The Politics of Environmental Policy with a Himalayan Example

PIERS BLAIKIE

JOSHUA MULDAVIN

AsiaPacific
ISSUES

SUMMARY How we arrive at knowledge—and how we draw on knowledge to make policy—have been the subject of vigorous debate and analysis. Simple models of expertise and action are gradually yielding to a more complex vision of how truth speaks to power and power talks back. The Himalayan region—where scientists, statesmen, and citizens confront a unique set of environmental challenges and political legacies—provides a powerful case study. For over a century, it was believed that over-use by local farmers and hunter-gatherers threatened fragile mountain and river environments. Beginning in the colonial era and continuing into the present, governments have strictly curtailed traditional land-use practices. In the 1980s, scholars began to question the science on which those restrictive laws were based. But new science has not, in most cases, led to new policy. This disconnect inspires questions about the nature of both science and policy, their influence on each other, and whether each could benefit from greater openness to the insights of people who fall outside the narrow roles of expert and politician.

Environmental Policymaking

Numerous models have been suggested for how scientific knowledge affects policymaking. A case study of environmental policy in the Himalayan region illustrates two such models. In the so-called rationalist model, the "truth" about the environment (often scientifically produced) talks to "power" (policymakers in government), who then act rationally upon the information given to them and enact policy accordingly. This has also been called the expert-led policy model, since it largely relies on authoritative technical and scientific knowledge rather than on a wider range of other perspectives from society at large. The other model, which could be labeled "political and discursive," is much more complex: Not only scientists, bureaucrats, and politicians have leverage in the policymaking process, but also the media, industrialists, trade unions, social movements, and many others. Competing representations of what is important and relevant constitute a range of competing "truths."

Both models can be examined in terms of how well they correspond to the process by which policy is *actually* made and *should* be made. Interesting lessons can be drawn, using these models, when a significant "truth" upon which policy is based falls from favor—as in the case of a theory which helped to underwrite environmental policy in the Himalayan region for many years, and then was shown to be substantially incorrect. Each model also suggests different styles of policymaking and different policy outcomes.

The Theory of Himalayan Environmental Degradation

The Theory of Himalayan Environmental Degradation (THED) asserts that anthropogenic (caused by human action) or accelerated erosion is a serious problem in the steep-sloped and fragile natural environments of the Himalayan region. THED suggests that this land degradation is driven by population growth, increased numbers of livestock, and ineffective local agricultural techniques. It identifies extension of cultivation onto steeper slopes, clearance of

forest, overgrazing, and unsustainable gathering of fuelwood and fodder as the major land management practices that have caused accelerated erosion and increased sedimentation of river beds and serious floods downstream (including, in India, the Kosi, Brahmaputra, Sutlej, Beas, and Ganges, and in China, the Yangtze, Red, Nu, Salween, and Mekong rivers).

THED was accepted in varying degrees by most scholars and funding institutions for many years. In India, its roots can be traced to the 19th century.[i] Under THED, it was incumbent on the state to keep very tight control of forests, and allow local people (who drew their livelihoods from forests) only residual and carefully regulated access to them. Without such control, it was claimed, local users, unmindful of the potential for flooding and damage to watersheds, would decimate forests and overgraze pastures, thereby accelerating the environmental crisis.[ii] Thus, THED provided a powerful discursive weapon for a tough and exclusionary forest policy (sometimes called "fortress conservation"). It also reinforced the state's mandate to protect the forests for commercial exploitation rather than for subsistence use.

International environmental researchers and policy analysts began to question the quality of the scientific basis of THED in the 1980s. This growing reappraisal came together at an important international conference in Mohonk, New York, in 1986, which stimulated a large number of subsequent publications. A central conclusion was that the anthropogenic causes of erosion had been grossly overplayed and were actually dwarfed by natural causes—a high natural rate of erosion due to rapid orogenic (mountain building) uplift leading to mass wasting and large-scale, episodic delivery of sediment to river systems, and a high natural erosivity. Upstream farmers and pastoralists were therefore largely exonerated by most international researchers from responsibility for downstream flooding, sedimentation of reservoirs, rising river beds, and accelerated bank erosion. Also, THED had seriously underestimated the complexity and spatial variability in the region, and had overstated the sense of generalized environmental crisis.

The thrust of the Mohonk conference (and most writings since) does not deny that there are

Interesting lessons can be drawn when a significant "truth" upon which policy is based falls from favor

environmental threats, but argues that they are extremely diverse and are framed and explained in very different ways by different actors such as farmers, pastoralists, forest contractors, and forest officers.[iii] Also, a more general skepticism started to appear in the academy about how environmental science was practiced and the ways in which it framed hypotheses about the Himalayan environment. Thompson et al. showed the high degree of scientific uncertainty surrounding the rate of soil erosion, deforestation, and wood fuel requirements in the region. The authors exposed the institutional and political origins of so-called scientific measurement. They put the problem in this way: "You can ask 'what are the facts?' and you can ask 'what would you like the facts to be?'" The authors go on to imply strongly that it is the latter question we should be asking much more often and further propose that "the institutions are the facts."[iv] So, if state institutions wanted facts supporting THED, according to this much more socially constructed view, they got them, at worst, by making them up, and at best, by selective appropriation.

Recent scholarship does not deny that there are environmental threats, but argues that they are extremely diverse and are explained in very different ways by different actors

THED, Its Demise, and Impacts Upon Policy

Under the rationalist model of policymaking, the expected result of this radical change of view would be changes in national policy, over perhaps 10 or 15 years, such as the following:

- less emphasis on expert-designed soil and water conservation and watershed management, and more tolerance for indigenous conservation of agricultural land, pastures, and forests;

- at least a partial relaxation of coercive restrictions on land use and agricultural technologies such as shifting cultivation;

- an acceptance that serious flooding downstream, sedimentation of reservoirs, and damage to hydro-electric plants through flooding and sediment load could not be reduced substantially through rigid and restrictive upstream land-use policies;

- a re-focusing of development efforts away from narrow notions of resource conservation (important though this must continue to be) toward sustainable livelihoods for local people who rely on forests and pastures;

- a transformation of land tenure away from state-owned regimes and restrictive leases toward a more trusting and flexible regime that grants local people the right to manage forests and pastures.

In short, a re-framing of policy at the national level, from purely environmental to social and environmental, might have been expected as a rational policy response to new information. But nothing substantial of this sort has occurred. Furthermore, resistance to pressures from international bodies and national activist groups has been the norm at all levels of government, from senior policymakers to field staff. This unexpected outcome suggests that the rationalist, expert-led model did not perform as a predictive tool. The second model, with its focus on political forces in the policy process, may explain the outcome more successfully.

Some limited headway has been made as a result of international and national negotiations. Examples include the Community Forestry Program in Nepal, with over 11,000 Forest User Groups; the Joint Forest Management program in India; and the Social Forestry program in Yunnan, China.[v] Other limited policy experiments include bilateral projects and NGO activities in social forestry.[vi] However, national policy elites constantly attempt to downsize these programs using old arguments about scientific management and the need for conservation.

Occasionally, such policy reforms and initiatives —which dilute exclusive state control and one of its main justifications (the conservation imperative)— have been introduced piecemeal by outside agencies. These formed, where possible, political alliances with members of national governments, social movements, and intellectual networks. This has been difficult in China, slightly less difficult in India, and much easier in Nepal, with its small but vigorous community of innovative foresters, assisted by a pioneering community forestry project. However, these innovations run counter to most of the policy thrusts from within national governments themselves.[vii] Thus, whatever gains there may have been in policy reform, they are fragile.

At the national level, established bureaucratic regimes and overriding political considerations prevent

Forest regulations remain as tough as ever, if not tougher, and such programs as social forestry move at a snail's pace

much reformist headway being made on the ground. Rhetorical gestures toward a more participatory approach to resource management are sometimes made in policy documents such as national conservation strategies and action plans.[viii] However, such documents usually allow for only open-ended and imprecise implementation. As long as they do not threaten centralized control of forest and land use in practice, these gestures are tolerated. In India, intellectuals and political activists[ix] promote these more democratic and egalitarian approaches to environmental management, and their views of devolving control of forests and wildlife have been given space in policy documents (e.g., the 1988 Indian Forest Bill). However, by both intention and default, such policy agendas inside government (as distinct from internationally funded projects of limited extent) actually make slow progress. In India, the spirit of the highly exclusionary and "fortress style" Indian Forest Act of 1927 lives on, while China's new Forestry Law maintains continuity with its first forestry directives, made in the early 1950s. Forest regulations remain as tough as ever, if not tougher, and such programs as social forestry (in which a degree of management choice is made available to local organizations) move at a snail's pace.

Two Approaches to Environmental Policy

Both models have a descriptive purpose ("this is how policy *is* made") and a normative one ("this is how policy *should* be made"). Under the rationalist policy model, scientists speak about reality to bureaucrats and politicians, who then act rationally to determine policy. This model usually relies on expert and authoritative knowledge, often framed and created by a small group of senior administrators and government research institutions. Policy therefore tends to construct, upon narrow foundations of knowledge, a unique diagnosis of the problem and what should be done about it.

Figure 1 illustrates the rationalist and expert-led model. Here, the "scientist's eye" sees an objective reality (for example, environmental change, which has been interpreted as accelerated degradation caused by human action), and transmits that finding to policymakers (usually senior civil servants and government ministers). There may be some mutual framing of the research questions by government and researchers, but the results of scientific study are treated as authoritative and apolitical, since they are arrived at using standard (and unimpeachable) scientific methods that stand above politics. A planning
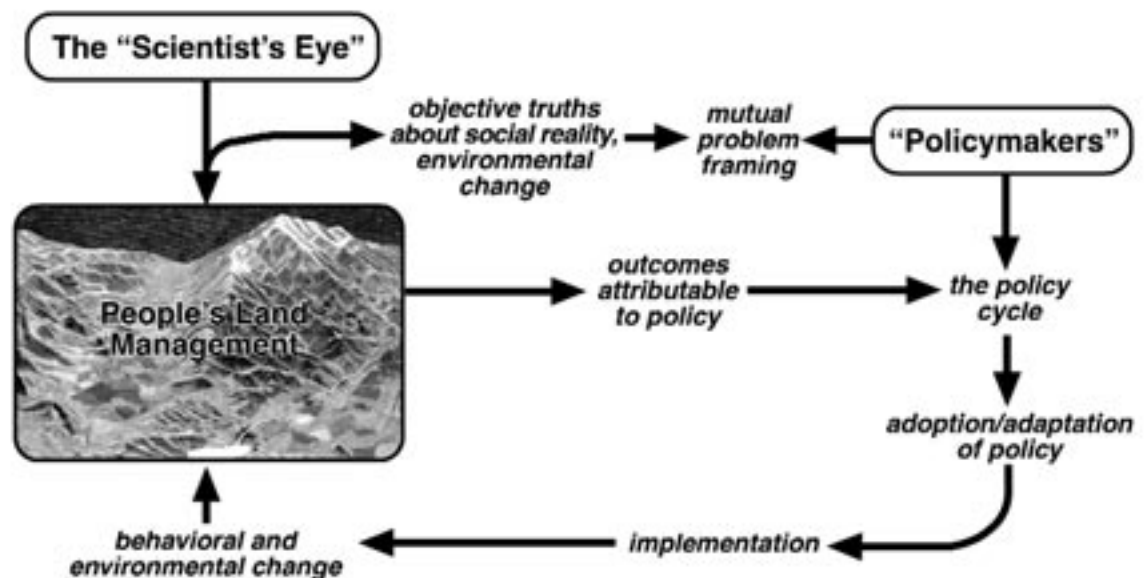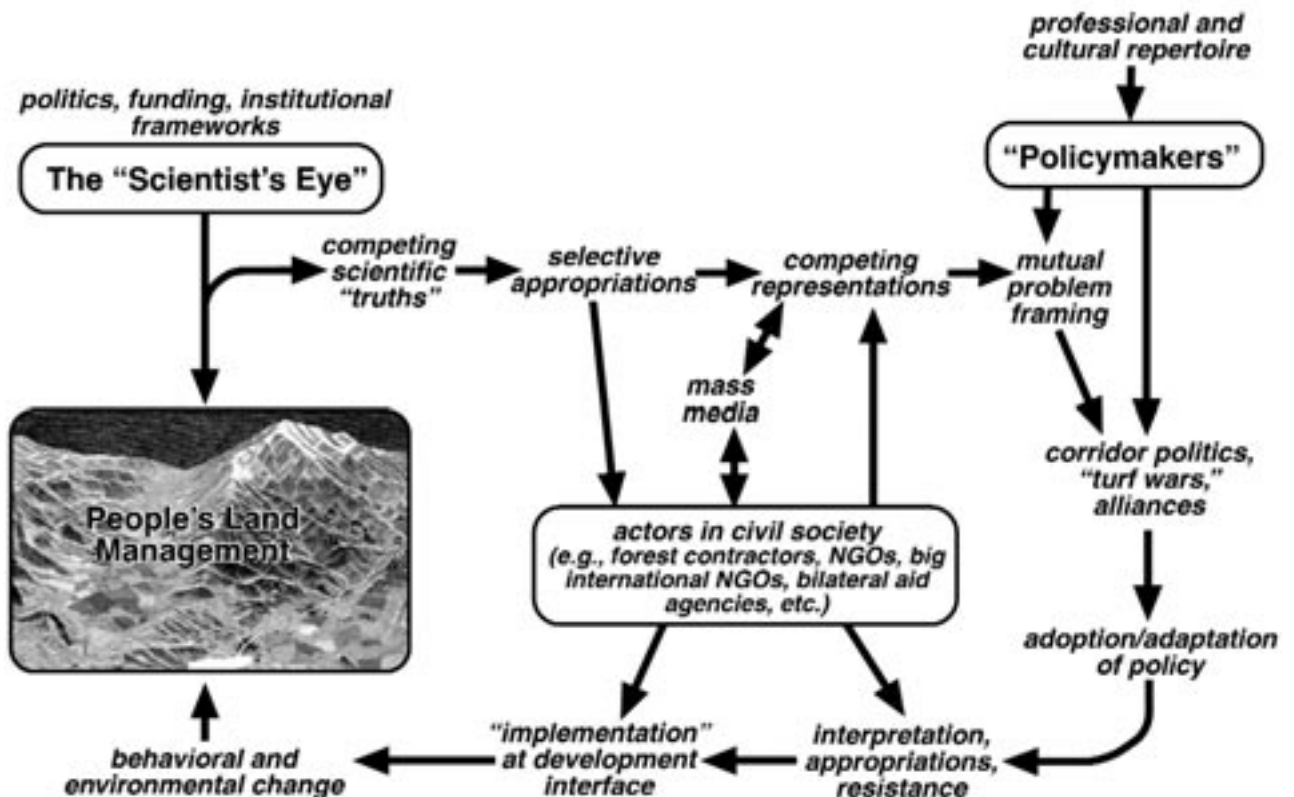

Fig. 1. The rationalist and expert-led model of policymaking

process (for example, logical framework analysis and the "policy cycle") is then put in action, followed by a search for solutions, the choice of the best solution(s), and finally a monitoring and evaluation process set up to feed information into the next cycle. The rational approach to policymaking, as Figure 1 implies, would endorse this policy-making process as what *should* happen.[x]

The second model of policymaking offers an alternative explanation of the process, and shows that the knowledge foundations of policy are often much broader. Powerful and wealthy resource users in civil society, government servants who stand to gain as a result of inducements, forest contractors, private companies involved in resource extraction—all of these can influence policy. In a more democratic environment, and where civil society is politically organised, many other voices—small farmers, women's groups, community-based institutions, social movements, federations of local village committees—may also have an effective role in shaping policy.

In this version (Fig. 2), the "scientist's eye" becomes many different "eyes" with different views, and the science itself is shaped by political and economic forces which fund some research projects and not others, some institutions and not others, and in which policymakers and scientists "co-produce" scientific information. Here, there is no single rational arbiter to choose from and act upon co-produced scientific results, as is assumed in Figure 1. Instead, this model sees science itself as merely one type of constructed knowledge among others and a dynamic outcome of competition, accommodation, and resistance. Competing truths therefore emerge into a more public domain. The mass media (particularly where there is a free press, as in India) can be very important. While not directly shaping policy, it can sway the actions of politicians and the public opinion upon which they depend for electoral support. The ongoing debates between government and intellectuals on the Indian Forest Bill are published in many newspapers and weekly journals (for example, *The Economic and*

In one model, policy is based on objective science. In the other, the knowledge foundations of policy are often much broader

Fig. 2. The political and discursive model of policymaking

Political Weekly). Once policy becomes set into texts (working papers, files, and minutes of meetings), turf wars and bureaucratic infighting involving a constantly shifting set of alliances intensify. Thus policy is usually made amidst intense argumentation, political pressures, selective use of "facts," and appeals to all manner of different sentiments.[xi]

Some readers, particularly planners and adherents to the first model, would view this model of policymaking as a discouraging prospect—messy rather than clear and focused, emotional and political rather than objective and scientific, and all subject to manipulation. In the academy and in governments the world over, the rationalist and expert-led policy model continues to be taken very seriously indeed. People write it and think, with various degrees of reflection and conviction, that they really *are* contributing to the public good by applying the best natural-science knowledge available and other rational means to come to environmental policy decisions. Simply, this is the way policy should be done.

Thus, it is easy to see why criticism of the rationalist and expert-led style of policymaking is treated with hostility by most policymakers in such countries as China, India, and Nepal—and why this style of policymaking continues. First, criticism may be taken as a slur on the integrity of senior public servants and others who claim to be part of the policy process—in the Himalayan region as well as elsewhere. Second, suggestions have been made that indigenous conservation efforts, in many instances, may be coping with environmental challenges better than exclusively state-managed regimes. State policymakers can hardly be expected to receive these suggestions with joy. Third, the more democratic approach of the political/discursive policy model threatens to upset tried and tested bureaucratic procedures that help to reduce uncertainty and are seen as both familiar and effective. Old information and environmental narratives (for example THED) have a momentum of their own, and often resist change even when contradicted by empirical data.[xii]

Fourth, judging from interviews with key opinion formers in national policy-making circles in both India and China, there is a certain xenophobic pride

Old information and environmental narratives have a momentum of their own, and often resist change even when contradicted by empirical data

in dismissing this new international research on the grounds that "we do not need to be told what is going on in our own country, and anyway, do not appreciate having our long history of national research contradicted and overturned."[xiii] (This view disregards the fact that many prominent Indian scientists and activists also criticize THED.)

Fifth, the new view of environmental processes in the region has deep political implications. The rationalist, expert-led, authoritarian policy model excluded subsistence users from pastures and forests, and favored other powerful groups who gained access (both legal and illegal) to forests for commercial uses. Activists in India have long advocated a more equitable policy for natural resources. It is therefore understandable that those who gained under the old regime would resist the upheaval that could result from new information and styles of policy making.

Sixth, political and strategic issues involving minority groups and sensitive border areas play an important role in shaping national policies. China, for example, has a long history of conflict between the central government and the hinterlands, where suppression of rebellions and border wars have had serious environmental and social impacts.[xiv] The supposedly accelerated rate of sedimentation into the Three Gorges Dam, and damaging flooding downstream, have been—according to the state—caused by pastoral ethnic minorities whose traditional use of pastures, agricultural land, and forests is said to compromise the national project of modernization. This diagnosis has led to grassland enclosures, which support the state's goal of ending pastoralism—and with it, a long history of resource use by Tibetans, Mongolians, Uighurs, and other minority people.

Environmental Policy is Political

Thus, even the rationalist and expert-led model of policy is highly political. First, the choice of problems to be addressed, the way in which they are framed, and the production and selection of scientific information, all suit the powerful bureaucratic drive to control the policy debate. Second, scientific knowledge is, to a greater or lesser degree, co-produced, usually by

Policymakers may find it difficult to evaluate and act upon new scientific information, especially if it comes from outside the policy-making elite

governments and scientific institutions. Governments fund para-statal research organizations to solve problems set by policymakers, and will not as a rule fund research that might undermine established wisdom and the powerful justification for continued state control over natural resources. This situation is as widespread in India or China as it is in the West. It tends to exclude alternative (and inconvenient) research agendas, including study of the environmental management practices of local resource users. This ensures that the production of "scientific" knowledge is monopolized by the state through exclusive reliance on state-sanctioned and -financed research. Third, practitioners of this model separate policy making from implementation, making it possible to blame policy failure on poor implementation, lack of political will, and the interference of politicians, rather than on flaws in the policy itself. In this case, a perception of poor implementation can lead to an even stronger resolve to make fortress conservation work and to defend the Himalayan environment from local resource users. Fourth, as illustrated by the conflict between central government and pastoralists in China, strategic and political factors that have little to do with environmental management can nonetheless strongly influence it.

Conclusions

What can we conclude from this case study of environmental policy making in the Himalayas? First, there are many powerful reasons for the persistence of the rationalist/expert-led model of environmental

policymaking. These reasons take different forms in different countries, yet have striking similarities. Second, the rationalist style of policymaking can suffer from a number of shortcomings. Policymakers may continue to rely on environmental and political narratives (usually of blame) that have been refuted by reputable new research, and may find it difficult to evaluate and act upon new scientific information, especially if it comes from outside the policymaking elite. Third, policymakers tend to react with hostility to new policy paradigms involving democracy, transparency, and negotiated multiple truths, thereby missing opportunities for policy reform. Fourth, the political and discursive style of policymaking allows a new form of natural science to contribute to environmental management practices that are deliberative, inclusive, and participatory. While this style does not guarantee such "democracy of knowledge," it makes it possible. We cannot understand environmental problems if we do not incorporate the views of the multiple stakeholders who operate on a landscape. We also have to appreciate that these stakeholders operate on an uneven playing field with diverse abilities to make their knowledge claims known —some voices will speak louder than others. Fifth, and finally, policies made in the rationalist and expert-led style have tended to be ultra-conservationist and top-down. State-imposed tenure regimes and tough exclusionary policies in the name of conservation often produce worse outcomes, in both environmental and socio-economic terms, than a range of diverse and flexible policies that trust local people more with the management of local natural resources.

Notes

[i] Farooqui, A. 1997. *Colonial Forest Policy in Uttarakhand, 1890–1928*. New Delhi: Kitab Publishing House. Also, the Forest Act of India 1894 stipulated the importance of protecting forests on hill slopes.

[ii] For a summary of this view, see Ives, J. D. 1998. Tokyo Presentation: The Himalaya Environmental Change and Challenge in the Himalaya—Misguided Attempts at Development: Population Growth; and Poverty. *Geography Institute Papers*, 40(1): 34-51.

Tokyo: Nippon University. Ives introduced the term "Theory of Himalayan Environmental Degradation" to describe this view in Ives, J.D and Ives, P., eds. 1989. "The Himalaya-Ganges Problem." *Proceedings of the Mohonk Mountain Conference. Mountain Research and Development* 7(3), 181–344.

[iii] Forsyth, T. 2003. *Critical Political Ecology*. London and New York: Routledge.

iv Thompson, M., M. Warburton, and T. Hatley. 1986. *Uncertainty on an Himalayan Scale: An Institutional Theory of Environmental Perception and a Strategic Framework for the Sustainable Development of the Himalayas.* London: Milton Ash. Quotations are from pages 1 and 73.

v Lai, Q. 1997. "Conflict Management and Community Forestry: A Case of the Nangun River Nature Reserve, Yunnan, China." In *Conflict and Collaboration: The Eighth Workshop on Community Management of Forest Lands*, eds. J. Fox, L. Fisher, and C. Cook. Honolulu: Program on Environment, The East-West Center. Also, Tang, H. and S. Du, eds. 1995. *Lindi Linmu Quanshu Yu Shehui Linye* [*Forest and Tree Tenure and Social Forestry*]. Chengdu: Chengdu Keji Daxue Chubanshe. Also, Zhao, J. 1993. Social Forestry in Yunnan. Kunming: Science and Technology Press of Yunnan.

vi Harkness, J. 1998. "Recent Trends in Forestry and Conservation of Biodiversity in China." *China Quarterly* 156: 911–934. Also, He, P., ed. 1995. *Shehui Linye: Yanjiu, Tansuo* [*Social Forestry: Research and Explorations*]. Kunming: Yunnan Keji Chubanshe.

vii Ministry of Forestry of the People's Republic of China, Wildlife and Forest Plants Protection Department. 1997. *Guoyu Linqu Tianranlin Ziyuan Baohu Gongcheng Jihua* [*Plan for a Project to Protect Natural Forest Resources of State Forest Areas*]. Beijing: China Forestry Press. Also, Government of India, Ministry of Environment and Forests. 2002. Legislations on Environment, Forests, and Wildlife. http://envfor.nic.in/legis/legis.html. Also, attempts are currently being made to curtail the rights of forest user groups by amendments to the Forest Bill in Nepal.

viii Xie, B. and H. Li, eds. 1995. *Environmental Management, Public Policies and Public Participation*. Beijing: China Environmental Science Press. Also, Muldavin, J. 2000. "The Paradoxes of Environmental Policy in Reform Era China." *Economic Geography* 76(3): 244–271.

ix Gadgil, M. and Guha, R. 1995. *This Fissured Land: An Ecological History of India.* Delhi: Oxford University Press.

x See Apthorpe, R. and Gasper, D. 1996. *Arguing Development Policy: Names and Discourses*. London, Frank Cass. Also Forsyth 2003 op. cit.

xi See Apthorpe and Gasper 1996 for a comprehensive review of policy analysis that addresses these issues.

xii Roe, E. 1994. *Narrative Policy Analysis: Theory and Practice.* Durham, NC: Duke University Press.

xiii Blaikie, P.M. and Sadeque, Z. 2000. *Policy in High Places: Environment and Development in the Himalayan Region.* Kathmandu, Nepal: International Centre for Integrated Mountain Development.

xiv Menzies, N. 1991. "The History of Forestry in China." In *Science and Civilization in China: Agroindustries and Forestry*, Vol. VI.3. Christopher A. Daniels and Nicholas K. Menzies, eds. Cambridge: Cambridge University Press.

Recent Asia Pacific Issues

About the Authors

Piers Blaikie and *Joshua Muldavin* were Research Fellows with the East-West Center's Program on Environment. They recently collaborated on "Upstream, Downstream, China, India: The Politics of Environment in the Himalayan Region," which is forthcoming in September 2004 in the Annals of the Association of American Geographers.

Dr. Blaikie is Professor of Development Studies at the University of East Anglia, and has conducted research in South Asia and Africa for over 35 years. He recently co-authored At Risk: Natural Hazards, People's Vulnerability and Disasters.

Dr. Muldavin is Henry R. Luce Professor of Asian Studies and Human Geography at Sarah Lawrence College, and a former Director of International Development Studies at UCLA. He has conducted research in China for over 20 years. He recently published "The Paradoxes of Environmental Policy and Resource Management in Reform Era China," in Economic Geography.