

# Nature, Wealth, And Power in Asia

Renewing rural development in Asia

# Acknowledgements and an Invitation to Comment

Asia, particularly South Asia, has the highest number of poor people in the world today. Many of these people are rural and depend on natural resources for their livelihoods and growth. If the United Nation's Millennium Development Goals are to be achieved in the region urgent action is needed on rural poverty. The critical linkages between natural resources, growth and poverty alleviation, and governance and democracy are becoming more evident every day. And these linkages and complementarities are providing a powerful framework with which to analyze and attack rural issues.

In 2002 USAID and its partners developed a discussion paper around these linkages called "Nature, wealth and Power". While focused on Africa it elicited much interest from people who were working in other regions. Hence, in mid-2004, USAID commissioned the Sustainable Agriculture and Natural Resources Management Collaborative Research Support Program (SANREM CRSP) to carry out a substantive external review of "Nature, Wealth and Power." The goal of this review was to determine the extent to which the document was relevant to Asia and Latin America, as part of preparing versions of the document for those two regions. SANREM obtained close to 30 in-depth reviews of the document from an interdisciplinary group of experts from around the world. It also gathered feedback from participants in a workshop in Washington, D.C. This version of the document thus reflects the cumulative experience of colleagues throughout the world. Thanks to each of you who have been involved so far!

NWP in Asia is intended as the opening statement in a dialogue on rural Asia, a dialogue that will take place over the next few years with Asian partners and others interested in this topic. Your comments on this document are warmly welcomed. Please send them to the address indicated below.

Jon Anderson  
Natural Resource Policy Advisor  
USAID/EGAT/LRMT  
1325 G St NW Suite 400  
Washington, DC 20005  
Email: [janderson@af-sd.org](mailto:janderson@af-sd.org)

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This is a discussion document and does not necessarily reflect the official positions of the organizations involved in its preparation.

# Nature, Wealth, And Power in Asia

Natural resources continue to be a major source of wealth and power in Asia; they are also critical to rural development and good governance. Natural resources encompass renewable resources—land, crops, forests and wildlife— as well as non-renewable resources—oil, gas, water and minerals, and span both land-based and aquatic ecosystems. The focus of this document will be exclusively on renewable land-based resources.

Most of the world's poor live in Asia--over 70% of the world's 1.3 billion poor. South Asia is the home of 22% of the world's population and nearly 40% of the world's poor. The most significant demographic change in the Asia in the next two decades will be the rapid growth of urban populations. Urban population will almost double in this period, but urban poverty is growing at a faster rate than the rate of urban growth, especially in South Asia. Today, however, the regional population is still predominantly rural--from 60 percent in the Philippines to close to 80 percent in India.

In some Asian countries, decades of sustained economic growth have reduced the *relative* importance of natural resources wealth. For example, since the 1960s the importance of agriculture has declined by more than half in Asia and the Pacific and by one third in South Asia. Nonetheless, natural resources continue to provide livelihoods for the large majority of rural households in throughout Asia. For example, in Indonesia, 44% of the population still relies on agriculture for their livelihoods, and it was these rural agricultural areas that functioned as safety nets during the economic crises of the late 1990s, when 4.5 million people returned to their villages of origin and managed to least to survive even though at subsistence level. Therefore, natural resources will continue to be an important component of Asian economies, and particularly the poor, for decades to come.

Access and control, and the *security* of control, over natural resources are the major governance issues, especially for rural people. Natural resource management (NRM) is central to good governance and increasing enfranchisement of rural peoples. In spite of the potential of natural resource management to help eradicate poverty and empower and give voice to rural people, many rural Asians remain mired in poverty, resources are often mismanaged, and rural people largely disenfranchised and alienated. These three challenges – sustainable environmental management, growth with equity and good governance - are closely related.

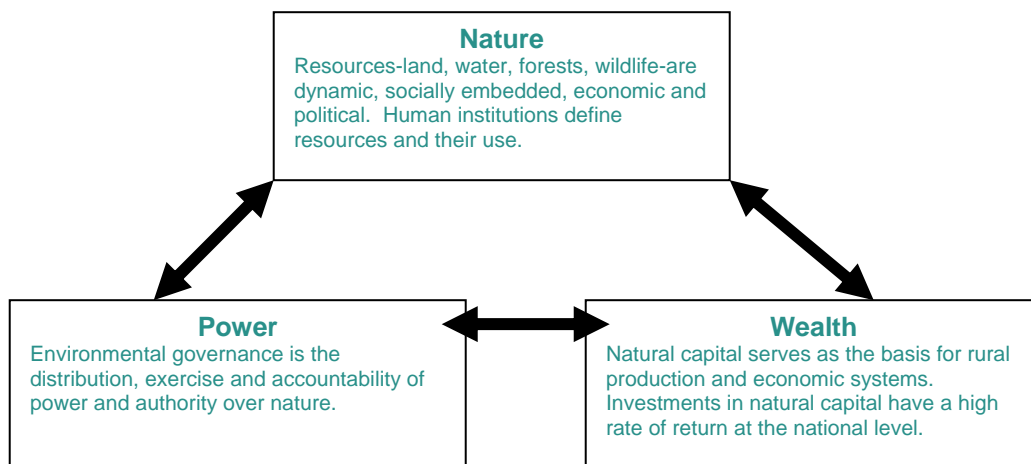
This document—*Nature, Wealth, and Power in Asia* (NWP)—is about rural development in Asia. It is a preliminary statement of lessons learned from natural resource-based

development in rural Asia and elsewhere. Twenty years ago, natural resource management programs took a predominantly technical approach to getting rural development moving and responding to perceived environmental crises. The Green Revolution helped lift millions out of rural poverty. But environmental, equity and now even continued progress are questioned. The limitations of this approach were subsequently revealed as projects failed to meet their objectives and be sustainable. This led to development of economically more realistic approaches. These were more successful, but inequities and inefficiencies still existed. More recently, it has become clear that the governance aspects of rural development are also key.

Consideration of the resource, economic, and governance dimensions of natural resource management is critical for success. Natural resource management rests on the interaction of resource characteristics, policies, institutions, skills, and economic signals. Democracy – particularly voice for those whose resources may be exploited and degraded by outside actors – is critical for creating healthy ecosystems as well as creating local wealth. Experience demonstrates that programs that integrate **nature** (environmental management), **wealth** (economic concerns), and **power** (good governance) have promising results. Today, several cases and proven strategies demonstrate where the management of natural resources has *simultaneously*:

- Led to increases in the productivity of the resource base and conserved biodiversity
- Provided dramatic economic growth for local communities and national accounts
- Helped move rural people along the path from subject to citizen, leading the way toward a more democratic, decentralized, and vibrant society.

### Nature Wealth, and Power—Definitions and Links



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This experience has generated a set of principles— summarized below and detailed in this booklet as action steps—that can serve as a guide to investment in rural Asia. Case studies have been prepared to illustrate the effectiveness of the integration of all three dimensions and the various principles and actions recommended under each dimension.

The aim of this document is to provoke a debate and generate an integrated view of rural development and practical “best bets” for decision and policy makers. Nature, wealth, and power form a flexible framework for looking at the relationship among (a) sound natural resource management, (b) economic growth and poverty alleviation, and (c) empowerment and enfranchisement. Knowing what has worked in the *past*, however, is only a first step. To have a significant impact, the dialogue should cover how to make *future* programs and investments in Asia more effective and efficient.

# Opening the Debate

This document's discussion of principles and action steps must begin with a re-examination of the nature of resources and drivers of sustainability:

## What Are Natural Resources?

Natural resources are actual or potential “materials” produced and supplied by earth's natural processes. They are essential to or useful for the survival of humans or other organisms, and are used in the production of goods or services. Natural resources include renewable and nonrenewable resources. Renewable resources are those that can be replaced if used carefully (i.e. provided that their use does not cross a threshold beyond which recovery is impossible). Wild and domesticated plants and animals, insects and fish, wood and forests, nutrients and minerals in the soil are all renewable resources. Nonrenewable resources are resources of limited supply that cannot be replaced once they have been used. Nonrenewable resources include air and water in its various forms, the gaseous components of the atmosphere, petroleum, natural gas, coal, rocks and minerals. The discussions in this document will concentrate exclusively on renewable resources, with the exception of water.

Natural resources can generate a variety of critical environmental services that one should not take for granted. For instance, natural processes in wetlands purify air and water, and mitigate floods. Tree cover helps maintain or increase water quality, converts irregular precipitation into a more even flow of water and reduces the risk of catastrophic flooding or landslides, regulates water tables and increases aquatic productivity in a watershed. Plants, trees and grasses keep carbon out of the atmosphere by absorbing it through photosynthesis. Biodiversity of flora and fauna enhances the resilience of ecosystems (including agricultural ones) to environmental disturbance and stress, and provides food, medicines and sources for pollination, soil building and nutrient cycling.

Used in broad terms, “natural resource management” (NRM) refers to the process of utilizing the land (and other natural resources) for a wide range of purposes including agriculture, livestock and forestry production, as well as domestic uses and recreation. Sustainable agriculture, conservation of endangered crop varieties, watershed management, forestry, and management of protected areas are all aspects of NRM. Whether subsistence-oriented or commercial, agriculture is a form of NRM as farmers manage their land, water, etc. to produce goods for consumptions and sale. This does not mean, however, that all forms of NRM (or agriculture) are good. In fact, there can be good and bad NRM. In some cases settlers clear forest to establish commercial agriculture. They are driven by profit motivation and market-orientation. But the market

does not encourage maintaining forest cover, so their way of managing natural resources does not support forest sustainability.

Natural resources are not static biophysical entities. They are dynamic, socially embedded, and political. Human institutions (in a broad sense including economic and management systems, social networks, and so on) define resources and their use. Biophysical resources are political as well as economic commodities. Recognizing the natural, economic, and governance dimensions of resources is critical to developing appropriate management systems.

### Questioning Drivers of Sustainable Resource Management

NRM approaches have been informed by assumptions about the causal factors of environmental degradation that are not always consistent with empirical evidence or with the changing nature of Asian societies and economies. The management of natural resource in Asia, as elsewhere in the world, rests upon the cardinal points of wealth and power. Rather than being the result of myriads of autonomous and 'irrational' management decisions, natural resource degradation is deeply embedded in economic, social, and political realities of the region.

**Structural inequality** helps explain why agricultural modernization and resource management in the region have generally failed to lead to sustainable development. Income disparity is the ratio of the per capita income of the richest 20% to that of the poorest 20%. There are lower income disparities in Asia compared to other regions. For instance, in South Asia it is 5 times as high, while in Latin America it is 9 times as high. Still, some Asian countries have very skewed income distributions, according to Gini coefficients. While a few countries have very low income disparities, such as Republic of Korea (16), Philippines (19), and Indonesia (27), other countries have high income disparities, including Nepal (58), Papua New Guinea (62), India (66) and Bangladesh (82).

**Table 1: Gini coefficients (median) for income distribution, by region and period**

|                                | 1960s | 1970s | 1980s | 1990s |
|--------------------------------|-------|-------|-------|-------|
| Latin America                  | 53.2  | 49.1  | 49.7  | 49.3  |
| Sub-Saharan Africa             | 49.9  | 48.2  | 43.5  | 46.9  |
| East Asia and Pacific          | 37.4  | 39.9  | 38.7  | 38.1  |
| Middle East and North Africa   | 41.4  | 41.9  | 40.5  | 38    |
| OECD and high-income countries | 35    | 34.8  | 33.2  | 33.7  |
| South Asia                     | 36.2  | 33.9  | 35    | 31.9  |
| Eastern Europe                 | 25.1  | 24.6  | 25    | 28.9  |

Sources: Deiniger and Squire (1996) "A New Data Set Measuring Income Inequality", World Bank Economic Review, 10, pp. 565-591.

Most scholars recognize that access to productive assets, especially land, is the underlying problem. This unequal access to resources is embedded in the social and ethnic makeup of the region, but it is also reproduced and sometimes aggravated by



decisions made by development practitioners, policy-makers, and donors. Green Revolution development strategies implemented in South Asia in the 1960s contributed to modernizing agriculture and increasing yields for some crops, but also exacerbated rural inequalities and landlessness among the rural poor who could not afford the necessary inputs and technology.

**Population pressure** has been frequently regarded as a major cause of natural resource degradation, especially in the most populous countries, such as India and China. Indeed demographic growth has meant rapid reductions in environmental services such as forests, wetlands, and soils in many areas of Asia, Africa, and Latin America. However, population growth, as a driver of environmental degradation, is no longer applicable to all of Asia. While growth rates in countries such as Cambodia and Laos remain high, recent demographic trends in other countries, such as China and Thailand, make this assumption redundant. It is also true that population growth can contribute to agricultural intensification and innovation. It is necessary to move past a simplistic population growth - degradation – poverty equation to develop policies and are more effective and realistic.

Likewise, unsustainable NRM practices are often attributed to **rural poverty**. In reality, wealthy and powerful stakeholders, large-scale operators, and international economic interests are also responsible for mismanagement of natural resources in Asia. (for example in Indonesia most lost of forest cover can be attributed to large logging operations and commercial interests and not to local people. Hence, targeting large-scale producers may be more effective in protecting or restoring natural resource base than efforts directed to poor smallholders. At the same time, it is also true that the poor often lack resources and power to successfully manage the environment. Their inability to accumulate enough surplus to buffer them from livelihood shocks sometimes lead to a short-term resource management horizon in response to immediate needs. Yet much empirical evidence points to the resilience and resourcefulness of poor people and their ability to manage resources effectively under the right conditions. Therefore, efforts to reduce poverty are a pre-condition for environmental sustainability.

The vulnerability of rural livelihoods is shaped by global ecological and economic processes as well as by local circumstances and institutional factors. Two processes are having significant impacts in Asia, namely climate change and globalization. According to recent studies, **climate change** may bring about warmer and wetter conditions in South Asia, where the summer monsoon may become more intense. At the same time increased rate of evapo-transpiration due to higher temperatures may offset increases precipitation, leading to reduced levels of soil moisture. This will have adverse effects for agriculture in semi-arid areas, such as parts of India and Pakistan. The recent experience of climate-related disasters shows that the lives, health and property of the poor are at the greatest risk. The Inter-governmental Panel on Climate Change (IPCC) recognizes that the ability of rural households to withstand climate shocks and adapt to climate change is mediated by social and institutional factors, including the availability and distribution of resources, the stock of human and social capital, the range of technological options, the existence of

risk spreading processes and buffering mechanisms, and the timely access to critical information. This context is shaped by broader economic and policy processes..

**Globalization** brings about new challenges and opportunities that profoundly affect the vulnerability of rural livelihoods. Changes in import and export restrictions and tariffs and reductions in agricultural subsidies adopted in some countries, such as India, may increase sensitivity and exposure to market fluctuations. Some farmers may be in a position to benefit from market liberalization and inflows of investments and technology, while others may be squeezed by increased competition. Impacts may also vary across regions. The rapid growth of the Chinese economy is transforming trade and investment flows, and exerting new pressures on the natural resource wealth of smaller regional economies, such as Vietnam. Most of this growth in exports to China revolves around natural resources: forestry, fisheries, tropical fruits and other agricultural products. This situation generates incentives for greater resources extraction by firms and farmers. Where institutions or legal frameworks governing management of land, water, and forests are inadequate these resources will be exploited far beyond their sustainable levels. In areas undergoing devolution of NRM governance, increased demand for natural products may induce local officials to deplete natural resources to raise revenues or even for personal gain, particularly where strong accountability mechanisms are not yet in place.

While some argue that globalization is very positive for the Asian population it is also clear that some people may have been bypassed by economic opportunities of globalization. In addition some people have been adversely incorporated into the process.

Direct foreign investment has increased considerably in the food retail market. Until the late 1980s, supermarkets were a niche retail market serving to less than 10% of the national food retail sales in Asia. Currently, supermarket share is about 30% in East Asian countries (Republic of Korea, Taiwan and Philippines) and China, and 20% in Southeast Asian countries (Indonesia, Malaysia and Thailand). Over time, supermarkets have moved from occupying niches for wealthy people in large cities to providing food for the middle class and the poor in large and small cities. All of this is influencing the way food production is done in terms of standards for small farmers and processors.

Macroeconomic shifts, such as the Asian monetary crisis that occurred in the late 1990s, can also lead to undesirable environmental consequences. For example, in Indonesia, clearing of forest increased dramatically during the crisis because farmers expanded cultivation of cash (pepper, cacao) to make up for the loss in purchasing power. Smallholders remain vulnerable to competition and marginalization as distribution of agricultural produce is becoming increasingly centralized with the growth of supermarkets across East and Southeast Asia (as well as in Latin American and parts of Africa). Across Asia, farmers need assistance in diversifying incomes and develop economic niches to respond to market demands and protect against economic shocks in ways that sustain livelihoods and conserve resources.

Most Asian economies (particularly Korea, PR of China, Taiwan, Singapore and Hong Kong) have experienced high economic growth rates, substantial gains in industrial competitiveness, and rising per capita incomes since 1980. Export growth within Asia has accelerated since 1970 particularly in East and Southeast Asia where exports have increased at an average annual rate of almost 11% since 1980. Asia has shifted dramatically away from primary commodities and toward manufactured exports. It is important to recognize, however, strong industrial diversification and export performance differences within the region. Japan is the leader in industrialization, and it is followed, in descending order, by the East Asian countries, China, Southeast Asia, South Asia, Vietnam, Cambodia and Laos. The East Asian countries have a solid, autonomous domestic base for generating and accumulating a national stock of capital for investment in locally driven export-oriented development. Strong and proactive states have devised and executed the East Asian development strategy.

East Asian countries have shown economic growth rates and income distribution rates comparable or higher than those in developed countries. This so-called “East Asian economic miracle” is largely attributed, among other things, to the region’s sustained levels of investment in human capital (i.e. investments in primary and secondary education) over a long period, coupled with rapid accumulation of physical capital, an increasingly sophisticated internal and international division of labor, and rapid demographic transition. These investments had a major impact in increases of productivity and income. Although, similar levels of economic growth have not occurred in the rest of Asia, the region, as a whole, values investment in education. This is shown in adult literacy rates, which are higher than 90% in Thailand, Philippines, Viet Nam, and Sri Lanka, and higher than 80% for Indonesia, Malaysia, Myanmar, China and Cambodia. Pakistan, Nepal and Bangladesh are the exception with literacy rates lower than 50%.

The assumption that **smallholder farming** is a viable and desirable way of life for the majority of the rural people in Asia may be extremely problematic where population densities are high. The viability of smallholder production may vary dramatically depending on the socio-ecological system, for example, uplands versus lowlands in Southeast Asia. Furthermore, for many rural populations it may not even be in their self-interest to invest in smallholder production. Although national-level statistics may indicate that Southeast Asian economies are still largely dominated by agriculture field level studies reveal a considerable diversification of rural livelihoods into non-farm activities. In rural areas of Thailand, Vietnam, and Laos non-farm wage labor is becoming the dominant income source. Many of the rural poor have given up on re-establishing farms or inheriting enough land from their parents to stay in agriculture, and instead have moved to urban areas in search of labor. While other forms of NRM may absorb some of this population, most people are expected to find different types of employment.

In the case of the case of rapidly industrializing Asian societies **rural and urban economies** are closely articulated. Peripheral village economies are tied to the urban-industrial-service economies of regional and capital cities. The enormous pressure on

rural areas and the natural resource base by the industrial vibrancy of rapidly growing cities such as Bangkok, raises questions about the extent to which natural resource management can be seen as essentially a rural concern. At the same time urban demands may stimulate investments in natural resource management. Sound management of urban energy demand will be crucial in order to maintain the integrity of the Mekong River, reducing the need to build large dams on the tributaries and mainstream.

A successful strategy for achieving sustainable development calls for improvements in institutions and policies that regulate resource management. In Asia, there is considerable potential for environmental investments because well-developed legal and administrative environmental governance frameworks, and the emergence of middle classes, civil society and social movements in South and Southeast Asia have brought environmental issues onto the national stage. **Good governance**, public accountability, and participatory decision-making—are key to sustainable development efforts. But these fundamental aspects of democracy will not happen by decree alone and will not withstand the pressures of vested interests without the active and sustained involvement by all sectors of civil society in both rural and urban areas.

Identification of drivers of and approaches to sustainable natural resource management needs constant reconsideration and refinement. The NWP framework may be useful in developing a more realistic and field-oriented approach.

The document now turns, in separate sections, to detailing principles and action steps for each of the dimensions of nature, wealth, and power.

## *Principles to Guide NRM Investments in Asia*

### **Nature:**

- Improve information and knowledge management systems
- Promote local land use planning and appropriate resource tenure systems
- Foster innovation, social learning, and adaptive management
- Build capacity and invest in human capital
- Promote cost-effective benefits technical advisory and intermediary services

### **Wealth:**

- Growth is necessary but insufficient for poverty reduction
- Be strategic about the economics of natural resource management not only for production but also for distribution
- Strengthen markets and NRM market incentives and eliminate discriminatory practices and policies
- Invest in rural organizations
- Create a framework for people to make better NRM choices

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- Ensure that local resource managers have secure access to NRM means and benefits
- Accept that people must diversify their economies, often outside agriculture

### **Power:**

- Strengthen environmental procedural rights for rural people
- Strengthen property rights and security of tenure
- Strengthen regulatory frameworks and enforcement for labor and environmental issues
- Improve rural input into public decisions and policy
- Promote transparency and scrutiny of natural exploitation and management
- Redistribute natural resource authority and functions
- Transfer powers, rights, and responsibilities to representative and accountable authorities
- Explore a minimum environmental standards approach
- Encourage checks and balances, pluralistic approaches and conflict management

# NATURE

## Resources

This section presents the more technical aspects of NRM. It cannot, however, cover in detail the management of specific biophysical resources. Instead, it deals mainly with the knowledge and information systems, capacity, and program cycle elements of resource management. Five principles help to organize specific action recommendations:

### **Nature: Principles and Action Recommendations**

#### **1 Improve information and knowledge management systems**

- Improve information use and support the use of information management tools
- Develop networks and communities of practice
- Develop monitoring and evaluation systems
- Use science as a support tool
- Capitalize on field experience
- Increase transparency and information access
- Promote research, extension, and education linkages

#### **2 Promote local land use planning and appropriate resource tenure systems**

- Negotiate clear limits
- Recognize the need to partition use.
- Promote participatory approaches that include women and other user groups
- Make procedures simple, straightforward, and understandable
- Promote optimal agriculture/NRM integration
- Promote risk management and contingency planning
- Act locally, but promote an ecosystem vision

#### **3 Foster social learning, innovation, and adaptive management**

- Encourage social learning
- Foster innovation and experimentation
- Promote adaptive management

#### **4 Build capacity and invest in human resources**

- Train rural staff
- Build flexible local capacity
- Invest in education

#### **5 Promote cost-effective technical advisory and intermediary services**

- Work with skilled partners
- Facilitate farmer-to-farmer and group approaches
- Strive for cost-effectiveness
- Promote new ways of organizing research, extension and other rural services.

## **1 Improve information and knowledge management systems**

Knowledge is critical for sound natural resource management. All phases of NRM—planning, implementation, monitoring, and decision-making—are knowledge intensive. In many cases, knowledge, more than financial resources, is key to getting rural development going. There are new methods and tools for knowledge management that can increase the effectiveness and efficiency of NRM.

### **Improve information use and support the use of new informational tools.**

Powerful new information tools—remote sensing, geographic information systems, decision support tools, and so on—should be utilized for better information, decision making, and action on the resource base and its use. These techniques should be carefully integrated with classical techniques (inventories and ground surveys) and with participatory approaches. It is often the case, however, that information and data already available are not well used. Data use should be improved before additional investments in collection are made, as should links between data and decision-making. For example, too many inventories are done without a clear answer to the question “why?” This results in huge wastes of resources. Inventories must be done to respond to specific management and decisional needs.

The above techniques should be integrated with ones that elicit local and/or indigenous knowledge and its role in natural resource management decisions. *Community mapping* exercises, for example, which enable communities to draw detailed maps of their lands and resources, can enrich formal surveys with local perspectives on how to manage the territory and the resources within. These exercises can be utilized in conjunction with tools such as GIS and remote sensing in participatory natural resource planning as a way to avoid the latter tools being used in a top-down manner that further centralizes decision-making away from rural resource users. Such efforts are currently underway throughout much of Asia, including India, the Philippines, Malaysia, Indonesia, Papua New Guinea, Thailand, and the Solomon Islands.

### Develop networks and communities of practice.

"Communities of practice" are groups of people who share similar goals and interests, and thus use common practices, work with the same tools and express themselves in a common language. In this process, they come to hold similar beliefs and value systems. Networks and communities of practice have proved to be powerful tools, not only for sharing experience and capitalizing on empirical data, but for economies of scale in capacity building and lobbying. Some of the most important knowledge driving investment and policy decisions and for deciding on management interventions is tacit or informal knowledge. This includes indigenous knowledge and ethnoscience (e.g. soil classifications, herbal remedies, climate forecasting), but also the evolving knowledge of citizens and grassroots groups that affect natural resource management. It is, therefore, important to consult within various stakeholder groups within civil society who have different knowledge (and perspectives) on any one issue. A major challenge is to give attention to this kind of knowledge. Developing communities of practice and engaging facilitators to bring out tacit knowledge has proved useful. In this context, the stewardship of indigenous knowledge, native languages and culture of Asia is critically important since they are increasingly endangered under the pressures of modernization and globalization.

It must be recognized, however, that these efforts are inherently political and, as such, official development assistance agencies often shy away from them. For example, the *Se San River Protection network* has emerged in response to hydropower development in the Central Highlands of Vietnam that has impacted on the lives and livelihoods of indigenous communities in northeastern Cambodia. Yet the formal institutions supported by international development funds, notably the *Mekong River Commission*, has not engaged with such networks. Likewise, the *Forum of the Poor* in Thailand has been a crucial part of the expression of grievances by and on the part of rural communities whose resource base has been encroached by infrastructure projects, exotic tree plantations and industrial complexes.

### Develop monitoring and evaluation systems at all levels.

Monitoring and feedback is essential for good management and planning. Many programs put too much emphasis on planning and not enough on monitoring. Effective monitoring and evaluation efforts should make explicit and test the assumptions that



drive development interventions. In this way, monitoring will foster adaptive management, as well as accountability. For instance, it may be assumed that cash-generating activities promote better natural resource management, or that intensification of agriculture helps slow agricultural encroachment on the forest. This may or may not be the case, depending on the circumstances. In addition to internal monitoring, one should facilitate independent monitoring and reporting. Appropriate approaches need to be devised for each types of monitoring (monitoring of performance or environmental impacts). Monitoring should be of sufficient depth to capture information needed for adaptive management and social learning. The tendency to amass huge volumes of data of little relevance to decision making should be avoided. Monitoring capacity should be strengthened with good baseline data, carefully planned and gathered. Beneficiaries and affected communities should be encouraged to actively participate in the monitoring of externally driven projects.

#### Use science as a support tool and to set limits.

Technology improvements are urgently needed to remove constraints to production, improve the sustainable management of natural resource and enhance the capacity of producers to respond to new market demands and opportunities. Research efforts, however, must actively incorporate farmers, their experience and perspectives in the development of options. Nature can be defined in multiple ways, and western/scientific approaches are not always the most appropriate. For example, thinning regimes have sometimes been recommended on technical grounds, when in reality no demand exists either for the by-products of thinning or for the product that the thinning is supposed to enhance.

The biophysical sciences are powerful tools for natural resource management, particularly for setting biophysical limits and for defining the possibilities. They are not appropriate, however, for setting objectives, which is a social process. Placing science at the service of social goals is a point with considerable resonance in East Asia, where over-emphasis on science can be used to override local priorities and disenfranchise marginal populations.

#### Capitalize on field experience.

In Asia, as elsewhere, a wealth of field experience exists from which to learn lessons and capitalize. Many of these experiences and results are unexpected and, therefore, escape traditional evaluation methodologies. However, techniques such as Tracker, a tool for learning from local resource management initiatives in Africa ([www.nrmtracker.org](http://www.nrmtracker.org)), are emerging to try to help capture this experience. Much of the future of natural resource management in Asia should be built on both positive and negative experiences to date. Learning from negative experiences requires courage and honesty, but also institutional support from supervisors and donors who are often perceived as only interested in success stories. NGOs and other development agencies fear losing donor funds if they admit failure, and so they face a strong temptation to “manufacture success.” Moreover, knowledge is often a source of competition for power and income among NGOs and consultants (but also, given the opportunities created by decentralization, among local

government officials). In a competitive environment, development workers are more likely to reveal other project's shortcomings than their own. Not admitting mistakes, however, prevents people from reflecting and learning from them and thereby improving development practice.

**Increase transparency and access to information.**

The availability of information is critical to sound planning and monitoring and effective management of resources. Access is needed not only to technical, but also economic and legal/policy information. The only way accountability will develop is if there is transparency of information. In Indonesia, there are a number of NGOs addressing forest issues, focusing on disseminating clear and information and making logging operations more transparent. *Global Witness*, a London-based, investigative environmental NGO, has been an important force for exposing some of the more blatant abuses of forest resources and of communities dependent on them in Cambodia in particular.

Initiatives sponsored by government and non-governmental organizations in India, such as the *Sneha Mahila Women's Groups*, are successfully showing how rural communities can be empowered by being provided locally relevant information on the wider aspects of livelihoods such as governance issues, topics related to markets, and methods in crop production. The *Sneha Mahila Women's Groups Program* is a federation of women's groups that form a substantial rural bank in which women farmers can contribute to and borrow from to invest in small enterprises. The program recently acquired a computer and Internet access, which the women can use, for example, to access information on agricultural prices, weather information and other agricultural information.

**Promote linkages among extension, education, and research, and promote farmer-oriented policy and research design.**

Forming strong links among research, extension, and education in Asia has been generally difficult but there are notable exceptions. For instance, Vietnam has a largely ineffective agricultural extension service, but there is a network of graduates from Can Tho University in the Mekong Delta who now work in provincial and district agricultural offices that maintains contacts with researchers, enabling them to have access to field sites and interaction with farmers.

New models of rural knowledge and information systems (RKIS), such as the one being implemented in India by DFID, FAO, and ODI, are having some success in creating synergies, particularly by putting the farmer at the center of RKIS policy and research. This success is due to the establishment of a process of innovation that engaged farmers as experimenters. As markets changed, technologies became obsolete or were modified by farmers. The project fostered joint learning rather than teaching to farmers by extension agents. In addition to promoting farmer-to-farmer information transfer, exchanges of experiences and learning among NGOs would also facilitate the process of

validating and disseminating local and scientific knowledge appropriate to the diverse conditions of rural people.

### What is Knowledge Management?

Natural resource management has grown through the transfer and sharing of expertise, lessons learned, and hypotheses about what works and why. But this effort is limited in scale and highly idiosyncratic, depending on the wisdom and memories of small number of practitioners.

Knowledge management at its heart is an attempt to support more systematically the transfer, exchange and synthesis of that wisdom, not just thought the compilation of facts and “best practices,” but through bringing together those with expertise and experience into a broader community, a community that can share information and evaluate its utility organically without requiring a major donor investment. This approach has worked in other sectors, most notably in AIDS research and agricultural research and can be central to improving NRM programs throughout the world.

## 2 Promote local land use planning and appropriate resource tenure systems

The ability of local communities to undertake land use planning and enforce zoning decisions is key to sustainable management. Not all uses are compatible and not all users are responsible. Identifying and enforcing rules about use is critical.

In making land use plans, it is important to take into account biophysical or ecological properties but also the productive capacity of those resources. The process of land use planning and plan using is at least as important as the product. Land use plans are effective only if resource managers know how to use, and indeed, use them, which often is not the case. Efforts must be made to ensure that plans are used and over time adapted to the farmers’ changing productive opportunities. It is important, therefore, not to understand planning as a rigid straightjacket. Planning should not merely define what is advisable to do in the lands under consideration but also the reasons why land use systems exist one way or another. The process of planning may be an effective mechanism for resource users to discuss, understand and conceivably alter the conditions that determine why things are the way they are.

It is advisable to use participatory appraisal methods to understand social and institutional dynamics and incorporate them into land use planning. Yet one should not assume that participatory appraisals are necessarily empowering for the participants or a meaningful contribution to the process of planning. Undue emphasis on appraisal techniques (community mapping, transects, calendars, etc.) may divert attention away from analysis of other, social and political processes that often affect more critically land use options.

Authoritarian tendencies and over-optimistic expectations about the benefits of growth in Vietnam, for example, have heavily influenced the outcome of 'local level' planning processes to the detriment of both poverty alleviation and environmental sustainability. It is actually at the national level that concerns have arisen over the increasing levels of destitution and poorly planned growth strategies, resulting in a reassessment of rural development strategies.

#### Negotiate clearly defined, agreed on limits.

The ability to exclude free riders and illegitimate uses and users is essential to sustainable management. At the same time, efforts must be in place to encourage development approaches that include as many stakeholders as possible. A stakeholder is a person who has something to gain or lose through the outcomes of a planning process or project. Clearly defined and agreed-on limits in space and time are necessary. Participatory mapping has proven a useful tool for defining spatial limits. Formalization of limits, however, comes with transaction costs. The benefits of formalization must outweigh these costs. One must avoid over-simplification of resource access and rights as a result of formalization. In the case of areas of rural Laos, for example, under a new regime change aimed at formalizing resource rights, one village now has exclusive rights to the backswamp fishing resource of Nong Bua while 16 other communities, who previously relied on this resource, particularly during the dry season, are now excluded from access.

#### Recognize the need to partition use.

Not every single hectare can provide for the diversity of human needs; some uses conflict. Some type of separation, rotation, and partitioning of resource use is necessary. Local land use planning is a step toward locally enforceable separation and optimization of use. One must make sure, however, that land planning does not discriminate against hill tribes and ethnic minority groups who may be less represented in decision-making bodies. Market integration and government bans have made shifting cultivation impossible, thus reducing the livelihood security and cultural identity of ethnic minority groups who depended on the practice. Likewise pastoral populations of Central Asia find their movements curtailed by boundary definition.

#### Promote participatory approaches that include gender components and all user groups.

In theory, all user groups should have the opportunity and resources for meaningful participation. Frequently, however, people approach the negotiating table differentially

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equipped with the political and social resources for negotiation. Under these conditions it is unreasonable to expect win-win situations, i.e., where all parties receive acceptable benefits.

The differences in ability and leverage to negotiate among social groups make it even more important for underprivileged groups like women and indigenous groups to participate in negotiations. This is precisely because it is most likely that, otherwise, their needs and resource uses will be ignored or excluded. It is critical, therefore, to equip such groups with tools and skills that enable them to articulate, present and defend their interests against more powerful stakeholders. Even in seemingly 'participatory' institutions, such as the Community Forestry Groups in India and Nepal, which do include women, the latter have been effectively marginalized from decision-making by social norms about public behavior, perception about women's abilities, and gender division of labor.

It is also important to acknowledge the diversity in women's roles, their different livelihood goals and political agendas, and their varied cultural visions of natural resources. Middle class women in Southeast Asia are generally as well educated as men and there are many examples of women leading important NGOs and government agencies. At the village level, however, women generally take a second place, but where they are involved the results can be very rewarding. The participation and empowerment of women has proven to be key in successful natural resource management in Asia and it should be actively encouraged. The return on investment in women's groups is high. For example, in Farmer Field Schools in Integrated Pest Management programs in Indonesia, the participation of women resulted in an increase in the efficiency of crop production and better management of expenses. Case studies such as this can provide important lessons learned that must be publicized as many NRM managers and practitioners in Southeast Asia still see attention to gender as an external program requirement and have a poor understanding of how it fits with equitable and effective NRM.

**Make procedures simple, straightforward, and understandable.**

Too often, management plans, regulations, procedures, and other NRM elements are unduly complex, complicated, and obtuse. Those who use the procedures must understand them. Policies, guidelines, and regulation should be accessible to and understandable by local people and organizations. Poorly designed and implemented regulations may act as a burden to the poor in their attempts to escape poverty. The forest sector is often heavily and inconsistently regulated, with rules that favor powerful economic interests. For example, a review of 14 case studies in southern China has shown that local communities, after paying taxes and harvesting and transport costs, were left with only a third of the final sale price of timber.

**Promote agriculture/NRM interaction and integration and the optimal use of growing space.**

It is difficult to draw a distinct line between agriculture and NRM, as they overlap broadly; in many senses, agriculture is a subset of NRM. Farmers can use natural resources efficiently through making use of legumes as cover crops, growing two or more crops on the same field in a year, adopting no-till agriculture, rotational grazing, and sound irrigation management or combining agro-forestry and livestock. Natural resource management systems that take maximum advantage of available light, water, space, and nutrients tend to be more productive. The agriculture/NRM interface is also key for biodiversity conservation, which should not be reduced to protected areas. In Asia, there is increasing interest in agro-biodiversity based around cultivation and production systems, particularly in upland areas. The People, Land Management, and Ecosystem Conservation (PLEC) program, which has sites in Asia, as well as in Africa and Latin America, builds on agro-biodiversity for viable diversity management approaches toward improvement of rural livelihoods.

### Promote risk management and contingency planning.

Land use planning should accommodate levels of risk. Risks can emanate from the natural environment, through climate extremes, earthquakes, landslides, pollution, but in many cases they are the consequences of natural processes worsened by human misuse of natural resources. Environmental risk, therefore, results from dynamic biophysical, social, economic and political conditions that influence the management of natural resources. Risks affect people at different scales: individuals, households, communities and even regions. Risk levels may vary over time, sometimes cyclically (i.e. during a crop growing season). Assessments of vulnerability can better capture this dynamic dimension--resulting from risk and pressures--than poverty profiles, which describe static conditions. According to the IPCC, vulnerability is defined in terms of three distinct components— exposure, sensitivity, and adaptive capacity. Exposure is an output of the natural system, expressed as the stress faced by a system. Sensitivity is defined by the degree to which the system is affected by the stress. Adaptive capacity refers to short-term and longer-term processes of adjusting to the stress. Vulnerability, then, is the measure of the degree of exposure to this natural stress, the short-run ability of populations to cope with the stress (resilience), and the potential for longer-term recovery to some pre-stress level of equilibrium (recovery).

There are almost daily reports of environmental catastrophes (e.g., Tsunamis that hit Indonesia, Thailand, and Sri Lanka on Dec. 26, 2004) but in some countries this has yet to be translated into widespread political will to address resource degradation. Climate variations associated with ENSO and with global climate change are likely to continue to threaten natural resources and rural livelihoods in Asia. For instance, the massive forest fires during the El Nino years of 1997 and 1998 are estimated to have resulted in the destruction of 5.5 million ha of forest (mostly in Indonesia) and in widespread loss of good and cash crops. Better systems to predict ENSO events and to assist rural communities in mitigating their impacts are needed. Research like that being carried out by the German-Indonesian IMPENSO project on climate change, water management, and rural livelihoods in Central Sulawesi, Indonesia should be encouraged and extended to other sites.



Households and communities use formal and informal strategies to manage those risks, ranging from relying on social safety nets to tapping into local government sanctioned insurance mechanisms. It is important to provide support to the poorest and most vulnerable in order to reduce risk, by understanding the sources of risk, preventing, anticipating, and coping with shocks, and providing the best mix of programs. In this light, it is crucial to strengthen the communities' informal safety strategies, by fostering social trust, cohesion and alliance building. Incorporation of risk management in land use and NRM planning requires attention to farmers' actual risk circumstances, recognizing both the environmental and market dimensions of risk. In South and Southeast Asia, debt is probably the most significant aspect of risk for cash-strapped rural households.

**Act locally, but promote an ecosystem vision.**

Environmental change depends on millions of individual choices, decisions, and actions that are embedded in political and economic structural conditions. These choices, however, must be seen in an integrated way. Agricultural development, deforestation and the conversion of agricultural land into urban areas have resulted in loss and fragmentation of native habitats, biodiversity erosion, over-exploitation of wild species, reduced pollination and seed dispersal, drainage of wetlands, change in watershed vegetation, soil erosion, rangeland degradation and increase in agrochemical pollution. This reality calls for a comprehensive approach to resource management that protects and restores whole ecosystems and simultaneously supports human uses of natural resources. Conservation and development efforts must be planned and implemented at landscape scale. Such efforts must include holistic assessments of and planning for impacts on neighbors, watersheds, and migratory animals and must internalize the costs of upland soil and water conservation activities, reduction in biodiversity, disruption of hydrological systems and habitat fragmentation.

Issues of scale are very important in Asia. Because many environmental challenges in Asia, such as watershed protection and biodiversity conservation, are transboundary in nature, the appropriate level of decision-making processes may need to move beyond the borders of individual nation-states. For example, the Mekong River is the 12th longest river in the world, running 4,800 kilometers from its headwaters on the Tibetan Plateau through the Yunnan Province of China, Burma, Thailand, Cambodia, Lao PDR and Vietnam. Over 60 million people depend on the Mekong and its tributaries for food, water, transport and many other aspects of their daily lives. Its annual flood-drought cycles are essential for the sustainable production of rice and vegetables on the floodplains and along the riverbanks during the dry season. The river also supports one of the world's most diverse fisheries, second only to the Amazon.

### **3 Foster social learning, innovation, and adaptive management**

In a dynamic world, the ability to adapt and be flexible is critical. The most important question should be: “how can we systematically adapt and learn from experience?” Best practices, in this sense, must be interpreted as what works best in a given place and time in a generally complex setting. Best practices, therefore, need continuous self-correction.

### Encourage social learning.

Social learning in natural resource management refers to an inclusive process of continuous dialogue and deliberation among “stakeholders,” including scientists, planners, managers, and users to explore issues and propose approaches; it is about the collective process of accumulating new knowledge. Social learning entails a critical reflection on the appropriateness of goals and on the approaches that stakeholders should adopt to meet those goals. Social learning and adaptive management are in line with the approaches taken in many development programs in Southeast Asia. However, it is constrained by the short timeframe of most project cycles, which span 3 to 5 years.

### Foster innovation and experimentation

Improvements in NRM systems depend on experimentation and innovation. NRM programs are often long term and essentially experimental; we can estimate final impacts and develop proxies for short-term performance, but NRM innovation requires a long time horizon. When fostered, innovation happens spontaneously at several different levels from farmers to communities to government ministry and nongovernmental organization (NGO) staff. Strong incentives and reassurances are needed to make experimenting and learning from good and bad experiences safe and less risky vis-à-vis donors, supervisors and “competitors” (i.e. NGOs with similar mandates, different government agencies or departments vying for the same funds). It is also critically important to move from learning from short-term, individual project interventions to developing a holistic and comprehensive view and strategy for long-term environmental and economic management. Mechanisms have to be established to compare projects against each other using common goals and indicators, the relevance of which should be periodically evaluated.

The SUKSES Alliance program, a collaborative project involving ACIDI/VOCA, USAID/Indonesia, Masterfoods (formerly M & M Mars), and the World Cocoa Foundation in Indonesia exemplifies the importance of building on farmers’ experience and fostering farmer innovation. The program focused on cocoa farming; Sulawesi’s main agricultural activity, involving over 300,000 smallholders and contributing strongly to Indonesian export earnings. A training program sought to address the significant threat of the cocoa pod borer (CPB) by empowering local trainers and farmers’ groups (i.e., by encouraging farmers to organize groups, select demonstration plots, and conduct training in their own villages) and providing technical support from provincial agriculture agencies. The key factor in its success was good outreach to farmers and that farmers showed lots of innovation and learning (e.g., many farmers collected their own side-grafting material). Some of local trainers went on to become professional trainers and traveled around offering their services to other farmers after the project ended. In order to distribute the knowledge and experience gained through the project, the program



introduced a successful newsletter for cacao farmers in Sulawesi, incorporating inputs from farmers and government outreach agencies.

#### Promote adaptive management.

The field of adaptive management in NRM has grown significantly in the past 10 years. It emphasizes learning, rather than “blueprints” (or learning by doing, rather than following prescriptions); accepts mistakes as part of the experimental process; and comprises an inclusive process of consultations using a wide range of tools to generate knowledge to keep pace with ecosystem and socioeconomic change. This approach to management has shown promise in the pluralistic and dynamic settings that characterize much of Asia today.

However, in parts of Asia fostering innovation and local adaptation may run counter to hierarchical traditions, respect for central authority, etc. Initiative and innovation run counter to the risk-avoidance culture of post-socialist systems. There are, however, exceptions, which should be publicized, particularly where they had positive outcomes. For instance in Vietnam, where these traditions are very strong, the national reform process has nonetheless benefited greatly from ‘fence-breaking’ where local authorities have taken the liberty and risk of experimenting outside of official policies.

## 4 Build capacity and invest in human capital

#### Train staff working in rural areas in extension and participation.

Government and NGO staff often have good technical skills that should be kept up to date systematically and regularly. Particular emphasis should be made on equipping extension and development staff with a holistic understanding of development issues that integrates technical, social, economic and environmental perspectives. At the same time, these agents need training and opportunities to improve their capacity for communication and facilitation and their skills in participatory approaches. They also need motivational and incentive systems, particularly in poorer countries of Southeast Asia (e.g., Vietnam, Cambodia, Burma, and Laos) where rural-based staff and officials are extremely poorly paid and bereft of resources. In addition to training, capacity building in Asia must encompass resources and ongoing support to enable individuals and organizations to identify, analyze, and respond to legal, ethical, and human rights issues raised by natural resource management. Civic education may also be needed, including not only instruction on the basic legal framework, but also information on the political structures that affect people’s lives and the rights and obligations of citizens and government, and training in organizational management, leadership, advocacy, and conflict resolution, etc. Likewise, there is a need for training on effective approaches to enhance the status and power of women in public decision-making in ways that go beyond the conventional establishment of ‘women's projects’ and that address power issues with greater depth.

### Build flexible capacity at local levels.

Past efforts have tended to emphasize technical skills (soil conservation, integrated pest management, nursery techniques, grafting, and so on) at the local level. Given changes in socioeconomic conditions, however, this may in effect train people for yesterday's, not tomorrow's, activities. Commodity-focused training leaves people vulnerable to boom and bust cycles and with narrow skills in a dynamic world. The good payoff that comes from basic skills such as numeracy and literacy can be applied broadly. In addition, economic skills (business development, marketing, accounting, and so on) and legal skills are fundamental for adaptable local organizations. Local credit and marketing groups, Local language training in literacy, numeracy, and management can enhance the ability of local credit and marketing groups to act as development agents. In some Asian countries, namely India and the Philippines, training and supporting native peoples to work as park guards against illegal settlement has contributed to safeguarding nature reserves, particularly against outside loggers and settlers. However, this kind of community-based initiatives must be carried out in coordination with national governments. Central government officials are often competent and well intentioned, and could do more to protect conservation areas if they had more support.

### Invest in education

Investment in human capital should be a part of any sustainable economic development policy. Education, along with agricultural research and rural roads, has consistently proven to be among the most powerful investments for promoting rural economic growth and reducing poverty. Make primary and secondary education for men and women compulsory, and provide the means for high-quality education. Education is one of the most critical assets poor people should strive to have, because human capital and education are key drivers of income distribution. Education is particularly important for women and disenfranchised groups. Education efforts with the highest pay-off are those that empower youngsters and adults to gainfully diversify their economy. It is most valued and needed when producers seek to diversify into non-agricultural labor markets, whether in rural or urban contexts.

## 5 Promote cost-effective technical advisory and intermediary services

Local groups and producers need technical advice and intermediate services to increase growth and sustainability and exercise their rights. A single organization, governmental or otherwise, lacks the broad breadth of expertise and service delivery needed. A partnership approach to service provision, which taps the strengths of a variety of organizations, is necessary. Umbrella federations of NGOs, which are growing in Asia, should be supported.

Work with partners skilled in providing advisory and other services.

In many countries, NGOs and the private sector have the capacity to support local development and bring to the table particular skills. The SUKSES cocoa project, described earlier, is a good example of the success of using local skills and knowledge. The program used local rather than ‘expert’ trainers, resulting in the project being affordable, effective, and producing long-lasting effects.

Facilitate farmer-to-farmer and group approaches.

Most farmers learn new ideas from other farmers, not from organized extension services. Both farmer-to-farmer approaches and innovative forms of extension should be optimized and adapted. Group approaches that facilitate learning and promote economies of scale should be encouraged and incorporated into most forms of extension. Asia’s extensive tradition of innovative ways to reach the public (e.g., by radio broadcasts, local indigenous promoters, farmer biodiversity fairs, farmer experimentation, etc.) should be supported. The Farmer Field School (FFS) technique, which is being implemented in Sri Lanka, Indonesia, and other areas of Asia, represents a good example of a program aimed at the development of methods of crop management through hands-on learning and farmer experimentation and innovation.

An informal network of Farmer Innovation Centers (FIC) in China enabled farmers to collaborate on technology learning and agricultural production. These networks proved particularly important in the marginal areas of rural China where the complex geographic environment, the diversity of farmer demands, and inefficiency of formal agricultural extension networks impede the spread of new agricultural techniques. In Indonesian rice farming communities it is common practice for farmers in one landscape unit – the *hamparan* – to plant simultaneously to limit the depredations of pests. This arrangement occurs from Java eastwards into West Papua, and may serve as conduit for innovative approaches.

Strive for cost-effectiveness and cost recovery, and privatize services where appropriate.

To the extent possible, services should be provided on a cost-sharing and cost recovery basis. This is true to a greater extent than often realized, as local communities’ ability to pay is often greater than claimed. This not only encourages financial sustainability, but also helps to improve quality and promote accountability. Services can also be contracted out to the private sector or privatized.

Promote new ways of organizing research, education, extension and other rural services.

Extension is not a stand-alone activity. Its value relates to the availability of financial services, business development opportunities, processing and marketing structures, etc. Some of the more successful extension efforts in Asia are embedded in these broader

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schemes. In Vietnam, for example, a private company has developed very small-scale production of straw mushrooms by near-landless farmers in the Mekong Delta by providing credit, technical advice, inputs and marketing.

Research and extension should not be limited to exploring technology options, but rather expand to incorporate market development issues. Producers of agricultural products, non traditional forest products and/or ecosystem services will need to have a better understanding of their markets in order to establish sustainable systems of research and extension. The term 'better' not only implies better than their own current understanding but also, and perhaps more critically, better than their competitors. Rural producers in Asia, particularly those who operate in niche markets (for instance shade coffee, organic vegetables, fruits and fibers) are willing to invest in technical assistance and market information.

# WEALTH

## Economics

Asia is in transition. The stakes for resource access and control are rising, as evidenced in concentration of assets in the hands of a few, the social conflicts that this generates and the use of the agricultural frontier as a pressure valve throughout Asia. The new challenges include globalization, free trade agreements following on the effects of two or more decades of structural adjustment and the rural-urban penetrations.

The ability to achieve and sustain macroeconomic stability in the new globalizing era will be critical. Such macroeconomic stability in Thailand has meant considerable investment, while its Southeast Asian neighbor, the Philippines, historically a less stable economy, has received much less investment, has grown much more slowly in per capita terms, and now faces far more severe environmental management challenges due to more intense competition for natural resources. Furthermore, production systems have often failed to adjust to growing pressure, and individuals, households, and communities are facing new economic realities, both good and bad.

Five principles help to organize specific action recommendations:

### ***Wealth: Principles and Action Recommendations***

#### **1 Growth is necessary but insufficient for poverty reduction**

- Use free trade to strengthen domestic employment
- Develop and implement policies to distribute trade gains equitably and protect the environment.
- Make social protection activities central to development policy
- Promote social inclusion and avoid adverse incorporation

#### **2 Be strategic about the economics of natural resource management**

- Coordinate NRM resource allocation appropriately
- Plan and invest at national, regional, local, and micro levels
- Focus on changing tomorrow's economy

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Encourage an enabling environment to solve environmental problems  
Incorporate natural hazard prevention into development planning.

## **3 Strengthen markets and make market incentives a more important part of NRM strategies**

Help build competitive rural markets  
Promote communication to improve market incorporation  
Promote and/or facilitate joint ventures  
Develop equitable commodity chains and pro-poor reinvestment of natural resource revenue.  
Recognize that market incentives alone may not be sufficient for the poor.  
Economic growth should not undermine democracy and transparency

## **4 Invest in rural organizations as the long-term “building blocks” of rural development**

Promote self-reliance  
Promote and fund local credit schemes  
Emphasize transparency and financial sustainability  
Create systems that facilitate market participation  
Promote establishment of robust rural groups and federations

## **5 Create a framework in which people can make better NRM choices in their own self-interest**

Promote NRM solutions that make financial sense and foster economic opportunity  
Systematically apply economic and social analysis to design and undertake solutions  
Ensure that strategic plans address tenure arrangements  
Explore ways of ensuring payments for environmental services  
Plan for sustainable agricultural intensification

## **6 Ensure that resource managers have—and perceive themselves to have—secure access to the means of production and the benefits of their NRM investments.**

Plan for sustainable agricultural intensification  
Foster clear, stable, legitimate and democratic, common property management

## **7 Accept that people must diversify their economies, often outside agriculture.**

## 1 Growth is necessary but insufficient for poverty reduction

Strategies to generate economic growth and enhance revenues in Asian countries (including growth in foreign direct investment) have not necessarily resulted in enhanced employment, support for social insurance networks or environmental protection. Neither privatization of functions traditionally provided by governments, nor free trade and regional integration has provided for economic growth opportunities for the poor, reduced inequality in income and access to basic services, stronger civil society and democratic participation, and enhanced management of natural resources. Economic growth is important. It is also important, however, to ensure that economic growth does not bypass the poor or undermines the nations' institutional capacity for sustainable and equitable development. Attaining this goal will require using a mix of public spending, institutional change, and participation to overcome political and social conditions that may obstruct change.

### Use free trade to strengthen domestic employment

Governments should bargain for and adopt policies that maximize employment gains from trade. This should include promoting the development of domestic suppliers and the use of components that are locally created rather than imported. It is not critical that suppliers are owned by domestic or by foreign firms, as long as the suppliers create jobs. Governments should also negotiate to obtain financial support for transitional trade adjustment assistance, from trading partners and from international donor organizations. This should include training for workers and subsistence farmers in new skills, and access to credit that allows and encourages small farmers to develop economically and environmentally sound farming practices. One of the explicit goals of trade liberalizations should be to enable Asian citizens to become consumers, not only producers, in the global economy. That goal requires realizing growth in domestic employment and income.

### Develop and implement policies to distribute trade gains equitably and protect the environment.

Governments should adopt and implement policies that promote a more equitable distribution of the gains of trade liberalization. This should include better tax and minimum wage policies, as well as the expansion of freedom of association and collective bargaining rights. In order to minimize the environmental impact of trade liberalization for agriculture, and the tendency of export growers to adopt chemical intensive production methods, governments should bargain for and set standards allowing and encouraging their countries to take advantage of the growing demand for organic food products and sustainably harvested forest products.

### Make social protection activities central to development policy

Economic growth, privatization and trade must take place in ways that do not undermine social safety and the assets of poor people. Asset deprivations—including at the community or regional level—diminish the prospects for poor people. It is important to have sustained public support and private/public coordination in the creation of human, physical, natural, and financial assets that poor people own or can use. Governments and, if appropriate, the private sector need to make the services that contribute to health, education, income and improved well being work for poor people. These services may include access to technology, knowledge, credit, energy, transport, telecommunications, schools, health services, and electricity in poor, remote and often environmentally fragile areas. It is important to expand access to information for poor villages, to allow them to participate in markets and to monitor local government. Poor communities and households should be encouraged to participate in choosing and implementing services and monitoring them to keep state and private providers accountable.

### Promote social inclusion and avoid adverse incorporation

Poverty is often associated with economic, social and political forms of exclusion. To remedy exclusion (or the incorporation of the poor into market and society under bad conditions) it is important to promote the creation of employment and income opportunities, as well as access to assets such as land or credit, for natural resource users in rural areas. At the same time, economic opportunities must be created for those people who migrate to urban areas in search of economic opportunities. Social networks that provide welfare functions, social solidarity and sense of dignity to poor people should be protected. The human and political rights of women, ethnic groups, unemployed people, migrants, and other excluded groups must be supported and enhanced. It is critical to provide services that support food security and employment, and access to health, drinking water and electricity supply systems and other forms in which the poor exercise full citizenship rights. Women-headed households should be specially supported. In the long run, however, individual poverty will be overcome largely through access to quality education and training for children and adults (particularly women). Inclusion mechanisms must be devised through effective and meaningful planning, a product of a bottom-up community based process.

## 2 Be strategic about the economics of natural resource management



Given that budgetary resources are always limited, it is important to prioritize investment on activities that have the greatest economic and environmental impact, in the short- and long term. Consistently, many governments are choosing to only invest where economic and political returns are greatest. This should not be done, however, in such a way that writes off their commitments to providing basic services and support in more marginal areas. Governments must effectively address the needs of small producers and their role in a viable economy. Instead of counting on ‘trickle-down’ benefits, governments need to incorporate the rural poor (many of whom live in marginal environments) into development. Development frameworks should confront the difficult question of what to do in places where the market clearly fears to tread.

Coordinate the allocation of limited resources for NRM in ways that are appropriate to the scale of the problem.

Countries should decide whether a given activity is the best use of scarce financial and institutional resources as well as encourage donors to fit within agreed-on priorities and improve their coordination with one another, particularly at the level of programming assistance. Budgetary resources are limited everywhere, but perhaps not so extremely in the case of middle-income Asian economies as is the case in Africa or the poorer Southeast Asian nations. Large countries that can mobilize their own financial resources (e.g., India and China) may be less receptive to donors’ advice, pressure.

Plan and invest at national, regional, and local levels, in addition to micro levels.

Balancing interests in biodiversity, watershed management, carbon sequestration and other ecosystem services for the public good will require ecosystem management at large scales, and thus institutions that operate at that level. Solutions will have to be considered in the context of entire ecosystems and social systems, and often addressed at the market level or at the political level rather than at the level of individual farms or tracts. It is important to strengthen the government’s ability to plan and coordinate investments. Many opportunities can be realized only by improving coordination at the national level. The state must intervene or facilitate the negotiation among municipalities or regions so their interests are balanced and the externalities of one locality do affect the rest. The state must organize the delivery of public goods taking advantage of economies of scale. While maintaining authority, the state must give other actors—including lower levels of government, civil society, and the private sector—freedom to perform their critical functions in improving coordination. Planning and coordination should be done under conditions of accountability, transparency and probity that foster participation of all sectors, at all levels.

Regional institutions, such as the Association of Southeast Asian Nations (ASEAN), can play an important role in the planning of cooperative sustainable resource management efforts that serve to promote regional stability and partnership. Such institutions may be particularly useful in the management of transboundary resources, as discussed earlier in this document.

Focus on changing tomorrow's economy, not yesterday's.

More support is needed to strengthen the capacity of producers to capitalize on underlying trends that are driving the economy and peoples' lives, because these trends will determine other choices people make. There is a need to promote an understanding among field staff, NGOs, and donors that (a) the most promising NRM efforts are economic activities that are taking place in areas of economic opportunity and (b) tomorrow's economy will look a lot like those areas. The current reality throughout much of Asia is that rural livelihoods are evolving towards greater diversification and inter-penetration of rural and urban economies, as well as, in many cases, national and global economies. A key challenge for Asian countries is to deal with the generational change associated with the urban wage economy that so dominates the aspirations of rural youth.

Encourage an enabling environment for solving environmental problems.

It is important to focus programs and, in particular, donor assistance on creating building blocks, including a sound and enforced policy framework, rural organizations, core market infrastructure, and programs and infrastructure that are coordinated with other sectors, including health, education, and agriculture. NGOs should be encouraged to coordinate with government agencies and with one another. Clear coordination among the many government agencies that frequently have overlapping mandates over natural resources is critically important. Deconcentration of technical services and devolution of environmental governance should be promoted in ways that do not undermine coordination at different levels. In Jambi, Sumatra, for example, decentralization has been undermined by lack of coordination among agencies mandated to represent the central government at provincial and district levels. For example, the management of Kerinci Seblat National Park is under the authority of the Kerinci Seblat National Park Agency and of the district government. This division of authority and responsibility has therefore resulted in the district government not being cognizant of its responsibilities to protect conservation areas. Furthermore, district governments have received little capacity-building support, thus impeding their ability to implement decentralization policies and good governance of forest resources in a democratic and participatory manner.

Incorporate natural hazard prevention into development planning.

Extreme weather events, earthquakes and other natural disasters affect large numbers of people in Asia. It is better to plan for potential natural hazards as part of a development strategy instead of confronting them only as a humanitarian emergency once a crisis strikes. Good development programs include risk management, prevention, mitigation and preparedness activities that facilitate post-disaster recovery. On the other hand, poorly planned development strategies, which allow for allowing the degradation of natural resources or dense population settlements in floodplains, can turn a recurring natural phenomenon into a human and economic disaster. Policies and plans must recognize the importance of managing ecosystems, natural resources and urban growth in ways that encourage income generation and environmental sustainability but also reduce

risk and hazards. Natural hazard prevention requires some degree of control and coordination by the state, and therefore a balance between centralization and decentralization is optimal. Increasingly, social safety nets are affordable within the fiscal resources of individual Asian countries. But transnational approaches are also important – for example, flood mitigation in the Mekong Delta involves integration of social, economic, engineering and information management systems that span national boundaries.

### 3 Strengthen markets and make market incentives a more important part of NRM strategies

Most farmers in Asia already produce for the market. They have been quick to adopt new technologies to produce and sell their surplus. The market-orientation of Asian farmers is also demonstrated by their participation in labor markets and market-linked consumption patterns in the context of globalization. Although this has fueled economic growth for many countries, it has also resulted in massive displacement of labor from agriculture (and also NRM), growth of an agricultural proletariat, and a reduction in domesticated and wild food biodiversity.

The goal should be to make the market as ‘free’ and competitive as possible. It must be recognized, however, that in developing nations, this is very difficult to achieve, even under the best of circumstances. This is because, even when market integration is achieved, it might have negative environmental and social impacts that must be addressed. The current market structure in rainforest areas encourages deforestation, pasture conversion, and land speculation, rather than sustainable resource management. Improvements in productivity may encourage new migrants to open up new forest areas. Likewise, economic liberalization has not always contributed to development and reduced poverty in rural areas. Small farmers in Asia often cannot compete on equal grounds with large farmers domestically or with those of other nations.

Promote efficiency by helping build competitive rural markets that promote rural development.

It is important to base resource management strategies on sound economic principles, especially with respect to markets and subsidies. Current price structures based on a small number of buyers depress farmer prices and remove much of the incentive for rural investments. One should use accessible and reliable market information to help rural producers get fair market prices. It is advisable to consider promoting “fair trade” opportunities for resources users. Fair Trade Organizations (FTOs) foster a more equitable and environmentally and economically sustainable system of production and trade that benefits people and their communities. Under “fair trade” arrangement

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wholesalers, retailers and producers form associations committed to providing fair wages, and safe and healthy working conditions to low-income producers.

Income-generating enterprises for rural communities can achieve success through creative marketing techniques. For example, at the site Biodiversity Conservation Network (BCN) site in Kalahan, Philippines, villagers were successful in selling their jams and jellies in Manila because they marketed them as organic products. Likewise, at the BCN site in Garhwal, India villagers promoted their honey among religious pilgrims as a product of the sacred headwaters of the Ganges River.

### Promote communication and other conditions to improve market incorporation.

Roads and communications infrastructure can have both positive and negative impacts on people and the environment. Roads can benefit the landless by increasing employment opportunities. They can also encourage competition among buyers and reduce costs of internal - and external trade. On the other hand, bad roads may protect local markets (and producers) from outside competition. However, roads may create and enhance threats to natural resources. Despite some success stories in which NRM stabilizes after a few years, road construction often leads to greater environmental degradation (e.g., through deforestation).

In most Southeast Asian countries, there has been significant investment in infrastructure (i.e., roads, bridges, administrative buildings). Distribution networks are extensive, and in some cases work to the farmers' benefit: in 1996, farm-gate cocoa prices in Sulawesi were 90% of the f.o.b. value on international markets. In other cases, direct government intervention – as in the case of the clove monopoly in north Sulawesi – has been disastrous for farmers. A recent study in southern India, however, shows that with little information about market trends and prices available to village producers (mostly women), and with poor transportation links forcing them to sell in the nearest market, producers of non-timber forest products saw very little change in their incomes from the liberalization of markets, which in practice only shifted monopoly powers from parastatal organizations to local business elites.

### Promote and/or facilitate joint ventures between rural communities and private businesses.

One must emphasize that rural populations are not just custodians of the land, but also “shareholders” in it; this has promoted better overall stewardship of resources throughout Asia. As “shareholders,” rural people can enter into contracts to enhance the value of their resources and vastly increase the revenue generated from them.

The CAB-JAFFNA project (Capacity Building of Community Based Organizations in Jaffna) in Sri Lanka represents a good example of linking rural communities with business development opportunities. The project targets 1,700 households for improved access to financial services and 20 cooperative societies and savings and credit groups for improved capacity to manage microfinance. This initiative is aimed at encouraging more independence for women to support their financial status, and at helping the poor to build savings, access credit, rebuild livelihoods, jump-start economic growth.

Develop equitable commodity chains and pro-poor reinvestment of natural resource revenue

Participation in markets can result in substantial economic benefits for poor producers. Hence, business development and market access principles should be used to link products--generated by poor producers--with consumers. The goal would be to reduce poverty and manage natural resources sustainably through job generation and access to markets. This will require providing services to identify first the buyers and work backwards to the producers in the commodity chain. It may entail providing infrastructure, training and technical assistance for natural resource users to process and transform raw materials and add value. It may also require improving roads, market information, access to credit and education on production standards, all of which will favor both producers and buyers. Alternative Trade Organization and other trade partners should be considered. It is important to keep in mind, however, that prevailing trends in agriculture towards vertically integrated, closed contract commodity chains may in fact marginalize large segments of the producers. Likely, many poor producers will not be able to compete with highly concentrated food processing, retail and food service industries. Only a small fraction of producers may have the capital, infrastructure, technical expertise, market information and bargaining power to meet the requirements of shippers, processors and retailers. Civil society groups should monitor the performance of food processors, retailers and food service companies, especially regarding fair terms of trade.

Recognize that market incentives alone may not be sufficient for the poor.

The poorest and most at-risk populations will often require outside assistance to build skills and confidence for investing in natural resource management. For those closest to the margin of subsistence, any change—even one that potentially increases income—may also carry an unacceptable level of risk. In these instances, market incentives alone will not be sufficient to bring about the desired change. Nevertheless, “lending a hand” to vulnerable populations can and should be done in ways that do not distort markets, undercut efficiency, or create long-term dependency. A great deal has been learned about how to do this, and a number of viable approaches have been tested and proven in the field in the past two decades. Mechanisms such as environmental service payments and the promotion of marketable options (i.e. non-traditional forest products or ecotourism) in forest areas should be explored and supported. Economy-wide instruments that alter resource valuations and exploitation incentives should be identified and integrated into policy proposals.

Economic growth should not undermine democracy and transparency

It is important to recognize that privatization and the legislation to protect and sustain it may create an obvious democratic deficit regarding the transparency necessary for true public participation and oversight. As it has happened in the past, in order to achieve privatization, the government may be tempted to «smuggle in» legislation, distort laws

already adopted and sign contracts with iron clauses of «confidentiality» that effectively make public monitoring impossible.

## 4 Invest in rural organizations as the long-term “building blocks” of rural development

Beyond the obvious social, governance, technical, political, and cultural benefits of development with reduced dependency, important economic reasons exist for investing in rural organizations:

- The evidence is clear that rural organizations can help mobilize substantial local savings.
- Well-managed and locally controlled rural organizations create economies of scale and contribute to higher economic returns for the rural poor
- Models built on local credit and local savings are much more cost-effective and far more replicable than those relying on external financing.
- The vast majority of money goes directly where it is intended to go: repayment rates for locally managed credit programs are astonishingly high (often more than 95 percent), and overhead expenses stay within the community.
- Most important, “local ownership” of the process unleashes powerful incentives for cost control and program efficiency, whereas external funding often sets up the opposite dynamic.
- Local organizations organized into broad-scale networks and federations are needed to fight the political and economic barriers to development for the rural poor.

Trust and credibility (social capital) are key to the successful operation of rural organizations. The best guarantee of “sustainability” is people’s choice over what makes the most financial sense for them. Transparency and a sense of ownership in rural organizations are critical for keeping them responsive to both individual and market needs.

Promote self-reliance by building a development framework that recognizes, values, and builds on rural smallholders’ existing capacity to mobilize their own savings and resources.

Credit and savings organizations have proved low cost and highly effective. They build self-reliance; have an excellent record for targeting women, who are often left out of project schemes; and show outstanding repayment rates. Most important, appropriate and accessible credit makes a major contribution to NRM investments as well as to overall economic growth.

Promote and fund local credit schemes.



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Successful models should be replicated by sponsoring visits to communities where successful credit schemes are operating, and ensuring that the legal and regulatory framework provides the right incentives—and does not create hindrances—for locally managed credit programs. The Grameen Bank, for example, which views credit as a cost-effective weapon to fight poverty, provides micro-credit schemes that don't require collateral for the poor, and in particular poor women, in Bangladesh.

Emphasize transparency and financial sustainability.

Rural organizational structures entrusted with responsibilities for credit, marketing, and common property management should embrace principles of transparency and sustainability from the onset.

Create systems that help small farmers actively and fairly participate in markets for rural goods and services.

The most important of these measures will be to help smallholders create and manage rural economic organizations such as marketing cooperatives or associations. Rural populations often lack financial resources, management skills or market knowledge that they cannot intervene efficiently in markets. As individuals, farmers are also at a severe disadvantage in negotiating with market intermediaries. Invest in information systems and approaches to improve farmer/association competitiveness.

Income generation from forest products may be one way of creating incentives for people to protect the resource and commit to its long-term management. Income-generating uses of the forest, however, can also increase incentives for further extraction, both locally and from outside entrepreneurs. For example, recent research in *dipterocarp* forests in Kalimantan, Indonesia found that economic incentives were closely linked to *gaharu* (i.e., important *dipterocarp* resin) harvesting intensities, whereby the prices and level of income created incentives for collectors to harvest more. In addition, the imposition of access fees encouraged local leaders to allow greater numbers of outside operators. Furthermore, cash benefits derived from natural resources often result in a “magnet effect”, whereby an increasing number of outsiders are attracted to income-generating possibilities. The latter may sometimes have more resources, connections, and information than local people and therefore be in a better position to exploit those natural resources.

Stimulating rural markets is necessary in countries emerging from subsistence and socialized production systems. But rural market development needs to be supported in coordination with a range of connected protections and tenure support programs. Where customary tenure systems have little legal recognition or protection, exposure to the market may significantly threaten the livelihoods of the rural poor and the environment itself. Indigenous groups in Mondolkiri and Ratanakiri Provinces in northeastern Cambodia have been negatively affected, and rural communities in Laos are similarly vulnerable.

Promote the development of business-based, well-governed rural groups and their

confederation.

Focus project/program assistance resources on helping rural communities establish and manage local organizations. Invest in developing practical guidelines that can be applied widely. Invest in local language tools, information, and training modules. Pay particular attention to ensuring that organizations are not “hijacked” by local power elites. Encourage groups to be representative in their selection of members and officers so that they ensure open participation and the best people hold key positions. Set programs for teaching reading and writing, and provide access to a profession for men and women, young and adult. Provide organizational, negotiation, and enterprise management skills to key personnel. By themselves, rural groups have limited influence on policies and markets; confederations, however, produce economies of scale, critical mass, and advocacy effectiveness.

Capacity building and organizational development efforts should build on an understanding of local context and previous experience. For instance, rural cooperatives have a history of failure and corruption in Thailand, Indonesia, the Philippines and elsewhere and will not find favor in countries where they have been imposed on rural producers by socialist or centralized governments (e.g. Vietnam).

## 5 Create a framework in which people can make better NRM choices in their own self-interest.

Effective strategies for improved NRM, economic growth, and better governance all lead to the same conclusion: to achieve the efficient and competitive economy needed, what people do—and how they do it—must be driven by real economic choices that make sense in local situations. Many projects have failed and millions of dollars of precious resources have been squandered when project designers failed to see the world from the perspective of the intended beneficiaries.

Everywhere people live and work, they respond to different local opportunities, constraints, and habits. Community-based NRM may not be the best approach for private farmlands, but may be essential for managing the commons. It should not be surprising that rural households respond like households everywhere: if resource management options do not improve people’s welfare in the near term, widespread adoption is much less likely and, hence, “scaled up” impact is highly unlikely.

Evidence from throughout Asia shows that small farmers respond to market incentives. Marketing associations and other ways in which farmers improve their market access and leverage capital dominate organizational needs for on-farm NRM. Common property management, on the other hand, requires other forms of social and economic organization and new legal frameworks that allow villages to take ownership of communal lands and create rules for access and allocation of benefits.



Promote NRM solutions that make financial sense and foster economic opportunity.

It is important to pay close attention to whether improved NRM solutions make financial sense to those who will adopt and implement them. Meaningful effort should be focused on helping people create cash income and economic opportunity through improved NRM. NRM must be understood as an economic activity for which people must use their time and energy and from which they expect a return. Development interventions should promote NRM options that generate cash income, and avoid proposing solutions that increase work burdens—especially for women—during peak agricultural seasons. This will necessarily focus attention on localized market-driven opportunities where they are appropriate and will yield a richer, more complex, and more meaningful menu of options to fit real life needs. But the self-interest of a growing share of the rural poor may not be to invest in smallholder production. Throughout the region, the poor can no longer establish viable farms or inherit enough land to make a living from agriculture. Migration to “frontier areas” or cities, or employment as laborers in commercial agriculture may be their only options. Recent studies point out that the majority of the rural poor in Asia are already or will soon become effectively landless.

While the problem may be partly contained by the Vietnamese government’s strong commitment to development of the highlands, the private sector chooses to invest the vast majority of its resources in easily accessible areas. Calls for market-led development in the most fragile or remote environments may fall on deaf ears among market investors. This raises the issue of what to do in places where the market clearly fears to tread.

At the same time, in parts of Asia natural resources may show a quick return on capital investments. Investments in small-scale natural resource exploitation –illegal logging, cacao plantations, etc. – are an attractive option for a provincial, urban, middle class with capital to invest but little in the way of financial options for investment. In the logging industry these investments may be risky, but risks can be minimized through bribery and influencing key officials. Drugs production and trade in Afghanistan and Southeast Asia may actually be both lucrative and more environmentally sustainable than alternative crops, but are less sustainable in other respects, leading to the ‘empowerment’ of the wrong rural groups. Resolution of this problem must involve an improvement in local economies coupled with an increase in costs of infringement, through more effective enforcement.

However, non-economic incentives may be equally effective and often essential. A Biodiversity Conservation Network (BCN) analysis of the effectiveness of natural resource management based projects for conservation across 20 projects in 7 countries in Asia and the Pacific revealed that non-cash incentives (such as infrastructural development, capacity building opportunities, institutional strengthening, conflict resolution, etc) were a pre-requisite for the success of conservation efforts.

Systematically apply economic and social analysis to design and undertake solutions.

Project design should incorporate a systematic cost-benefit analysis from the user perspective (for both internal and external funding), including looking at different gender perspectives. Trade links, value chains, and emerging demand may be thoroughly explored by means of market analyses and in-depth interviews. At the same time social analysis needs to complement economic analysis. Social analysis approaches can help define who the poor are, how they survive, what they are striving toward, and how they perceive their livelihood options. In particular, ethnographic interviews can reveal *why* people do what they do (and not just *what* they do). CGIAR (Consultative Group on International Agriculture Research) research on the impact of agricultural research (e.g., new technologies for poly-culture fishponds, improved vegetables, and modern rice varieties) on poverty in Bangladesh, which used economic and social analysis, found that culture mediates people's adoption of new technologies as well as constrains people's ability to take advantage of them. For instance, cultural restrictions on women's mobility in Bangladesh have prevented them from accessing places where technology and information dissemination takes place.

Ensure that strategic plans address the range of tenure arrangements, including common property resource management and improved on-farm NRM.

NRM approaches should integrate an understanding of the diversity and complexity of tenure systems and their relationship with land use practices in Asia. For example, in parts of Melanesia and in Nepal, ownership of natural resources (e.g., forests) is vested in rural communities. In India, however, resource rights are still held by the state, although recent joint management projects are allowing local people to gain more rights. In Indonesia, all resources are legally owned by the state, although some cases communities have *de facto* control, and in others natural resources are treated as if under an open access regime. Both individual and common property resource management are vital and roughly coequal contributors to environmental status. The incentives, organizational structures, technologies, and public investments needed to improve management of common property resources, however, may be somewhat different from those needed to improve on-farm NRM.

Explore ways of ensuring payments for environmental services.

Rural people ensure many environmental services, such as watershed management, carbon sequestration, biodiversity conservation in protected areas, and *in situ* conservation of local crop varieties, but compensation methods are inadequate or just emerging. Local farmers gain few advantages from continuing to steward natural resources, and unless rewards for them to do so are provided, environmental services may deteriorate or be lost. Exploring ways to value and compensate for environmental services will increase the attractiveness of good management.

Initiatives promoting payment systems for environmental services should have a good scientific basis. For example, it is often proposed that upland farmers should receive compensation for planting trees by lowlanders who will benefit from water that regenerated forests deliver. Forest hydrologists, however, are questioning the validity of this linkage.

It is also important to recognize that in some rural Asian communities, especially in upland tribal areas, there may be cultural limits and objections to payments for environmental services. Cultural meanings and values that underpin conservation of natural resources may be actually be eroded by the commodification of nature set in motion by market forces.

### Plan for sustainable agricultural intensification

Economic growth and agricultural production can no longer count on additional expansion of the agricultural frontier. The areas with best cropland are already under cultivation. The lands that remain for conversion are fragile: steep hillsides, tropical forests with poor soils and/or great biodiversity, and semi-arid regions. Intensifying agricultural production is a priority. Intensification will contribute to minimizing pressures on forests, biodiversity and marginal agricultural areas. Maintaining soil fertility at current levels of population density will require increasing levels of intensification, including application of fertilizer, managed water/irrigation systems, and some physical infrastructure on the land. As farmers make these investments, they build the “natural capital” of specific parcels of land and the importance of secure, long-term tenure over that specific parcel of land sharply increases. Intensification often increases the potential for off-farm employment.

It is important, however, to ensure that intensification of agriculture is done properly, lest it degrades the natural resources. Research on intensive food systems in Asia indicates that intensive use of lowland environments over time has resulted in degradation of these environments as well as declining productivity rates. Research conducted by the project, Alternative to Slash and Burn Agriculture (ASB), in Indonesia has shown that intensification of smallholder production systems involves tradeoffs between environmental concerns and the objectives of poverty alleviation and national development, and that action needs to be taken on these tradeoffs (i.e., to change incentives for conversion or restrict access to remaining natural forests). For example, a key concern is whether the potential development of smallholder rubber agro-forests in Sumatra can compete with the profitability of large-scale land uses, such as oil-palm plantations, industrial timber estates, and logging concessions, even though the former are considered the best alternative to natural forest in terms of global environmental benefits (i.e., C sequestration). Likewise, trade and price policies in the Philippines have also encouraged intensive production of annual crops in upland areas over soil-protecting perennials, such as coffee, which are subject to export taxes. Expansion of corn and vegetable cultivation on steep hill slopes exposes soil to erosion and water supplies to contamination from chemical inputs. These examples show that the policy environment plays an instrumental role in determining the environmental impacts of agricultural intensification.

Efforts towards more intensive agriculture must go hand-in-hand with asset protection and encouragement. Hence, the institutions that provide these safeguards should be supported. These institutions include social capital and norms pertaining resource management, but also property rights and security of tenure. All of this enhances the economic and political security for households and for communities. It also encourages

resource user to invest in their land, houses and shops, and provides them with a greater stake in their society.

## 6 Ensure that resource managers have—and perceive themselves to have—secure access to the means of production and the benefits of their NRM investments.

There is considerable diversity across Asia on property rights systems and customary law. Security of tenure is a key issue for long-term NRM investments, particularly for indigenous communities in remoter upland areas of Southeast Asia. As they are incorporated into national labor-, product- or input markets, customary tenurial systems are susceptible to being legally contested or disregarded by external forces. But individualized transferable title is not necessarily the most appropriate tenure arrangement for all communities, yet there are pressures in land titling schemes to move in this direction. In Laos, for example, the World Bank is currently accelerating land titling, even though in some areas customary tenure and land use practices may be undermined by a more formalized system. There are also important gender considerations as women's rights are often not recognized in land titling and tenure reform processes. Other key issues that need to be addressed include an examination of whether ownership necessarily translates into better management and how to enhance the capacity of rural producers to enforce their rights of ownership vis-à-vis powerful stakeholders.

For common property management, couple community management rights with internal management systems that are seen as clear, stable, legitimate, and democratic.

If we are to move successfully from project-specific to more generalized schemes for community management, the generalized “rules of the game” will require considerable clarification and strengthening. The complexity of this task, however, should not be underestimated, because local circumstances, traditions, resource endowments, and institutional capacities vary greatly. The challenge will be to find policies that provide across-the-board incentives, while maintaining the flexibility to respond to local needs.

## 7 Accept that people must diversify their economies, often outside agriculture.

Most of the rural poor are already or will soon become effectively landless and increasingly dependent on employment as laborers on large farms or in the service sector.

Many will be forced to migrate or rely on remittances, social protection and/or humanitarian aid. For these people, return to smallholder production and equitable landholdings for all are no longer options. The emphasis must be on ensuring those people's access to capital, know-how, skills and political influence so they can sustainably diversify their economic options.

Diversifying employment and income opportunities in rural and urban areas is as important for economic growth and natural resource management as investing in agricultural intensification. Non-farm rural opportunities range from working as hired laborers, to engaging in agro-processing and trading, and providing ancillary services. Often, it acts as a stepping-stone for rural workers to enter productive urban employment. Rural inhabitants are already addressing population pressures in fragile areas by out-migrating. It is important to provide support to better prepare rural people to take on non-rural jobs, while improving the ability of commercial rural areas and urban areas to provide them with more productive opportunities. It is, therefore, critically important to anticipate and provide for urban growth in such a way that urban employment represent a transition towards less poverty. Out-migration will reduce pressure on scarce rural resources. Planned urbanization and investment in the capital stock of cities will also be critical to environmental outcomes because urban land use patterns, building standards and employment conditions will affect energy and water use.

# POWER

## Governance

Governance reforms are sweeping much of Asia and are affecting NRM, particularly in countries undergoing decentralization of environmental governance. These reforms have profound implications on whether individuals and institutions will be empowered to decide how to use and manage natural resources.

Environmental management is political. Access to resources and distribution of their benefits are often politically charged and contentious. Underdevelopment, environmental degradation, poverty, and famine result not so much from a lack of natural wealth, but from decisions and systems, often political in nature, on the distribution of resource wealth and relevant citizen rights. Mismanagement of these resources can contribute to and exacerbate conflict and corruption. Good governance is key to managing natural resources and promoting economic growth successfully in Asia.

Environmental governance is embedded in larger governance concerns. Good governance in general terms is needed for development writ large. Better governance of natural resources is only one aspect of this equation—although an important one. Governance must be understood as one element of power, which is also linked to unequal distribution of assets and resources, as well as vested interests and politics.

It is important to recognize that decentralization is no panacea for sustainability. Collective action and decentralized governance tends to reproduce old power arrangements and social marginalities or revise latent tensions and conflicts. Attention must be directed to ensuring that less powerful stakeholders (resource-poor farmers, ethnic minorities, women, etc.) are able to participate in ways that facilitate the expression and taking account of their interests. While ‘participation’ and ‘representation’ are advocated essential ingredients in viable NRM efforts, there is a need for more effective ways of ensuring that marginalized social groups are able to voice and advance their claims in collective decision-making. We also need more sophisticated methods and precise indicators for evaluating the value and meaning of participation, particularly in relation to gender, and how to balance the goal of empowerment with those of performance and sustainability of natural resource management efforts.

The six principles defined in the following sections of this document help to organize specific action recommendations. Putting these principles into place is (and should be) a political process, messy as that may be.

## ***Power: Principles and Action Recommendations***

### **1 Strengthen procedural rights for rural people**

- Promote understanding and access to procedural rights
- Ensure that rights include information access, decision-making and environmental recourse
- Ensure rights of association, speech, movement and access to government institutions
- Strengthen environmental legislation

### **2 Strengthen property rights and security of tenure**

### **3 Strengthen regulatory frameworks and enforcement for labor and environmental issues**

### **4 Improve rural input into public decisions and policy**

- Build and strengthen independent organizations that represent rural views
- Contribute to performance of government officials and institutions with rural representation

### **5 Distribute environmental authority and functions to institutions best positioned to exercise them**

- Encourage inclusive national-level debate to guide restructuring of natural resource governance
- Shift the role of central state authorities from command and control toward technical support and legal ownership

### **6 Transfer environmental powers to authorities representative of and accountable to local populations**

- Transfer discretionary decisions before obligations
- Make transfers in the form of secure rights
- Transfer powers even before capacity is demonstrated

### **7 Promote transparency and scrutiny of natural resource exploitation and management**

### **8 Explore a minimum environmental standards approach**

### **9 Encourage checks and balances, pluralistic approaches and conflict management**

- Create or modify forums for NRM discussion
- Recognize that NRM conflicts can present learning opportunities and facilitate conflict management
- Promote social approaches that do not depend on consensus and help identify losers and problems



## 1 Strengthen environmental procedural rights for rural people

A positive development in the past decades has been the adoption of very good environmental laws in Asia, and the granting substantive environmental rights to citizens by most constitutions. The new national environmental management statutes are often supported by multilateral environmental agreements. At the same time, most constitutions also place duties on citizens to protect the environment and manage natural resources wisely.

Citizens and their associations need effective guarantees of civil liberties and procedural rights in order to realize their environmental rights—in particular, property rights over land and natural resources—and fulfill constitutional obligations to safeguard the environment. For example, citizens must be empowered to hold individuals and institutions with environmental rights, roles, and responsibilities and, indeed, all resource users—large and small, public and private—accountable for their decisions and actions.

At the same time, citizens must be willing and able to support public goods or projects of national interest over private transfers or arbitrary, politically motivated projects. This will require the elimination of the conditions that make clientelist politics possible, namely poverty and inequality.

Promote understanding and access to constitutional, legal, and regulatory rights and environmental procedural rights.

Many countries have made significant efforts to translate and diffuse appropriate NRM legislation to make it more understandable and accessible to local people. In some countries, such as the Philippines, domestic NGOs conduct innovative legal and policy research and lobby legislators and other government officials in order to disseminate information to local communities about their legal rights to natural resources.

The understanding of and access to constitutional, legal, regulatory and environmental procedural rights are key in many countries of South and Southeast Asia. Equally important is the social and political space to articulate and act on those rights. This varies considerably between quite open societies such as Thailand to more closed systems such as Vietnam. The situation of ethnic minority peoples in the Central Highlands of Vietnam reflects the dangers of promoting market access in the absence of other safeguards.



## ***Rio Declaration on Environment and Development, 1992***

*Principle 10: Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.*

Ensure that rights include, but are not limited to, three procedural rights: access to information, decision-making processes, and recourse in environmental matters.

Adequate access to information fosters the public's awareness of environmental issues and its capacity to develop alternative policy proposals. Citizen vigilance allows environmental problems to be identified and addressed at an early stage and complements government inspection and enforcement efforts. By participating in administrative review processes and making use of the courts, citizens can also foster compliance with national laws and ensure fair distribution of environmental goods and compensation (as well as costs) for environmental injuries.

Ensure environmentally related rights of association, speech, and movement and access to government institutions with environmental roles and responsibilities.

Government institutions with NRM roles include the cabinet, legislature, national environmental protection agency, and local governments. Examples of important liberties include the right to file a petition, submit a private bill, provide testimony (including in a parliamentary hearing), attend parliamentary sessions, and access the parliament library and documents. These rights are more often articulated in parliamentary rules of procedures, than in national legislation.

Strengthen environmental legislation on procedural rights, including companion regulations; repeal contradictory legislation; and remove loopholes, such as "claw-back" clauses.

Language in legislation should clarify the specifics and reduce administrative discretion and official arbitrariness inconsistent with the spirit of sound environmental management. Simplifying, reducing the number of regulations, and making them realistic (i.e. enforceable) as well as defining clear rules of the game and leaving little room for interpretation and bureaucratic discretion will improve efficient enforcement of legislation and reduce opportunities for corruption.

## 2 Strengthen property rights and security of tenure

Establish or reinforce clear systems of secure tenure and property rights and protect those rights against illegal asset seizure or destruction.

No one will invest in maintaining, much less improving, resources over which they do not know they have secure, long-term claims. Natural resources are managed best when local communities have rights to them. Secure land tenure is critically important for sustainable land management in Asia. This can be exemplified by two examples. In Vietnam, an increase in land investments aimed at preventing degradation and sustaining productivity is the result of recent policy reforms that provide farmers long-term leases to land. In Java, Indonesia, the shift from a shifting cultivation system with decreasing fallow periods and poorly defined land rights to an agroforestry system with very clear rights to land resulted in high levels of investments for soil erosion prevention.

It is important to recognize, however, that strengthening property rights is more complicated than granting resource rights. There are different land use forms to deal with including, for instance, protected forests and production forests, private and government forest lands, natural forests, agroforestry systems and plantations. There are also multiple legal systems affecting resource rights, which often overlap and need to be harmonized. In several countries, for instance, the State owns natural resources but also recognizes communal or private resource rights over the same resources. Forest law does not necessarily coincide with customary law.

All too often protected areas and national parks are seen as open access resources, and are destroyed more quickly than surrounding production forests. The need exists to eliminate open access areas (which must not be confused with common property areas). Open access must be replaced with common property regimes. Of course, communities can sell timber rights just as easily as anyone else. Training, legal restrictions (for example, on logging), zoning, and more explicit conservation rules are also needed.

Ensure that tenure clarification is not used to exclude the poor.

Clarification and codification can also work to exclude marginal groups (women, pastoralists, immigrants, etc.) who may have informal access, but not formal rights, to resources. Poor rural households in Asia depend heavily on common property areas as sources of food, fiber, fuelwood, fodder, and other needs. But over the decades their ability to procure such resources has been severely curtailed by the degradation of village commons and shifts toward state and private ownership. The challenge is how to reconcile a multitude of ambiguous, overlapping, often elusive customary practices with the transparency and explicitness required by modern legislation and democratic governance.

### 3 Strengthen regulatory frameworks and enforcement for labor and environmental issues

Linking environment with wealth and power requires strengthening both the state and civil society. On the one hand it necessitates bolstering the capacity of the state for making policy and enforcing laws. It also calls for rethinking the thrust toward shrinking the state, which has become common under neo-liberal structural adjustment. The outcomes of many state decisions will not be perfect and will reflect political trade-offs.

#### Enforce and improve upon existing legislation

Throughout Asia, good environmental laws exist. Unfortunately in many cases those laws are not enforced, and the prescribed participatory mechanism for implementation and monitoring is not put into practice. This is because either the state is not committed enough or it lacks the resources to do so. Often, ministries of the environment have low status and limited funding. The challenge for the region, therefore, rests *more* on ensuring that the right policies are *implemented* than on the development of those policies. The practical issue is how to muster political support for sustainable natural resource management to become a manifest, sustained, and well-funded priority for the state and civil society. This is a formidable task in the context of widespread clientelism. In a clientelistic regime, politicians offer citizens material favors or benefits (including employment in the bureaucracy) in return for their political support even if what is given is socially, economically and environmentally inefficient, and ultimately undermines democracy and development. But trade-off dilemmas emerge when decision-makers must satisfy contradictory goals. In the Philippines, for instance, political pressures to provide land for people from over-populated islands is at odds with the need to protect forests where indigenous people have full formal rights to stewardship.

#### Focus on legislation but also on efforts to empower people to use it

Governance is about more than just enacting legislation. It is as important to put in place sound policy and legal frameworks as it is sharing information on resources and user rights, and building capacity to empower people to use them. The goals are ultimately to attain transparency and accountability, increased public access to information and participation in decision-making, enhanced rights and security, and alternatives to formal judicial dispute resolution. It is important to promote legal education and training, including the creation of community paralegals. It is also important to organize and provide technical support for communities and local governments to understand and benefit from law reforms and new legislation.

## 4 Improve rural input into public decisions and policy

It is important to improve rural representation, facilitate organizational development, and amplify rural voices in public decisions that affect their lives and well-being. Central government decisions need to be made with the participation of local people and state recognition of rural needs. Recent trends in this direction need to be reinforced. National policy and government actions increasingly address the environmental views of the rural majority in general or natural resource interests of specific communities in particular. Governments are increasingly addressing environmental matters, trying to balance broad national interests, global environmental concerns of the international community, private interests of the powerful interest groups, and rural concerns. This balancing act is not easy, but in many instances the interests of rural people and—given their nature-based economies—their local livelihoods, human welfare, and social wellbeing are being integrated at the national level.

**Build and strengthen independent civil society organizations that represent rural views and positions.**

Civil society organizations have an essential role in Asia. Civil society organizations include, among others, rural communities, producer associations, NGOs, etc. Many of the countries in the region have seen a virtual explosion in the numbers of local NGOs and other civil society organizations. The viability of the civil society, however, varies across the region; being rather weak in countries such as Laos, Vietnam, and China, while stronger in India, Indonesia, Thailand, and the Philippines. Likewise, some of these organizations are weak, short-term oriented, and beholden to donors rather than to the groups they serve. Yet many of them fulfill important development functions that were previously provided by the state, such as technical extension or financial services. Some also work to improve the ability of rural people to engage in democratic processes and lobby in support of the poor and/or the environment. Civil society organizations are helping to draft environmental policies and legislation in a number of countries and are performing valuable advocacy and lobbying functions on behalf of rural people. The general tendency, however, is towards greater participation of civil society in local and national politics.

Rural communities are well organized in some countries and much less so in others. In countries with ‘frontier’ areas – especially Indonesia – the rural population has shown itself to be highly mobile. Farmers move large distances, often between islands, to locate more productive areas with lower capital overheads. This inrush of spontaneous rural migration can quickly overwhelm traditional institutions and their capacity to manage natural resources. Some efforts could be put into methods to bridge the gap between traditional and modern democratic organizations

Recognize that rural organizations may not be equitable or pro-environment.

Rural organizations do not automatically ensure sustainable NRM. It should not be assumed that local people are always interested in conserving biodiversity and natural resources. It is also important to identify who is and who is not represented in rural organizations. Recent research in India indicates that there are major inter- and intra-village equity issues with regard to local organizations and forest management, whereby poor women in particular and the most forest-dependent subgroups remain marginalized even when decision making is decentralized to the local level. The viability of rural organizations may also be dependent on the degree of organization at the local level; recent work found that in Asia strong local organizational capacity enhances outcomes for local people by better enabling them to mobilize resources and negotiate better. NGOs, donors, and other external actors should support and strengthen the capacity of local institutions in NRM decision-making so they uphold social justice and inclusiveness.

Contribute to the performance of government officials and institutions with rural representation responsibilities.

Of the three branches of central government, the legislature (principally parliaments in Asia) serves as a main bridge between citizens and the state. Legislators are well positioned to represent the interests of their electors in public decision making. Actions can include reforming electoral laws to strengthen the transparency and accountability of legislator in relation to electors by adopting disclosure rules, strengthening oversight mechanisms, fostering systems of checks and balances, better protecting the parliament from executive-derived political pressure, and disseminating information to increase public awareness, public participation and political pressure. It is important to address and correct the root causes and negative consequences of clientelism and corruption that stifle sustainable development and natural resource management. Accountability can only arise from transparency, and it has historically been in the interest of those in power to make transactions and decisions as opaque as possible. This has been sometimes tolerated by NGO and donor agencies that may be unwilling to confront issues such as corruption as they depend on government support for their operations and visas.

## 5 Promote transparency and scrutiny of natural resource exploitation and management

Within Asia, many countries have experimented with devolution of publicly funded services to sub-national government bodies, including municipalities, and direct election of local mayors and other government officials. The forms in which devolution has been implemented have varied. In some cases it has taken the form of deconcentration, i.e. the decision-making authority and financial and management responsibilities has been spread among different levels of the central government. In this context, local authorities are not

elected by citizens but appointed by the central government, and local governments cannot make any by-laws or undertake any contracts without the approval of central government. Also, local governments gain broad powers shared with the central government, which leads to an unclear delimitation of powers and overlapping of activities. This form of devolution has reinforced local governments' accountability to central governments but not necessarily to local citizens. Due to a lack of transparency and accountability, corruption at the local levels may have increased. Here, decentralization has not necessarily led to democratization and a better popular participation.

In some other cases, however, devolution has been deeper, being implemented as delegation or decentralization, i.e. actually transferring responsibility for decision-making and administration of public functions from the central government to semi-autonomous organizations that are not wholly controlled by the central government, although are ultimately accountable to it. Decentralization reforms, in this case, have been taken by central governments with a genuine political will to share power and to devolve resources.

#### Enhance participation, transparency and accountability

Decentralization should be considered as a means of establishing citizen participation in and control over public affairs. Decentralized rural development involves small projects closer and accountable to local populations. This makes it possible to identify more realistic development projects, with a greater chance of being sustained. Local decentralized governments must facilitate greater revenue generation and efficient use of those resources for roads, schools, health centers, and job creation. It is critically important, however, that local governments meet those obligations while creating and adopting transparent accounting and fiscal management procedures, and enhancing local management of natural resources. Lack of transparency and accountability fosters corruption.

Mechanisms should be created to encourage citizens to monitor the use of public funds and hold officials accountable. Citizens should be able to hold their elected officials accountable through voting. Therefore, the active engagement of citizens, and particularly women and ethnic minorities, in the political process should be encouraged. At the same time, citizens should develop a new kind of civic awareness that allows them to reason collectively about politics and policy with other citizens. Hence, support should be provided for grassroots and local initiatives, as well as for networks of local and national non-governmental organizations and associations. Information on public affairs, including budgeting and outputs of investments, should be widely available. Direct accountability mechanisms should be experimented with and encouraged. Communities must have a mean to express their voice directly to politicians and local government officials through public forums.

#### Promote local government systems that encourage participatory and inclusive democracy.



Centralized power has long been associated with political exclusion, and it is important to ensure that decentralization does not continue this tradition but rather leads to political inclusion. There is a real and strong risk when power and authority are transferred to regional or local authorities, as they may be monopolized by local elites and used only to the profit of some. In this case, the elites may use the resources of decentralized government to limit political freedom, making the state less responsive and accountable. It is critically important, therefore, to discourage the adoption of the "strong mayor" system that reduces the influence of municipal councils, encourages strong-leader rule and machine politics. Mechanisms should be set in place to ensure that local officials do not use their increasing access to intergovernmental transfers to reward friends and followers (clientelism) rather than to improve the delivery of services for all. It is critically important, as well, to document, monitor and learn from municipalities that have been successful in combating clientelism and increasing the accountability of elected officials, as these outcomes cannot be taken for granted.

## 6 Redistribute environmental authority and functions to institutions best positioned to exercise them

Recently, there has been a strong call for the reallocation of powers among different levels of the political-administrative hierarchies of government and between government and private actors. Decisions that can be made by citizens without any regulation should be established within the domain of citizen rights. Decisions that can be made by representative local government or local civil society actors without jeopardizing social and ecological well-being should be retained at that level.

### Promote local government's technical, financial and operational capacity

It is important to enhance the capacity of decentralized governments to plan and execute development projects in ways that are consistent with the needs of their constituent groups and a long-term perspective on economic growth and natural resource management. The most appropriate level of government to undertake adaptive management would be that with mandated responsibility, with shorter response time, and with local accountability. This would indicate Provincial or District governments to be the best partners. However, currently these government levels are struggling with capacity issues – especially a shortage of qualified staff and unwillingness of qualified staff to serve in remote areas – which in itself represent an opportunity for development initiatives. Inadequate training and the lack of a career-based administrative cadre lower the quality and efficiency of local management. Many municipalities have limited financial resources and legal capacity to raise their own revenues. The expensive failure of the World Bank's FOMACOP (Forest Management and Conservation Program) in Laos is a signal of the enormous gap between devolution-oriented programs and the wider political economy of NRM to which national authorities are wedded. One of the

problems associated with the project is that Laos does not have a clear legal and policy framework that recognizes community forestry and local people's rights over and responsibilities for forest resources, so forestry continues to be largely under the control of the state and oriented towards the interests of industry.

Local governments must be better informed to take relevant decisions regarding basic services delivery and basic needs. Training on planning, management and public involvement in government should be provided. Local governments, for instance, must have the tools to become aware of service delivery economic, social or environmental costs in order to make the right decisions. Facilitation of networks of local and regional governments is also necessary to foster best practice learning and support from peers.

Recognize that decentralization, on the ground, is complex and often messy.

There is substantial empirical evidence that increased democracy and reduced corruption generally lead to better environmental quality in Asia. The principle of subsidiarity has gained increasing acceptance in a number of Asian NRM systems, and decentralization is the dominant trend. Nonetheless the process of decentralization, on the ground, is complex and often rather messy:

First, it must be understood that throughout much of Asia, devolution policies are situated in a historical trajectory of conflict between communities and the state. This began during the colonial period with legislation that ensured centralized control of NR, which involved the establishment of forestry reserves to be managed according to the tenets of 'scientific forestry' under the control of forestry departments. For instance, in Indonesia, a centralized approach to forest management has denied community rights, favored the emergence of a corrupt elite, established a technocratic forestry bureaucracy, and overseen a sustained overharvesting of timber and misallocation of forest lands for over 50 years

Secondly, the powers over natural resources that central governments and environmental ministries have allocated to local authorities are often limited and highly controlled through oversight and overbearing management-planning requirements. In some cases decentralization has translated into an extension downward of bureaucratic authority rather than devolution of powers. For example, in India, devolution policies, such as the Joint Forest Management (JFM) plan, have been criticized as being a further extension of state control, if set in the larger historical context.

Thirdly, where devolution of powers has actually occurred, it should not be assumed that locally elected officials necessarily make better environmental managers, are more accountable to local constituencies or support more sustainable resource conservation approaches than national-level officials. The substitution of customary authorities with elected officials in Asia has not always led to greater accountability or even reduced the degree to which power remains 'hereditary'. Some times the newly empowered elected authorities represent rural elites or the power struggles among them. Decentralization may weaken upward accountability to the central government while failing to ensure downward accountability to local people. In others cases local officials are more



concerned with (and pressured to) gaining fast access to revenues for development purposes than with promoting long term growth with conservation of forests or other resources. In Indonesia, in the forestry sector, there were expectations that that in the decentralization process district governments would implement better forest management regimes, the benefits of which would accrue to local people. However, what has happened is that those now responsible are accountable neither upward to the central government nor downward to local people. By and large, however, local officials are more responsive to local constituencies than national-level officials.

Encourage inclusive national-level debate on the appropriate distribution of powers among different levels of governance to guide the restructuring of natural resource governance successfully.

The specific characteristics of each type of natural resource (water, land, forest, etc.) imply an optimal level of governance. Principles are needed to guide the selection and location of powers among levels of government and between public and private spheres concerning all powers over natural resources. These powers include executive (decision making, implementation, and enforcement), legislative (rule making), and judiciary (dispute resolution and recourse) powers. This highly charged political task requires an inclusive national-level debate in an enabling environment that allows rural and other voices to weigh into decisions. Participation or the involvement of elected representatives may slow the process of designing and implementing conservation or sustainable use policies. It may, however, also be the best way for institutionalizing participation and creating an enduring management process.

Many powers and decisions should remain at the level of central government. These often include, among others, the establishment of a legal enabling environment and the making and implementation of national policies concerning foreign policy, defense, monetary policy, and standards for health, education, welfare, poverty reduction, and the environment. For the environmental sector, the central government should have responsibility for establishing a broad legal framework in which the public can hold national decision-making bodies accountable, setting national environmental priorities, setting minimum environmental standards, and assuring implementation and enforcement of these laws.

Shift in the role of central state authorities from command and control toward technical support and legal oversight.

As powers are decentralized to local authorities and minimum environmental standards are developed, make a parallel shift in the role of central state authorities from command and control toward technical support and legal oversight. Rather than designing and implementing projects that exercise direct resource-use law enforcement and oversight, the roles of central agencies should be to ensure that appropriate skills and information are available to local people and that decentralized local authorities and institutions are acting within the guidelines and standards of the law. The agronomists, biologists and other public servants in technical positions in the Ministries of Agriculture, Environment etc. need to be hired, promoted or fired based on merit, rather than on party loyalty. In

transitional post-socialist economies of Asia, the military has increasingly become involved in and dependent on natural resource concessions, with implications for governance at a much wider level.

Ensure that decentralization does not undermine the coherence of the national political community.

Decentralization should not promote local or regional participation in government affairs at the expense of national-level coherence and coordination. It is important to avoid the fragmentation of decision-making structures, the weakening of party systems and the rules for national policymaking, as these conditions might undermine coordinated social policies and lead to fiscal and political instabilities. It is critical for decentralization not to introduce additional inequalities into already unequal societies. It must be kept in mind that decentralization may strengthen the resource base of wealthier local and regional governments at the expense of poorer ones, especially if substantial devolution of fiscal powers is involved.

## 7 Transfer environmental powers to authorities representative of and accountable to local populations

Many natural resource experts and managers have advocated decentralization for improving management efficiency as well as equity and justice for local people. Significant power transfers and accountable, representative local institutions are necessary elements of effective decentralization.

To deliver the benefits of participation, it is essential that decentralization place meaningful discretionary powers in the hands of locally accountable representative authorities. It is a matter of establishing the necessary institutional infrastructure—empowered representative local authorities—across national territories. Among existing accountability mechanisms, elected bodies are preferred to appointed or self-selected (NGOs or private bodies) institutions.

Transfer discretionary decisions before obligations.

One of the priorities and a defining characteristic of decentralization is the creation of a “domain” of local discretion in decision-making. Given local autonomy or local discretionary powers, local authorities are more likely to be respected, viewed as legitimate in the local arena, and serve as channels of communication and action around which civil society can form. According to a recent World Bank report, however, many local governments in countries undergoing decentralization remain unclear about what precise functions they are accountable for delivering and whether or not they have the authority to determine levels of compensation and employment.

Make transfers in the form of secure rights, not retractable privileges.

The degree to which the transfer is secure helps to determine the degree of independence that local authorities have in exercising powers. It also reflects the degree to which governments are serious about creating a domain of local discretionary power, which is basic to effective decentralization.

Transfer powers even before capacity is demonstrated.

Central governments are often reluctant to devolve powers before technical and managerial capacities have been demonstrated. Yet local authorities need powers to gain the experience necessary for building capacity. In addition, many local natural resource decisions do not require special capacities.

## 8 Explore a minimum environmental standards approach

A minimum environmental standards approach can serve as an alternative to the current trend toward micromanagement through elaborate and detailed rules and plans. Conditionalities, overbearing approval processes, and excessive oversight represent “claw-back,” minimize transfers, and limit discretionary powers, including over nature. For example, management plans are commonly overly complex, restrictive, and/or prescriptive and require extensive and multiple levels of government approval. These overly complex management planning requirements make it difficult, if not impossible, for local communities to use or manage natural resources with any degree of independence.

An alternative, more effective approach is to set minimum standards, specify goals, set targets, and establish restrictions and guidelines for environmental use and management. Any government agency, private institution, or individual operating within those restrictions and meeting goals/targets needs no approval from a government or management plan to use or manage resources. This allows for innovation and initiative as well as responsibility to be developed at the local level.

The minimum standards approach has to be integrated with effective information systems to know what exactly everyone is doing versus what they are claiming to do, as well as an environmental policy structure that emphasizes incentives for good behavior over punishment, control and restrictions that cannot be enforced. It may be possible to use wider, regional, associations like the Association of Southeast Asian Nations (ASEAN) to achieve this. For instance, many Indonesians are trained in environmental sciences in the Philippines – a country more receptive to delegation of powers and accountability, and one where these concepts might be more readily explored.

## 9 Promote platforms that encourage checks and balances, pluralistic approaches, and conflict management

Failure to manage natural resources effectively and equitably contributes to conflict—at the regional, national, and local levels. Addressing the wealth and power aspects of natural resources can mitigate some of these conflicts. Many of Asia's larger and more brutal conflicts concern or are fueled by natural resources. Numerous lower-level conflicts over resources also exist. Ongoing democratization and decentralization processes have made the pluralism of local areas more apparent and more concrete; a number of autonomous and independent groups with fundamentally different values, perceptions, and objectives are demanding a role in decision making about natural resource management.

The risk sometimes exists, however, that this pluralism can become so contentious and so time and resource consuming that NRM decisions and actions are delayed or made in suboptimal ways. It is essential to find ways of positively influencing these processes. It is important to create and foster local forums, while at the same time to recognize that different groups that may have conflicting interests over natural resources, and that consensus may not always be achievable. Nepal may be a case in point where, despite many 'models' of effective NRM, social and political conflict has escalated.

The establishment of platforms of negotiation is a positive development because it encourages an increasingly robust system of institutional checks and balances. These checks and balances can reduce abuses and errors and provide the "gyroscope" that keeps NRM on track. Because decentralized authorities do not always make decisions in the best interest of the environment or of their weaker constituents, there is a need to "trust but verify" to prevent abuses or injustice. Newly empowered local governments, especially where they lack accountability, may be tempted to take advantage of opportunities offered by globalization to exploit natural resources at excessive rates. For instance, in Indonesia relaxation of central control and empowerment of provinces (*Propinsi*) and regencies (*Kabupaten*) has increased environmental damage, as provinces see the opportunity to enrich themselves after many years of tight fiscal control.

The general thrust toward decentralization of NRM responsibilities must be heavily qualified in economies where the pace of market expansion has far exceeded the development of institutions capable of regulating market activities, especially as Southeast Asian economies experience huge increases in the share of their regional trade in natural products going to China.

Create or modify existing forums at all levels, but particularly at the local level, where the plurality of actors can assemble and discuss natural resource management issues.

Several countries are attempting to form platforms at the local level so that the various stakeholders around certain resources can meet and discuss their needs, vision, and objectives. In common property situations, communication is essential for the legitimacy of rules and control of free riders. Providing these forums is an important step toward better management.

It is important to recognize, however, that division among stakeholders may be deeply entrenched in local history and social structure and may not be easily resolved in the course of discussions. For example, lessons from the Biodiversity Conservation Network (BCN) projects indicate that in South Asia, members of different castes use resources in different ways. In the Pacific, communities are split into different sub-clans, clans and language groups, while in Southeast Asia divisions exist between wealthy and poor village members as well as between indigenous peoples and migrants. In Indonesia groups that historically inhabited separate islands of the archipelago have been brought together to constitute “local communities” as a result of government-sponsored resettlement as well as spontaneous migration. These ethnically heterogeneous communities often experience internal conflict as a result of different (and often competing) interests, attitudes, values and perceptions with regard to NR and NRM. For instance, settlers view the forest as uncultivated space to be converted to farmland while indigenous people seek to protect it for continued access to forest products.

Recognize that NRM can be contentious and conflicts can present learning opportunities. Facilitate process and mechanisms for conflict management.

Different groups are likely to disagree about issues of substance such as natural resource management. This disagreement, if handled correctly and openly, presents learning opportunities in which diverse viewpoints enrich debates and force new ideas. Support to nonformal conflict management processes can help diffuse conflicts and maximize learning from them.

Well-documented case studies can help demonstrate to relevant decision makers the value of diversity and plural approaches to NRM. For example, the Nam Choan Dam in Thailand in the late 1980s was an extremely contentious and bitter case; the proposed dam would have flooded rare lowland riverine forest and displaced six Karen communities. Public opposition from Thai student environmental groups, concerned academics, and other government officials resulted in the project finally being canceled in 1988, and has led the Thai government to pursue other sources of hydropower as well as working towards diversifying its sources of energy.

It must be recognized that there will always be winners and losers, and it is likely that the poor will be the losers, given their level of skills and resources, even if they are invited to the negotiating table. Efforts should be directed to increasing capacities of under-privileged groups to organize, negotiate, form alliances, and advocate for themselves.

Promote social approaches that do not depend on consensus and help identify losers and problems.

Consensual approaches to natural resource management are intuitively attractive, but present major obstacles. Consensus is positive when freely given and adequately informed, but this is rarely the case. In addition, consensus, even if reached, can impede creativity and productive effort. Other approaches are needed that respect diversity, recognize restrained dissonance or bounded conflict, and respect the autonomy of others.

# Looking to the Future

In the past 20 years, enormous transitions have taken place in Asia—in terms of social aspirations, mobility, communications, the breakdown of traditional authority systems, the role of the state, roles of youth and women, economic and technology options, new ideas, and new forms of political organization. In governance terms, the scale and pace of change is creating tremendous ambiguities that can become either obstacles to or catalysts for investment, economic growth, and improved resource management. Change is likely to be even more rapid, more profound, and more widespread in the next 20 years.

The fate of Asia's natural resources cannot be separated from the broader context of the economic and development challenges Asians face. Successful natural resource management strategies must take into account and leverage the broader economic dynamic that is shaping peoples' lives and choices in Asia. Environmental management is increasingly linked to national development, social equity, and governance. The relationship between governance and environment is complex. However, with some notable exceptions, the stronger the democracy, the better the environmental management. Although the relationship clearly depends on a range of factors, democratic principles, such as transparency, participation, and accountability, are fundamental for sound environmental and natural resource management. For effective environmental management, economic development, and social well-being in Asia, investing in democracy and good governance is a sound strategy.

Getting rural development moving is a complex and daunting task. It is important, however, to accept the complexity and avoid "one size fits all" solutions. No single approach—whether export agriculture, community-based NRM, ecotourism, biodiversity enterprises, or anything else—is a solution for everything. Although natural resource management has to be seen in a broad development context and will not solve all problems, it is a unique entry point for economic and political development in rural Asia.

The NWP framework reveals a number of cross-cutting themes that are common to nature, wealth, and power. These include:

- **Knowledge management.** Transparent and good quality information and knowledge is necessary for good economic, governance, and environmental decisions and outcomes.
- **Capacity building.** Capacity building—investing in human resources—is critical for natural resource management. Capacity has to be built in the environmental, economic (marketing business skills and so on) and governance (rights, management of organizations, and so on) arenas.

- **Organizational development and arrangements.** Organizations have to be built and reinforced at many levels, but especially at the rural level. Technical, economic, and management organizations are needed. It is important to build partnerships and coalitions.
- **Competitiveness and efficiencies.** In the technical, economic, or governance realms, the need for efficiency and competitiveness is increasingly clear.
- **Policy and legal reform.** Asian countries have undertaken many positive legal and policy reforms. However, whether it is in the domain of resources, economics, or governance, the reform agenda is often unfinished and application requires continued effort.
- **Integration.** Policies and legislation in different sectors are sometimes contradictory and confusing; this can constrain investment in NRM. The need exists for coordination across sectors and integration of the nature, wealth, and power dimensions of NRM. The “best bets” listed here represent a package; efforts to concentrate on just one action or dimension will likely be unsuccessful. Integrated action across a range of sectors and scales and capture of technical, economic, and governance issues are needed in any single program action.
- **Politics.** Calling for better NRM governance needs to be anchored in an acknowledgement that solutions will require working within ongoing formal and informal political power contest. The critical question, therefore, is how to enhance the pro-poor aspects of rural development trajectories in a context where resistance to change is expected.

The best bets presented here resulted from years of experience and analysis. They are, however, but the opening statement in a pluralistic and spirited debate that has to take place under trees in villages, in district council offices, ministry conference rooms, and university classrooms around Asia.

Bringing the rural areas of Asia into the mainstream of economic growth and good governance is not a luxury. It is the economic and governance issue of the day for Asia. Although it will not be easy, it is also not a mystery. Best practices and innovations are emerging around the continent. Many of these represent an upsurge of bottom-up, unscripted efforts. Although changes are required and these changes threaten some interest groups and some governments, the benefits for the majority of Asians far outweigh the costs.

The fate of Asia’s natural resources cannot be separated from the broader context of the economic and development challenges Asians face. Conversely, Asia’s economic and development future cannot be separated from the management of its natural resources.



*Moving Forward—Outcomes and Crosscutting Themes*

