mid-term review serves as an opportunity for project management teams to take a stock of project progress and assess the direction of the project intervention toward achieving its development objectives, including the social development objectives. It involves two outputs: an independent evaluation and a MTR report. For NRM projects with even minimal productive components, it is desirable for the social scientist to push for an independent evaluation, as this would provide information on performance of the project's livelihood enhancement actions. The results of the independent evaluation and MTR report may, following discussions with the borrower, lead to a decision to restructure the project, as in the case of the Brazil Rondônia and Mato Grosso Natural Resource Management projects.

IMPLEMENTATION COMPLETION REPORT (ICR)

The Implementation Completion Report evaluates progress toward the achievement of the NRM project's social development objectives and the effectiveness of the participation and social risk management strategies.

Table 5: A proper evaluation of NRM project outcomes requires attention to the following social dimensions of the NRM project

Evaluation of the implementation process	<ul style="list-style-type: none"> The questions that were asked during the pre-approval social analysis need to be revisited to provide a final evaluation of the extent to which plans to integrate social dimensions into NRM project activities and processes were successful.
Evaluation of project outcomes and impacts related to social diversity and gender	<ul style="list-style-type: none"> To what extent was the project effective in addressing social diversity and gender issues? Was the project successful in including indigenous peoples, women, and other marginalized groups in the project activities?
Evaluation of project outcomes and impacts related to institutions	<ul style="list-style-type: none"> Did the project increase transparency, equity, and responsiveness in the formal and informal institutional and organizational structures of the project area?
Evaluation of project outcomes and impacts related to stakeholders	<ul style="list-style-type: none"> Have the intended project benefits been provided to all stakeholders, particularly to marginalized groups within the larger community?
Evaluation of project outcomes and impacts related to participation	<ul style="list-style-type: none"> Did the project increase community capacity to work together to achieve common goals and reconcile differences of interest?
Evaluation of project outcomes and impacts related to social risk	<ul style="list-style-type: none"> How sustainable are the social development outcomes likely to be after project completion? What aspects of the local, regional, or national environment are likely to increase or decrease the likelihood that these changes will be institutionalized within the communities involved?

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Annex 1: Social Safeguard Policies and NRM

OP/BP 4.10 ON INDIGENOUS PEOPLES

General objectives:

- Ensure that affected indigenous peoples receive social and economic benefits that are culturally appropriate and inter-generationally inclusive.
- Ensure that, when their avoidance is not feasible, a project’s potentially adverse effects on indigenous peoples are minimized, mitigated, or compensated for.
- Ensure that affected indigenous peoples support a project by engaging them in a process of free, prior, and informed consultation.

Triggers relating to NRM:

Indigenous presence in, and collective attachment to, the project area. (“Collective attachment” refers to long-standing physical presence in and economic ties to lands and territories traditionally owned, or customarily used or occupied by, the groups concerned.)

Requirements relating to NRM:

- A project that affects indigenous peoples requires:
 - Screening by the Bank to determine how the policy is triggered;
 - A Social Assessment by the borrower;
 - A process of free, prior, and informed consultation with the affected indigenous communities at each stage of the project; and
 - The preparation and disclosure of the appropriate instrument. (paras. 6.a.-e.)
- There is also mention of the need to:
 - Help the borrower recognize or strengthen the customary rights of indigenous peoples to lands and natural resources; (paras. 16-17)
 - Enable indigenous peoples to share equitably in the benefits derived from the commercial development of their natural resources; and (para. 18)
 - Avoid the physical relocation of indigenous peoples, and their restriction of access to legally designated parks and protected areas. Where the latter is unavoidable, the borrower must prepare a Process Framework as under OP 4.12. (paras. 20-21)

Consultation and disclosure requirements:

- At each stage in the project cycle, the borrower and Bank engage in a process of “free, prior and informed consultation” with the affected indigenous communities to fully identify their views and ensure there is broad community support for the project.
- Prior to project appraisal, the task team ensures that the borrower has disclosed the Social Assessment report and relevant draft indigenous peoples instrument to the affected indigenous people in-country. The borrower also sends these documents to the Bank for

review. After the Bank has accepted them as providing an adequate basis for project appraisal, they are sent to the *InfoShop* and disclosed in-country again in the same manner.

DRAFT OP/BP 4.11 ON PHYSICAL CULTURAL RESOURCES

General Objectives:

The Bank assists countries to avoid or mitigate adverse impacts of development projects on physical cultural resources, which are defined as movable or immovable objects, sites, structures, groups of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above ground, underground, or underwater.

Triggers Relating to NRM:

Potential impacts on physical cultural resources (specifically on natural features and landscapes) are identified during the baseline data collection phase of the EA.

Requirements Relating to NRM:

An EA report with a cultural resources component is required as a condition of project appraisal. As an integral part of the EA process, the borrower develops a physical cultural resources management plan specifying appropriate measures for avoiding or mitigating adverse impacts on such resources.

Consultation and Disclosure Requirements:

- The borrower consults with relevant stakeholders, including project-affected groups, government authorities, NGOs, and experts (such as university scholars).
- The findings of the cultural resources component of the EA are normally disclosed to the public as per OP 4.01, except where the borrower determines that such disclosure would jeopardize the safety or integrity of the physical cultural resources involved (e.g., the location of sacred sites or movable cultural resources of value).

OP/BP 4.12 ON INVOLUNTARY RESETTLEMENT

General Objectives:

- Avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs.
- Assist displaced persons in improving their former living standards, income earning capacity, and production levels, or at least in restoring them.
- Encourage community participation in planning and implementing resettlement.
- Provide assistance to affected people regardless of the legality of land tenure.

Triggers Relating to NRM:

- The policy covers not only physical relocation, but any loss of land or other assets resulting in relocation or loss of shelter; loss of assets or access to assets; or loss of income sources or means of livelihood, whether or not the affected people must move to another location. (para. 3.a.)
- The policy also applies to the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. (para. 3.b.)

Requirements Relating to NRM:

When the policy is triggered, preparation of a Resettlement Action Plan (RAP) is required as a condition of project appraisal. An abbreviated plan may be developed where less than 200 persons are affected by the project or where the impacts are minor (no one is physically displaced or loses more than 10 percent of their land). In case of restrictions of access to parks and protected areas, a Process Framework is prepared as a condition of appraisal and detailed action plans are prepared during project implementation.

Consultation and Disclosure Requirements:

- The borrower consults with resettlers and host communities, and/or with those whose access to legally designated parks and protected areas is restricted, and incorporates expressed views in the resettlement instruments.
- Prior to project appraisal, the task team ensures that the borrower has disclosed the relevant draft resettlement instrument in-country and also sends the instrument to the *InfoShop*. After the Bank has approved the final resettlement instrument, the Bank and the borrower disclose it again in the same manner.

Annex 2: Sample of Terms of Reference (TOR) for Social Assessment in NRM Projects

I. INTRODUCTION AND SUMMARY

Purpose and value of Social Assessment in relation to the proposed intervention: The process will assess the extent to which social issues are likely to affect the achievement of the project's development objective and outcomes. This task requires a determination of how the project will increase the assets (socio-cultural, economic, physical) or organizational capabilities of intended beneficiaries or if it might cause adverse impacts.

-Note about the need to coordinate the Assessment with other studies and processes occurring independently or in the context of ongoing or recently completed NRM initiatives involving the same area(s)

II. DESIGN AND PROCESS

-Description of the stages of the Assessment

III. ELEMENTS AND COMPONENTS OF SOCIAL ASSESSMENT

-Description of the two-stage process required for most interventions

Task 1: Description of the proposed project

Task 2: Description of the socio-cultural, institutional, historical, and political context

The Assessment will explain the extent of socio-cultural fragmentation or homogeneity. It will also address the macro-policy context of the project. Broader questions such as the traditional and cultural norms regarding the use of the resources and how these relate to relations between and among stakeholder groups can be determined from independent studies and evaluations and from reports on active or previous Bank and non-Bank projects.

Task 3: Consideration of the legal and regulatory environment

Look at the legal and regulatory environment of the project, especially in relation to standing ownership and access arrangements and what their implications are for different stakeholder groups, especially the poor and vulnerable.

Task 4: Relevance of core aspects of social development to the project

At this stage the Assessment will describe the potential outcomes of the proposed project in terms of social opportunities, constraints, impacts, and risks.

Socio-cultural diversity and gender

Property or usage rights may exclude indigenous peoples, ethnic minorities, or women and/or be based on complicated traditional patterns of resource inheritance and allocation. Certain groups may be at a

disadvantage because of their spatial relation to the resources. Also, there may be traditional or cultural factors favoring exclusion of particular groups in terms of land or water rights. A related issue is whether the formal (or legal) status of any group vis-à-vis the resource will change as a result of project actions.

Institutions, rules, and behavior

The ways in which formal institutions and rules function and how informal behavior may end up supporting or undermining these institutions and rules are important factors to be analyzed. Any intention to create new institutions to assist with implementation and monitoring, as opposed to building capacity within existing ones, needs to be carefully considered in relation to the social and institutional dynamics at work within the target communities.

Stakeholder interests

Stakeholder analysis identifies the assets and capabilities of the groups affected by the project and how these different interests can effectively be represented through the participation plan. The relationship between vulnerable groups (women, elderly, or youth) should be studied to determine a realistic strategy for balancing local-level development priorities with conservation responsibilities.

Participation and consultation

The alternatives for building local capacity for participation in project design and monitoring should be evaluated to ensure that these mechanisms are meeting the requirements for inclusion and the development of local ownership of the development intervention.

Social risk and vulnerability assessment

Macro systemic or country risk can draw on country reports and publicly accessible databases to identify political, institutional, and conflict risks surrounding natural resources. It can also identify vulnerable groups and those most likely to experience impacts of project and non-project related actions. This extends to the government's willingness to support and implement risk mitigation measures to protect these groups. The determination of which groups of stakeholders or beneficiaries are particularly vulnerable to natural disasters, climate change shocks, or weather variability will be necessary for design of the monitoring system.

Conflicts between new formal institutions and older informal ones with respect to the management of resources can undermine a project before it begins. The proposed project or intervention must account for potential opposition and develop responses to potential criticism through anticipation and documentation of attitudes and behaviors.

Task 5: Development of a strategy to achieve social development outcomes

In order to inform the preparation of a project the Social Assessment will analyze the opportunities for community involvement in project preparation and implementation, the existing and proposed framework for property rights/access to resources, and sustainable management alternatives to achieve the desired social development outcomes. As an input to preparation, the social scientist will prepare social inclusion, participation, and/or risk management frameworks or plans based on the data collected during the Assessment.

Task 6: Recommendations for project design and implementation arrangements

The Assessment will review proposals for project design and provide guidance to the project task team and the implementing agency on participatory alternatives and institutional strengthening measures appropriate to the socio-cultural characteristics of the project area(s). This will provide a basis for integrating the social analysis of the core elements into a proposal for implementation arrangements. The critical tasks and their sequencing should be described.

Task 7: Development of a monitoring plan

The monitoring system will need to have local participation in the generation and refinement of indicators over the project cycle in order for the affected communities to be involved in balancing their own interests in the management of resources for conservation and productive purposes. The task of involving community members in monitoring processes, outputs, and outcomes can provide an incentive to them to adopt the changes in institutional, group, household, and individual behaviors the project seeks to achieve. This monitoring plan can thus help to establish mutual accountability mechanisms among community-based stakeholders and government and other implementing entities at various levels.

The monitoring plan needs to specify:

- Indicators are relevant to natural resource usage and control
- Indicators for conservation and preservation of resources
- Participation and exclusion indicators to be assessed for a baseline profile
- How indicators can be monitored over the course of a project and who can perform this monitoring.

IV. OTHER ISSUES

Annex 3: Natural Resource Profiles

BIODIVERSITY

The 2000 Millennium Development Goals recognize the vital importance of biodiversity in sustaining human existence. Plants, animals, and microorganisms provide our fundamental necessities, oxygen and nutrients. They also recycle our waste products and moderate the climate. The over 250,000 species of photosynthesizing organisms capture energy and transform it into a form humans and other animals can use. Selective breeding has provided tens of thousands of crop plants adapted to local conditions, which provide food security for many of the world's rural poor. Plants and animals are further appreciated for their very existence as evidenced by the setting aside of nature areas, the keeping of pets, and the growing preference for nature-based tourism.

WETLANDS

As the link between land and water, wetlands fulfill critical functions, including water quality improvement, floodwater storage, and biological reproduction. Often referred to as the “nurseries of life,” wetlands serve as an important habitat for thousands of species of both aquatic and terrestrial plants and animals. Wetlands absorb floodwaters (as much as 1.5 million gallons per acre) when rivers overflow, which significantly prevents property damage and saves lives. Wetlands also absorb excess nutrients, sediment, and other pollutants before they reach rivers, lakes, and other water bodies and they provide critical water supplies for urban, industrial, and agricultural needs. Finally, conserved wetlands contain a rich store of genetic and biotic diversity and, therefore, are valuable resources for scientific study and education.

FORESTS

Forests cover 26 percent of the Earth's land surface, are a major source of fuel wood and food, and provide timber-related livelihoods for over 1.6 billion people. In 1997, forests accounted for more than one quarter of the world's GNP of \$18 trillion. They contribute to economic development, help maintain the fertility of agricultural land, and protect water sources. They also help prevent erosion by binding the soil, which reduces the risks of natural disasters, such as landslides and flooding. Approximately 60 million people worldwide are employed by forest industries; approximately 1.2 people in developing nations depend on agroforestry farming systems to sustain agricultural productivity and generate income; and approximately 1 billion people depend on drugs derived from forest plants for their medical needs. In addition, forests are home to over 80 percent of the remaining terrestrial biodiversity and are a major carbon sink that mitigates climate change.

WATER

The World Commission on Water estimated that, over the next 20 years, annual investments in water need to rise from \$75 billion to \$180 billion to adequately supply water to the world's population. Both freshwater and marine water are recognized as key resources for development, growth, and poverty reduction. Freshwater is critical to irrigation, drainage, transportation, recreation, sanitation, renewable energy generation, and food production. In fact, irrigated land produces 40 percent of the world's food on 17 percent of the world's agricultural land. At the same time, marine waters provide a host of services for development sectors, particularly fisheries and tourism. Marine fisheries are by far the most important source of wild food, often playing a major

role in national economies and providing food security for coastal communities worldwide. Yet increasing pressures, including land-based pollution and coastal development (nearly 1/3 of the world's population lives within 60 km of the coast), are threatening the very resources on which these communities depend.

CORAL REEFS

Often referred to as the “tropical rainforests of the sea,” coral reefs are among the most diverse and productive communities on Earth. They serve as buffers against coastal storms and provide protection from natural erosion. They also provide food security and livelihoods through activities such as fishing, coral mining, and mangrove harvesting. Based on studies in the Philippines and Indonesia, the potential annual net economic benefits (per square kilometer) of coral reefs in Southeast Asia are between \$20,000 and \$151,000. In addition, the beauty of coral reefs is a significant source of tourism income for tropical areas around the world. At the same time, in the late 1990s elevated sea surface temperatures in many tropical regions triggered widespread bleaching and the heavy mortality of corals.

LAND

Land is one of the most critical resources for the rural poor dependent on farming for their livelihoods. About 2 million hectares of rain fed and irrigated agricultural lands are lost to production every year due to severe land degradation, among other factors. This degradation is a critical link in a downward spiral with respect to poverty. Poor land quality compromises farm incomes, resulting in a lack of resources to invest in increasing land and labor productivity. Inappropriate land management, particularly in areas with high population densities and growth rates, further increases loss of productivity. This in turn affects food security and the potential for rural on and off-farm income generation. The challenge for developing countries is to develop land management programs to increase the availability of high-quality fertile lands in areas where population growth is high, poverty is endemic, and existing institutional capacity is weak.