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Environmental Justice and Rural Communities

Studies from India and Nepal

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Introduction to Environmental Justice in the Rural and Natural Resource Context in South Asia

Martin Lau[1], Mijin Cha[2]

Access to justice in environmental law is a worldwide movement dedicated to helping individuals and communities access legal recourses for redressing environmental harms. The evolution of the access to justice movement has culminated in the emergence of the access to justice in environmental law movement.

The theoretical background of environmental justice has been formulated from an urban context. In conceptualising a rural access to justice study, there are two issues that should be taken into consideration.

One, it is important to establish what environmental right is being protected. For instance is the issue at hand an issue of pure conservation, such as forest lands or animal habitats or does the issue deal more with environmental rights, such as access to water or sanitation.

Secondly, it is important to establish what kind of relief the situation necessitates. Do the goals focus on increasing access to courts or law? Are there concerns about educating the community and increasing community involvement?

For the purposes of this review, environmental law refers to all the laws and customs that regulate the use of, and access to, natural, "environmental" resources. In the context of this study, the emphasis of environmental law will be on those laws and customs that provide rural communities a means to access and protect natural resources.

The idea of "access to justice" means different things to different people. It must necessarily be vague to allow space within which different interpretations can grow and find the best way to assist those seeking access to justice. A restrictive definition would only suit specific people in specific situations and limit the effectiveness of the ideals. There are, however, general ideas that are continuously associated with access to justice.

Concern for individuals unable to access justice arose only relatively recently, the beginning of the movement emerging in the 1960s. The assertion that justice is unequally divided amongst different communities is a distinctly modern idea.[3] Since the idea of unequal access to justice started to receive attention, there have been three different approaches to increasing access to justice.[4] An extensive study (hereinafter "The Florence Project") was undertaken in the 1970s focusing on the ideas of access to justice and chronicling the history of the idea and the characteristics of it.[5]

The study came to several conclusions.[6] One conclusion was that the idea of access to justice assumes that there is some goal of "justice" and there exists some group or type of person in

society that finds it difficult to access this justice.[7] Further, the idea of access to justice focuses on two basic purposes of the legal system: one, to be equally accessible to all and two, to lead to results that are individually and socially just.[8]

Barriers to Accessing Justice

The Florence Project also found different factors that may hinder an individual's ability to access justice.[9] Among the most significant factors are economic, geographic, and psychological barriers.[10] As expected, economic barriers are more of a hindrance to lower income individuals.[11] The literal costs of litigation[12] combined with the opportunity costs of litigation[13] effectively bar lower-income individuals from engaging in litigation.[14] Moreover, with relatively modest stakes, the costs of litigation will[15] act as a bar to individuals of any income, more so if the costs of litigation exceed the expected gain.

The geographic barriers to litigation compound the economic barriers.[16] While a centralised court system may be cost-saving for governments, it acts as an additional barrier for individuals that do not live within proximity of the courts.[17] This barrier is again further exacerbated for lower-income individuals and individuals living in rural areas.

The psychological barriers are a more subtle phenomenon.[18] There are several factors that can escalate into an insurmountable psychological barrier.[19] Unfamiliarity with the legal system, language barriers, and the extreme formality of the court room setting all contribute to what can amount to a complete psychological bar from approaching courts for relief.[20] These factors also disproportionately affect lower-income communities because they are often less familiar with the formal proceedings and less able to hire someone to help navigate their way through the system.

Initial Approach Used to Increase Access to Justice

The first approach to increase access to justice introduced the idea of legal aid, programmes that offered free or heavily discounted legal services.[21] The second approach focused on providing legal representation for diffuse interests, especially in the areas of consumer and environmental protection.[22] The third approach is referred to as the "access to justice" approach because it went beyond earlier approaches and attempted to attack barriers to access to justice in a more comprehensive manner, moving beyond advocacy and widening the focus to explore a variety of reforms.[23]

These ideals were updated in a project completed in 1996 that focused not only on access to justice, but specifically on access to environmental justice in seven urban areas.[24] (hereinafter "Access to Environmental Justice Project.") This study found that there was indeed little access to environmental justice, especially for economically disadvantaged groups that lacked financial resources and familiarity with legal institutions.[25]

In the South Asian context, there are additional barriers to accessing justice. Particular to South Asia, individuals face issues of caste, religion, criminality and the use of unofficial

dispute resolution in addition to the broader, general barriers to accessing justice. In the rural context, familiarity with legal institutions and the availability of legal avenues is likely to be extremely limited. Additionally, framing issues in a manner which can be accessible to rural residents raises additional barriers.

The Project also found that awareness of environmental problems and law was increasing and legislative and administrative improvements were slowly taking place.[26] Moreover, environmental organisations were developing at a considerable rate.[27] The role of environmental organisations has increased, as has their purported importance.

Introduction of "Legal Gateways"

The term "legal gateways" is similar to access to justice in that it is a term that is frequently used by whose specific meaning is unclear. Actual legal remedies, statutory consultation procedures, administrative review, extra-legal but legally sanctioned self-help remedies, defensive use of the legal system, and alternative dispute resolution have all been identified as types of legal gateways.[28] For the purposes here, however, the term "legal gateways" will be defined beyond these examples of gateways.

The idea of legal gateways can be broken down into two sub-categories: access to the creation of enforceable norms and access to gateways for enforcing these norms. Access to the creation of enforceable norms refers to the gateways that can be used to access the ways in which laws are created. These gateways include lobbying activities, civil disobedience, offensive use of the legal system, and administrative review. Using these tools, individuals can take part in the way enforceable norms are created. Lobbying activities and civil disobedience can be used to voice disapproval and pressure law makers. Offensive use of the legal system refers to the ability of suits to challenge laws that are either already enacted or in the process of being enacted.[29] Administrative review can take many forms, but in this case, is assumed to be the process by which a neutral observer or panel reviews actions and decisions made by another administrative body.

Gateways to enforcing these norms, on the other hand, refer to the gateways that can be used to access the actual legal system. Alleging violations of constitutional provisions may be used by plaintiffs to gain access to the legal system, especially in conjunction with the idea of public interest litigation, and particularly in India. Alternatively, alleging a violation of statutes is another avenue for plaintiffs to enter the legal system.

The research presented in this study focuses mainly on the gateways that deal with access to legal resources to enforce already created norms.

Notes

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[2] Mijin Cha, policy specialist based in New York City, USA. Dr. Cha's dissertation was a comparative analysis of access to justice in environmental law movements in India and the United States.

[3] Lawrence M. Friedman, Access to Justice: A Social and Historical Context, in Mauro Cappelletti and Bryant Garth, Access to Justice, vol. I, 5 (1977).

[4] Mauro Cappelletti and Bryant Garth, Access to Justice vol. I-IV, (1977-1978).

[5] Id.

[6] Id.

[7] Friedman, supra note 3.

[8] Mauro Cappelletti and Bryant Garth, Access to Justice: the Worldwide Movement to Make Rights Effective: a General Report, in Cappelletti and Garth, supra note 4 at 6.

[9] Earl Johnson, Jr., Thinking About Access: A Preliminary Typology of Possible Strategies, in Mauro and Cappelletti, Access to Justice, vol. III, 8 (1978).

[10] Id.

[11] Id. at 8-9.

[12] For example court fees and attorney's fees.

[13] For example income missed while helping to prepare for the litigation.

[14] Id. at 9.

[15] Id.

[16] Id.

[17] Id.

[18] Id.

[19] Id.

[20] Cappelletti, supra note 2 at 21.

[21] Id.

[22] Id.

[23] Id. at 49-52

[24] Access to Environmental Justice in Africa and Asia, principal researcher: Dr. Andrew Harding, ESRC award number L320253158, available at <http://www.sussex.ac.uk/Units/gec/ph3summ/anderso3.htm>, (last visited 4 June 2005).

[25] Id.

[26] Id.

[27] Id.

[28] Access to Environmental Justice in Africa and Asia, principal researcher: Dr. Andrew Harding, ESRC award number L320253158, <http://www.sussex.ac.uk/Units/gec/ph3summ/anderso3.htm>, (last visited 4 June 2005).

[29] Offensive suits can challenge norms on a variety of grounds, including questioning the constitutionality of the process by which the norm was created and the constitutionality of the effect of the created norm.

Environmental Justice and Rural Communities: An Overview

Patricia Moore[1]

More than 2,000 years ago, in what is today Nepal, King Mandev gave the local people living in and around Changu Narayan forest the responsibility of managing the forest, in exchange for which they would enjoy the right to harvest timber once a year. The king and his nobles, however, could harvest forest products the whole year round. And the king could, of course, take away at any time the people's right to harvest anything from the forest. Because the king had sovereign control over the forest and its resources, the people had no recourse other than to accept the responsibility of management in return for limited use rights. The issues of environmental justice in the context of rural life have not changed appreciably in two millennia.

Fast forward to Bhopal, 1984, the site of one of the world's most devastating industrial disasters, that has come to be a classic case study for environmental justice in the urban context, which emphasises rights to an environment safe from pollutants, hazardous waste and other toxins. Bhopal is the capital of Madhya Pradesh, the Indian state in which two of the sites for this study are located.

Although the issues involved in environmental justice in the rural, natural resource context have not changed much in 2,000 years, the concept of environmental justice itself has evolved rapidly over the past quarter century. As the introduction to this volume explains, the idea of environmental justice emerged from the access to justice movement as an urban-based concept of rights to a safe, healthy, productive and sustainable environment without regard to race, ethnicity or socio-economic status. It includes the mechanisms that enable individuals or groups to create, claim and exercise rights, encompassing issues such as procedural and social equity as guarantees for equal treatment, and protection for minority racial, ethnic, and socio-economic groups, despite the often inequitable power relationships in society at large.

The growing literature and other available resources on environmental justice continue to reflect the Northern/Western development of the urban/pollution focus on environmental justice. In both the United States and the United Kingdom, theory and practice continue to emphasise the links between toxic wastes and other hazardous substances as well as race-based discrimination in making decisions on where and how such substances are stored, used and disposed of. In the US, there is also a strong connection with public health.[2]

Second-generation environmental justice issues include climate change, particularly the distribution of its impacts.[3] Moving beyond the focus on rights to unpolluted air and water in urban areas, the environmental justice movement has also begun to examine issues of how pollution affects land.[4] Non-governmental organisations have begun to include natural resource issues in their environmental justice programmes as well.[5] These initiatives deal with matters

such as habitat loss, wildlife trade and illegal fishing, all of which are mainstream conservation concerns. To date, however, no systematic examination of environmental justice and injustice as experienced by rural people, who depend on natural resources for subsistence or to supplement their livelihoods, has been identified.

A recent study of livelihood security in four South Asian countries, among them India and Nepal, demonstrates that the problem of environment and security in South Asia is an issue of institutions and governance. In some cases, failures are the result of deliberate choices on the part of the state, for example, the non-recognition of customary resource rights. In other instances, the failures are the result of well-intentioned but poorly implemented attempts to remedy inequities in resource rights regimes. In still others, they result from the reluctance of the state to relinquish control over resources and the revenues they generate, including state connivance in undermining its own statutory regime.[6]

Environmental justice in the rural context thus develops as an issue of rights, institutions and governance, and as an essential component of livelihood security, which is one of the first steps on the path leading out of poverty. In the rural context, environmental justice also includes the urban idea of rights to an environment safe from pollutants, hazardous waste and other toxins. More fundamentally, environmental justice for rural people and their communities has as much to do with whether they have and are able to exercise rights to own, access and use the natural resources on which their livelihoods depend, as it does with the quality of the resources themselves.

South Asia is still in the process of defining environmental justice for its own context. Although there are provisions related to political, social and environmental justice in the constitutions of India and Nepal, these principles have not been translated into government action to a degree sufficient to ensure environmental justice in either country. A South Asian conference held in 2002 concluded that any definition of environmental justice for the region must include provisions for ensuring access to resources and for compensation if that access is denied, and that those provisions must be guaranteed by law.[7]

The project whose results are the subject of this volume was originally conceived in 2003. The questions it sought to answer were: Can environmental justice be defined in the rural and natural resource context in South Asia? Is the concept relevant to rural people and their communities? The results of this study, undertaken in two South Asian countries, India and Nepal, indicate that the answer is ‘yes’ to both questions.

The objective was to test the feasibility of expanding the scope of environmental justice, from its focus on the impact of pollution on disadvantaged urban populations, to encompass rural communities and the natural resources on which they depend. The study examined the obstacles that selected rural communities, and individuals within them, face in accessing environmental justice. It sought to identify opportunities that are available to communities through existing systems and institutions, and to identify strategies for empowering communities to influence their governments to make the transition to devolving effective command over natural resources to the local level.

In the long term, the goal of this initiative is to see the natural resource context accepted and integrated into the concept of environmental justice at the global, regional and national level, and for it to be used to improve rural livelihood security at the community level.

Conceptual Basis For the Study

The foundation for the conceptual basis of this study was research carried out by the School of Oriental and African Studies (SOAS) of the University of London in 1994–1996 to examine the concept of environmental justice in five cities in Asia and two in Africa. The comprehensive results of that study were published as this volume went to press;[8] the summary released in 1997[9] was used as the reference for the work discussed here.[10]

The SOAS study relied on entitlements theory. Environmental entitlements refer to "the alternative sets of benefits derived from environmental goods and services over which people have legitimate effective command and which are instrumental in achieving well-being."[11] Different people within the same community may rely on entitlements from different components of the environment.[12] "Endowments" are understood to be the assets—physical, social and knowledge/skills-related—an individual or group uses to secure entitlements. "Entitlement mapping" refers to processes and institutions that affect how individuals and communities can apply their endowments to secure their entitlements. An "environmental entitlements failure" occurs when endowments are insufficient and/or entitlement mapping is unfavourable.[13]

Described in entitlement terminology, environmental justice is achieved when individuals and communities can use entitlement mapping not only defensively, to prevent environmental entitlement failure, but also proactively to secure livelihood.

The SOAS study noted that theories of access to justice and environmental entitlements had not evaluated legal options as fully as the economic ones, and proceeded to examine the legal options in the urban context. It set out to compare the extent to which urban citizens can and do exercise their rights to a safe and sustainable environment through the differing legal systems of their home countries. Two of the Asian cities in the SOAS study are in South Asia —Bangalore and Karachi. The study made no prior assumptions as to how people would define environmental justice in each city. The guiding principle was whether any actors in the system regarded a situation relating to their urban environment as unjust, or as a potential claim against the state.

The SOAS project identified six 'gateways' or options people have to exercise and defend their rights to a better, more sustainable urban environment. The study did not equate access to environmental justice exclusively with access to the law, and sought to compare legal gateways with other, informal ways to seek justice. Formal gateways included actual legal remedies, defensive use of the legal system and administrative review. Informal gateways included alternative dispute resolution and extra-legal self-help remedies.

While most civic groups and activists who took part in the SOAS study were ready to identify

environmental problems and their causes, they were hesitant to turn their grievances into actual legal claims. The study found that where litigation was used, the law appeared in practice to benefit economically advantaged groups. Economically disadvantaged groups lacked the financial resources and familiarity with the legal system to be able to use these gateways effectively.

The SOAS study also highlighted the links between legal gateways and the prevailing political and economic conditions in each country. The extent of democracy, the existence of an independent judiciary and the accessibility of administrative bodies directly affected the successful use of legal gateways. Opportunities for public participation were generally limited and unproductive. It was found that both environmental burdens and entitlements were often the result of socio-economic and political factors rather than environmental or legal ones.

During approximately the same period that the environmental justice movement was getting underway, community management of natural resources was beginning to be tested and adopted as an alternative to exclusive public-sector governance of natural resources and a way to provide resource-dependent rural people a voice in how the resources on which they rely are managed. Both India and Nepal have long-standing programmes for community management, particularly with respect to forest resources.

The details of how community management arrangements are set up vary widely from country to country—for instance, between India and Nepal. Generally they offer rural individuals and communities 'soft' rights to derive specified benefits in exchange for their hands-on management of a particular resource. In some cases, community management contributes to increased rural livelihood security and environmental justice. Often, however, the rights and access to benefits communities enjoy under such arrangements are not proportional to the responsibilities they assume. As the body of experience with community management grows, it is indicating that the resource base does benefit, as do the public-sector agencies that oversee these arrangements. In Asia, evidence from India and Lao PDR indicates that forest cover and government forest agencies benefit from community management, but that the impact on rural communities is mixed at best. Evidence tends to point to the lack of legitimate effective local command over resources as one of the primary reasons why this is the case. These variations in the quality of rights provided in different countries offer a basis for comparative analysis of the impact of resource rights and access to environmental justice in the rural, natural resource context.

Community management arrangements are a weak form of rights to natural resources—they do not alter state ownership and do not give full rights in forest resources to rural communities. This suggests that community management is a step in the direction of environmental justice in the rural context, but that it is not the final goal. It raises the question of what makes rural people and communities willing and able to take advantage of opportunities available to them under existing systems. The answer appears to be full community rights to natural resources —a long-term goal that will take years to reach and will require fundamental changes in land and resource tenure. Court decisions in two Asian countries, Indonesia and Malaysia, have recently recognised stronger forms of community rights to natural resources,[14] but such

support is still the exception rather than the rule.

The ‘soft’ rights available under community management arrangements are a step towards achieving the goal of environmental justice in the rural context. Even where community-based natural resource management programmes are in place, however, access to environmental justice in the rural context continues to be elusive for many individuals and their communities, partly as a result of their own lack of awareness of the extent of their rights and the manner in which to claim and defend them. Many rural and marginalised individuals and communities are often not aware of rights they may have. In areas where customary law traditions are still followed, there is often confusion and conflict between customary and statutory rights to natural resources.

The issues of rights to resources and access to environmental justice arise not only between communities and the state, but also within communities among and between the individuals who comprise them. Inequities exist at all socio-economic levels within countries and communities. How communities identify themselves, how individuals identify with communities, and what the social and economic relationships are among them, are some of the questions this volume asks in seeking to define environmental justice in the natural resource context in South Asia.

Even where rural individuals and communities have certain rights to natural resources, it is often insufficient simply to possess such rights. Rural individuals and communities frequently have only limited access to the administrative and judicial processes that exist for them to exercise and defend their rights. There must be a ‘rights friendly’ environment that enables rural, natural resource-dependent communities to use all available avenues to improve their livelihoods through access to environmental justice.

Definition of Environmental Justice

The working definition of environmental justice developed by the project team at the beginning of the project was as follows:

> Environmental justice in the rural context means the guarantee of livelihood security in a safe environment through fair, equitable and clearly defined rights of access to and sustainable use of natural resources, including the mechanisms for creating, exercising and defending those rights.

When field studies were complete and the process of analysing the results had begun, members of the communities where the field work had been carried out met with the project teams and revised the definition. Community representatives were particularly clear that the definition of environmental justice must include a reference to discrimination on the basis of caste, gender, religion or economic status. The definition was thus expanded:

> Environmental justice in the rural and natural resource context is the responsibility of the state and of all citizens, and requires equitable and fair access to and use of

natural resources, participation in decision making and management, and the distribution of benefits without discrimination on the basis of caste, gender, religion or economic status in order to guarantee the livelihood security of all citizens.

Environmental justice in the rural and natural resource context means that all citizens are able to exercise their rights to natural resources and to live in a safe environment, and that the state and all citizens assume and fulfil their respective duties with regard to conservation and sustainable use of natural resources.

Four elements of environmental justice can be derived from the expanded definition:

- equitable and fair access to and use of natural resources;
- participation in decision making and management;
- distribution of benefits without discrimination on the basis of caste, gender, religion or economic status; and
- all citizens are able to exercise their rights to the natural resources on which their livelihoods depend.

Findings From the Country Studies

It was expected at the outset that there would be very little access to very little environmental justice. To a large extent this expectation was fulfilled...[15]

This statement regarding the 1997 SOAS study of environmental justice in urban areas holds equally true for the present study in rural areas.

The country studies which follow this overview reveal common issues with respect to the elements of environmental justice in rural communities, and with respect to the gateways used to access it.

People's perceptions about environmental justice vary but most are well aware of the benefits of environmental goods and services, and of any limitations on their access to those good and services and to making decisions about their management and use.

While the right to a safe environment is explicit in the Interim Constitution of Nepal, in India that fundamental right has been created through judicial precedent. In India, sectoral legislation in several cases explicitly recognises customary rights held prior to the enactment of the laws. In Nepal, there is no such recognition, with the exception of private rights to land. In practice, however, the result is essentially the same—customary rights to resources, and particularly customary community rights, are not acknowledged. Both countries acknowledge common, open access land but neither grants community ownership rights in any type of resource. Most disputes in both countries are over land rights.

The study sites in both countries have established arrangements for community participation in managing both land and water resources. In Nepal, there is more than two decades of experience with community forest users groups (CFUGs). In India, community forest

management committees in Uttarakhand have been in existence for 75 years and joint forest management was introduced almost 20 years ago. These community management schemes can only be described as partially successful, however. In both countries, they have been a source of conflict. In Nepal, they operate to exclude the poorest members of the community.

In only two of the six study sites—those in Uttarakhand State in India—have the communities managed to use extra-legal gateways to create norms that are then applied and respected within the village.

Although substantial progress has been made in both countries in this area in the last two decades, access to natural resources cannot yet be described as equitable in any of the study sites.

The Interim Constitution of Nepal and the Constitution of India both provide that equity in rights is a matter of state policy. In India, it is to be implemented on a state-by-state basis, while in Nepal legislation at the central level is required. Under forest, land and water laws the state retains for itself the power to define and allocate rights, with no role for local communities recognised in this exercise. Pre-existing customary rights that derived their legitimacy from customary law have been recognised not on a collective basis, which was their very essence, but on an individual basis, subject to the state's sovereign rights of proprietorship. The corollary is that such use rights, concessions or privileges, may be suspended, terminated or redefined at the discretion of the state, rendering them weak, unsustainable and difficult to defend. The rights to forest, water and common lands in the study areas are characterised by these limitations, weakening their potential to promote equity in access to natural resources and create opportunity for participating in decision making and benefit sharing—the achievement of environmental justice.

In Nepal, while statutory resource users groups promote benefit sharing, they are perceived as less successful in providing opportunities to participate in decision making regarding natural resource management and use. Individuals who are members of users groups are able to participate, but membership is not open to everyone in a community.

In both countries, caste-based discrimination, although technically prohibited, persists and creates inequity in the distribution of the benefits derived from natural resources, particularly in the case of water resources in one study site in India and forest resources in one study site in Nepal. Discrimination on the basis of economic status occurs in Nepal, where the inability to pay users group membership fees excludes the poorest members of the community.

While the perception of equity in rights varies among the study sites, and among groups in each site in both countries, there is a clear preference for using informal, traditional, extra-legal gateways to exercise and defend rights. State-controlled institutions such as the courts and administrative offices are generally approached out of compulsion rather than by choice. Extra-legal gateways facilitated final decisions which resolved disputes much more often than did statutory gateways. When they have a choice, villagers in all study sites opt for efficiency and for the gateway that inspires the most confidence.

For people in urban areas, the use of gateways was generally dependent on the level of an individual's 'environmental entitlement', that is, control over or access to environmental resources and services for his or her livelihood. Of the two study sites in India where the population is tribal or belongs to a lower caste, and is therefore more susceptible to manipulation and exploitation, one followed the pattern encountered in urban areas while the experience of the other is just the opposite. The tribal village has more conflicts and uses a greater variety of gateways than the other three study sites. That may be partly due to the fact that in that village, the state is actively seeking legal remedies against villagers. It is only in the tribal village that one gateway—extra-legal, traditional leadership—functions for all resources.

In rural areas, alternative dispute resolution functions differently as a gateway than in urban areas, where it was found to be either mediation within the legal system or some other form of alternative dispute resolution operating outside the legal system. While rural people favour traditional consultation mechanisms outside the legal system, there are examples of the use of hybrid options that combine both traditional consultation and recourse to an administrative authority.[16]

Whereas in urban areas, actual legal remedies through the courts were found to be plentiful and relevant for urban dwellers' purposes, in rural areas the opposite is true. Many of the disincentives for seeking remedies through the courts that were found in urban areas—a general lack of knowledge of the substantive law, unfamiliarity with court procedures, prohibitive investment of time and costs involved—are also found in the rural study sites. In Nepal, a significant percentage of the respondents in the study state that they feel the issues were not important enough to take to a court. In India, the potential for exploitation by statutory authorities is cited as a deterrent to approaching the courts.

Use of statutory consultation procedures, a gateway identified in the urban context, is not recognised as an option for exercising rights in the rural sites, although there are provisions in statutory law in both countries enabling community participation in such processes.

Similar to statutory consultation procedures, administrative review as defined for the urban context is not found in the rural study sites. Administrative authorities are a gateway in rural areas in both countries, due in part to the fact that many administrative officials in rural areas have quasi-judicial powers.

In urban areas, squatter possession was identified as a defensive use of the legal system that worked in favour of communities. In rural areas, again, the reverse is true, although both rural and urban people note that lack of legal title is a disincentive to attempting to access the legal system. Squatter possession is in many cases forced on rural people when statutory legal provisions transform them into encroachers on land they have held under customary tenure for generations. There is no reported use in the study sites of litigation as a defensive use of the legal system, primarily because rural people tend to avoid the courts in any case.

Applying the Country Studies

During the conference, when country teams and representatives of the study site communities revised the working definition of environmental justice, they also determined the activities to be undertaken in each country to follow through and communicate the results of the country studies with the communities.

India

For India, there was general agreement that the country study should be translated into Hindi and distributed nationally at the ministerial level, to selected departments in each state, and to panchayat raj institutions at the district and block level, as well as posted on the internet. Workshops should be held at the block level to help people understand the policies, laws and programmes that have an impact on their rights, and how to exercise their rights.

District-level workshops were held in Chamoli and Uttarkashi districts, Uttarakhand. Workshops were not held in Madhya Pradesh because the investment in Uttarakhand is more likely to produce results in terms of participants' interest and commitment to future activities. In Madhya Pradesh, the tribal and scheduled caste communities in both study sites nevertheless need continued programme inputs. The resources required to address the chronic problems that these communities face are more than were available in the scope of the project.

The objectives of the workshops were slightly different for each district. In Uttarkashi, the formation of local village-level institutions for forest management (van panchayats) has only recently begun. Chamoli district has experience with van panchayats dating back to the initial years of their introduction in 1931. Local communities in Chamoli have long experience in forest management through formal, legally constituted institutions, while the communities in Uttarkashi rely mostly on customary rights and management systems.

The objectives of the Chamoli District workshop were to: discuss project findings on environmental justice; evaluate the Van Panchayat Rules 2005 on the basis of the elements of environmental justice and the community's experience in implementing the rules; elicit recommendations for alternative rules for the van panchayat; finalise strategy to initiate dialogue on the proposed amendments to the Van Panchayat Rules among the state government, the Federation of the heads of van panchayats (Van Panchayat Sarpanch Federation), and local government representatives; and elicit recommendations for policy and legal reform related to the governance of natural resources, on the basis of the elements of environmental justice.

The objectives of the Uttarkashi District workshop were to: discuss project findings on environmental justice; elicit recommendations for policy and legal reform related to the governance of natural resources, on the basis of the elements of environmental justice; and develop a strategy and action plan for securing village forests for those villages in the district who are not already covered by the van panchayat programme.

The core issues discussed in both workshops included: governance of natural resources and

the respective roles of government and local communities; and problems and issues experienced by villagers in terms of dependence on natural resources, access, use and ownership rights, and livelihood security.

There were three specific outputs of the workshops: consensus on issues and problems in the use and management of natural resources, particularly forest resources; consensus on subject areas for the development of alternate rules for the governance of village forests; and suggestions regarding future strategies to be followed to bring about legal reform for forest management.

The lists of issues from each district revealed that issues related to powers of control and management are more numerous than rights issues. There has been a legacy of poor devolution of powers for natural resource management to local institutions. Local government institutions lack authority to deal with issues concerning access to and control over commons and forest lands, planning, implementation, and control and utilisation of funds, among others.

The workshop in Uttarkashi was the first time that a meeting had been held with village representatives to discuss law and policy issues. In their experience, non-governmental organisations and government institutions conduct meetings and workshops to discuss programmes and schemes, but not governance issues. These workshops on environmental justice provided the opportunity for an important first step towards involving local institutions in governance reform.

The workshop results clearly show that there is substantial need and scope for strengthening local government institutions. Approaches include:

1. Inventory and consolidate the problems of local government institutions that are related to natural resource management, and correlate them with the lacunae in existing laws governing natural resources;
2. Build awareness among representatives of local government institutions with respect to policy and law on forests and other natural resources, and their impact on environmental justice;
3. Inventory and consolidate the initiatives of local government institutions across the state in developing their own rules. This consolidated body of rules will provide the raw material for developing alternative rules that will provide more space for self-governance;
4. Facilitate local governments to strengthen their association through networking and membership building;
5. Facilitate dialogue among local government representatives and the state government, leading to an improved regulatory framework for natural resource management that devolves greater powers and responsibilities and strengthens the rights of local communities.

Nepal

For Nepal, it was agreed that the focus of follow-up should be on local-level awareness programmes to build understanding of the concept of environmental justice and how to use available gateways to access it. Other priorities included: an effort to assist resource users' groups in making their by-laws more pro-poor; elements of environmental justice should be incorporated into the new constitution being drafted; and that the new judiciary requirement for alternative dispute resolution should be explained at the local level, including information on how it can be used as a step toward ensuring environmental justice in the natural resource context.

Radio

The Sapta Koshi FM radio station has been airing a 15-minute programme on environmental justice in the rural, natural resource context based on the findings of the research undertaken in the Nepal study sites, the village development committees (VDCs) of Bajho and Chulachuli. A total of six programmes are being aired on consecutive Sundays.

Workshop for community leaders and members of users groups

A feedback session was held for residents of the study sites, Bajho and Chulachuli, who participated in the field survey. The team gave the attendees a brief on the concept of environmental justice and then presented the findings of the study. Participants made the following recommendations: the community should be consulted on issues of non-compliance with laws and regulations; government officials must be made aware that they must begin to work to the benefit of communities and, in particular, ensure that programmes designed and implemented by government officials are in favour of untouchables (Dalits), women and other minority groups of the community; and more authority and responsibility should be given to women members of CFUGs. Participants also recommended that the disputed community forest in Bajho VDC be transferred to local users. It was noted that some provisions of the Forest Act, such as the prohibition on cutting *Bombax ceiba* and *Acacia catechu*, have created an indirect incentive for individual landowners and members of the community not to cultivate these species, which are important for maintaining wildlife diversity. It was recommended that such provisions be removed from the law; that provisions related to environmental justice be included in the new Constitution, and amendments made to the Local Self Governance Act; and that rights and responsibilities be taken together if the state is sincere in promoting environmental justice. The group also recommended that all villagers should promote the conservation and sustainable use of natural resources; environmental justice should be included in the curriculum at all school levels; and an awareness programme on environmental justice should be organised for people at the community level.

Consultative meeting with VDC officials and members of community forest users groups

The project team met with officials of the Triveni and Bukuwa CFUGs, and the Bajho VDC. As a result of the project, they have acknowledged the importance of including elements of environmental justice in their policies and programmes. The CFUGs committed to making special provisions to ensure equitable access and benefit sharing for untouchables and other minority groups, women, and the poorest of the poor in the community.

The secretary of the Bajho VDC agreed to raise the issue of environmental justice with representatives of eight political parties at the VDC level.

Interaction programme with government officials

An interaction programme on the findings of the environmental justice study was organised at the headquarters of Ilam district, chaired by the Honourable Justice Mr. Purshotam Bhandari, Court of Appeal, Ilam. Honourable Judge Mr. Lekh Nath Ghimire of the District Court was also present. Most officials of development and conservation agencies at the district level participated, including the Soil Conservation Officer, Women's Development Officer, Chief District Administrative Officer, District Forest Officer, District Agriculture Development Officer and District Development Committee Planning Officer.

Conceptual aspects of environmental justice and the findings of the research undertaken in Chulachuli and Bajho were presented. The concept is new for government officials. The two judges who attended were surprised to learn how few people from Bajho have visited the court for dispute resolution. They were further surprised by the fact that almost 70 per cent of respondents in the survey were of the view that the court is too far away and too costly. They were satisfied with the finding that 20 per cent of respondents felt that certain disputes were not serious enough to take to court.

The recommendations put forth by the government officials are as follows: build awareness of environmental justice issues among policy makers; ensure that environmental justice is included as a separate responsibility in the job descriptions of government officials at the district level; ensure that the elements of environmental justice are included, beginning immediately, in district-level policy and programmes; ensure that government programmes target the poorest of the poor in the community in both rural and urban areas. They observed that the denial of land entitlement in Bajho and Chulachuli is mainly the result of recent political instability in the country, and that it is not confined to Ilam district. Officials noted that promoting environmental justice is an uphill task but not an impossible one, and that everyone should promote environmental justice by promoting conservation and sustainable development in their communities. They expressed their gratitude for the project and for the insights gained on different aspects of environmental justice, and noted that it was now their responsibility to take the lead in implementing the findings and recommendations of the study.

Integrating elements of environmental justice in the new Constitution

IUCN Nepal will provide suggestions to the drafting committee of the new Constitution on incorporating elements of environmental justice as brought out in the study.

The process and the findings of this study on environmental justice clearly found a receptive audience in the people of the study sites and their elected representatives. They grasped both the concept and its application. The enthusiasm with which residents of the study sites and the authorities in both countries addressed the issues involved in environmental justice confirms that the concept is relevant in the rural context and opens the door for future work to develop this approach.

Notes

[1] Head, IUCN Regional Environmental Law Programme, Asia.

[2] On environmental justice in the US, see, for example: Greenaction for Health & Environmental Justice, http://www.greenaction.org/; Sierra Club, http://www.sierraclub.org/environmental_justice/; Natural Resources Defence Council, http://www.nrdc.org/ej/default.asp; Political Economy Research Institute, http://www.peri.umass.edu/; Environmental Justice Coalition, http://groups.msn.com/environmentaljusticecoalition.

The Environmental Justice Database contains bibliographic references to issues related to environmental justice: http://web1.msue.msu.edu/imp/modej/masterej.html

For information on environmental justice in the UK, see, for example: Lancaster University, http://geography.lancs.ac.uk/EnvJustice/envjusticelancs.htm;

Carolyn Stephens, Simon Bullock and Alister Scott. 2001. Environmental justice: Rights and means to a healthy environment for all. Friends of the Earth, London School of Hygiene & Tropical Medicine, Economic and Social Research Council. Special Briefing No. 7. November. On-line: http://www.foe.co.uk/resource/reports/environmental_justice.pdf

In both countries, courses on issues in environmental justice have been included in the curriculum for at least the past decade. See, for example, University of Michigan (US), http://www.umich.edu/~snre492/courses.html; Lancaster University (UK), http://geography.lancs.ac.uk/EnvJustice/envjusticelancs.htm

[3] See, for example, Community Coalition for Environmental Justice, http://www.ccej.org/; Friends of the Earth, http://www.foe.co.uk/resource/faqs/questions/environmental_justice.html

[4] See, for example, Environmental Justice Foundation, http://www.ejfoundation.org/page231.html

[5] See, for example, Friends of the Earth, http://www.foe.co.uk/resource/faqs/questions/environmental_justice.html; and Environmental Justice Foundation, http://www.ejfoundation.org/page231.html

[6] The World Conservation Union, Regional Environmental Law Programme, Asia (IUCN RELPA). 2006. "Resource Rights, Sustainable Livelihoods, Environmental Security and Conflict Mitigation in South Asia." Final report to the United States Agency for International Development.

[7] Panos South Asia. 2002. Justice for All: Promoting Environmental Justice in South Asia. Panos South Asia, Kathmandu, Jagadamba Press, Lalitpur, Nepal.

[8] Harding, Andrew, ed. 2007. Access to Environmental Justice: A Comparative Study. London-Leiden Series on Law, Administration and Development. Martinus Nijhoff.

[9] Harding, Andrew, Principal Researcher. 1997. Access to Environmental Justice in Africa and Asia. ESRC Award L320253158: Summary of Research Results. School of Oriental and African Studies, University of London, United Kingdom.

[10] Among other sources for the concept behind this study are: Forsyth, Tim and M. Leach with I. Scoones. 1998. Poverty and Environment: Priorities for Research and Policy. An Overview Study prepared for the United Nations Development Programme and European Commission. Institute of Development Studies. United Kingdom; and White, Andy & Alejandra Martin. 2002. Who Owns the World's Forests? Forest Tenure and Public Forests in Transition. Forest Trends. Washington, D.C., USA.

[11] Forsyth et al. ibid., p. 15.

[12] Ibid.

[13] Harding, 1997. Section 2, no page number.

[14] White and Martin, 2002. Ibid, p. 12.

[15] Harding, 1997. Summary, p. 2.

[16] All references to gateways in the urban context are from Harding, 1997. Summary, pp. 2–3.

Environmental Justice and Rural Communities

India

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Acronyms

FCA	Forest (Conservation) Act 1980
JFM	joint forest management
K&G Water Act 1975	Kumaun and Garhwal Water (Collection, Retention and Distribution) Act
KUZA	Kumaun and Uttarakhand Zamindari Abolition Act 1960
PESA	Provisions of the Panchayats (Extension to Scheduled Areas) Act 1996

Introduction

A characteristic feature of the livelihood patterns of predominantly rural, agriculture-dependent communities is their reliance on natural resources such as land, forest and water. The rights of rural populations to access and use such resources, and their participation in the management of these resources, are critical for achieving livelihood security. As such, the status of natural resources and their sustainable management is of the utmost importance in the eradication of poverty and the enhancing of the quality of life of rural populations. This was in essence a legal-sociological study. The research sought to investigate the various gateways, formal and non-formal, that are available to and utilised by rural communities and the extent to which they are successfully used to achieve environmental justice.

Methodology

The methodology adopted is primarily socio-legal, and simple social scientific research tools were used for the field study. These included primary and secondary data collection and analysis. Secondary data included print and online publications, reports, journals, case law, official statistical data, and district gazetteers. For primary data, structured and unstructured questionnaires were used.

Four villages were selected for the field study: Koti (in Purola Block,[1] Uttarkashi District) and Hargarh (Garsain Block, Chamoli District) in Uttarakhand state; and Behadvi (Rama Block, Jhabua District) and Mugalpura (Murar Block, Gwalior District) in Madhya Pradesh state.

Physical access to three of the four study sites was a challenge. Koti is easily accessible only in the late spring and summer. Hargarh, though easier to reach, is still relatively inaccessible because of poor communications and transport facilities as well as the distance of the village from motorable roads. Similarly, Behadvi, although only 17 kilometres form the district headquarters, is difficult to reach because of poor road and transport facilities. An additional difficulty arises in the case of Behadvi, where entire families migrate for a considerable part of the year, making survey problematic. The opportunity was taken to interview households when they returned for festivals or for the harvesting season.

In terms of the quality of responses, greater difficulty was experienced in Mugalpura, home to a Scheduled Caste community, than elsewhere. This is in part because of the low level of education among members of this community as well as their diffidence in communicating with outsiders. The absence of organised groups in the village exacerbated these challenges. In all sites, women were not as forthcoming as men in responding to questionnaires. The only exceptions were the leaders of women's groups in the two Uttarakhand villages.

The study team also faced difficulties in conducting interviews. Despite orientation provided to field staff, it was found that concepts were not understood or misunderstood. This is due in large part to the fact that most members of community-based groups are unfamiliar with legal concepts and frameworks.

A review of customary law in its entirety, as practised in the study sites, was beyond the scope of this study. Time and financial constraints prevented the employment of intensive legal anthropological methods that are necessary for this purpose. Empirical data on actions, opinions and perceptions derived from customary law were examined using simple social scientific tools.

The Study Area

The two states chosen for this study, Uttarakhand and Madhya Pradesh, are different in a number of ways. The former is located in the Central Himalayas and the latter in a plains area in the heart of the Indian sub-continent (see map). Both, however, share some common features. Madhya Pradesh has plateaus and hills, although these are not as high as the Himalayan mountain range, and Uttarakhand has a wide belt of plains (called terai) below its foothills, which forms an integral part of the mountain ecological system. Both states have considerable forest areas and major river systems.

The four selected sites, two from each state, represent hilly terrain, plateau and plains. Koti and Hargarh, the two villages selected from Uttarakhand, belong to the same physiological zone of the Middle Himalayas but are distinct from one another in terms of characteristics such as altitude and slope. While Hargarh's location is middle-mountain, Koti lies in a valley. These characteristics are critical determinants of vegetation and micro-climate, which in turn influence livelihoods based on natural resources. Hargarh has more steep slopes compared to Koti and its soil is less fertile. It is also more dependent on rain water than Koti.

Map of the Study Sites

Behadvi and Mugalpura, the two villages selected from Madhya Pradesh, are distinct from each other. Behadvi lies in a plateau region with undulating terrain while Mugalpura is situated on flat plains. The latter is more fertile and far less dependent on rain water.

The four villages also represent various social profiles. Hargarh is the largest village in terms of population, comprising

two main castes, while different castes reside in the village of Koti. Both Mugalpura and Behadvi, meanwhile, are homogeneous in terms of caste. Mugalpura is completely populated by the Baghel pastoral community, belonging to the Scheduled Castes, while Behadvi is a fully tribal village, home to the Bhil tribe.

An examination of the occupational patterns of the four villages shows that in all villages, households practise more than one occupation. Various members of the family take up different jobs, according to need and availability. Agriculture and wage labour are common to all four villages, while animal husbandry as a primary occupation is carried out in Mugalpura. Migration for employment in the services sector is characteristic of both Uttarakhand villages, whereas in the plains, migration occurs for wage labour. In both Uttarakhand villages, there are seven different occupational categories, whereas in the Madhya Pradesh villages, there are five in Mugalpura and six in Behadvi.

Four categories of land ownership status are represented in the study sites: landless, sub-marginal (less than 1 hectare), marginal (1 to 2 hectares) and small (2 to 5 hectares). Participatory natural resource management programmes, such as joint forest management (JFM) and watershed development, have been introduced in Madhya Pradesh in all districts, but not in all villages. While Behadvi has seen the introduction of such policy measures, Mugalpura has not.

Uttarakhand

Uttarakhand is situated in the Central Himalayas.[2] The glaciers located in its snow-clad higher Himalayan belt are the source of the Ganga (Ganges) River and its many major tributaries, particularly the Yamuna, which sustain the vast Gangetic plains below. Notwithstanding its unique physical, socio-economic and cultural features, Uttarakhand is representative of the Himalayan mountain states in India, which face the same challenges as most mountain communities in other developing countries: underdevelopment, environmental degradation, isolation and neglect. Two villages, Koti and Hargarh, were selected from this state.

The status of the environment is a cause for concern in both communities, which are located in the fragile Himalayan middle mountains in a high-intensity seismic belt. Landslides, cloudbursts and soil erosion are recurring stresses that local communities must contend with. Land degradation is a primary concern in both villages. With respect to forest, Koti is deprived of good forest resources and residents, mainly the women, must travel up to 4 kilometres to fetch forest products for daily use. Hargarh's van panchayat[3] has a well-stocked forest but the government forest on which residents also depend is in a degraded state.

Koti

The village of Koti is located in the development block of Purola. The village is situated at an elevation of 1,400 metres above sea level, beside the Kamal Ganga River, a tributary of the Yamuna that emerges 25 kilometres north from a dense forest canopy before converging with the Yamuna. The village falls within the middle and higher Himalayan range of Uttarakhand

state. The adjoining mountain ridge stretches up to the Yamunotri glacier in the upper Himalayas.

The climate is warm temperate. The village experiences cold winters with mild snowfall. Forests of needle pine trees, Himalayan oak, rhododendron and mixed conifers are dense in the upper slopes of the mountain ridges.

The village is home to a population of 479 (232 males and 247 females) in 104 households. The main occupations of residents are agriculture and animal husbandry, practised largely without adequate irrigation or modern inputs. Increasing population has resulted in declining per-capita landholdings, but fewer than 25 per cent rely on the use of common lands. Since productivity under marginal and sub-marginal landholdings is generally low, households resort to multiple occupations. Major impediments to agriculture include the erosion of topsoil during the rainy season and non-availability of leaf litter manure.

One advantage enjoyed by the village is its relative proximity to the township Purola (the block headquarters), which lies at a distance of 5 kilometres. This makes Koti village approachable by road for approximately half of the year, and allows residents to generate income by taking up jobs in the township and its surrounding areas.

Hargarh

Hargarh village is located in Dodatoli Range of the Garhwal Hills in the middle Himalayan range of Uttarakhand State. Through its well-endowed watersheds, the region contributes to sub-Himalayan perennial water bodies in the neighbouring districts of Pauri Garhwal and Almora. The river Ram Ganga east originates here.

The population of the village is 1,024 (479 male and 545 female), with a total of 170 households. As in Koti, the people of Hargarh also depend for their livelihoods on agriculture and animal husbandry. Here, 91 per cent of households surveyed fall under the category of marginal landholders; fewer than 25 per cent rely on the use of common lands. Although all households in Hargarh possess agricultural land, farmers are becoming increasingly impoverished as a result of various factors including strenuous agriculture practices on the steep mountain slopes, terrace farming hardships, irrigation bottlenecks, near complete rain water dependency in the farmlands, and the erosion of topsoil during the rainy season. Increasing population and shrinking per-capita agricultural landholdings, as well as encroachment in forest areas and on common lands, have resulted in resource depletion in recent years. This has raised concerns not only in terms of biodiversity but also livelihood security.

The occupational profile of the village reveals multiple occupations within each household. Besides agriculture and livestock rearing, some men in Hargarh are employed in government agencies (within and outside the state), in private businesses or as labourers, others are involved in trading, and some have joined the army.

Madhya Pradesh

Madhya Pradesh is known for its rich biodiversity, mineral resources, and cultural and ethnic diversity. The state also has a history of political and social upheaval, has seen industrial development co-existing with extreme poverty, and has a largely natural resource-based rural economy. Madhya Pradesh is unique in terms of its populations belonging to marginalised communities such as Scheduled Castes and Scheduled Tribes, with the largest tribal population in India.[4]

Both villages selected for study in Madhya Pradesh are home to marginalised communities that depend for their livelihoods almost exclusively on natural resources. In both villages, the extent of landholdings is limited. Only some households are able to access irrigation water supplies, while no piped drinking water is available. The government has set up three hand pumps, of which only one is functional, leaving residents to depend on water from wells. The groundwater table is becoming depleted in both villages, and the quality of drinking water has declined as a result of degrading surface water sources and fluoride contamination of the groundwater. Both communities also face poverty and low levels of literacy.

Average landholdings in Behadvi and Mugalpura fall well below the seven hectare ceiling prescribed by law. In the study sites, 37.5 per cent of sampled households in Mugalpura and 13 per cent in Behadvi are landless. There is relatively greater uniformity with respect to the size of holdings in the tribal village of Behadvi, compared to the Scheduled Caste village of Mugalpura.

Behadvi

The village of Behadvi is situated in the Central Vindhya uplands of western Madhya Pradesh, about 17 kilometres from the district headquarters. The terrain is hilly and undulating. The climate varies from dry sub-humid to moist sub-humid, and is mainly moderate with well-defined seasons. Average rainfall is about 800 millimetres but the run-off rate is high and infiltration is very slow, owing to the plateau topography. Summers are hot, winters are short, the monsoon is pleasant, and the village experiences wide variations in temperature.

Behadvi's population of 894 (438 male, 456 female) is entirely made up of Bhils, who are members of a Scheduled Tribe, and 67 per cent of its residents live below the official poverty line. Being a community of forest gatherers, the Bhils once depended almost exclusively on the forest for their livelihood. Despite the overall degradation of forest resources, which has necessitated a shift to other occupations, the community continues to protect a small area of forest which is under JFM, allowing villagers to use forest resources. Fuel wood is available throughout the year and fodder for six to eight months, while honey, gum, fruits and vegetables are available in the monsoon season. In addition, villagers are able to access fuel, fodder, water, herbs and food from common property resources of forest and common lands.[5]

Today, however, other occupations are also practised. Agriculture in the village is predominantly rain-fed. Sixty per cent of residents in Behadvi fall under the category of

marginal land owners; fewer than 25 per cent rely on the use of common lands. Households supplement their income by rearing livestock and gathering forest products, mainly fuel wood, construction wood, *tendu* (*Diospyros melanoxylon Roxb.*) leaves and *mahua* (*Madhuca Indica*) flowers. Residents also migrate for three to eight months of the year to adjoining areas or other states, where they work as labourers.

The community maintains close social ties despite its members remaining away from each other for a significant portion of the year. All make it a point to return to village for the festival of Bhagoria, which is celebrated with great gaiety.

Mugalpura

Mugalpura village is situated in northern Madhya Pradesh, about 13 kilometres from the district headquarters. The climate is generally moderate and seasons are well defined. The climate varies from dry sub-humid to moist sub-humid. Summers are hot, winters are cold and the monsoon season is generally pleasant. The average rainfall is 1,200 millimetres.

The entire population of Mugalpura village, numbering 224 individuals, belongs to the Baghel Scheduled Caste.[6] The sex ratio is low (832 females for every 1,000 males), the population density is high and 59 per cent live below the poverty line.

For pastoral peoples such as the Baghels, the use of forest and common lands for grazing animals is critical. In Mugalpura, where animal husbandry was once the major occupation for the landed as well as for landless families, the degree of dependency on common lands is 50 per cent. Common lands important to the survival of these families have been degraded as well as diverted to other uses.

Three decades ago, 30 acres of the village's forest and pasture land was acquired by the government to establish a military base. As a result, those families who depended on this land to support agriculture and animal husbandry were reduced to wage labour.

Today the community continues to practise animal husbandry, but not exclusively, facing water and fodder shortages. Milk yields are taken to the cities of Murar and Gwalior, where middlemen and traders deprive villagers of a fair price. About half of the population depends on agriculture. Some irrigated landholdings yield both summer (*kharif*) and winter (*rabi*) crops. In Mugalpura, 38 per cent of households fall under the category of sub-marginal landowners, while another 38 per cent are landless.

Those who possess neither cattle nor land have few options other than to work as labourers. Around 30 per cent are employed in the fields surrounding Mugalpura, belonging to the higher-caste Jatav and Thakur communities. Some work seasonally, during the harvest and at sowing, but others work for big farmers throughout the year. Non-agricultural labourers go to Murar or Gwalior in search of a daily wage, working in restaurants, hotels, shops, stone quarries and stone crushing plants. No steps have been taken by the government or any development agency to conserve the degrading resources on which their livelihoods depend, nor have any efforts been made to promote alternative income generating activities within the village.

Legal Regime Governing Natural Resources

The legal regime as it has developed since Independence asserts state sovereignty over natural resources, transforms prior customary rights in those resources to mere use rights, and does not recognise community rights. In Uttarakhand as in Madhya Pradesh, sector-specific policies and laws delegate resource management responsibilities to communities and promote, as parallel institutions to local elected bodies, the constitution of village-level committees for implementing development programmes. These include committees for JFM, watershed development, drinking water and sanitation, as well as 'self-help' groups and van panchayats, all with overlapping roles and responsibilities. Central and state government agencies retain control of all resources with the exception of private land.

Constitutional Provisions

The concept of fundamental duties was introduced to the Constitution of India by the Constitution (42nd Amendment) Act 1977 (articles 48A and 51A(g)). Article 48A imposes a duty on the state to protect and improve the environment, and to safeguard forests and wildlife. Environmental duties are also enjoined on citizens through article 51A(g), which states that it is the duty of every citizen to protect and improve the natural environment, including forests, lakes, rivers and wildlife, and to have compassion for living creatures.

There are no constitutional directions concerning the manner in which these duties are to be enforced. In the absence of such provisions, enforcement is carried out under existing environmental laws. Pollution control laws provide for mechanisms and state powers to address issues of environmental damage and to enforce accountability for damage by non-state parties. When the offender is the state itself, however, citizens must take judicial recourse, which is a burdensome option.

Although fundamental rights are guaranteed under the Constitution, limitations are imposed on these provisions. The Directive Principles of State Policy (Part IV), which provide for some of the central components of environmental justice such as equity in rights to resources and the decentralisation of governance, are non-justiciable, leaving no means to compel the state to enforce or act upon these principles.

Fundamental rights, such as right to life and liberty, as originally defined in the Constitution, did not include the right to livelihood or to a safe environment but have been interpreted thus by the courts in dealing with fundamental rights infringements. Such judicial interpretations have limited application to individual cases that are brought before the courts and are insufficient to empower citizens generally to exercise their rights over resources.

The degree to which the governance of natural resources is decentralised, which in turn determines the potential for local communities to participate in decision making, is circumscribed by the Constitution which does not envisage the delegation of legislative and

judicial powers below the state level. As such, local elected bodies throughout the country are powerless to determine goals, objectives and principles for natural resources management.

The implementation of Constitutional protection measures for Scheduled Castes and Scheduled Tribes through the enactment and implementation of legislation is, to date, unjustifiably poor.

Part IV of the Constitution lays down principles that are fundamental to governance and under article 37 it is the duty of the state to apply these principles in the process of framing legislation. Several of these principles are related to the goals of environmental justice, directing the state to: ensure that social, economic and political justice prevail; eliminate inequalities in status, facilities and opportunities; secure the livelihood of citizens; ensure that ownership and control of material resources are distributed in a manner that serves the common good; ensure that the operation of the legal system promotes justice on the basis of equal opportunity; promote the educational and economic interests of "weaker sections", including Scheduled Castes and Scheduled Tribes; protect and improve the environment, and safeguard forests and wildlife; and promote local governance bodies with sufficient powers (articles 38, 39, 39A, 40, 46 and 48A).

None of these principles directly ensures the rights of citizens to resources, since the principles are non-justiciable, instead requiring legislation to be framed by the central and state governments. It has been left to the courts to assert the importance of directive principles in ensuring fundamental rights.

The right of every citizen to the benefits and support of natural resources is not provided explicitly anywhere in the Constitution. Rather, it has been obliquely recognised as a fundamental right by the Supreme Court, which has declared the right to resources to be an integral part of the right to life and personal liberty guaranteed under article 21. The word 'life', it has been clarified, does not connote mere animal existence or continued drudgery but has a wider meaning which includes the right to livelihoods, a better standard of life, hygienic conditions in the work place and leisure (Bandhua Mukti Morcha v. Union of India, AIR 1984 SC 802).

While guaranteeing fundamental rights, the Constitution also saves certain pieces of legislation (articles 31A, 31B and 31C). Article 31A states that, notwithstanding anything contained in article 13, no law providing for state acquisition of any estate or of any rights therein, or providing for the extinguishing or modification of such rights, shall be deemed to be void on the grounds that it is inconsistent with or takes away or abridges any of the rights conferred by articles 14 and 19. The types of land covered by this article include land held under any type of tenure or grant, as well as common land used for agriculture and ancillary purposes, including wasteland, forest and pasture. This provision means, in effect, that laws relating to land resources cannot be challenged on a constitutional basis even if they fail to assure fundamental rights or curtail such rights.

No distinction is made between land held by poorer sections of society in cases where land is to be taken over by the state for public purposes. Article 31A applies to all types of tenure, whether proprietor, sub-proprietor, under-proprietor, tenure-holder or other intermediary. As such, all types of rightsholders are treated equally, whereas the loss of a right may not have an equal impact on all types of landholders.

In addition to general savings, the Constitution also protects specific enactments from being challenged (article 31B). Many of these laws, listed in the Ninth Schedule, have a direct bearing on natural resources.[7] In a January 2007 judgement, however, a Constitutional Bench of the Supreme Court held that laws listed in the Ninth Schedule are not entirely free from judicial review. It remains to be seen how Parliament will act to protect from judicial review about 288 statutes that are currently placed in the Ninth Schedule, purportedly in the public interest.

Constitutional remedies are provided through articles 32 and 226, whereby the Supreme Court and High Courts may be approached for the enforcement of fundamental rights. In a number of such cases brought before the courts, articles 14, 19 and 21 have been used to enforce environmental protection but such cases have not directly concerned rights to resources (see Box 1).[8]

Box 1: Judicial decisions concerning fundamental rights

The Supreme Court has recognised that the right to clean and safe water is an aspect of the right to life (Subhash Kumar v. State of Bihar, AIR 1991 SC 420; Attakoya Thangal v. Union of India, 1990 (1) KLT 580). In addition, the fundamental rights to life, personal liberty and equality have been held by the courts to be violated by actions that adversely affect the availability of groundwater supplies (Attakoya Thangal v. Union of India, 1990 (1) KLT 580; Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh, WP 8209 and 8821 of 1983).

In the Dehradun Quarrying case, although the orders did not articulate the fundamental right to a clean and healthy environment, the petition was treated as a writ under article 32, which implied that the court was seeing this right in the light of fundamental rights. The Supreme Court explained the basis of this jurisdiction in the later case of Subhash Kumar v. State of Bihar (AIR 1991 SC 420), where it held that the right to life was a fundamental right under article 21 of the Constitution, that it included the right to enjoy unpolluted water and air, and that "if anything endangers or impairs the quality of life, in derogation of laws, a citizen has a right to have a recourse to Article 32 of the Constitution for removing the pollution of water or air which may be detrimental to the quality of life."

The idea that a clean and healthy environment is part of fundamental rights has been concretised by the Supreme Court and High Courts in other cases as well. An important case in this regard is Olga Tellis v. Bombay Municipal Corporation (AIR 1986 SC 180), in which the Supreme Court interpreted the right to livelihoods as an integral part of the right to life, holding that any person who is deprived of their right to livelihood by law can

challenge such actions as violative of the right to life conferred by article 21.

Judicial interpretation of the Constitutional right to life to include rights to natural resources in occasional litigation is, however, insufficient to empower citizens in general. In effect, the right can be asserted or defended only when an individual litigant approaches the court, an untenable practice in a country with a population of one billion.

Source: Pani, 2002; Pathak, 1994; Rema Devi, 1991.

Statutory Law

Both the Union Government and state governments, together or separately, exercise legislative powers over natural resources (Indian Constitution, articles 246 and 248–254). States have legislative powers over land and inland water resources, while Parliament may legislate on inter-state water issues, provided it is so requested by the state governments concerned. Forest resources appear on the Concurrent List but Parliament holds superior powers of legislation.[9] While most forest laws applicable to Madhya Pradesh and Uttarakhand are central, both states have their own forest laws and regulations as well.

Natural resources laws currently in force are based on the principle of state sovereignty over all resources, introduced under colonial rule, which drastically altered pre-colonial modes of resource tenure (Vani, 2002). In the case of land, private rights are subject to the state's rights as 'supreme landlord' and private property rights are exercised subject to the payment of revenue or taxes. As far back as 1873, all water sources were declared to be the property of the state, subject to pre-existing rights which could be taken over by the state on payment of compensation. After Independence, this distinction was done away with and all water sources except for groundwater were declared to be state property.

Concomitant with state sovereignty over all land, forests are also state property. The colonial Indian Forest Act 1927 is based on this premise. People's traditional rights in forests, both of ownership and use, were transformed into 'concessions' and 'privileges', subject to grant or withdrawal by the state. The Forest Act remains in force without any change in this basic premise.

According to the principle of eminent domain, derived from the idea of state sovereignty over all natural resources, the state may take private property for public use although upon payment of compensation. Eminent domain is "premised on the proposition that the state always, by definition, acts in the public interest and that it can therefore claim eminent domain over all other social entities" (Sen, 2000). The colonial Land Acquisition Act 1894, still in force in India, provides for the operation of this principle.

Rights to natural resources, whether customary or statutory, are subject to the superior rights of the state. Natural resource laws have traditionally not addressed the issue of duties but provide for the exercise of rights and powers, disaggregated from duties. Nor have statutes

governing natural resources been amended to reflect the Constitutional provisions on duties related to the environment. The definition of duties and their enforcement is, however, being addressed through policy measures aimed at participatory natural resource management, particularly with respect to forests and water.

Forests

The states selected for this study are subject to the same national forest laws. In addition, state-specific laws are in force in both Uttarakhand and Madhya Pradesh.

The Indian Forest Act 1927 is the basic law governing forest resources in the country. Eighty years ago, this Act transformed original customary ownership rights into usufruct rights. Enforcement of this law over eight decades has resulted in situations in which rural forest-dependent communities continue traditional management practices based on customary rights, but without statutory cover.

In Behadvi (Madhya Pradesh), for example, many households occupy land within forest areas which they have been cultivating for generations but which has been declared as 'forest' without their rights to title being recognised by law. Rather, villagers are legally deemed to be encroachers on this land and face legal action and eviction. Those who access forest produce according to customary use rights often risk punitive action from forest department staff.

In Mugalpura (Madhya Pradesh), when the government acquired forest and pasture land that had been managed by the community under customary law, but to which the community had no statutory entitlement, the community had no legal basis on which to defend their customary rights. The land they had occupied was not private land, for which compensation would have been legally due, but government land on which the community had only usufruct rights which may be revoked at the discretion of the government.

In Hargarh (Uttarakhand), the van panchayat provides a measure of security for rights only because it has taken extra-legal initiatives through traditional methods to manage the forest sustainably. In both Hargarh and Koti (Uttarakhand), there are conflicts with other communities regarding forest rights.

The Forest (Conservation) Act (FCA) 1980 and the Uttar Pradesh Tree Protection Act 1976 have restricted the rights to forest products. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, if and when implemented, is expected to strengthen the rights of tribal and forest-dependent communities.

Indian Forest Act 1927

The Forest Act was intended primarily to regulate the use and trade of timber and other forest produce for the purpose of generating revenue for the colonial government. Post-Independence, the objectives of the law remain essentially unchanged. Developments in

forest policy since Independence, notably the Forest Policy 1988 which directly addresses matters such as the sustainable management of forests, rights to forest resources and participatory management, find no place in this antiquated legislation.

The 80-year-old Act empowers the government to define and allocate rights to forest resources, with no option for local community participation in the process. The law provides for the settlement of rights exercised since time immemorial through settlement procedures which recognise customary use rights but this is done on an individual basis and not as the collective rights characteristic of customary law governing resource management and use. Moreover, forest settlement procedures in the early years of colonial forest management settled pre-existing rights in forest mostly as 'concessions' or 'privileges' under law, reinforcing the superior rights of the state. The corollary was that such concessions or privileges could be suspended, terminated or redefined at the discretion of the state.

The Forest Act provides for the constitution of 'village forests', allowing the transfer to villages of not only forest management responsibilities but also rights over land. This provision has not been used anywhere in India. The Act offers no scope for participatory forest management and does not recognise the relationship between rights and livelihoods. The management framework laid down in the Act takes no account of livelihood requirements or the need to manage forest resources sustainably for this purpose. Non-binding JFM guidelines are yet to be enacted as Rules under the Act.

Forest management is generally conducted under working plans. Although these are not legally provided for in the Forest Act, they have acquired the force of law under a Supreme Court order (T. N. Godavarman Thirumulpad v. Union of India, WP 202 of 1995), following which no felling can take place except in accordance with working plans prepared by the state government and approved by the central government.

Forest users in Madhya Pradesh (Behadvi) and Uttarakhand (Koti and Hargarh) cite innumerable instances of arbitrary action to enforce the Forest Act by forest guards and other officials who confiscate tools and harass women who access the forests. Rather than becoming involved in lengthy and oppressive legal procedures to recover their tools, villagers bribe forest guards to return them. At the same time, the Forest Act is 'toothless' to prevent the ubiquitous forest mafia operating in all forest-rich states, particularly Uttarakhand and Madhya Pradesh. The degradation of forests as a result of the actions of the forest mafia has significant consequences for local forest-dependent communities.

Forest (Conservation) Act 1980

The FCA aims to protect and preserve forest resources, in order to maintain a balance between developmental needs and the imperatives of conservation. The FCA introduces a higher degree of centralisation in the management of forest resources. Under its provisions, prior approval from the central government is required to divert forest land to non-forestry uses. The Act also restricts the 'de-reservation' of reserved forests created under the Forest Act.

While the FCA has succeeded in protecting forests by controlling the indiscriminate conversion of forest land to non-forestry uses, it has been less beneficial for the communities directly dependent on forest resources. A significant amount of land under the jurisdiction of the forest department is in actual possession of forest-dependent communities. These forest dwellers had been living on and cultivating lands within the forests for generations but their rights were never recorded or settled. Such occupancy, considered to be encroachment under current laws, has been regularised by law in different states but this has not been done with any consistency.

T. N. Godavarman Thirumulpad v. Union of India (WP 202 of 1995)

The negative impact of the FCA on forest-dependent communities was further compounded by the Supreme Court's intervention in forest management through its interpretation of the FCA (T. N. Godavarman Thirumulpad v. Union of India, WP 202 of 1995). The Court suspended the felling of trees in all forests, except in accordance with state government working plans which were approved by the central government. The Court clarified that the word 'forest' must be understood according to its dictionary meaning. Previously, the term was used only to refer to government-declared forests, irrespective of whether or not they carried tree cover (Dutta and Kohli, 2005).

The Court's clarification has expanded the scope of the law to all forests, irrespective of ownership and classification. The ambit of the FCA has thus been extended even to lands yet to be finally notified under the Forest Act, and to all lands conforming to the 'dictionary definition' of forest. This implies that forests could be designated as reserved or protected under FCA section 2(1), regardless of whether or not they are privately owned (Dutta and Kohli, 2005).

National Forest Policy 1988

The National Forest Policy 1988 introduced a fundamental change of perspective, viewing forests not as a revenue-earning resource but rather as an ecosystem-preserving resource. Seven of the nine basic objectives of the Forest Policy are directed at conserving, protecting and increasing forest resources. Direct economic benefit is to be subordinated to the principal aim of environmental stability and the maintenance of ecological balance. The Policy also states that a people's movement is necessary for implementing the Forest Policy.

Rights to resources are delineated in the Policy. Rights and concessions to Scheduled Tribes, Scheduled Castes and the poor are the first charge on forest produce, in theory giving these disadvantaged groups a claim on forest produce that overrides the claims of others. Although the rights of tribals and other poor communities living within and near forests are to be protected, legislative reform is required at the centre and at the state level to implement the Policy.

The National Forest Policy promotes the JFM concept, which seeks to strengthen the rights of local communities through benefit sharing and participatory management practices. JFM is not enabled by statute. JFM guidelines issued by the Ministry of Environment and Forests in

1990[10] along with implementing resolutions at the state level are the basis for this programme (IUCN RELPA, 2006: 84).

The Forest Policy and the national JFM guidelines clearly provide that rights and concessions in forests should be primarily for the bona fide use of communities living within and around forest areas, especially tribal communities. This aspect of the policy is not followed in practice (Debbarma, 2004).

Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006

This Act, which applies to traditional forest dwellers as well as Scheduled Tribes, incorporates many of the elements of environmental justice. It secures both individual and community tenure (section 3(1)), recognising the rights of forest-dwelling Scheduled Tribes as well as those traditional forest dwellers who have been residing in forests for 75 years prior to 13 December 2005. The requirement of primary residency may give rise to difficulties for traditional forest dwellers who have no documented proof of their occupation. The Act recognises rights accepted under any traditional or customary law of the tribe (section 3(2)(f)).

Specific rights recognised under the Act include rights to land under individual or communal occupation for habitation or cultivation (up to 4 hectares per family); rights to customary community lands for usufruct and grazing, including the right to protect, regenerate, conserve or manage them; rights in disputed lands; and the rights to settlement and to convert leases of forest land to titles. The Act provides for rights over minor forest produce, fish and other aquatic products; intellectual property rights in traditional knowledge; and any other traditional right, except hunting. Under the Act, the exercise of rights is restricted to subsistence and livelihood purposes, and does not apply to exclusive commercial use.

Notwithstanding the FCA, the 2006 Act allows the felling of trees to clear land for specified government-managed infrastructure including schools, hospitals, electricity and telecommunications lines, roads, drinking water facilities, and irrigation (section 3(2)).

Madhya Pradesh

In Madhya Pradesh, the Forest Act delegitimised the customary rights of tribal and other forest dwelling communities. Prior to colonial rule, the rights and governance mechanisms of tribal communities did not have to derive their authority from the state. This fact has been recognised by the Constitution, and the Fifth Schedule directs the modification and selective application of law in tribal areas. However, the Forest Act, which predates the Constitution by almost 20 years, has not been so amended. Even the rights available under the Act have not been ensured for tribal communities, including those in the study site of Behadvi. Although Behadvi was included in the World Bank-assisted Forestry Project and a JFM committee was formed in 1998, villagers report that no improvement in access to forest rights has been made, since no developmental programmes were initiated in the village.[11] In Behadvi, rights

to land and forest resources have also been curtailed by the FCA and particularly the Supreme Court's decision in the Godavarman case.

The government decision to fix 25 October 1980, the date the FCA came into effect, as the cut-off date for recognising the rights of tribal peoples (Adivasis) and other forest dwellers did not take into account the fact that tribals did not possess land titles. In the tribal village of Behadvi, 27 per cent of the land that families had been cultivating for many generations was officially termed 'encroached' forest land following this decision. Eviction proceedings have been initiated by the state agencies concerned and are ongoing.

The constitution of state forests under the Forest Act in the absence of the settlement of rights has resulted in these communities being declared encroachers in the eyes of law. In Mugalpura, the Forest Act has not provided any mechanism to the local people to defend their rights to the forest and pasture which was taken over by the government.

The operative rules under the Forest Act are the Madhya Pradesh Protected Forest Rules 1960, Madhya Pradesh Village Forest Rules 1977 and Madhya Pradesh Grazing Rules 1986, all of which reflect the same state-centric approach as the Forest Act.

Madhya Pradesh Protected Forest Rules 1960

The Madhya Pradesh Protected Forest Rules, issued under the Forest Act, allow agriculturists residing within or owning land in a village to obtain *nistar*[12] and *paidawar*[13] from protected forests to which they have been or may be attached, either free of charge or on payment.

The Rules vest all administrative and regulatory powers in state agencies. These include the determination of rights to forest produce and the areas in which such rights may be exercised; the management of forest trees and vegetation; the rates payable for each kind of forest produce removed from protected forests; the issuing of licenses and passes; fire prevention; fishing rights; the allotment of land in river and tank beds for cultivation; regulating the cutting, sawing, conversion and removal of trees and timber; regulating the collection, manufacture and removal of forest produce; and regulating the cutting of grass and pasturing of cattle. There are no provisions in the Rules to reflect a participatory approach to forest management.

Madhya Pradesh Grazing Rules 1986

The Madhya Pradesh Grazing Rules, issued under the Forest Act, empower the forest department to constitute grazing units and issue licenses to local communities for grazing within such units. Grazing in forests is also to be regulated under these rules.

The Grazing Rules take into account sustainability issues by providing for the determination of the 'carrying capacity' of a grazing unit, requiring that the level of grazing permitted is determined after taking into consideration the extent of soil erosion, and allowing grazing areas to be closed for conservation purposes. Local panchayats must be notified about the

closing of grazing. Until such time that grazing units are constituted under the Rules, other types of designated administrative units serve as grazing units.

Madhya Pradesh Village Forest Rules 1977

The Madhya Pradesh Village Forest Rules 1977, issued under the Forest Act, provide for the constitution and administration of 'forest villages' established by the forest department in order to requisition labour for forestry operations. Under these Rules, the government retains the power to define, allocate and regulate rights, and to manage forest villages in totality. The government's functions in this connection include preparing plans, imposing prohibitions and limitations on grazing, issuing licences and certificates, and prescribing grazing and transit fees.

Uttarakhand

Uttarakhand is subject to the same national forest laws as Madhya Pradesh, in addition to the Uttar Pradesh Tree Protection Act 1976, as well as various Rules under the Forest Act that underwrite community participation in forest management. A significant difference between the two states selected for this study is the legally underpinned, unique and long-standing experience of community participation in forest management that commenced in 1931 in the area that today forms Uttarakhand state. In the mid- to late- 19th century, colonial authorities terminated the ownership rights over forest resources of hill peoples in this area. This led to widespread public unrest, which erupted into violent movements that began in 1906 and continued for the next quarter century. In response, local communities' rights to forests and their traditions of management were accorded a measure of legal recognition through the constitution of van panchayats under the Forest Panchayat Rules 1931, framed pursuant to the Scheduled Districts Act 1874.

Van panchayats were created mostly from 'civil and soyam forests', a category of forest that is controlled by the district revenue administration rather than the forest department. Post-Independence, and following the repeal of the Scheduled Districts Act under which the Van Panchayat Rules were originally notified, the Rules were re-issued under the Forest Act. Nevertheless, the forest department did not interfere with the administration of van panchayats, which continued to operate under the revenue department. Since the advent of JFM, control of civil forests is being transferred to the forest department.

The net effect of the changes that have been implemented since rules governing van panchayats were first adopted in 1931 is a reduction in local autonomy. The first such step came in 1976, with the amendment of the 1931 Rules. The Uttarakhand Van Panchayat Rules 1997, which repealed the 1931 Rules and were notified under the Forest Act, transferred management responsibilities only through JFM.[14] The 1997 Rules diluted the independence of van panchayats and brought them more directly and substantively under the control of the forest department. Although the Rules were amended in 2005 in an attempt to consolidate JFM concepts with the van panchayat model, village autonomy in decision making related to forest resources today is less than it was prior to 1976.

Restrictions imposed under the FCA have a direct impact on access to resources in Uttarakhand. A ban is in place on felling green timber at altitudes above 1,000 metres in the Himalayan region. In 1986, the ban was made applicable to altitudes above 2,500 metres. At lower altitudes, green felling is permitted only in the case of pine, and only in areas specified in forest working plans (Government Order No. 3971/14-2-96-124/1982, Uttar Pradesh Forest Department). There are also restrictions on the customary right of one tree per household annually, which now applies only to dead or dry trees.

In the study sites in Uttarakhand, farmers complain that without permission from the forest authorities they are not allowed to cut trees which they themselves have planted on their own land. The green felling ban is a contentious issue, as is the delay in development projects as a result of FCA requirements. The van panchayat in Hargarh has waited for several years for a response from the forest department concerning approval of their forest development plans. Unless working plans are made for the van panchayat, integrated with forest department working plans and sanctioned by the central government, village proposals cannot be sanctioned.

Uttarakhand Village Joint Forest Management Rules 2005

The Uttarakhand Village Joint Forest Management Rules (Uttarakhand Van Panchayat Rules), as amended in 2005,[15] attempt to merge JFM concepts with van panchayat provisions, rather than introducing a different paradigm as was attempted in earlier revisions of the Rules. The Rules protect customary rights and introduce the concept of sustainability by restricting the exploitation of forest produce to ensure that the ecological requirements of the area for which the village is responsible are met. Duties related to forest management are devolved to the individual level, rather than to the community as a whole, and include fire control and protecting plantations as well as providing information on illicit felling, grazing and encroachment. All villagers participate in decision making and benefit sharing. The sale of timber and forest produce continues to be at the discretion of the forest department rather than the van panchayat.

Uttar Pradesh Tree Protection Act 1976

The Uttar Pradesh Tree Protection Act applies only to Uttarakhand, which was part of Uttar Pradesh state until the year 2000. This law prevents individuals from felling ‘protected’ tree species of commercial value without permission from forest department officials, even if such trees grow on their own land. While similar restrictions on protected tree species existed prior to this law, the 1976 Act also imposes a ban on felling oak, which is required for many agricultural purposes.

Land

The Madhya Pradesh Land Revenue Code 1959, and the Kumaun and Uttarakhand Zamindari Abolition Act (KUZA) 1960 both recognise land rights that existed at the time that these laws were enacted, thereby acknowledging the rights of a majority of the population in the study sites. But while their rights were acknowledged under law, ineffective implementation of land ceiling legislation and the absence of statutory cover to secure the

rights of marginalised communities such as the Scheduled Castes and Scheduled Tribes have left large sections of these populations deprived of private land rights de facto. A significant percentage of households in both the Madhya Pradesh study sites, and the few landless families in the Uttarakhand study sites, belong to these marginalised communities.

The definition of legal rights in common lands is stronger in Madhya Pradesh than in Uttarakhand but options for exercising and defending these rights are limited in both states. In Uttarakhand, customary use rights in common lands were recorded during the colonial era and villagers were in possession of these records. Post-Independence legislation has, however, completely neglected the recording of these rights. In Madhya Pradesh, statutory law recognises customary use rights in common lands and provides for their recording but these provisions are not being implemented.

In all four study sites, common lands, or what is left of them, are an open access resource. Private encroachment for the purpose of cultivation is not uncommon. This process of privatisation has led to the erosion of customary use and management of common lands.

Madhya Pradesh

No land use policy has ever been formulated for Madhya Pradesh. Rights to private and common lands, and the management of such areas, have not been integrated. With the exception of land reform laws which impose ceilings on agricultural land, the colonial approach continues to be followed in legislation for the land sector. The management of land resources is limited to the granting and regulation of private rights, and regulating use rights in common lands, with the state retaining overall control of land resources.

Current statutory law provides for recording customary use rights in common lands, consulting village residents and local elected bodies in the preparation of records, and obtaining their consensus. In practice, however, these statutory procedures are rarely followed. In the two Madhya Pradesh study sites, the heads of village panchayats were not aware of any such records. The lowest-ranking revenue official in charge of preparing and maintaining village records in Mugalpura stated that the use and significance of records related to customary rights has dwindled over time, and so an effort is no longer made to maintain them.

Madhya Pradesh Land Revenue Code 1959

Land rights in the state are derived from the Madhya Pradesh Land Revenue Code, which is the source of both private and government rights. While declaring that all lands belong to the state, the Code saves individual rights existing at the time of its coming into force. The declaration of state rights over all land resources, except for those that were already privately owned, extends state control over common lands as well. The Code follows colonial land law which transferred ownership of common lands from local communities to the state. The Code provides for rights in ‘unoccupied’ land within a village, applicable to land not used for housing or privately held–in other words, common lands.

The objectives of the Land Revenue Code are similar to those of the Forest Act, aimed at regulating the use of resources mainly for revenue generation. There is no provision for an institutional framework reaching down to the village level for the sustainable management of common lands. Instead, common lands operate as an open access resource, where villagers exercise their customary rights to graze animals and collect forest produce.

The Land Revenue Code provides for most management functions in relation to common lands. These include land use planning and the regulation of various uses of common lands. Management of common lands is entirely in the hands of the state, which plays a regulatory rather than managerial role. Control of common lands vests with the revenue department.

The Code does not recognise common property rights. It only recognises the right to use common lands for certain purposes associated with rural life. These purposes are termed *nistar*, and the Code provides for the setting apart of common lands in the village for this purpose. The Code also provides for the management of such lands.

The Revenue Code recognises three types of rights in land: *nistar*; grazing in wasteland adjoining villages; and customary rights of irrigation, fishing, right of way and other easements on land or water not controlled or managed by the state or a local authority. Customary rights were recorded in the *wazib-ul-arz*[16] while *nistar* and grazing rights were documented in the *nistar patrak*.

The Code provides for the preparation of a record of nistar rights (*nistar patrak*), containing terms and conditions for exercising these rights, which are to be finalised only after ascertaining the wishes of the residents of the village. This provision allows for consultation with local communities and for including customary arrangements in the use of common lands. The Code provides that a resolution of the gram sabha (inter-village council) is required to divert to other uses land set apart for *nistar* use.

Except for Behadvi residents whose lands were declared 'forest' under the Forest Act, all landholders in the study sites of Behadvi and Mugalpura derive their land rights from the Revenue Code. In Mugalpura, most families access common lands for grazing, firewood collection and to water cattle. In Behadvi, common lands are used for firewood collection, grazing animals and collecting bamboo. There are no customary management institutions for common lands, which are mostly open access.

Madhya Pradesh Ceiling on Agricultural Holding Act 1960

The Madhya Pradesh Ceiling on Agricultural Holding Act imposes a limit of seven hectares per holding of irrigated land. This ceiling applies to both owned and tenanted land but tenant rights are not secure since there are no tenancy laws to settle or regulate such rights. No households in Behadvi or Mugalpura hold land above the limit prescribed by the Act.

Uttarakhand

As in Madhya Pradesh, there is no land use policy in Uttarakhand, resulting in the same

absence of an integrated approach to rights and management for private land and common land. Here too the management of land resources is limited to granting and regulating private land rights, and regulating use rights in common lands, with the state retaining overall control.

In Uttarakhand, rights to land and powers to manage this resource stem from custom as well as from the provisions of statutory law. KUZA 1960 applies in the hill areas and the Uttar Pradesh Land Revenue Act 1901 in the plains.

While Scheduled Tribes fare relatively better in terms of ownership, landlessness persists among the Scheduled Castes (Sati, 2005: 76–85). The largest percentage of marginal holdings is found among Scheduled Castes and Tribes. Here too Scheduled Tribes fare better in comparison. Records of rights have not been updated for decades, whereas ownership has changed as a result of inheritance and the resulting fragmentation of landholdings, with transfers of ownership conducted mostly through traditional methods. In many cases, the partitioned parcels of land are so small, and are the result of so many transfers, that recording them all now poses a significant administrative challenge. The Uttarakhand government has recently started a project for the computerisation of land records which, it is hoped, will solve this problem.

Kumaun and Uttarakhand Zamindari Abolition Act 1960

The hill districts of Kumaun and Garhwal, although a part of Uttar Pradesh state, historically had a type of land tenure system that differed from the rest of the state. A decade after land reform for the entire state of Uttar Pradesh was implemented, a specific law was adopted to be applied in the hill districts. The objectives of the two statutes were the same.

KUZA did away with the superior tenure of proprietary rights over tenant land introduced under colonial rule. Tenants were given full rights over the land they occupied while owners were awarded compensation for the loss of their rights. The tenure of tenants-at-will whose rights could be curtailed at any time was strengthened. In this way, the majority of small landholders acquired legal rights to land.

While KUZA protects private land rights, the same cannot be said for rights in common lands. Prior to KUZA, these rights were recorded in village records of rights (called *wazib-ul-arz* and *yaadast halat gaon*). After the enactment of KUZA, the maintenance of these records was neglected and fell into disuse. These records are only found today only as artefacts.

With respect to the management of common lands, KUZA incorporated the provisions of the Uttar Pradesh Zamindari Abolition and Land Reforms Act 1950, establishing state control of all land resources and village management of common lands. KUZA states that the provisions of the 1950 Act—which vest common lands, forest, water bodies, fisheries, pathways and other common resources in a village body, to be administered through a land management committee—shall apply to Uttarakhand as well, with the state having powers to modify or adapt them as required, and without affecting the substance of the provisions of the 1950 Act. These provisions on land management were never implemented in Uttarakhand.

Water

Rights and powers to control and manage water sources vest in the state. Government rights over water resources on public lands are clearly defined in law in both Madhya Pradesh and Uttarakhand, while rights to surface water on private lands are unclear. Customary management of surface water is recognised in irrigation law. It is well established in statutory and common law in India that groundwater belongs to the owner of the land and is part of property rights in land (Rema Devi, 1991: 614–619).

There is no holistic approach to water resources management in either Madhya Pradesh or Uttarakhand. Existing law does not contain any provisions for water conservation or sustainable management, thereby diminishing the value of the rights to water.

Indian Easements Act 1882

Under the Indian Easements Act 1882, no prescriptive rights of easement can be acquired in water supplied through government canals. The Act even declares the right of the government over the water discharged as waste after it has been used for the purpose for which it was supplied.

Forest Conservation Act 1980

The FCA also has a bearing on water rights and management. Many sources of water are found in forests, and such sources are under the control of the forest department. Prior to 1980, when local communities or state water agencies needed to access these sources, they were required to apply to the forest department which usually gave permission. Following the enactment of the FCA, however, the use of water in a forest area is deemed to be a 'non-forest' activity for which applications must be sent to the forest ministry for clearance.

Madhya Pradesh

In the study sites, water for irrigation and drinking is managed entirely by communities.[17] In both Behadvi and Mugalpura, farmers use local streams and wells for irrigation. Water abstraction systems are also constructed by the villagers. The government has never intervened in any manner in management of these private irrigation works and water systems.

For state-owned irrigation systems, legislation has been enacted relatively recently to introduce participatory irrigation management. Under this law, water users associations have been given many responsibilities but few rights or powers. These associations function under the strict control of the government.

Madhya Pradesh Land Revenue Code 1959

According to the Land Revenue Code, state proprietorship over all lands that are not privately owned includes ownership of "all standing and flowing water". While the Code does not refer directly to rights in surface water bodies situated on private land, it does recognise customary rights to water for irrigation, fishing, right of way and other easements, on lands not

belonging to or controlled by the state or any local authority. It also provides for the recording of such rights. In so doing, it implicitly relegates the rights in such water bodies to use rights.

Madhya Pradesh Irrigation Act 1931

Under the Madhya Pradesh Irrigation Act, the government has the right to water from any river, natural stream, natural drainage channel, natural lake or other natural source, regardless of the type of land on which such a source is located. These rights override not only past and present rights of other persons but also future rights. Private rights to water are nowhere defined, creating ambiguity about the legal status of surface water bodies located on private lands. In practice, water bodies on private lands in many villages are used collectively by villagers.

The Act envisages the involvement of farmers in the management of state-owned irrigation systems by providing for irrigation panchayats. Although the constitution of such panchayats is mandatory, no such bodies have been formed in the state (DCAP, 2000).

Provisions are made for state support to private irrigation works. The Act includes a separate chapter on private irrigation works, providing for financial support and managerial intervention by the government when warranted. Although all water systems in the study sites are non-state, community-managed systems, the financial support envisaged by this Act is yet to be provided.

Madhya Pradesh Farmer's Participation in Irrigation Management Act 1999

The Madhya Pradesh Farmer's Participation in Irrigation Management Act 1999 was enacted in the wake of the World Bank-financed Water Resources Consolidation Project in Madhya Pradesh.[18] The Act applies only to systems under the control of the irrigation department, and not to irrigation systems that are privately owned or under the control of panchayat institutions. It creates an institutional framework at the village level from a narrow sectoral perspective, with no links to existing local institutions. The Act provides for government notification of 'water users areas' and the establishment of a water users association for every user area so notified. Membership of users associations is to include not only farmers but all other water users in that area.

Under the Act, the government reserves all powers to determine the structure, membership and function of water users associations. Elections to the associations are conduced under government authority and management. Farmer's organisations have been given the power to levy and collect such fees as may be prescribed by government. No other powers of land or water management have been defined for water users associations. The duties and functions of water users associations are restricted to the maintenance and operation of irrigation infrastructure, and the efficient use of water.

Uttarakhand

Under colonial water rules first adopted in 1917 for the area that is now Uttarakhand, customary community ownership rights were treated as use rights. While customary rights

were recognised, customary dispute resolution mechanisms were not. To resolve disputes related to water rights, however, statutory judicial institutions relied on the doctrine of 'prior right',[19] which helped to establish the exclusivity of customary use rights acknowledged under colonial rules.

Water mills for irrigation are regulated by the government but managed locally. Prior to British intervention, rights in water mills were held by individuals separately or on a shareholding basis. Water mills were operated subject to the irrigation needs of the communities, since they were frequently built on the same water source. Elaborate local rules were, and continue to be, prevalent in the matter of running water mills. The colonial administration introduced a licensing system to underwrite state sovereignty over water resources and disputes were settled by formal courts. Courts, however, relied to a great extent on locally generated rules to settle water mill disputes (DCAP 1996a). The licensing system continues under current law.

Eighty per cent of irrigation systems in Uttarakhand are traditional ones constructed and managed by communities. State irrigation systems in the two study villages are also managed primarily by local communities, since irrigation agency staff rarely put in an appearance. The distribution of water, the maintenance of the system and conflict resolution are all undertaken by farmers themselves. When the systems are damaged to an extent that the local people cannot afford to repair, they apply to the agency for assistance, which is rarely provided.

It is only in the case of drinking water that there has been massive state intervention. However, the management of drinking water supply has been poor (DCAP, 2003). As a result of state intervention in the drinking water sector, traditional drinking water access systems[20] were neglected. But with the failure of state systems, people are once again turning to these systems. Until 1975, when the state started to supply drinking water, local communities in the hill areas depended exclusively on natural springs around which they constructed traditional water collecting structures. Today communities use both state systems and traditional methods. State agencies abstract water from the same springs and streams that supply water to traditional drinking water and irrigation systems. This water is not always supplied to the village from where it is abstracted but to other villages and urban areas. This practice has resulted in the eruption of conflicts over water sources across the state (DCAP, 1996b).[21]

A significant negative aspect of community management is the exclusion of Scheduled Caste communities from using drinking water sources used by the higher castes. In villages where different castes co-exist, communities uses separate sources and lower castes are not allowed to 'touch' the water in higher-caste sources. During periods of water scarcity, lower-caste groups must wait to be 'served' water from higher-caste sources. Funds received by village panchayats to repair and improve water systems are spent mostly on sources used by the higher-castes. Statutory law does not protect these groups from caste-based discrimination because there is no right to drinking water in statutory law and constitutional guarantees are only implied.

Kumaun and Garhwal Water (Collection, Retention and Distribution) Act 1975

The Kumaun and Garhwal Water (Collection, Retention and Distribution) Act 1975, or K&G Water Act, was enacted under the auspices of a World Bank loan project for drinking water. The law regulates and controls water sources in the hill tracts of Uttarakhand state to ensure rational distribution for the purposes of human and animal consumption, irrigation, and industrial development. Despite its broad scope, the law has been used primarily to give effect to the state's drinking water policy.

The K&G Water Act abolishes all customary rights and establishes the superior rights of the state over all water sources. At the same time, it provides for the continued application of colonial water rules, "in so far as they are not inconsistent with the present Act". The courts continue to settle disputes in which the state is not involved on the basis of the 'prior right' doctrine, which is integrally linked to customary rights (DCAP, 1996a; DCAP, 2003). Where the state is involved in a dispute, the provisions of the K&G Water Act are applied to assert the superior rights of the state (DCAP, 1996b).

Uttar Pradesh Water Supply and Sewerage Act 1975

The Uttar Pradesh Water Supply and Sewerage Act 1975 constitutes the Water Corporation (Jal Nigam) and Water Agency (Jal Sansthan), and vests in them monopoly powers with respect to the extraction and supply of drinking water. Prior to the enactment of this law, powers, duties and functions related to supply of water lay with panchayat institutions. This legislation was also enacted for the same reason as the K&G Water Act 1975—a World Bank loan project for drinking water.

Kumaun and Uttarakhand Zamindari Abolition Act 1960

This land reform law enacted for the hill region also recognises private rights to water. Any water source located on the land of an individual is deemed to have been settled on that individual (section 7). While KUZA recognises private rights to water, the K&G Water Act 1975 does not. The latter, being a later act, prevails over the former in the hill areas, resulting in discrimination against the hill areas in terms of recognition of private rights to water.

Local Institutions

The 73rd and 74th Constitutional Amendments of 1992 introduce provisions related to local self-governance. The 73rd Amendment concerns rural local bodies. The Constitution recognises the gram sabha and mandates the formation in every state of a three-tier panchayat system, the members of which are to be directly elected.[22] Mandatory provisions have been made for the establishment, tenure and functioning of panchayats. There are, however, no mandatory provisions for powers to be devolved to the panchayat level. It is up to state legislatures to endow panchayats with powers.

Subjects for which powers may be devolved include the preparation of plans and the implementation of schemes for economic development and social justice, including matters listed in the Eleventh Schedule. Of the 29 items listed in this Schedule, as many as 14 are relevant to natural resources management.

The Constitutional Amendments on local bodies, whether urban or rural, do not create a new dispensation to enable the pluralistic, decentralised governance of resources. This is evident from the fact that the legislative powers of the centre and the states remain unchanged. There are nevertheless no impediments to a substantial devolution or delegation of authority, in keeping with article 40, which requires states to take the necessary steps to organise and "endow" village panchayats with powers that enable them to function as "units of self-government". The fact that this obligation is far from being met is borne out by the findings in the two states selected for this study.

Provisions of the Panchayats (Extension to Scheduled Areas) Act 1996

The Provisions of the Panchayats (Extension to Scheduled Areas) Act, or PESA, aims to empower tribal societies with control over natural resources, and to preserve their cultural and economic rights. It applies the provisions of the 73rd Constitutional Amendment, with necessary modifications, to Schedule V Areas.

PESA is unique in its recognition of self-governance for tribal communities. Prior to its passage, laws enacted by central and state governments were applied mechanically to tribal areas in violation of Constitutional provisions, and in many cases contravening traditional tribal practices and institutions. PESA provides for tribal peoples to define their own administrative and social boundaries. The gram sabha so defined is empowered to approve all development plans; control social-sector functionaries and institutions; and control minor water bodies, minor minerals and non-timber forest resources. It also has the authority to control land alienation and resolve internal conflicts by traditional means.

On the ground, the substantive provisions of PESA remain unimplemented.

Madhya Pradesh

The number of non-elected village-level management institutions[23] being promoted by the government under various programmes suggests that elected village-level local government institutions have a decreasing role in natural resource management.

The Madhya Pradesh Panchayat Raj and Village Self Government Act 1993 attempted a significant change in the earlier law on local government by establishing the gram sabha as a body superior to the gram panchayat. Section 5A defines the gram sabha as a body corporate, having perpetual succession and seal, with powers of holding, acquiring and disposing moveable and immoveable property, and with powers to sue and be sued. It has been assigned 54 functions and powers in total, almost all of them previously held by the gram panchayats. Of these powers, as many as 18 are related to natural resource management. There have, however, been no initiatives in terms of government orders, circulars or notifications to transfer these powers to gram sabhas. The gram panchayats under the Act are assigned functions of preparing plans and executing schemes that are entrusted to them by the government. They have restricted powers, among them the power to govern public health and safety issues, name streets and buildings, and regulate markets

and fairs. Funds of the gram panchayat can only be operated jointly with a government functionary.

Janapad panchayats are entrusted with making financial provisions for programmes related indirectly to natural resource management, including integrated rural development, agriculture, social forestry, animal husbandry and fisheries, thus duplicating the envisaged role of gram sabhas.

The functions of zilla panchayats are similar to those of the janapad but applicable to the district as a whole. Zilla panchayats coordinate and supervise lower-level panchayats and have relatively greater powers than the lower-level bodies. Except for powers to lease water bodies for fisheries and to lease mines, both within prescribed limits, through which panchayat raj institutions could earn income, the rest of their responsibilities come without the necessary powers to control resources.

On paper, Madhya Pradesh has devolved maximum authority to village gram sabhas under PESA, which applies to states with Schedule V tribal areas. In fact, PESA has not yet been operationalised. All existing natural resource statutes remain in force without substantive amendment in favour of tribal communities.

Uttarakhand

While Uttarakhand is home to several tribal communities, it does not have Schedule V Areas and its tribal populations are therefore denied the benefits of PESA. The recently enacted Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 may help to remedy this lacuna. In the meantime, Uttarakhand is yet to amend earlier municipal laws and legislation on panchayat raj institutions, such as the Uttar Pradesh Village Panchayat Act 1947 and the Kshettra Panchayats and Zilla Panchayats Act 1961, to devolve powers to local bodies. The approach of the government towards local bodies is indicated by the fact that the state's Draft 10th Five-Year Plan (2002–07), which sets out its vision and strategy for development, makes no mention of panchayat raj institutions.

Findings From Field Studies

In all four study sites, there is an appreciable level of awareness among survey respondents concerning their rights to natural resources. Households identify either statutory law or custom as the source of these rights, based largely on individual and community use and experience. Where there is a strong government presence (as in the case of Behadvi and Koti for forest, and Hargarh and Koti for water), formal law is seen as the source of rights. In Hargarh, custom is seen as the source of rights even though its van panchayat is a statutory institution, perhaps because all decisions on rights are made locally.

Where there exists an appreciable level of local participation in decision making (forest in Hargarh), or when resources are sufficient (water in Hargarh and Koti), rights are considered to be fair and equitable. In some cases, however, issues such as caste- or status-based inequity are not openly admitted (water in Koti). Where there is apparent inequity (land rights in Mugalpura, community representatives for JFM and water resource management in Behadvi taking special privileges), rights are considered to be unfair. Interestingly, rights are also considered to be fair in places where rights are clearly allocated by the state (forest in Behadvi and Koti).

Status of Natural Resources

Respondents were questioned about the impact of environmental damage on the natural resources they use. Results show that all households in all four locations have experienced the negative impact of natural resource degradation, although the impacts differ.

In Uttarakhand, 100 per cent of respondents report having experienced the impact of environmental changes. In the case of land, cultivated lands are more at risk from soil erosion.

In Madhya Pradesh, animal husbandry is an important activity in Mugalpura, practised by half of all households in that village, where 50 per cent of respondents report negative impacts. In Behadvi, 23 per cent of households have difficulty in accessing fodder from common lands. This is not only as a result of degradation but also because common lands have been diverted to agricultural use.

With respect to water, Hargarh is the only village with relatively adequate supply. Even here, households report a decrease in availability over the years, owing to the degradation of land and forest. In Mugalpura, where water is insufficient for agriculture and animal husbandry, 100 per cent of respondents report water resources degradation. In Koti (Uttarakhand) and Behadvi (Madhya Pradesh), half the respondents report a negative impact.

Forest resource degradation is reported by all households in Madhya Pradesh, highlighting the fact that a local forest in Mugalpura was taken over by the government and forest resources are no longer sufficient to support livelihoods. Half of all households in Uttarakhand also report the degradation of forest resources. In Hargarh, where there is good

forest, half of the respondents nevertheless report insufficiency of resources. Similarly, in Koti, which does not have a village forest of its own and contends with encroachment from surrounding villages in its designated government forest area, half the respondents report forest degradation.

Conservation Initiatives at the Household Level

Households in all four locations carry out conservation activities at the household level as part of their traditional use of natural resources (Table 1). This applies to all the resources they use, albeit with varying levels of engagement. Households engage in conservation activities both where there are functioning local institutions that encourage or require them to do so, and where there are no functioning institutions, in which case households are constrained to undertake conservation themselves to sustain the resource.

In general, the degree of participation in conservation at the household level appears to be linked to the functioning of formal institutions for natural resource management. Where such institutions fail to function effectively, household-level conservation activities are higher.

In all four villages, households are engaged in conservation activities with respect to common property resources as well as private resources. In Behadvi, where the JFM and watershed committees have a poor track record, a higher level of conservation activities is seen at the household level. In Mugalpura as well, where formal management institutions and government programmes related to natural resources are absent, a large percentage of households engage in traditional conservation activities.

Table 1: Conservation initiatives at the household level

Village	Households engaged in conservation of resources (%)			
	Common land	Private land	Forest	Water
Hargarh (U)	23	-	100	15
Koti (U)	19	-	33	14
Behadvi (MP)	-	37	80	50
Mugalpura (MP)	-	38	-	50

MP = Madhya Pradesh
U = Uttarakhand

Source: Field survey, 2006.

With respect to water resources, Hargarh and Koti in Uttarakhand show fewer households engaged in conservation compared to the Madhya Pradesh villages of Behadvi and Mugalpura, perhaps because in Uttarakhand the state is comparatively more involved in water supply. With respect to forest resources, in contrast, Hargarh has 100 per cent involvement in forest conservation because of the successful functioning of the van panchayat whereas villagers in Koti, which has no designated village forest, are less involved in conservation.

Conservation on common lands shows the lowest household-level conservation activity. Rather than the absence of formal institutions for common land management, which is also the case in both states,[24] this is perhaps indicative of the fact that common lands are fast disappearing and household dependence on common lands in all study sites is comparatively low.

Rights to Natural Resources

Respondents were asked to discuss rights to natural resources, including the exercise of rights, awareness of rights, the source of rights (whether custom or statutory law), and their perception of fairness and equity.

Table 2: Awareness of rights

Village	Response (%)					
	Land		Water		Forest	
	Yes	No	Yes	No	Yes	No
Hargarh (U)	100	-	100	-	100	-
Koti (U)	100	-	100	-	100	-
Behadvi (MP)	67	33	100	-	81	19
Mugalpura (MP)	100	-	100	-	-	-

MP = Madhya Pradesh
U = Uttarakhand

Source: Field survey, 2006.

Awareness of Rights

On the whole, there is an appreciable degree of awareness concerning rights to resources (Table 2). In Hargarh, households identify trees, grass, leaf fodder and litter as 'rights', and bamboo, medicinal plants and lichen as 'not-rights'. While they have free use rights to the former, they do not have similar rights to the latter and the extraction of these products has to be notified to the forest department. Recently, the van panchayat passed a resolution banning the abstraction of lichen in the van panchayat area, as it harms the water-bearing trees on which it is formed. In Koti, households acknowledge access rights only to trees, fodder and leaf litter.

In Behadvi, there is comparatively less awareness, particularly among landless households and those who migrate for most of the year. Here, awareness of forest-based rights differs from product to product, and is related to use. So, for example, 100 percent of respondents think that utilising trees is their right, 80 per cent believe that fodder use is their right, 87 per cent think they have the right to use herbs, and 17 per cent state that taking bamboo is their right.

In Mugalpura, again, all respondents report being aware of their rights to land and water. All also consider the use of community wells for drinking and domestic purposes to be a right, while only 62.5 per cent consider stream use as a right. Stream use is limited to farmers who

have access to irrigation. All households reported being aware of their rights in common lands.

Source of Rights

Awareness of rights in the study sites is confirmed by respondents' opinions on the source of rights (Table 3) and appears to be based on experience. In fact, all rights to natural resources are currently derived exclusively from statutory provisions, whereas nearly all rights were originally located in custom (see Box 2). In their perception of rights, respondents appear to be aware of this historical fact. Additionally, they experience local decision making on rights, as well as state regulatory activities. This cumulative experience appears to be the basis of the opinions put forward during the survey.

Common land in all four villages is an open access resource. In Hargarh, Koti and Mugalpura, 100 per cent of respondents identify custom as the source of common land rights. This is likely to be because respondents in all four villages access land in customary ways. For instance, there is open access for purposes such as right of way, burial or cremation, threshing, grazing and firewood collection, and for the use of water bodies. In Behadvi and Mugalpura, common land is specifically used by certain families for grazing and for cutting bamboo. In Mugalpura, all respondents consider use of common land as a customary right, since they have been using grazing land for decades.

In Behadvi, 67 per cent also believe their rights to common land are derived from custom, while the remaining responses are 'don't know'. It is worth recalling that this is the village with the largest incidence of migration, and so responses may be influenced by the absence of active use of common lands among migrant families.

Table 3: Source of Rights

Village	Response (%)								
	Common land			Water			Forest		
	Statutory law	Custom	Don't know	Statutory law	Custom	Don't know	Statutory law	Custom	Don't know
Hargarh(U)	-	100	-	100	-	-	-	100	-
Koti (U)	-	100	-	100	-	-	100	-	-
Behadvi (MP)	-	67	33	-	100	-	100	-	-
Mugalpura (MP)	-	100	-	-	100	-	-	-	-

MP = Madhya Pradesh
U = Uttarakhand

Source: Field survey, 2006.

With respect to water resources, the Uttarakhand villages identify formal law as the source of their rights. This is likely to be the case because they have state-constructed irrigation systems and state-supplied piped drinking water.

In Behadvi and Mugalpura, where they use wells and streams, and where the state is not involved in water distribution, custom is identified as the source of the water and irrigation rights.

With respect to forest resources, Hargarh households identify custom as the source of their rights, no doubt based on their van panchayat. What is interesting, however, is that this opinion is held despite the fact that van panchayats are established under statutory law. Tribal villagers in Behadvi, meanwhile, identify statutory law as the source of their forest rights, likely because of the overpowering presence in their area of the forest department, which takes all decisions in relation to the JFM programme. Koti villagers also identify statutory law as the source of their forest rights. Here, it is worth recalling, their experience extends to civil forest and reserve forest areas which they are able to access.

Box 2: Customary law

The modern formal legal framework related to natural resources in India originates in the colonial period and is entirely statute-centred. This is of particular importance in the realm of natural resource management, where management and use practices combine old and new technologies and institutions.

Governance of natural resources, however, has its basis almost entirely in custom. In traditional Indian jurisprudence, custom constituted a source of law independent from all other recognised sources. The king was prohibited from interfering with the customs of castes, families and other groups. The role of the state was administrative, not legislative (Lingat, 1975).

With custom having authority as an independent source of law, the role of the state in areas such as the construction of water systems or awarding land grants did not preclude local management autonomy. This arrangement promoted local law-making in consonance with local conditions and needs. Thus both the management of natural resources and the regulation of rights were within the jurisdiction of local communities.

Under colonial rule, customary law as a system was substituted with a formal legal system. This change had an impact on the governance of natural resources. Formal law recognised customary land rights by providing for their recording and settlement but delegitimised local governance mechanisms and replaced them with centralised institutional frameworks which resulted in the fracturing of earlier integrated governance systems (DCAP, 1996a).

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 explicitly acknowledges the existence of customary law and, in the case of forest-dwelling tribes and other traditional forest-dwelling peoples, recognises customary rights.

Fairness and Equity of Rights

Respondents were asked to assess the fairness and equity of their rights to natural resources (Table 4). In both Hargarh and Koti (Uttarakhand), there is consensus in favour of the fairness and equity of statutory land and water rights. This is likely to be the case because in both villages landholdings are more or less equitable and are based on traditional landholding

patterns whereby each family has plots of land both in the rain-fed upper slopes as well as the lower irrigated slopes. In Hargarh, despite the fact that all households do not receive irrigation water from the state system, respondents consider irrigation rights to be fair. Those who do not have irrigation rights feel that the government should provide them with water but yet do not state that the rights are unfair. This attitude may be in deference to the fact that the village panchayat has taken the initiative to petition the government for irrigation for all households. In Koti, although there is no water scarcity, irrigation is not available to all and the natural spring is used only by the upper caste. However, no respondent in the village voiced an opinion that the system is unfair.

With respect to forest resources, the majority in Hargarh believe statutory rights are fair and equitable, while a small percentage of households do not know whether their forest rights are fair. There are no responses in the negative. This difference in opinions is likely to be a reflection of use patterns among households who are less dependent on forest resources. In Koti, where rights in government forests are clearly defined, forest rights are also considered to be fair and equitable.

This perception of equity in the Uttarakhand study sites may be explained by the fact that rights are better defined in Uttarakhand hill villages. The communities are isolated and cohesive, there is a long history of customary rights being recognised by the state and customary management practices are still strong. The allocation and regulation of rights is carried out by local institutions despite the presence of state agencies that legally hold this power. Local decisions are taken mostly on the basis of consensus, a distinctly customary practice, and are therefore considered fair.

Table 4: Fairness and equity of rights under statutory law

Village	Response (%)								
	Common land			Water			Forest		
	Fair	Not Fair	Don't know	Fair	Not Fair	Don't know	Fair	Not Fair	Don't know
Hargarh(U)	100	-	-	100	-	-	85	-	15
Koti (U)	100	-	-	100	-	-	100	-	-
Behadvi (MP)	55	30	15	57	13	30	19	50	31
Mugalpura (MP)	50	37.5	12.5	50	37.5	12.5	-	-	-

MP = Madhya Pradesh
U = Uttarakhand

Source: Field survey, 2006.

In Madhya Pradesh, there is comparative greater divergence in opinions. In the tribal village of Behadvi, where all categories of responses were provided, there is a higher perception that the system is unfair. One possible explanation is that following the introduction of formal bodies related to JFM and watershed management programmes, there is a perception that some villagers who were nominated to leadership positions in management committees have collaborated with agency staff to divert programme resources to their personal benefit. In Behadvi, 'don't know' responses are likely to have been received from those who are

migrants and are therefore less dependent on natural resources.

Opinion in Mugalpura is also divided. Here, the distinction between groups who own land and are landless may be reflected in the responses provided, even though as members of a Scheduled Caste the community as a whole belongs to the same economically disadvantaged group.

Conflict Over Resources

Conflict has occurred in the study sites with respect to land, water and forest resources, although most disputes have concerned land rights (Table 5). Survey results shown here take into account current conflicts as well as those which have occurred in the recent past.

Table 5: Conflict over resources

Resource	Village	State v. individual or community	Individual v. individual	Individual v. group	Individual v. community	Community v. community	Total
Land							27
	Koti (U)	-	2	1	-	-	
	Hargarh (U)	-	-	-	-	-	
	Behadvi (MP)	11	6	2	2	-	
	Mugalpura (MP)	-	2	1	-	-	
Water							15
	Koti (U)						
	Hargarh (U)	5	-	1	1	1	
	Behadvi (MP)	-	3	1	1	-	
	Mugalpura (MP)	-	2	-	-	-	
Forest							16
	Koti (U)	-	-	-	-	1	
	Hargarh (U)	-	-	-	-	3	
	Behadvi (MP)	4	3	1	3	1	
	Mugalpura (MP)	-	-	-	-	-	
Total		20	18	7	7	6	58

MP = Madhya Pradesh
U = Uttarakhand

Source: Field survey, 2006.

Land-related conflict is seen in three villages, Koti, Behadvi and Mugalpura. Disputes concerning water have also arisen in three villages, Hargarh, Behadvi and Mugalpura, while three villages, Hargarh, Koti and Behadvi, have witnessed conflict over forests.

The tribal village of Behadvi has experienced the largest number of disputes overall, most of these concerning land, followed by forest and water in that order. In the case of tribal peoples, it is worth noting that their legal rights to land and forest have historically been the weakest.

Overall, conflict has occurred most frequently between the state and an individual or community. Land rights in Behadvi are the most frequent source of conflict, followed by water

rights in Hargarh. This reflects the struggle of Behadvi villagers to obtain land titles from the revenue department, which has initiated legal proceedings against them for encroachment of public land where villagers have been practising cultivation for many generations without legal rights of ownership. The same issue arises in Behadvi with respect to forest land, where the forest department is attempting to evict households from forest land they have been cultivating for many decades. In the case of Hargarh, conflict has arisen over water rights, where state agencies are responsible for the supply of water for irrigation and drinking.

The next most common type of dispute overall is between individuals. Conflict between communities is not infrequent, and mainly concerns common property resources such as forest and water, both of which often cross village boundaries. In the case of common lands, such areas are usually delineated within village boundaries, leaving fewer opportunities for conflict with other communities.

Gateways to Environmental Justice

Gateways can be broken down into two categories: those that allow access to the creation of norms, and those that allow the implementation of norms. Findings from the field survey reveal that communities in the study sites are active in the task of claiming and defending their rights to natural resources. A variety of institutions in the study sites function as gateways for claiming and defending rights. These institutions are both formal and non-formal in nature, originating either in legal and policy frameworks or non-state local frameworks.

Table 6: Institutions for conflict resolution

Resource	Village	Type of institution							
		Statutory			Extra-legal		Combination		None
		Court	State agency	Village panchayat + court	Traditional leaders	Clan, group	Village elders + village panchayat	Village elders + forest panchayat	
Land	Koti (U)	3	-	-	-	-	-	-	-
	Hargarh (U)	-	-	-	-	-	-	-	-
	Behadvi (MP)	-	11	-	8	1	1	-	-
	Mugalpura (MP)	-	-	-	3	-	-	-	-
Water	Koti (U)	-	-	-	-	-	-	-	-
	Hargarh (U)	-	4	1	-	-	3	-	-
	Behadvi (MP)	-	-	-	5	-	-	-	-
	Mugalpura (MP)	-	-	-	1	-	-	-	1
Forest	Koti (U)	-	-	-	-	-	-	-	1
	Hargarh (U)	1	-	-	-	-	-	2	-
	Behadvi (MP)	-	4	-	7	-	1	-	-
	Mugalpura (MP)	-	-	-	-	-	-	-	-
Total		4	19	1	24	1	5	2	2

MP = Madhya Pradesh
U = Uttarakhand

Source: Field survey, 2006.

While there are instances of the use of gateways associated with formal legal frameworks, including statutory legal remedies and consultation procedures, administrative review, defensive use of the legal system and alternative dispute resolution, such actions are taken less frequently than the use of extra-legal gateways which include recourse to traditional leaders, and involve participation and consensus at the community level.

The study sites vary in the number and nature of gateways used. While the presence of local institutions is critical for achieving environmental justice, mere numbers do not indicate efficacy. The quality of the results obtained through each type of gateway improves in direct relation to the degree of control over resources exercised by communities.

Statutes governing natural resources do not provide for devolving dispute resolution functions. Powers to resolve disputes concerning land, water and forest resources therefore

rest with government authorities. Participatory management programmes for natural resources provide for sharing dispute resolution functions with local institutions but no legal reform has taken place for this purpose. Panchayat raj institutions have historically been excluded from the exercise of judicial powers. Villagers on their own initiative nevertheless use extra-legal gateways, as well as using a variety of statutory gateways, to protect or defend their rights to natural resources (Table 6).

The distinction between formal and non-formal institutions is not always clearly demarcated. While courts of law and state agencies operate as formal institutions, the village panchayat, although a statutory institution, functions as an extra-legal one as it has no statutory dispute resolution powers.

In the Madhya Pradesh study sites, villagers most often resort to the extra-legal gateway of traditional leaders to defend their rights to natural resources. The tribal village of Behadvi accounts for 20 of the 24 disputes resolved in this manner. The gateway used for the second-largest number of disputes is state agencies. Interestingly, most of these are also in Behadvi. These proceedings have been initiated not by villagers but by the state agencies (the forest and revenue departments) in an attempt to evict villagers from land. Hargarh is the only other village where villagers have approached a state agency – for water supply in four instances.

In two villages, Hargarh and Behadvi, village panchayats have mediated disputes even though they have no legal powers of adjudication. Villagers approach these institutions informally, and disputes are heard and settled extra-legally with the participation of village elders.

Of the 58 disputes reported by respondents, only four (or seven per cent) were heard in a court of law: three in Koti (individual land disputes) and one in Hargarh (community forest dispute). The forest dispute was taken to court only because the case concerned a van panchayat, which is controlled by the district collector, who is also a magistrate. Formal judicial institutions are not accessible to the more socially and economically depressed communities of Behadvi and Mugalpura.

A total of 15 disputes involve proceedings initiated by state agencies against villagers. Of the remaining 43 disputes, villagers have sought redress through local institutions in 32 instances (or 74 per cent) and through external institutions in 8 instances (17 per cent), of which half are courts of law and half are state agencies. In one case, villagers sought the assistance of both the local panchayat as well as a court of law, and in two cases, no forum was approached. These results reveal that villagers in the study sites tend to favour local institutions to defend their rights.

Reasons for Preferring Extra-Legal Gateways

In all four villages, statutory gateways are used for exercising and defending private land rights, to resolve problems with basic services such as drinking water supply or irrigation where a state agency is involved, and where a state agency such as the forest or revenue

department itself takes action against villagers. In general, respondents take recourse to statutory institutions only when forced to do so, as in cases where the use of such a gateway is imposed by law. Their general tendency, however, is to use extra-legal gateways to resolve issues locally.

The reasons for this preference are related for the most part to socio-economic conditions. In the tribal village of Behadvi (Madhya Pradesh), for example, illiteracy is high and the people are poor. Although the village is located at a comparatively reasonable distance from the district headquarters, communications facilities are inadequate. For most of the year, Behadvi villagers migrate in search of work. Given these realities, seeking access to statutory gateways such as the courts or even approaching state agencies is beyond the means of most villagers. Economic factors alone are not to blame for their reluctance to approach formal forums. In general, tribal peoples are treated with indifference, contempt and even violence. They are often exploited when they approach formal government institutions for relief or assistance, and frequently their only means of gaining relief from state agencies is by paying bribes or seeking the assistance of non-governmental and civil society organisations. Tribal culture also contributes in some measure to their reluctance to approach formal institutions. Tribals are often closely bound by cultural-social norms and prefer to solve their disputes among themselves, particularly when the matter does not involve a state agency.

In the village of Mugalpura (Madhya Pradesh), the situation is more or less the same. Here too Scheduled Caste villagers are not confident in their ability to deal with the formal system. Poor and illiterate, and belonging to a lower caste, their status invites oppression and exploitation. Villagers in Mugalpura also use statutory gateways only in cases where no other option is available, for example when land rights are involved.

In the Uttarakhand villages of Koti and Hargarh, meanwhile, distance, terrain and the lack of communications facilities are also factors that make access to statutory gateways, including courts and administrative offices, difficult.

Court cases are often long-drawn-out, and even more so in the hill areas. This is because of the administrative-judicial system peculiar to such areas, where the district magistrate performs both administrative and judicial functions, giving rise to inordinate delays.[25] Other deterrents include unfamiliarity with court procedures and the heavy costs involved.

The choices made by communities in the four study sites, in seeking formal or non-formal gateways to claim and defend and their rights, has to be seen in tandem with their opinions on the source of their rights (see Table 3). In the case of Hargarh (Uttarakhand), the unanimous opinion is that statutory law is the source of water rights. Yet both statutory and extra-legal gateways are used to resolve conflicts concerning water. In the case of forest rights, the source is stated to be custom but here too both formal and non-formal institutions are used to exercise and defend rights.

In the case of Koti (Uttarakhand), statutory law is seen as the source of both forest and water rights. No conflict was reported with respect to water but in the case of forests, no institution

was approached for conflict resolution because the rights of two communities that are parties to this dispute have not yet been defined. As such, there is technically no basis for a dispute to be raised. However, Koti residents attempted to use a statutory gateway to have their forest rights defined, submitting an application to the district administration.

In the case of Behadvi (Madhya Pradesh), custom is seen as the source of water rights, and non-formal institutions function as gateways to resolve water-related conflicts. Statutory law is stated to be the source of forest rights but here both formal and non-formal institutions are nevertheless involved in conflict resolution. In all four cases where formal institutions were involved in a forest dispute, however, the dispute was initiated by a state agency and not villagers. In Mugalpura (Madhya Pradesh), custom is stated to be the source of water rights and an extra-legal gateway was used to defend a water right in only one case. In another, no institution was approached.

These findings suggest that the nature of institutions approached for exercising and defending rights is not related to the opinion of respondents concerning the source of rights. In other words, as far as respondents are concerned, the source of rights is distinguished from regulation and management of the resource.

It is worth noting that natural resources law from the colonial era, in force to this day, has separated the two functions. While some local rights that are customary in origin have been recognised in statutory law, local management systems that are also customary have not received recognition. In their place, centralised state management frameworks have been established, in the shape of forest, water and land departments. Since these agencies are rarely responsive to local needs and seldom successful in resolving local disputes, many of these functions are performed by local non-formal institutions de facto, but not de jure. Thus both state and non-state institutions are alternately involved in dispute resolution (see Box 3).

Box 3: Conflict over resources

1. **Hargarh (Uttarakhand)**
   This case concerns a forest-related dispute that was resolved by a formal institution (the van panchayat) using informal methods, by involving an informal institution (the women's development group).

   Residents of the hamlet of Dharapani had been demanding the use of additional forest land, believing that existing allocations to them were insufficient. As a result of overuse and an increase in population, the forest adjacent to the village was nearing depletion and was no longer able to support the livelihoods of local households. Elders from the hamlet had appealed to the sarpanch (elected head of the van panchayat) to address the issue and allocate more forest area from the van panchayat.

   The sarpanch, ward members and elders from the community were able to amicably resolve the issue through the formulation of an extra-legal forest management mechanism. In an open meeting, it was agreed that fodder rights would be managed

through the women's development group of the respective hamlets in allocated patches, and that each women's group would take responsibility for the management and upkeep of its forest resources. The women's development groups were given the power to mange forest by ensuring social responsibility and by charging fees for fodder use. The use of each patch was restricted to households participating in the process. The same arrangement was followed by the women's development group of Hargarh. The van panchayat retained the power to manage overall use of the forest, along with powers to manage fuel rights and the use of timber.

2. **Hargarh van panchayat v. Chandrakandi community**
   This dispute over forest land was heard in a court of law.

   The case, involving the villages of Hargarh and Chandrakandi, involved encroachment by the latter on Hargarh forest land. The people of Chandrakandi argued that because land was not demarcated in Chandrakandi, residents from Hargarh used Chandrakandi forest for fodder and leaf litter. This led Chandrakandi villagers to encroach on Hargarh land. The Hargarh van panchayat filed a case in the sub-divisional magistrate's court and won the case because its forest had been demarcated by the revenue department. The villagers of Chandrakandi were also able to benefit from the outcome of this case because the boundary of their forest was subsequently demarcated.

3. **Dharapani hamlet, Hargarh**
   This case involves a water-related conflict in which the gram sabha resolved the dispute using customary methods.

   Kedar Singh, resident of Dharapani hamlet in Hargarh, used to tap a drinking water source to water his vegetable garden. People objected to his use of drinking water. He was called before a village meeting and questioned, where, in front of the gram sabha, he admitted his actions and asked to be pardoned. Since the drinking water needs of the community must receive priority, he was ordered to not use the water for irrigation. The problem was resolved amicably.

4. **Dharapani hamlet, Hargarh**
   This water-related dispute involving three parties, an individual, the community and the state water agency, was resolved by using both formal and non-formal processes involving the gram sabha as well as the state agency.

   The actions of the state drinking water agency (Jal Sansthan) led to a dispute between Trilok Singh, resident of Dharapani hamlet, and other members of his community. The water agency had promised Trilok a tap in exchange for using his land as a pathway to provide water to the community. The water agency failed to install the tap and Trilok retaliated by removing the water connection on his land. This led to a dispute with other members of the community. After some discussion, community members decided to support Trilok and successfully persuaded the water agency to install the tap.

5. **Dharapani hamlet, Hargarh**

This water-related conflict between an individual and the community was resolved through the intervention of both formal and non-formal institutions – the revenue department, which did not solve the problem, and the gram sabha, whose decision did.

A water source was situated on the private land of Madan Singh, resident of Dharapani hamlet. The community needed to use this source for drinking water but Madan did not permit them to do so. His refusal created hardship for community members who were required to travel a greater distance to an alternative water source. The dispute created disturbances in the hamlet, with some residents put behind bars for assaulting Mandan. They were later released on bail.

The revenue department was called in, and surveyed the rights to land and water. The department determined that the right belonged to Madan legally, and that the community did not have rights to the land and water. Undeterred, villagers banded together and decided to resolve the dispute on the basis of the customary 'prior right' principle, according to which prior rights must be allowed to the extent that the right was enjoyed by later claimants. Madan agreed to permit the community to use the water on the condition that his needs for the water would also be met.

This dispute illustrates the ambiguity of water rights under current water law. But since the state was not a party to the dispute in this case, villagers were able to use the customary 'prior rights' principle to resolve the dispute internally.

6. **Koti**

This land-related conflict between individuals was resolved by the court.

Gandharv Singh had leased out a field which he subsequently wanted to cultivate himself but the leaseholder refused to return the land. Gandharv filed a case in the sub-divisional magistrate's court in Purola. The judgment was in his favour and the lessee returned the land to its owner.

7. **Koti**

In a land-related dispute between individuals similar to case No. 6 above, the petitioner awaits a decision by a formal court. Basakho Lal had taken fields on lease from a household. He has filed a case because the lessor claimed the field back.

8. **Koti gram panchayat v. Chandali village**

This forest-related conflict between two villages is awaiting resolution through a statutory gateway, a government administrative office.

Earlier, Koti and Chandali were under the same gram panchayat and shared common rights in the civil forest. After the villages were separated into different gram panchayats, the revenue department gave Koti the right to use the civil forest for fodder, fuel and timber, although villagers from Chandali continue to access the forest

to extract the same resources. Residents of Koti are not in a position to object since they hold lands in the Chandali village area. And since Koti does not have a defined boundary in the forest within which it can exercise its rights as allocated by the revenue department, it is not in a position to protest the access of Chandali community and other villagers from the vicinity. In Koti, the gram sabha and women's development group have taken initiatives for the regeneration of grass but are thwarted in their attempts to maintain a sustainable supply of fodder because of encroachment from Chandali community. This dispute has affected livelihoods in the village. Koti has requested the revenue department to define the boundary of the forest allocated to it, and action on this count is awaited.

Success of Conflict Resolution

Respondents were asked to assess the success of various formal and non-formal institutions in resolving conflict. Of the total 58 disputes reported, only two were never brought before any conflict resolution institution (see Tables 5 and 6). The remaining 56 disputes were addressed through various statutory and extra-legal gateways, used separately or in combination. As shown in Table 7, a decision was taken in 38 cases (68 per cent) and not taken in 18 cases (34 per cent). It is significant that of the 38 disputes in which a decision was made, 33 were resolved by non-formal institutions and only five were decided by formal institutions. All 18 cases in which no decision was reached were taken to formal institutions.

Respondents were also asked to assess whether or not the decision made in these cases actually served to resolve the conflict. Of the 33 cases brought before non-formal institutions, 30 decisions (90 per cent) succeeded in resolving the conflict. In the five cases taken to formal institutions (one dispute related to land, two each concerning water and forests), decisions solved the conflict in four (80 per cent) of the cases.

Respondents' Opinions on Best Methods

Respondents were asked to provide their opinion concerning the best method for conflict resolution. The majority of households in all four study sites state that customary dispute resolution mechanisms are the best method (Uttarakhand: 88 per cent in Hargarh and 53 per cent in Koti, and Madhya Pradesh: 65 per cent in Behadvi and 56 per cent in Mugalpura).

It is significant that in Hargarh, where the greatest number of statutory institutions is available, customary mechanisms are considered better by the highest percentage of respondents. This is likely to be the case because the community has successfully adapted formal institutions and processes to their own traditional methods of functioning. Two thirds of all respondents in Behadvi and slightly more than half of those in the two other villages stated that extra-legal gateways are better.

One third of all respondents in Behadvi and slightly less than half of those in the two other villages stated that statutory gateways are better. These responses come mostly from those

who are defending their rights to land, which requires them to approach formal institutions, or have been involved in cases in which state agencies are a party.

A small percentage of respondents (9–14 per cent) in all villages except Behadvi state that both systems are necessary. This may suggest that a small percentage of respondents are aware that some degree of state intervention is necessary for the protection of rights.

Table 7: Success in conflict resolution

Resource	Village	Decision made		Conflict resolved	
		Yes	No	Yes	No
Land	Koti (U)	1 F	2 F	1 F	-
	Hargarh (U)	-	-	-	-
	Behadvi (MP)	10 NF	11 F	8 NF	2 NF
	Mugalpura (MP)	3 NF	-	3 NF	-
Water	Koti (U)		-		-
	Hargarh (U)	4 NF, 2 F	2 F	4 NF, 2 F	-
	Behadvi (MP)	5 NF	-	5 NF	-
	Mugalpura (MP)	1 NF	-	1 NF	-
Forest	Koti (U)	-	-	-	-
	Hargarh (U)	2 NF, 1 F	-	2 NF, 1 F	-
	Behadvi (MP)	8 NF, 1 F	3 F	7 NF	1 NF
				1 F	
	Mugalpura (MP)	-	-	-	-
Total		33 NF, 5 F	18 F	30 NF, 5 F	3 NF

F = formal institution
NF = non-formal institution
MP = Madhya Pradesh
U = Uttarakhand

Source: Field survey, 2006.

Assessment of Gateways to Environmental Justice in the Study Sites

Communities in the study sites have used both statutory and extra-legal gateways to implement norms, in the context of using them to exercise and defend their rights to the natural resources on which their livelihoods depend. The preference is to use extra-legal, traditional mechanisms to resolve disputes, although the communities have used the courts and administrative offices and authorities as well. State agencies, meanwhile, have initiated legal proceedings against Behadvi households, forcing the respondents to use these gateways to defend themselves.

None of the communities in the study sites reported using legal or administrative gateways to participate in the creation of norms, nor did they attempt to address external governance institutions such as the legislature or executive. Hargarh and Koti, however, do use extra-legal gateways, including participation, consensus and 'collective authority' through the van panchayat and the women's development groups, to create norms and apply them in the village. Hargarh has created a body of rules governing forest resources, allocating rights, and determining sanctions/punishment; Koti has created similar rules, although not as many.

In assessing the gateways available to local communities for achieving environmental justice, not only the ones used but also their efficacy was taken into account. The role played by various institutions in the study sites is shown in Table 8.

It can be seen that Mugalpura uses the least number of gateways. Here, the extra-legal gateway of traditional leadership functions only for the purpose of dispute resolution in the case of land and water resources.

Table 8: Role of institutions

Village	Resource	Formal institution functions formally as gateway	Formal institution functions non-formally as gateway	Customary institution as gateway	Non-formal institution as gateway
Koti (U)					
	Land	Court	-	-	Women's development group
	Water	Village panchayat	-	-	Women's development group
	Forest	Village panchayat	-	-	Women's development group
Hargarh (U)					
	Land	-	-	-	
	Water	Court, state agency, village panchayat	Village panchayat	Village elders	Women's development group
	Forest		Van panchayat	Village elders	Women's development group
Behadvi (MP)					
	Land	Revenue department	Village panchayat	Traditional leaders, clan or group	-
	Water	Watershed committee	-	Traditional leaders	-
	Forest	Forest department, JFM committee	Village panchayat	Traditional leaders	-
Mugalpura (MP)					
	Land	-	-	Traditional leaders	-
	Water	-	-	Traditional leaders	-
	Forest	-	-	-	-

MP = Madhya Pradesh
U = Uttarakhand

Source: Field survey, 2006.

Behadvi, which has the greatest number of conflicts, uses the greatest diversity of gateways for conflict resolution. The extra-legal gateway of traditional leaders of the clan or group and statutory gateways including the village panchayat, the local JFM and watershed committees, and government departments have all been used with respect to land and forests as well as water. Here, except for the JFM committee, watershed committee and traditional leaders, other gateways are used only for dispute resolution. While JFM and watershed committees were intended to serve as gateways, they are more or less non-functional for various reasons. What is more, their establishment has introduced a schism in the political and socio-economic life of the village. The new leaders nominated by government agencies are alleged to be colluding with departmental agencies, acting against the interests of their own people. Meanwhile traditional leaders have no role in the statutory systems which have new and different rules that local people in many cases neither understand nor follow. In tandem with

the lack of programmes and initiatives for resource development, this points to a struggle for rights in a situation characterised by inadequate resources.

In the case of Koti, the courts are the only gateway used to defend private rights to land. Hargarh uses several gateways to defend rights to water and forest resources. The van panchayat, village panchayat and women's development group have all contributed to rights allocation and dispute resolution. A court of law has also been used as a gateway to defend forest rights.

Within the various restrictions imposed by statutory law, the village of Hargarh has been most successful of all the study sites in employing both statutory and extra-legal gateways. This has been possible in the context of forest resources in particular because the boundary of the forest allocated to Hargarh is clearly demarcated, which facilitates the exercise and defence of rights through statutory gateways. Another reason for Hargarh's success is that the community has managed to adapt formal institutions and processes to its traditional processes.

The experience of Behadvi, Koti and Mugalpura in using gateways to achieve environmental justice is not characterised by the same kind of adaptation of statutory and extra-legal processes experienced in Hargarh. Koti and Mugalpura have only rarely used any type of gateway; Koti has used the courts on four occasions to defend land rights and Mugalpura has used only traditional, extra-legal gateways to resolve disputes over land and water rights. Behadvi has been most active in terms of the number of times both statutory and extra-legal gateways have been used to exercise rights, and has been most successful with extra-legal, traditional gateways and least successful with administrative gateways.

Conclusions

The present study has attempted to examine environmental justice in the context of natural resource-dependent communities in rural India. The main components of the concept of environmental justice in a rural context are a safe environment, rights to natural resources, and mechanisms for creating, claiming and defending those rights. Particularly, the study explored the nature of gateways employed to achieve environmental justice in a rural, natural resource context and sought to compare them with gateways that have been documented in the urban context.

The Constitution does not explicitly recognise rights to natural resources. The right to water, for example, is basic to life, yet it does not have constitutional recognition. Protecting and improving the natural environment and safeguarding forests, water and wildlife are fundamental duties under the Constitution but there are no corresponding fundamental rights to use these resources sustainably. Constitutional directive principles corresponding to the fundamental duty to protect the natural environment are not justiciable in themselves and must be implemented in law.

While rights to natural resources for livelihoods find no Constitutional protection, the state's power of eminent domain over natural resources is amply provided for. Rights to natural resources that are provided by statute are subject to the superior powers of the state to acquire, extinguish or modify those rights.

Constitutional protection of tribal rights and modes of governance, as provided in the Fifth Schedule, has not witnessed any significant application in the six decades since the Constitution was adopted. Natural resources law in the two states selected for this study has neither been withheld nor selectively applied, as envisaged in the Constitution, to Scheduled Areas or areas were tribal peoples are in the majority. Recent attempts to protect tribal rights have come in the form of PESA 1996, which was never implemented, and the recently enacted Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, which is yet to be implemented.

With respect to Scheduled Castes, constitutional guidelines in the form of Directive Principles have resulted in laws and policies to protect their social, educational and institutional status. However neither the Constitution nor state and central laws on natural resources protect the rights of these classes to basic resources such as land, forest and water.

Under forest, land and water laws, the state retains for itself the power to define and allocate rights, with no role for local communities recognised in this exercise. Since colonial times, progressive individualisation of rights to resources has denied community participation in the definition and allocation of rights to natural resources. Pre-existing customary rights that derived their legitimacy from customary law have been recognised not on a collective basis, which was their very essence, but on an individual basis, subject to the state's sovereign rights of proprietorship. The corollary is that such use rights, concessions or privileges, may

be suspended, terminated or redefined at the discretion of the state, rendering them weak, unsustainable and difficult to defend. Rights to forest, water and common lands in the study areas are characterised by these limitations, weakening their potential to promote equity in access to natural resources and create opportunity for participating in decision making and benefit sharing – the achievement of environmental justice.

Although statutory community rights to natural resources are relatively weak there has been a slow trend towards more participatory modes of management in the forest, water and land sectors. With respect to land and forest resources, such initiatives have remained at the policy level despite decades of experimentation. Progress from policy to legal reform in the water sector, such as the law for participatory irrigation management in Madhya Pradesh, has not resulted in any transformation of the relationship between citizen and state in the matter of rights and participation in management. Participation continues to be subject to the principle of eminent domain.

Households in all four locations are aware of their rights to different resources and acknowledge custom as a source of rights distinct from statutory law.

Households in the tribal community of Behadvi (Madhya Pradesh) exercise their traditional rights to forest products subject to strict management controls imposed by forest law, which often amount to harassment. The JFM programme introduced in the village has not strengthened the forest rights of the community, nor has it bolstered the community's role in creating and regulating those rights. On the contrary, it has introduced social and economic inequities in the village. The exercise of the powers of eminent domain in Mugalpura has robbed the village entirely of its forest resources.

In Uttarakhand, the attempt to merge JFM concepts with the principles of forest management established by van panchayat rules adopted in the first half of the 20th century has resulted in diminished local autonomy to manage forest resources. Re-centralisation of authority under the FCA constrains local autonomy in forest resource management in all of the study sites.

A comparison of responses from Behadvi and Hargarh on the issue of forest rights indicates that such perception may be based on the relative roles of state and community in the allocation of rights, and in resource management. In the tribal village of Behadvi, the majority opinion is that formal law is the source of forest rights. This is likely due to the overwhelming presence of the forest department in all decision making regarding forest in that area. In Uttarakhand, where there has been a legal regime for community participation in forest management since the 1930s, all households identify custom as a source of forest rights.

In both Uttarakhand and Madhya Pradesh, statutory law converted customary water rights to use rights. While statutory law provides that the state holds all rights to water, the identification of the source of water rights in the four study sites depends on the extent to which there is state intervention. In Madhya Pradesh, where there is no state intervention in either drinking water or irrigation, custom is seen as the source of rights. In Uttarakhand, the opposite is the case.

Statutory law in both Madhya Pradesh and Uttarakhand recognises customary land rights and provides for recording them as private rights, but a long history of inconsistency in recording processes has resulted in insecurity (for example, absence of land titles for all in Behadvi village) and inequity (as in Mugalpura). While the Uttarakhand villages show greater equity in land rights, the value of those rights is at risk due to a continuously degrading environment and the absence of state support for land and disaster management.

Custom is perceived to be the source of rights in common lands by the majority of households in all four study sites, although the state retains control of common lands and regulates their use. This perception tallies with the absence of statutory village-level formal management institutions for land resources, leaving villagers to access and use common lands in traditional ways.

Perceptions as to the fairness and equity of rights reflect the situation on the ground. Where there is a stronger local institutional framework involved in resource management, as in the Uttarakhand villages, and where there is a clear allocation of rights by the state, rights are believed to be fair. In contrast, in Madhya Pradesh there is no consensus on either fairness or unfairness. The divided opinion indicates a lack of consolidation in terms of local institutional function, as well as a corresponding poor functioning on the part of the state to define and allocate rights.

While the perception of equity in rights varies among the study sites, there is a clear preference for using extra-legal gateways to exercise and defend those rights. State-controlled institutions such as the courts and administrative offices are approached out of compulsion rather than by choice. Extra-legal gateways facilitated final decisions resolving disputes much more often than did statutory gateways.

Except in Behadvi, no single institution has served as a gateway with respect to all resources. In the case of that tribal community, traditional leadership serves as a gateway to resolve conflict related to all resources, confirming the continuing validity of customary ties within it, and also highlighting the relevance of laws such as PESA and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006. In Behadvi, statutory gateways such as JFM and watershed committees have not functioned effectively for local communities attempting to exercise or defend resource rights. In fact, of the various gateways accessed by Behadvi households for dispute resolution, the JFM and watershed committees do not feature in the list.

Where local institutions are involved in the management of resources, such as the formal state-created van panchayat in Hargarh and the non-formal but state-created women's development groups in both Koti and Hargarh, these institutions have been successfully used as gateways to create, exercise and defend rights to manage and use natural resources. This exercise has been most successful in Hargarh, as it is the only one of the four study sites where a partial transfer of responsibilities to the van panchayat has taken place. The van panchayat has used this opportunity to develop its own rules that are dictated by

local needs and are accepted and followed by consensus, although they are at variance with statutory rules. The community's rules deal with the allocation of rights, resource protection and management, and include the imposition of sanctions. Hargarh van panchayat demonstrates that local institutions can create and maintain the conditions required for environmental justice: equitable rights to access resources; participation in decision making; benefit sharing; and mechanisms for exercising and defending rights.

Recommendations

The following recommendations are made for future action. These relate to both macro- and micro-level initiatives to promote environmental justice for rural populations.

1. A national-level dialogue involving representatives of rural populations (through local elected institutions as well as non-formal institutions), national and state governments, national and international academia, subject matter specialists, and civil society organisations needs to be conducted on the status, impact and relevance of the principle of 'eminent domain' and the ways and means to substitute public trust as an operative principle in the matter of natural resources management.

2. National-level advocacy should be initiated to take forward the 73rd Constitutional Amendments on panchayat raj to devolve powers of self-governance not only to tribal populations but also to all rural populations in matters related to natural resources management.

3. National- and regional-level advocacy also needs to be undertaken to bring about policy and legal reform for integrated natural resources management.

4. In Uttarakhand, a dialogue needs to be conducted with the state-level van panchayat Sarpanch Federation to share the results of this study and to collectively evolve an alternative set of Rules for van panchayats that reflects the principles and goals of environmental justice. The initiative needs to be extended to all districts and consolidated at the state level. Decisions on strategy to achieve legal reform also need to be finalised through the Federation.

5. State-level advocacy needs to be undertaken through panchayat raj institutions for the implementation of existing provisions of KUZA 1960 on the transfer of management of common lands to gram sabhas.

6. State-level advocacy also needs to be undertaken for the transfer of state irrigation systems, along with administrative, regulatory and financial powers, to village panchayats.

7. Community-level dialogue needs to be initiated along with civil society organisations in both Uttarakhand and Madhya Pradesh on the concept of gateways to assess current practices of communities and to evolve consensus on improving the functioning of both

legal and extra-legal gateways through greater transparency, democratic functioning and accountability.

8. In Madhya Pradesh, dialogue needs to be initiated with representatives of tribal populations and civil society organisations to develop strategies to operationalise the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006.

9. State-level dialogue is needed in Madhya Pradesh with the government, representatives of the Scheduled Castes and civil society organisations on strategies to guarantee rights to natural resources for Scheduled Caste populations.

10. As a result of this study, a great deal has been learned about appropriate methodologies for conducting this type of research in rural areas. What has been learned from this study, in terms of methodology as well as substance, needs to be tested in other states and the results comparatively analysed in order to provide a sound basis for recommendations for policy and legal reform.

Notes

[1] The system of local government consists of four tiers, each with financial and administrative responsibilities and powers. The basic level is the village. The next level of local government is the 'block', an administrative sub-unit demarcated for the purpose of development.

[2] Uttarakhand state was created in 2000, carved out from the Himalayan area of Uttar Pradesh state. During the period 2000-06, the name of the new state was Uttaranchal. This was officially changed to Uttarakhand in January 2007.

[3] Van panchayats (forest management committees) were created in 1931, pursuant to rules framed under the Scheduled Districts Act 1874. Forest areas around habitations were earmarked and handed over to these committees. Van panchayats were controlled and supervised not by the forest department but by the district administration. Thousands of van panchayats were formed, on the application of villagers, across the region. Today there are more than 6,500 van panchayats in the state, accounting for about 15 per cent of the total area of forests in the state. To this day, the institution of van panchayats is a unique mechanism for village management of forests.

[4] Jhabua District, in which Behadvi is located, is one of the poorest districts in Madhya Pradesh, with a United Nations Development Programme Human Development Index of only 0.356, the lowest of 45 districts in the state. The entire population of the district is tribal. Tribal people have traditionally been integrally associated with forests. In Behadvi, however, they are not only forest gatherers but also engage in cultivation, including irrigated agriculture. Thus, natural resources are critical for their livelihoods.

[5] Behadvi was included in state-wide watershed development programme, the Rajiv Gandhi Watershed Mission, in operation between 1994 and 1999. This initiative failed to bring about any change in the management of common lands in the village.

[6] The Baghel are a pastoral people who originally hail from Baghelkhand in north-eastern Madhya Pradesh and are today found all over the country. Baghels fall under the Scheduled Caste category although some state governments consider pastoral communities, especially in hill regions, to be Scheduled Tribes. Their livelihoods revolve around animals, milk and milk products. Depending on local conditions, they rear cattle, camel, buffalo, sheep or goats. Both men and women play an equal role in animal husbandry. Within the community, the number of cattle reared is a symbol of wealth and status. The Baghels reside in permanent villages.

[7] Laws listed in the Ninth Schedule to the Constitution cover subjects such as tenancy, land reform, acquisition, land ceilings, land development and planning, land revenue, the acquisition of private forests, the regulation of village common lands, the regulation of lands held by Scheduled Tribes, industrial development and planning, and the development and regulation of mines and minerals.

[8] These cases are nevertheless relevant to the extent that they concern the right to a 'safe environment', which is a component of environmental justice.

[9] Forests were initially included in the State legislative list, but were transferred to the Concurrent list by the 42nd Constitutional Amendment Act.

[10] See Ministry of Environment and Forests, 1990. Joint Forest Management Resolution. Circular No. 6-21/89-FP, dated 1st June 1990.

[11] The joint forest management (JFM) programme in Madhya Pradesh was broadened in scope through the World Bank-funded Joint Forest Management programme in forest areas under the control of the forest department. Implemented from 1994 to 1999, the programme targeted a total of 30,000 forest protection committees in the state.

[12] In Madhya Pradesh, *nistar* refers to common purposes associated with rural life for which common property is used, and includes activities such as grazing, the collection of firewood and forest

produce, threshing, the skinning of animals, cremation and burial, and the storage of timber. It also includes the right to extract minor minerals such as gravel, stone, sand, earth and clay.

[13] The term, *paidawar*, is used in to the context of land revenue administration in Madhya Pradesh and denotes forest produce such as edible roots, fruits and flowers, naturally exuded gum (except for the gum from Kulu trees), honey, and wax.

[14] The 1997 Rules were notified as a condition of the World Bank 65 million dollar loan for the Uttar Pradesh Forestry Project over the period 1998–2002. There has been local opposition to imposing the JFM concept on van panchayats.

[15] The Village Joint Forest Management Rules (Uttarakhand Van Panchayat Rules) were amended in 2001 and 2005.

[16] The *wazib-ul-arz* is a record of customary rights and other easements on land or water not controlled by the state or by a local authority.

[17] Although there are both privately and publicly managed water systems in the state, the former are greater in number. The Government of India Minor Irrigation Census, 2000–01, places the total number of state-owned minor irrigation systems in Madhya Pradesh at 56,724 and those that are privately owned at 1,509,425. Both figures include ground water structures. The ownership status of surface flow systems is not provided separately in the census (GOI, 2005a).

[18] The Farmer's Participation in Irrigation Management Act 1997 applies only to state-managed water systems and is therefore not applicable in the study sites. The provisions of this law are described here to provide an overall context for water law in the state of Madhya Pradesh and to highlight the fact that through this Act, drafted as part of a World Bank-supported project, institutional frameworks are being introduced into the state on a large scale which are variance with existing local institutions—both farmer institutions as well as panchayats. The 1999 act was introduced to promote farmer organisations as potential water consumers to buy water from the state agencies, which would eventually be privatised, and sell it among themselves, effectively changing the nature of water rights from statutory to administrative.

[19] Since physical and financial resources had to be invested in the construction of channels on steep mountain sides, it was considered just that the rights of the person or community who carried out this work not be disturbed by those who construct channels later, from the same source. The 'prior rights' of the first party were protected by ensuring that later entrants constructed channels in such a manner as to not reduce the extent of prior rights. Before government intervention in regulation, this function was exercised by local communities themselves.

[20] Traditional systems include *naulas*, or *bauris*, which are constructed to harvest underground seepage or spring water for drinking and domestic purposes.

[21] As per the Uttaranchal Minor Irrigation Census, 2000–01, of the total 25,526 surface flow irrigation systems, only 5,208 (20 per cent) are state-owned. If all types of systems are taken into account, including dug wells, shallow and deep tube wells, and surface flow and surface lift systems, the proportion of state-owned systems is 6,781 to 80,053 (8.4 per cent). This indicates a significant extent of community/ individual input in the irrigation sector (GOI, 2005b).

[22] The system of local government as mandated by the Constitution, known as Panchayati Raj, consists of three tiers of elected self-government. Each tier has financial and administrative responsibilities and powers. The basic level is the village, at which two institutions function. 'Gram sabha' is an ancient, traditional term which today is recognised by the Constitution (article 243) as the unelected collective body of all members of the community who are registered to vote. The Constitution empowers a gram sabha to exercise such powers and functions at the village level as the legislature of a state may by law provide. Madhya Pradesh is one of many states that recognise the gram sabha as an institution and assign powers and functions to it. The gram panchayat is the local government institution whose representatives are elected by the gram sabha. The next level of local government is referred to as

the intermediate level in the 73rd Amendment to the Constitution. It usually coincides with the administrative sub-unit called a block. This intermediate level of local government is known by different terms in different states. In Madhya Pradesh it is called the janpad panchayat, in Uttarakhand it is known as the kshettra panchayat. The district-level self-government unit is known in Madhya Pradesh as the zilla panchayat. In other states it is called the zilla parishad.

[23] Such non-elected institutions include watershed management committees, forest protection committees, village development committees and 'self-help' groups.

[24] For example, the watershed committee in Behadvi is non-functional.

[25] The district magistrate is both the district collector as well as the magistrate. The sub-divisional magistrate also performs dual functions. The range of functions of both officials is large, and hearings in court cases are often subordinated to administrative functions. Most conflicts are dealt with in the lowest civil court, known as the *munsif* court (the *munsif* is the presiding judge of the lowest civil court). Only some cases go to the district courts. In a 1996 study of water disputes in Uttarakhand State, for example, it was found that in one dispute between two villages over water rights, the plaintiff, a village in Pauri District, attended court hearings 42 times over a period of three-and-a-half years, travelling a distance of 80 kilometres each time to and from the court (DCAP, 1996b).

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Environmental Justice and Rural Communities

Nepal

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Acronyms

CFUG	community forest user group
DAO	district administration officer
DDC	district development committee
DFO	district forest officer
LSGA	Local Self Governance Act 1999
VDC	village development committee
WUA	water users association

Introduction

As is the case in many parts of the world, environmental injustice in Nepal is embedded in social structures and affected by the inequalities inherent in society. These include factors such as caste, gender, class and political influence (Adhikari and Ghimire, 2003: 25).[1] In rural areas, moreover, key issues pertaining to environmental justice concern access to natural resources, the sharing of benefits, participation in policy and decision making, and use rights. Access to information and to the judicial process determine the degree to which communities are able to assert their rights.

Community management of natural resources as it has developed in Nepal over more than 20 years is held out as a model for other countries to follow. Governance and equity have emerged as second-generation issues in community natural resource management across the country. Attention to these issues is helping to highlight the fact that even model systems for community natural resource management may give rise to environmental injustice.

This study addresses issues of environmental justice in two rural communities and explores the obstacles that residents face in accessing environmental justice. It examines statutory law and customary practices in these areas, to see which regime ensures greater access to resources.

Questions of environmental justice and livelihood security ultimately affect national security. Indeed, natural resource scarcity, the processes that create it, and inequity in access and benefit sharing, have been significant factors in the violent conflict that Nepal has experienced for more than a decade.

Although this study is limited in scope, its subject matter is unique. To date, the opinion of rural communities concerning environmental justice and injustice has not been solicited. Their perception of these issues differs from that of urban communities and gives rise to new issues in the study of environmental justice.

The Study Area

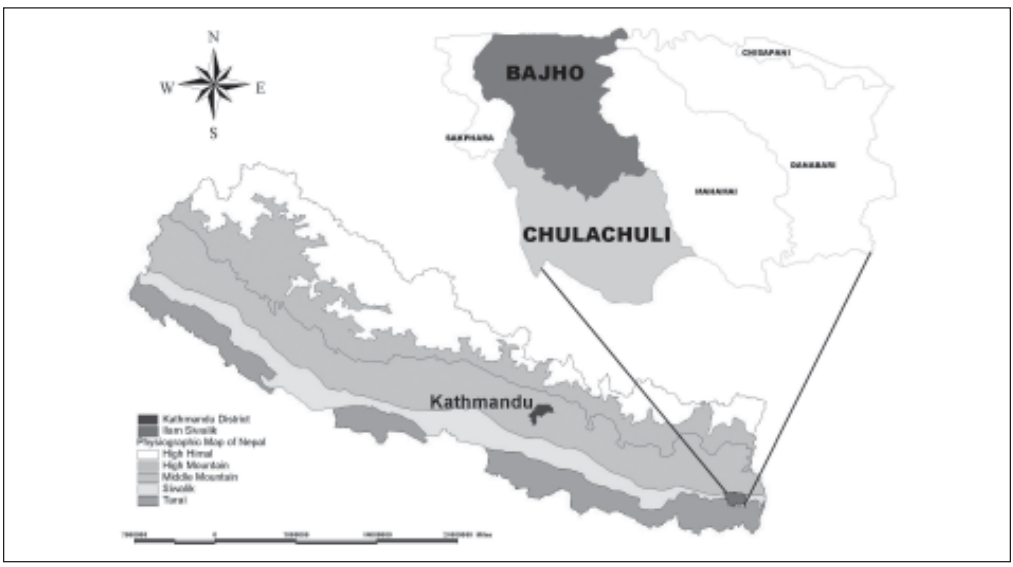
Bajho and Chulachuli, the two sites chosen for this study, are located in the southern part of Ilam District in eastern Nepal (see map). Both villages lie within an ecologically fragile area, which has in recent years come under increasing threat from human agricultural and settlement activity. Its vast forest resources have been converted into farmland, resulting in severe degradation and the loss of biological diversity.

The Ilam-Siwalik Area

Nepal's lowest southern range, the Siwalik Range (or Churiya Hills) extends from east to west across the country. Situated at the confluence of the Himalayas and the tropics, this area is home to a variety of animal and plant species that have moved northward from the tropics and southward from the Himalayas for millennia.[2] The region rich in biological diversity forms a fragile ecozone between the mid-hills and the terai (Gangetic floodplains) of Nepal (Khanal, 2007: 20–23).

Spread over nearly 1.9 million hectares (19,000 square kilometres), the Siwalik Range covers close to 13 per cent of the country's total area (FRISP, 1994: 70). Altitudes here range from 150 metres to 1,368 metres above sea level, rising steeply from the terai along the northern flank, with the highest point situated at approximately 1,800 metres (FRISP, 1994: 70). Peaks west of 84° E longitude are, on average, about 1,500 metres high, while those to the east are lower, at 140–150 metres. In western parts of the country, the Siwalik Range is often separated by flat-bottomed valleys of the inner terai, known as *doons*, formed by rivers. The Siwalik Range serves as a critical water recharge zone for the plains. The region is characterised by flash floods, loose soil, soil loss and relatively low soil productivity.

Map of the Study Sites



The Ilam-Siwalik area, where the study sites are located, lies between the terai and the Mahabharat Range.[3] It is spread over 35,868 hectares (358.68 square kilometres) and covers six village development committees, or VDCs[4] (IUCN, 2000: 6). The date of the first human settlement here is not documented, although stone tools including axes have been discovered.

A gradual migration from the mid-hills to the Ilam-Siwalik area is in evidence from 1744 to 1878. The trend intensified following the eradication of malaria in the 1960s and the opening of the East-West highway in the 1970s, with hill-dwelling communities moving to the plains, occupying government land and clearing forests in the Ilam-Siwalik area as well as the neighbouring district of Jhapa. Usually, part of a family moved down from the upper hill slopes to clear land for agricultural purposes. These early settlements were temporary and, initially at least, their expansion was limited.

By the 1970s, Brahmins, Kshetris, Limbus and Rais, along with members of various occupational castes, had moved from the eastern hills into two major settlements. Today, despite differences in ethnicity, there appears to be strong cohesion between the groups.[5] The total population of Ilam District is reported to be 282,806 with a total of 54,565 households (NPC, 2005: 12).

Bajho and Chulachuli

Bajho and Chulachuli, the two VDCs selected for this study, are located in Ilam District. These sites share certain characteristics: land use is mixed, with agricultural land, grazing areas and water bodies as well as forests of varying quality. Similarly, land tenure is insecure in both sites.

Settlement in Bajho started more than a century ago, when hill dwellers migrated down to the area and cleared patches of forest. Its population according to the last census of 2001 was 7,324 (NIBIDI, 2004).[6] This is a largely homogenous community, with most residents belonging to the indigenous Rai and Limbu communities, except for about 10 per cent who are Dalits. Here, customary practices still determine the manner in which certain resources are managed.

Settlement in Chulachuli gained momentum about 40 years ago, when migrants from other parts of eastern Nepal moved here and began to clear the forest. The Chulachuli area had a 2001 population of 18,176 (NIBIDI, 2004). Compared to Bajho, it is a heterogeneous community with relatively greater access to urban centres in the area. Residents of Chulachuli also rely more heavily on statutory mechanisms to manage natural resources.

The coverage of public services and utilities is poor at both sites. There are no health centres, little or no infrastructure, and neither study site is supplied with electricity. Courts and administrative offices are located at the district headquarters, Ilam, from where there are no direct road links to Bajho or Chulachuli.

There are four primary schools in Ward No. 2, Bajho, but no institutions offering education at a higher level. Ward No. 8, Chulachuli, meanwhile, has no primary schools and a single lower-secondary school. Not all families can afford to send their children to neighbouring Jhapa and Morang districts to pursue further studies.

Some 65 per cent of respondents in the study area are literate but only 19.3 per cent have received schooling from grades 6 to 10 and just 2.5 per cent of respondents have completed college-level education. One individual from Bajho has obtained a Master's Degree and continues to reside in the area, working as a teacher. Another teacher with a Master's Degree was identified in Chulachuli but this individual commutes to the school daily from the adjoining district. Not a single individual with a law background was identified by the study team. There are no lawyers working in or in the vicinity of the study sites. Most lawyers are based at the district headquarters, where the court is located.

Both sites are isolated not only from the district headquarters but also from market towns and urban centres. Residents of Bajho must walk for about four hours to reach the town of Damak, where the nearest highway is located. From there, to travel to the district headquarters, they are required to take a seven-hour bus journey.

Since Bajho is not properly accessible by road, vehicles are driven on the river banks or in the middle of small streams, such as the Charpaire, Muse Khola and Ratuwa, which flow through the area. Even this limited access is cut off in the rainy season when the rivers are in flood. During the monsoons, residents of Bajho make a perilous crossing at more than 20 different points along small rivulets where not a single bridge of any type has been constructed.

Chulachuli is located closer to the highway, about an hour by foot, although residents must cross the Ratuwa River to reach it. Since the river has no bridge, crossing becomes hazardous here as well, particularly in the monsoon when the river spans about 200 metres. From the highway, however, the bus journey to the district headquarters takes the same seven hours.

The major economic centres for the people of Bajho and Chulachuli are the towns of Madhumalla and Urlabari in Morang District, and Damak in Jhapa District. In recent years, stone quarrying, sand mining and quarrying from the beds of rivers such as the Ratuwa and Mai have become important economic activities in nearby urban centres, with contractors hiring local labourers.

Dependence on Natural Resources

There are two main land types in the study sites. *Khet* lands lie in river valleys and terraces, and retain water for sufficiently long periods to grow rice and wheat. *Pakho* lands are situated on high terrain and are incapable of retaining water, and here only such crops as maize, millet and dry rice can be grown (Regmi, 1999: 126). At the Chulachuli study site there are relatively more *khet* lands, whereas flat land is scarce in the Bajho site, which is mostly hilly.

Today, about 20 per cent of Bajho's residents have land tenure over their *khet* and *pakho* lands. The area in which they live and farm is no longer forested. About 20 households may be said to be living inside the forest but even their settlement lies in the vicinity of *pakho* and *khet* areas. With more flat land available, the residents of Chulachuli constructed irrigation canals and have developed a good irrigation system.

Table 1: Farmer status by landholding (Bajho and Chulachuli)

Category	Landholdings (in *ropani*)*
Very poor	0–5
Small	5.1–10
Middle	10.1–20
Big	more than 20

* Unit of land measurement, roughly equivalent to 508.72 square metres (608.44 square yards).

Source: Field survey, 2006.

Livelihoods in the Ilam-Siwalik area depend heavily on natural resources. Non-timber forest products including bamboo and mushrooms are collected. Bamboo products are made for sale in local markets, while mushrooms are harvested during the monsoon season. In recent years, cash crops such as ginger, cassava, sweet potato and broom grass (*Thysanolaena maxima*) have begun to be cultivated. Animal husbandry contributes significantly to the local economy, with cattle, goats, buffalo, pigs and poultry reared. Household income from agriculture, and the sale of livestock and livestock products, is supplemented by earnings from wage labour.

Agriculture and the harvesting of forest products are the major economic activities in the study sites. During the field survey, respondents were asked to describe the size of their landholdings. The information so obtained was not independently verified by the research team. This information was used during data compilation to divide respondents into four categories (Table 1).

In Chulachuli, about 65.1 per cent are farmers while the remaining 44.9 per cent depend entirely on forest resources. Even among those who practise agriculture, more than half of their household income is derived from forest products. In Bajho, only 54.5 per cent are farmers while the remainder of the population depends on forest resources.

As might be expected, dependence on natural resources is generally highest among the poorest farmers (Table 2). This is true in the case of timber and firewood as well as grass and fodder. But even big and medium farmers rely heavily on forest timber in both study sites.

In the case of both timber and firewood, reliance is high overall on public or common sources rather than private sources, with only differences of degree reported between status groups. Very poor farmers in Chulachuli, for example, report a 96.1 per cent dependence on fuel wood from public or common sources, while the least dependent are large farmers in Bajho who nevertheless report that 44.4 per cent of their fuel wood is derived from such sources. This group tends to favour grass and fodder from private sources, such their own fields or private forests, while poorer farmers rely on public or common sources of fodder.

Table 2: Major natural resources for livelihood, health and well being individual level

Site	Farmer status	Product consumed (%)											
		Timber		Firewood		Grass/fodder		Drinking water		Irrigation water		NTFPs	
		C	P	C	P	C	P	C	P	C	P	C	P
Chulachuli	Very poor	76.5	23.5	96.1	3.9	66.7	33.2	88.2	13.8	94.4	5.6	67.7	32.3
	Small	85.7	14.3	70.3	29.1	58.7	41.5	74.1	25.9	100	-	71.0	29.0
	Middle	72.0	28.0	52.3	47.7	39.4	60.6	85.7	14.3	98.0	2.0	71.0	29.0
	Big	77.8	22.2	56.0	44.0	36.6	63.3	64.6	35.5	85.7	14.3	48.0	52.0
Bajho	Very poor	82.7	17.0	70.5	29.5	51.7	48.3	92.7	7.4	100	-	43.2	56.8
	Small	89.2	10.8	62.1	37.9	44.2	55.8	100	-	100	-	34.2	65.8
	Middle	70.0	30.0	45.2	54.8	35.2	64.8	95.2	4.8	99.0	1.0	15.9	84.7
	Big	66.1	33.9	44.4	55.6	33.5	66.5	93.8	6.3	74.8	33.3	27.5	72.4

C = common or public sources (includes community forest, government forest, canals, rivers and streams)
P = private sources (includes private forest, field or private land; personal well, ditch, tube well or pond; and purchase from market)
NTFPs = non-timber forest products

Source: Field survey, 2006.

Satisfaction with access to forest resources is related to the degree of dependence on them. Respondents with more land report being satisfied with the amount of forest products they are allowed to collect, particularly because they are able to use sources on their private lands. Other members of the community who have limited or no private landholdings, especially those who are not members of a community forest user group (CFUG), and who are more dependent on access to public and community forests, tend to be dissatisfied with their access to forest resources.

Across the board, the majority of respondents use water from public or common sources, such as canals, rivers and streams, for drinking as well as irrigation. While very poor and small farmers in Bajho, and small farmers in Chulachuli, do not use private sources such as tube wells for irrigation, even the highest use, among big farmers in Bajho, is only 33.3 per cent.

In the case of non-timber forest products, however, dependence appears to be divided according to VDC rather than farmer status. Overall, farmers in Chulachuli tend to rely on public or common sources, with the exception of big farmers. In Bajho, meanwhile, the opposite is true with all four categories of farmers relying more heavily on private sources such as privately owned forest. This is all the more interesting because both Banjo and Chulachuli communities have set up forest users groups.

Methodology

The basic methodology for this study, developed jointly with the country team for India, involved desk work and field work. The desk study entailed a review of legislation and policy related to natural resources, as well as literature on customary law and practice. For the field work, one ward was identified from each of the two VDCs: Ward No. 8 of Chulachuli VDC with

388 households and 1,146 voters, and Ward No. 2 of Bajho VDC with 380 households and 1,029 voters. Each ward is made up of four or more hamlets or villages. The hamlets or villages surveyed in each VDC were: Jhilke, Marchebung, Muse, Musebanjho, Singphere and Sunduwa in Bajho; and Anpjhola, Anpjhola Puchhar, Bukuwa and Schooldanda in Chulachuli.

The study team made use of stratified random sampling techniques to collect qualitative as well as quantitative data. The field survey was conducted among very poor, small, middle and big farmers, as well as local intellectuals, teachers and members of community-based organisations. Households were randomly sampled using voter lists from the Election Commission and 'well-being ranking'.[7] Where a selected household was unavailable, an alternate household of similar background was randomly selected.

A semi-structured questionnaire was prepared to guide interviews with respondents, covering key issues related to environmental justice: access to natural resources; dependency on natural resources at the individual, household and community levels; statutory provisions concerning the use of natural resources; and positive and negative aspects of statutory and customary law. The questionnaire was pre-tested in Chulachuli VDC and modifications made. A total of five enumerators were involved in the field survey, and were provided a one-day orientation and training session prior to conducting the exercise.

From a combined total of 768 households, 161 were selected on the basis of random stratified sampling. For the purposes of the survey, each household was represented by a single member of the family.[8] Of the 161 households that participated in the survey, 85 (52.8 per cent) were from Chulachuli VDC and 76 (47.2 per cent) from Bajho VDC. The majority of respondents were male: 101 (62.7 per cent), compared to 60 women. Women are relatively more active in Chulachuli, where the study team interviewed 36 female respondents, compared to 24 in Bajho.

Scheduling the field study had to take into account the political unrest ongoing at the time. By the time the study team was able to visit the survey sites, cultivation season had begun and respondents were preoccupied with agricultural activities. The fact that residences in the study area are widely scattered, with access to some areas of Bajho particularly difficult, posed logistical challenges. The survey also encountered 'research fatigue' among residents of Chulachuli where prior experience with research studies has not resulted in any tangible livelihood benefits.

The questionnaires used for this study, which were field tested and revised, were relatively technical in nature. Many respondents were unfamiliar with the term 'environmental justice', requiring enumerators to explain the concepts involved. As a result, it is suspected that some respondents, particularly those without formal education, may have been influenced by the ideas shared by the study team.

Legal Regime Governing Natural Resources

The first civil code in Nepal was adopted in 1854 and covered matters related to natural resources. Modern codification started in 1955.

Obligations of the State

Nepal's commitment to environmental conservation, equitable development and the protection of human rights is enshrined in the Interim Constitution of Nepal 2007. The country's international obligations under various multilateral environmental agreements (MEAs) are given legal cover by the Nepal Treaties Act 1990, which explicitly provides for the primacy of international treaties over national law and requires implementing legislation to be framed at the national level.

Interim Constitution of Nepal 2007

The Interim Constitution guarantees equal rights to all citizens (article 13(1)). It also declares the right of every person to live in a clean environment to be a fundamental right (article 16(1)).[9] This provision has potential for far-reaching effects in addressing the disproportionate distribution of environmental hazards in urban areas with respect to marginalised groups and poor communities. It is, however, less likely to ensure environmental justice to similarly disadvantaged groups residing in the country's rural areas, whose livelihoods in most cases depend on natural resources.

The state is required to make the necessary arrangements to "maintain" a clean environment, to "give priority" to environmental protection, to prevent further damage to the environment and to increase public awareness about "environmental cleanliness" (article 35(5)). In addition to these general provisions, the state must make arrangements for the "special protection" of the environment and of "rare" wildlife (article 35(5)).

The Interim Constitution also requires the state to provide for the protection of "forest, vegetation and biodiversity, its sustainable use and for equitable distribution of the benefit derived from it" (article 35(5)). This clause has special significance for the conservation of biological resources and for issues concerning access and benefit sharing. Had this provision appeared in Part 3 of the Interim Constitution, which outlines fundamental rights, rather than in Part 4 dealing with the "responsibilities, directive principles and policies of the state", access to resources and to the benefits arising out of resource use would have been a fundamental constitutional right. The Interim Constitution, therefore, provides that equitable distribution of benefits from the use of natural resources is the responsibility of the state rather than a fundamental right of all citizens. If the state fails to fulfil these responsibilities, the matter cannot be taken to court by private citizens.

In "mobilising" natural resources and heritage "that might be useful and beneficial to the interest of the nation," the state is required to give priority to local people (article 35(4)). The

'national interest' and 'public interest' have too often been narrowly defined as the interests of a political and economic elite, with the result that communities have been deprived of tenure and the right to benefit from resources in their own areas.

The Interim Constitution is silent on the matter of customary law. It states that every community enjoys the right to basic education in its mother tongue (article 17(1)), and to preserve and promote its own language, script, culture, and heritage (article 17(3)). Similarly, the state is to pursue a policy aimed at identifying and protecting traditional knowledge, skills and practices (article 35(18)). These provisions may not be sufficient to provide legal recognition to customary law.

Nepal Treaties Act 1990

The Nepal Treaties Act concerns international agreements to which the government is a party.[10] Where a matter covered by a treaty conflicts with any law in force, the provisions of the treaty are to prevail over national legislation to the extent of the inconsistency (section 9(1)). This principle has been upheld by the Supreme Court with respect to the Convention on the Rights of the Child (1989) (Paudel v. Ministry of Home Affairs (2058) 43 NKP 423). When a treaty to which the government is a signatory, but which has not been ratified, acceded to, approved or accepted by parliament, creates additional obligations that require the enactment of legislation, the government must enact laws for its execution in a timely fashion (section 9(2)).

Despite these statutory requirements, implementation at the national level has remained weak, especially in the case of MEAs, because the government has not enacted the required legislation.[11] Nor has the supremacy been recognised of MEAs over national legislation.

Statutory Law

In Nepal, the right to property includes rights to natural resources. The Interim Constitution guarantees all citizens the right to acquire, own, sell and otherwise dispose of property, subject to existing law (article 19(1)). Citizens may move the Supreme Court for the enforcement of fundamental rights (article 107(1)). The Interim Constitution also confers upon the Supreme Court extraordinary jurisdiction to enforce "any other legal right" (article 107(2)).

The right to acquire, own and sell property is covered under the Civil Rights Act 1955 (section 6(6)) as well, which further stipulates that without the authority of prevailing laws, no property shall be alienable (section 9). The Civil Rights Act guarantees to every citizen the right to approach the courts for an injunction in cases where that individual's rights, including the right to profession or right to property, is likely to be violated (section 17(1)).

With respect to property rights, however, the Supreme Court has ruled that a person claiming their right to property has been infringed must first be able to prove that they possess title over the property in question (Nepali v. Ministry of Forest and Soil Conservation (2048) 33 NKP 33).

Land

Until the 1960s, land was held under various forms of tenure, such as *raikar*[12], *birta*[13] and *guthi*,[14] or under the customary *kipat* system[15] (Takahatake, 2001: 18). Formal administration was carried out by local-level state officials (*tharis* and *subbas*).[16] Beginning in 1960, the then political administration began to replace the traditional system of land administration with laws such as the Birta Abolition Act 1959, followed by the promulgation of the Civil Code 1963 and the Land Administration Act 1967.

Land Act 1964

The Land Act aims to divert "inactive" capital and labour from land to other economic sectors, bring about an equitable distribution of cultivable land, improve the standard of living of "actual tillers" who depend on land for their livelihood, and maximise agricultural production (preamble).[17]

This Act abolishes the *zamindari* system of land ownership (section 3).[18] The term *zamindari* (or "*jimidari*", as it appears in the Act) is defined as "any system of collecting land taxes according to law [...] and depositing the proceeds" with the government, and includes the *kipat* system of tenure (section 2(h)). Land previously held under the *zamindari* system is to be registered in the name of the *zamindar*, in keeping with prescribed ceilings.

Ceilings on ownership are specified in section 7 and vary according to geographical location. The maximum size of an agricultural holding is 6.6 hectares, while the largest homestead may cover 0.66 hectares (section 7). Land in excess of these ceilings is to be acquired by the "prescribed authority" (section 15) upon payment of compensation (section 19). The land so acquired may be sold or reallotted (section 21) and, until the sale or reallotment is finalised, may be "given away" for cultivation on "any terms" to the former landowner or tenant, or any other person (section 21A). Such land is to be distributed among Dalits, members of ethnic communities and bonded labourers who have been freed, with priority given to residents of the VDC or municipality in which the land has been confiscated (section 21, as amended in 2002).

Exemptions on these ceilings may be granted in the case of land led by the government itself, or by industries, or educational and medical institutions (section 12). Other types of holdings that may also be exempted from ceilings include land held by DDCs, VDCs or municipalities (section 12(b)); land used "under prescribed conditions for agricultural purposes" prescribed by the government (section 12(e)); land under the jurisdiction of the guthi corporation (section 12(f)); and land held by cooperative agricultural societies (section 12(g)).

Tenancy in land was abolished from 1996 by means of the Fourth Amendment to the Act (section 25(2)).[19] The amendment allows tenants to retain 50 per cent of the land they were previously farming or occupying, or to accept a cash payment based on the current value of the land to which the tenant is entitled (section 26D).

A unique feature of the Lands Act is a provision on compulsory crop savings (section 40), which has not been applied in practice since the adoption of the Land Revenue Act 1977.

Land Acquisition Act 1977

The Land Acquisition Act authorises the government to acquire any land, and as much land as it determines to be necessary, for public purposes (section 3). The government is required to pay compensation and the amount awarded is to be decided by a four-member committee (section 13(2)). There is, however, no requirement that this amount be determined according to market value, nor that compensation be disbursed within a specified time (section 16(2)(a)).

The acquisition itself may not be appealed. Appeals concerning the amount of compensation are to be submitted to the Ministry of Home Affairs within 15 days of the notification issued by the committee, and the decision of the Ministry is final (section 25(7)).

Once land has been acquired, the government is not required to use the land for the purpose for which it was originally taken (section 33). The land may subsequently be sold (section 35).

Land (Survey and Measurement) Act 1963

The Land (Survey and Measurement) Act stipulates that land may be registered on the basis of an unofficial deed if it has been in the uninterrupted possession of an individual for 15 years (section 6(5a)). This provision is only enforceable in the case of individual practice or possession.

Land Administration Act 1967

The Land Administration Act prohibits the cultivation of land which has been used since time immemorial as a road, highway, grazing area, waterhole, cemetery or graveyard, and any other land area or “servitude land” which has been used for public purposes (section 20).

Civil Code 1963

Chapter 8 of the Civil Code 1963 prohibits cultivation on any land which has been used since time immemorial for grazing or watering cattle, or for roads, streets, graveyards or other public uses (chapter 8, section 4).

Public Roads Act 1974

The Public Roads Act empowers the government to acquire any land for the construction, development and improvement of public roads, in accordance with prevailing land acquisition laws (section 4). Similar provisions for land acquisition are made in the Water Resources Act 1992 and the Electricity Act 1992, as well as other development-related legislation.

Forests

The state has absolute rights over forest resources in national forests. If a forested area is handed over to communities according to the provisions of the Forest Act, however, members of the registered CFUG rights over forest resources, but not over land. They may regulate access and the sharing of the benefits according to CFUG by-laws.

By allowing communities to manage forest resources the Forest Act implicitly recognises both community rights to forest resources and indigenous forest management practices.[20] The law provides for the establishment of users groups and allows them to "utilise forest products by developing and conserving forest for the collective interest" (section 41). Users groups maintain a fund through which they finance their activities (section 45).

The district forest officer (DFO) may hand over to registered CFUGs any part of a national forest, to be managed as 'community forest' (section 25(1)). This entitles the users group to develop, conserve, use and manage the forest. They may sell and distribute forest products according to a work plan, at a price determined by the users group itself. Users groups may also make amendments to the work plan (section 26(1)) but only if such alterations are not "likely to affect adversely the environment in a significant manner" (section 26(2)).

In theory, these provisions allow communities to participate in management and decision making, and to share in the benefits from the use of forest resources. This, however, is not always true in practice.

Similar to the provisions concerning community forestry, the Forest Act allows the government to hand over any part of a national forest as a 'leasehold forest' (section 31) to any corporate body, industry or community (section 32(1)). Such forests may be used for a number of purposes, including to sell and use forest products, promote plantation, set up tourist operations, and carry out agroforestry or wildlife farming, as long as these activities are compatible with the conservation and development of the forest (section 31). Leasehold forests may also be used to produce raw materials for industries based on forest products (section 31(a)). Priority, however, is given to community forests: any part of a national forest suitable for community forest use cannot be handed over as leasehold forest (section 30).

In the case of both community forests and leasehold forests, ownership of the land on which these forests stand remains with the government (section 67). Similarly, the government retains the right to use community forest and leasehold forest areas to implement "plan[s] having national priority" where no alternative is available, as long as no "significant" adverse effects are created (section 68(1)). In the case of damage caused to an individual or community by any such measures, the government is required to make "proper arrangements in this regard" (section 68(2)).

National forests not handed over to communities are strictly regulated, and the Forest Act contains detailed provisions aimed at restricting their use. A wide range of activities are prohibited in a national forest, including cultivating land, setting fires, constructing dwellings, grazing animals, cutting or damaging plants and trees, hunting, removing forest products, extracting sand or soil, burning charcoal, and damaging forest products while carrying out licensed felling activities (section 49).

The DFO is empowered to hear and decide cases related to forest offences involving a maximum fine of 10,000 rupees and/or imprisonment for a term of one year (section 65(1)).

This provision covers all forest offences listed in the Forest Act, as far as fines are concerned; only two offences carry a higher maximum prison sentence (sections 50(1)(e) and 50(2)) but even here the cash fines fall within the limits set for DFO to hear and decide the case. The DFO's decision may be challenged in an appellate court (section 65(3)). Users groups are also permitted to dispose of cases related to the management and use of forest resources. CFUGs may impose penalties on group members found to be carrying out activities that contravene the work plan and may recover damages (section 29).

Forest Regulations 1995

Under the Forest Regulations, government-managed forests are administered according to a work plan which, among other things, specifies the quantity of forest products that may be collected and sold annually (section 6(1)), and takes into account the forest products "required by the local people" (section 3(1)(h)). Forest products cannot be taken, sold or transported without a licence (section 7). Separate rules and procedures govern the sale and distribution of timber and firewood (section 9), acacia catechu (section 10) and herbs (section 11). Forest product supply committees may be established at the district level to sell timber and firewood for domestic use to "the rural people" (section 9(1)), while the DFO may sell acacia catechu by auction (section 10). The collection of herbs and other forest products is also regulated, with those wishing to do so required to submit an application to the DFO (sections 11(1) and 14). Timber and firewood may, however, be supplied free of charge for the purpose of "traditional religious function[s] other than construction works" (section 15). In addition, the government may ban the collection and sale of all forest products (section 12). Grazing animals is not permitted in the areas covered by a work plan but elsewhere animals may be grazed with a licence (section 19).

Community forests are also managed according to a work plan, in this case prepared by the users group to which the forest has been handed over, and assisted by the DFO (section 28). The DFO is authorised to alter, "with the consent" of the users group, and approve the work plan (section 29(2)). Users groups are permitted to collect and sell only those forest products specified in the work plan (section 32(1)), and must rehabilitate the area after timber and other forest products have been taken (section 32(2)). Industries based on forest products may be set up outside the area of the community forest, on the recommendation of the DFO (section 32(4)). Users groups are permitted to specify in the work plan activities that are prohibited in a community forest they have undertaken to manage. In addition, certain activities are specifically prohibited in the Regulations. These include clearing a forest area for agriculture (section 31(1)(b)); capturing or killing wildlife in contravention of the relevant laws (section 31(1)(e)); extracting or transporting rocks, soil, pebbles or sand (section 31(1)(f)); and carrying out any activity that may cause soil erosion (section 31(1)(d)). Users groups are not permitted to mortgage or transfer ownership of the land on which a community forest stands (section 31(1)(a)). Homes may not be built inside a community forest (section 31(1)(c)) but "houses or huts needed for [...] security" may be constructed (section 31(2)). Users groups may obtain loans for these and other forest development activities by offering forest products as collateral (section 31(2)). Users groups are required to include in their operational plans provisions regarding penalties that will be imposed on members found to be violating the work plan (section 28(1)(j)).

The procedure for handing over a community forest is relatively simple (section 29). A users group submits an application to the DFO who then undertakes the necessary inquiries, studies and approves the work plan, and hands over management of the forest (sections 29(1) and 29(2)). In exchange, users groups must furnish a bond, stating that they will comply with conditions prescribed by the government (section 29(2)).

In handing over a community forest, the DFO is required to take into account not only the distance between the forest in question and the village where users are resident but also the "wishes as well as the management capacity" of local users (section 26(1)). Where local users wish to plant trees on public land outside a national forest, or have already done so, such areas may also be designated as community forest "on the condition that the concerned agency itself retains the ownership of the land" (section 26(2)).

Other procedures, such as those concerning the constitution and registration of users groups (section 27), are somewhat more complicated. Once they have obtained management control of a community forest, users groups are required to comply with a number of operational procedures such as issuing permits for various purposes (sections 33(1) and 35), preparing and registering stamps (section 34), informing the DFO about the "sale rate" of forest products (section 32(3)), keeping accounts and maintaining records of all transactions (section 33(3), and preparing receipts in triplicate (section 33(2)).

Community forests may be resumed by the government if the users group is unable to fulfil the requirements of the work plan or has carried out activities that have a "substantial adverse effect on the environment", or if laws have been violated (section 37). In cases where the execution of a project of "national priority" in a forest area causes any loss or harm to local individuals or communities, compensation is to be paid by the "operators" of the project (section 65(1)) who must also bear the expense of cutting, processing and transporting forest products approved for use in the project (section 65(2)). No such cases have been reported in the study sites.

The remaining provisions of the Regulations concern the establishment and functioning of leasehold forests (sections 39–54), religious forest (sections 55–60), and private forests (sections 61–64).[21]

Water

Historically, rights over water resources lay with the king and were granted to subjects along with rights to land or forest. In eastern Nepal, meanwhile, traditional systems of water use and distribution were recognised by the state under earlier land administration arrangements, perhaps because it was impossible for the rulers at the time to extract land revenue and maintain control over the far east of the country without recognising traditional systems.

Formal state control over the water resources was consolidated in 1992, through the Water Resources Act. Earlier laws governing the use of water, such as the Canal Act 1963 and the Canal, Electricity and Related Water Resources Act 1967, prescribed licensing arrangements

but made no explicit mention of state ownership. State ownership of water resources is provided statutory cover for the first time under the 1992 Act.

Water Resources Act 1992

Under this law, all water resources are owned by the state (section 3).[22] All water use, other than for specified purposes, mainly domestic use, is regulated by means of licences (sections 4 and 8). The law establishes the priority in which water resources are to be utilised (section 7). The government may develop water resources, and acquire related land, equipment and structures for "extensive public use", upon payment of compensation (section 10).

The Act allows for the formation of water users associations (WUAs) as a way for communities and groups to utilise water resources for collective benefit (section 5). Such groups must be registered with the prescribed official or agency (section 5(1)). Water-related projects initiated by the government may be handed over to WUAs, which then become the 'owners' of the infrastructure (section 11). WUAs have the right to determine and levy fees on the members of the group (Water Resources Regulations 1993, section 5).

Land or residential buildings, if required for the construction of dams, barrages, canals, other waterworks, pipelines or water distribution facilities, may be used or acquired by the government on behalf of licence holders (Water Resources Act, section 16). Although WUAs are also required to obtain licences, this provision is generally applied to commercial projects and not enforced stringently in the case of small drinking water schemes executed at the village level.

Since ownership of water resources vests in the state, there is no provision for compensation when water resources on an individuals' land are utilised by the state. Compensation is only offered in cases where land, buildings or infrastructure have been acquired (section 10(3)) or damaged during the execution of a project (sections 15 and 16).

Irrigation Regulations 2000

WUAs are required to hold elections periodically, and election procedures are to be specified in the by-laws of individual users associations (section 4). Usually, any general member may run for a position on the executive committee.

Service charges are determined by a district-level committee comprising the chief of the district irrigation office, a representative of the district agriculture development office, a representative of the district irrigation users association and the chairperson of the users association concerned (section 26). The service charge may differ from one WUA to the next, and may or may not take caste, gender or economic status into account while determining fees; the Regulations are silent on this matter. In some WUAs, larger landowners are required to contribute more cash and labour for the construction and maintenance of infrastructure than members with more modest holdings.

Drinking Water Regulations 1998

The membership fee for users associations is to be mentioned in the by-laws of the association concerned (section 4(2)). The drinking water fee is fixed by a committee (section 38). Members may also be required to provide cash and physical labour for the maintenance of infrastructure, as decided by the general body or executive committee of the association. While the fee for irrigation water use is progressive, based on the size of the landholding, fees charged by drinking water associations are the same for all members.

Related Legislation

Other laws indirectly govern natural resources and rights to them. The Public Roads Act, for example, provides for compensation to owners in the event of damage caused to natural resources during road construction. Since land law does not recognise community tenure, many rural people would not be eligible for such compensation.

Public Roads Act 1974

The Department of Roads may order the taking of soil, stone or sand from any land adjacent to a road for use in the construction, repair and maintenance of roads (section 17(1)). If the taking of stone, sand or soil destroys crops, trees, plants or other property, the owner is to be compensated (section 17(1)).

Mines and Minerals Act 1985

Under the Mines and Minerals Act, ownership of all minerals, whether occurring in private or government-owned land, is vested in the government (section 3). 'Minerals' are defined as any kind of inorganic material found on the soil surface or "inner earth", with specific physical properties, or a mixture of chemical elements excluding petroleum and gases (section 2(a)). This definition is so broad as to include rock, sand, soil, stone, and anything else that could contain minerals on any private or government-owned land.

Governance

The VDC forms the lowest tier of local government. There are 3,915 VDCs in Nepal (NPC, 2005: ii). A district development committee (DDC) is the highest tier and there are 75 DDCs in Nepal, one for each district in the country. The number of VDC in each district differs, depending on population and geographical area. VDCs and DDCs are autonomous corporate bodies with perpetual succession

Local Self Governance Act 1999

The Local Self Governance Act (LSGA) 1999 was enacted as part of Nepal's efforts to support decentralisation.[23] Under this law, local government bodies including DDCs and VDCs hold the right to manage specified natural resources.

A VDC, the members of which are elected by qualified voters in the village development area (section 12), is an autonomous body (section 13) and performs functions related to a variety of matters including agriculture, rural drinking water, irrigation, river control, the prevention of

soil erosion, health, tourism and cottage industry (section 28). Under the rubric of 'forest and environment', VDCs are empowered to prepare and implement programmes with regard to forests, vegetation, biodiversity, soil conservation and environmental conservation in the village development area (section 28(h)). A VDC has "full title" over certain property situated within the village development area, including "public properties" not owned by an individual or by the government or a DDC, such as public drainage and sewerage; roads and bridges; ponds, water spouts, taps, wells and ghats; temples, inns, houses; and grazing fields (section 68(1)(b)). "Natural heritage" is also included in this list of assets (section 68(1)(d)), as are "forests according to existing forest laws" or "handed over" by the government (section 68(1)(c)). This provision concerning forests is often mistakenly taken to mean that all forest areas in a VDC are the property of that VDC when in fact it is specifically stated that only forests granted under existing law, or forests handed over by the government, become VDC property. The LSGA provides that a VDC is permitted to sell its assets (section 58(c)) but only with the prior approval of the government (section 68(2)).

VDCs may impose a number of taxes including land revenue or land tax, rent and tenancy tax, and a tax on "natural resources utilisation" within the village development area (section 55). They may impose service charges for drainage (section 56(1)) and collect various fees (section 57). A VDC may also sell a variety of resources, including dried timber, fuel wood, twigs, branches, straw and grass, from lands situated within its jurisdiction (sections 58(d) and 58(e)), in addition to soil on "government barren land" located in the VDC area (section 58(a)).

VDCs exercise certain judicial powers. A VDC is authorised to hear and settle at first instance cases related to land boundaries, public land, canals, dams and ditches, the allocation of water, and encroachment on roads (section 33(a)); disputes over the use of a river bank or the "security" of public property (section 33(j)); and cases concerning pasture, grass and fuel wood within its area (section 33(l)).

The DDC is an autonomous body (section 177) with functions related to agriculture, land reform, land management, rural drinking water, irrigation, soil erosion, river control, health services, cottage industry and tourism, among others (section 189). It is also required to promote environmental conservation, and to develop and implement plans to conserve soil, vegetation, forests and biological diversity (section 189(1)(g)). A DDC has "title" over immovable property built or bought with funds allocated to it and may not sell such property without the prior approval of the government (section 231).

At the same time, the DDC may impose levies on a variety of services, resources and resource-based activities including taxes on bridges, irrigation, herbs, stone, slate, sand, bone and horns (section 215(1)); service charges on ditches and embankments (section 216(b)); and licence fees for fishing (section 217(a)). A DDC may also sell sand from rivers and canals, stones, soil, and driftwood in its area, but is required to pay 35-50 per cent of the proceeds so collected to the VDC concerned (section 218).

This law deals primarily with matters related to the maintenance of peace and security in the districts, and at the regional level. It provides for a variety of administrative procedures including the division of the country into development regions (section 3), and the establishment and functioning of the Office of Regional Administrator (sections 4A and 4B). The Act also deals with arrangements related to the district administration (section 5), and the powers, functions and duties of the Chief District Administrator (sections 5(5) and 9). Other matters covered under the Act include the composition of a Regional Security Committee (section 4C), actions to be taken to maintain law and order (section 6), and the right to impose a curfew (section 6A).

The provisions related to peace and security apply indirectly to natural resources. Under this Act, if peace and security are violated or likely to be violated within a district because of a dispute over land, water, irrigation, canals or boundaries, the district administration officer (DAO) is authorised to summon the concerned parties (section 6(5)). The DAO may issue a prohibition order and, where property is involved, order that the disputed property remain with the person who has retained possession for three months prior to the dispute, or order that the property be held by a municipality, VDC or individual (section 6(1)(E)(5)). The DAO may also direct the disputing parties to go to the District Court to settle legal ownership of the property in question (section 6(1)(E)(5)).

Under this Act, the DAO is required to keep a record of public taps, wells, ponds, huts, rest-houses, temples, caves and bridge within the district, and to order that repairs be carried out by the owners of such property or by the municipality, guthi corporation or VDC (section 9(6)).

Inconsistencies in the Statutory Regime

Inconsistencies in the statutory framework create loopholes which in turn create the potential for environmental injustice in the rural and natural resource context. The extent of the rights allocated by different laws to various user groups differs substantially (Table 3). Of the two types of users groups established under the Forest Act, only CFUGs are recognised as legal entities. Registered WUAs established under the Water Resources Act also are recognised as legal entities.

The LSGA empowers VDCs to sell specified natural resources and products, and stipulates that the proceeds from such sales are to be deposited in the VDC fund (sections 58(d) and 58(e)), while the Forest Act empowers CFUGs to sell the same products (sections 2(c) and 25(1)). Religious forest user groups established under the Forest Act do not have the right to sell forest products. While there may be overlaps in the membership of a VDC and a users group or committee, these contradictory provisions concerning rights to use natural resources create the potential for conflict between local government and citizens' users groups (Joshi, 1997: 49–68).

There is similar potential for conflict between VDCs under the LSGA and WUAs under the Water Resources Act. Such conflicts have not arisen in the study sites, as the VDCs have not

to date asserted their authority under the LSGA.

Table 3: Legal provisions governing natural resources

Resource	Legal provisions			
	Equitable access	Participation in decision making and management	Equitable benefit sharing	Exercise/defence of rights
Land	-	WRA	LA	LA
Timber	FA, WRA	FA, LSGA, WRA	FA	FA
Firewood	FA, WRA	FA, LSGA, WRA	FA	FA
NTFPs	FA, WRA	FA, LSGA, WRA	FA	FA
Grass/fodder	FA, WRA	FA, LSGA, WRA	FA, LSGA	FA
Drinking water	WRA	LSGA, WRA	WRA	WRA
Irrigation water	WRA	LSGA, WRA	WRA	WRA

FA = Forest Act 1993
LA = Land Act 1964
LSGA = Local Self Governance Act 1999
WRA = Water Resources Act 1992
NTFPs = non-timber forest products

Source: Desk study, 2005.

Implementation of the Statutory Regime

There is no significant presence of the state's administrative authority in either of the field survey sites. Government officers and members of the law enforcement agencies rarely visit these villages, given their distance from the district headquarters. Local residents have organised themselves into users groups under the Forest Act and the Water Resources Act, and for the most part follow the procedures contained in Rules and Regulations framed under these laws. Land tenure, however, is a key issue which has remained unresolved for several decades.

A land survey was carried out in 1970, when some residents of Chulachuli were issued a land entitlement certificate, called a *lal purja*, which is endorsed under current laws. Those who did not receive a *lal purja* were rendered landless on paper (Chulachuli VDC, 2000: 15) although in fact many continued to live on and cultivate the same land. Some local residents who do not have land entitlement certificates possess deeds issued under previous land administration arrangements.

In 1975, the government evicted all residents from the Chulachuli study site, including those who possessed a *lal purja*, in order to establish a nursery for plantation along the East-West Highway. Some were granted land in the neighbouring districts of Jhapa and Morang. In many cases, those who accepted the government grant nevertheless continued to occupy their previous holdings, leaving behind family members or nominating representatives to look after their homes and cultivate the land. The occupation of this land, and new encroachment that took place over the years, eventually led to widespread protest in 1984. By 1999, a total of 22 commissions had been formed to resolve the land entitlement issue (IUCN, 2000) but to date no land settlement has been carried out in the study sites.

The residents of Chulachuli have repeatedly approached the government, through their political representatives, on the matter of land entitlements. Invariably, they receive assurances from politicians prior to the election but so far nothing has come of these promises. They have not approached the courts. Many respondents express the belief that, without a *lal purja*, they cannot claim any rights over land or petition the courts for the enforcement of rights. Their concerns are not entirely unfounded, since the Supreme Court has ruled that an individual must be able to prove title to property before being able to claim that a property right has been infringed (Nepali v. Ministry of Forest and Soil Conservation (2048) 33 NKP 33).

Although their land rights have not been provided legal cover, local residents are acknowledged for other official purposes and by certain government agencies. For example, residents of the study sites are included in voter lists, and cast their ballots in local and national elections. Not only they are registered voters, many themselves contest polls at the VDC level, and have been elected as ward representatives. When an individual appears on the voters list, their permanent address is also included. This suggests that for the purpose of elections, at least, the state recognises that these individuals are permanent residents on the land that they currently occupy. While their settlement is technically illegal, it is nevertheless legally valid for the purpose of registering as a voter. Similarly, tenure and entitlement do not appear to hamper the establishment and registering of users groups in the study area.

The enforcement of laws related to natural resources differs from legislation to legislation. In some cases, the Forest Act appears to be more effectively enforced because communities themselves are involved in implementation. In particular, provisions related to community forests create a pivotal role for communities in the management and development of forest resources, the sale of forest products, and the use of funds so generated. Where communities are not involved in management, implementation of the Forest Act is comparatively weak. CFUGs must also resist pressure from the Department of Geology and Mines, and the DDC, to give out forest areas on lease, thereby giving up their rights to use forest products (Belbase and Regmi, 2002: 25).

CFUGs exist in both study sites. In general, respondents believe that while the law itself is equitable, by-laws framed by CFUGs and committee decisions are inequitable. They also believe that CFUGs are dominated by elites who exclude lower castes, marginal groups and the poorest of the poor (see Box 1).

In some cases, implementation of the law has itself resulted, perhaps inadvertently, in the denial of rights to one group in favour of another. In Jhilke hamlet of Bajho VDC, for example, the community's rights to access forest resources in their area were overridden by an official decision to hand over the forest to users from Chulachuli VDC. Residents of Jhilke submitted an application to the DFO, requesting that the forest be handed over to them as a community forest. To date, nothing has come of their application.

Users groups for both irrigation and drinking water are functioning in Chulachuli, but not in Bajho. Members of drinking water associations are required to contribute both cash and

labour for the maintenance of the system. Membership of irrigation WUAs is limited to those who possess land in the command area of the irrigation system. Members are also required to pay a flat fee for membership and contribute to the upkeep of the system. These payments are often a burden for poorer farmers.

Box 1: Small entrepreneurs and the untouchables

Nara Maya Bishwokarma, aged 43, belongs to a Dalit community in Charpaire village, Ward No. 2, Bajho VDC. She has a family of seven and a piece of land as big as a kitchen garden. She made a living from a small business she operated, weaving baskets and producing handicrafts from bamboo collected in the nearby forest.

After the implementation of the Forest Act 1993, the government handed over the forest where Bishwokarma had been collecting forest products. Bishwokarma had no knowledge of the Forest Act and the exclusionary rights of CFUGs which could stop her from collecting natural resources from the forest to which she had had access for most of her life.

When she was collecting bamboo, a CFUG member caught her and she was warned that she would be fined if she continued to collect bamboo in the forest managed by the CFUG. Bishwokarma was unable to become a member of the CFUG because she did not have enough money to pay the membership fee. She was ultimately forced to abandon the small enterprise through which she had supported her entire family.

Perceptions Concerning Statutory Law

Few respondents in the study area are aware of their rights under statutory laws governing natural resources. Their knowledge on this subject is limited, for the most part, to rights provided by the by-laws of users groups. While respondents report only limited knowledge and understanding of statutory provisions, survey results show they have greater knowledge about the by-laws of users groups functioning in their communities.

Almost all respondents in the study area are able to access to some degree the natural resources on which their livelihoods depend. A large majority believe this access is ensured by statutory law in the form of users group by-laws.

As part of the survey, respondents were asked for their perceptions concerning the positive and negative aspects of the statutory regime governing natural resource management (Table 4).[24] The largest number of respondents believe the distribution of benefits without discrimination to be a positive aspect of statutory law. Nearly 63 per cent of men in Chulachuli take note of this, along with close to 50 per cent of all other respondents. Responses concerning other aspects are mixed, with roughly one third of respondents in Chulachuli thinking that equitable access and participation in decision making are also positive aspects of statutory law. In Bajho, these numbers are slightly lower in the case of equitable access. But only a very small percentage of Bajho respondents feel that

participation in decision making is assured by statutory law. The ability of all citizens to exercise their rights to resources is the option selected by the fewest respondents in Chulachuli, suggesting they do not believe their rights are secure under statutory law. In Bajho, roughly the same number of male respondents and a greater percentage of women share this view.

Table 4: Perceptions regarding statutory law

Response	Chulachuli (%)		Bajho (%)	
	Male	Female	Male	Female
Positive aspects				
Equitable access to and use of natural resources	28.6	27.8	25.0	17.4
Participation in decision making and management	28.5	31.4	7.7	8.7
Distribution of benefits without discrimination	62.5	50	51.9	47.8
Citizens able to exercise rights to natural resources	14.3	12.2	15.4	26.1
Negative aspects				
Inequity and unfair access to and use of natural resources	43.1	25.8	42.8	52
Inequitable participation in decision making and management	4.6	2.9	12.2	13.0
Discrimination in the distribution of benefits	27.3	28.7	22.4	-
Citizens unable to exercise rights to natural resources	11.4	-	14.3	17.3

Source: Field survey, 2006.

Responses concerning the negative aspects of statutory law are more unevenly divided. The largest proportion of men in both Bajho and Chulachuli believe that statutory law creates inequity and unfair access in the use of natural resources. More than half the women in Banjo also share this belief. As an example of a negative aspect of statutory law, respondents cited CFUG by-laws that limit the freedom to use forest products and place restrictions on charcoal production.

Interestingly, no women in Bajho believe that statutory law fosters discrimination, while no women in Chulachuli think that citizens are unable to exercise their rights. Respondents in Bajho tend to believe that participation in decision making and management is inequitable while those in Chulachuli have the opposite perception.

The survey results indicate that while statutory arrangements such as users groups established under the Forest Act and the Water Resources Act promote benefit sharing among their members, they are less successful in giving all villagers equitable opportunity to participate in the management of natural resources and in making decisions.

Customary Law

While certain customary norms governing natural resources were recognised by the country's earlier rulers and in the first Civil Code of 1854, customary law is not recognised under Nepal's current statutory regime. The Interim Constitution guarantees to all citizens certain rights with respect to indigenous culture, language and traditional knowledge (article 17), but is silent on the specific issue of customary law. It remains to be seen whether similar provisions are included in a permanent constitution. In the meantime, the rights guaranteed

under article 17 will need to be translated into any legislation that may be adopted under the Interim Constitution.

Although customary rules governing natural resources are not recognised under statutory law, they nevertheless continue to be used in the study sites, as in other parts of the country. The persistence of customary norms means that the statutory regime is not the only determinant of how natural resources are managed and husbanded in the day-to-day lives of these communities. Resource use and management practices in both study sites are, to varying degrees, governed by custom. Customary law entirely governs land tenure and management in Chulachuli, for example, and continues to be applied in Bajho as well.

While respondents in the study sites report using customary norms to determine resource rights and govern resource use, they equate 'customary law' with untouchability and caste-based discrimination. Although untouchability and religious, caste-based discrimination are officially prohibited and are not directly related to natural resource rights, these social practices continue to have an impact on access to natural resources for lower-caste villagers.

Land and Forests

Land tenure in both Bajho and Chulachuli is insecure, with 80 per cent of Bajho residents and all of the people of Chulachuli in informal possession of the lands on which they live and practise agriculture. Despite the absence of formal legal entitlement, the boundaries of villagers' holdings are respected by other members of the community. It appears that with respect to land, residents of both study sites accept and abide by customary rights that have developed over several generations of occupation and use.

Residents of Bajho continue to occupy land granted to them by village headmen (*subbas* and *tharis*) under the *kipat* system which was abolished by the Land Act.

While in both communities villagers respect each others' customary rights to land, it is only in Bajho that a customary management system exists to this day. Known as *rokka chhekka*, this system simply involves demarcating land and prohibiting others from using it. In Bajho, *rokka chhekka* land adjoins and is additional to the land granted to villagers under the *kipat* system.

Rokka chhekka governs all resources on the land so claimed. If, for example, one household occupies and demarcates the boundary of a forest, other members of the community allow them to manage, conserve and use it. Disputes, if they arise, are settled within the community itself.

In the study sites, forests were previously managed under a customary system. A patch of forest would be set aside by a community and use of the forest, known as a *raani ban* ('queen forest'), was permitted for a few months each year. For the rest of the year, the forest was allowed to regenerate. The boundaries of forest areas so designated by one community were respected by neighbouring villages. A code of conduct was developed to govern the manner in which a *raani ban* was used and punishment was meted out to those found violating the code (Chapagain et. al, 1999: 2).

Respondents in Bajho maintain that, prior to the enactment of the Forest Act 1961,[25] access to forest resources in such areas was equitable and members of the community were able to participate in decision making.

Water

Farmers in Bajho rely primarily on rainfall to water their fields. In Chulachuli, however, irrigation is widely practised. Here, customary use rights, common to many parts of Nepal, determine the manner in which water is distributed.

Under the system used in Chulachuli, rights to water from irrigation sources are established by constructing diversion structures. Those who construct the first such structures also enjoy the first right to divert water from the source. Customary law forbids the building of newer canals upstream of existing canals if water supply downstream is likely to be affected. Similar customary use rights come into play once a canal is constructed. Water is distributed in sequential order, beginning with the field nearest to the water source. Maintenance of irrigation infrastructure is carried out collectively by all users.

Interaction Between Customary Law and the Statutory Regime

For the vast majority of residents in both Bajho and Chulachuli, the key issue at the intersection of customary and statutory law is the statutory recognition of customary rights to land. More than 80 per cent of the people who live in Bajho and all the residents of Chulachuli have not been granted titles to the land on which they live and farm. In Bajho, where many residents possess proof of ownership issued by *subbas* and *tharis* under previous state-backed land administration arrangements, the state has not recognised these rights.

Under the provisions of the Land (Survey and Measurement) Act, however, land may be registered on the basis of an unofficial deed if it has remained in the uninterrupted possession of an individual for just 15 years (section 6(5a)). Many households in Bajho have been occupying their land for far longer than 15 years. In Chulachuli, the government has not removed those residents who re-occupied their land after the 1975 eviction, with the result that these families have now been in uninterrupted possession of their land for more than 15 years as well. Residents continue to occupy and manage land according to customary rights and rules, but under the shadow of insecurity created by the lack of statutory tenure.

Forest legislation takes customary rights into account indirectly. The Forest Act enables the recognition of customary rights with respect to the management, development, use and sale of forest products through the creation of community forests and users groups that establish their own management plans. It also provides for the sharing of benefits, similar in some ways to the system of declaring a *raani ban*. But statutory law has to also led to the erosion of customary practices. Implementation of the Forest Act 1961, for example, led to the demise of the *raani ban* system.

Even though forest legislation allows customary claims to be recognised, implementation of the law may ignore customary claims altogether. In many cases, the key issue is not that access is forbidden by law but rather that access is denied de facto because many households are unable to afford CFUG membership and use fees. The residents of Jhilke Village in Bajho, for example, lost their customary rights to use forests in their vicinity when that area was handed over to Shivalaya CFUG from Chulachuli. This is all the more glaring a lapse because the law itself implies that people in the vicinity of a forest are to receive priority: in handing over a community forest, the DFO is required to take into account the distance between the forest in question and the village where users are resident (Forest Regulations, section 26(1)). (See Box 2.)

Current laws governing water fail to explicitly recognise customary use rights but provide a detailed framework for the establishment and functioning of users groups that does not exclude those with customary rights. Participation in WUAs is open to all the members in a community. As with CFUGs, the issue is not that access is forbidden by law but rather that access is denied de facto because many households are unable to afford membership and use fees, in addition to the contributions they are required to make towards the upkeep of infrastructure.

Box 2: Shivalaya CFUG

All residents of Jhilke village in Bajho VDC live on *sorrani* land[26] granted to them in the 1940s and '50s. Over the years, they also occupied the surrounding forest, managing and utilising forest resources according to the traditional *rokka chhekka* system.

In the year 2000, some of this forest area was handed over to the Shivalaya CFUG, a users group registered by residents of Wards No. 6 and 7 in Chulachuli VDC. The forest in question, located in Bajho VDC, lies some distance away from Chulachuli. This has led to a controversy over which community should have the right to manage it.

Under section 26(1) of the Forest Regulations, concerning procedures related to handing over a community forest, the DFO is required to take into account not only the distance between the forest in question and the village where users are resident but also the "wishes as well as the management capacity" of local users (section 26(1)). This provision is understood by many in Bajho to mean that the community residing closest to the forest must receive priority.

This idea is derived in large part from the customary practices of Bajho residents themselves, who are accustomed to the informal rights created under the *rokka chhekka* system, whereby the individual who occupies and demarcates a piece of land or patch of forest is allowed to manage and utilise that area in perpetuity.

As such, it is possible that it did not occur to Bajho residents to file an application with the DFO, asking that the forest they had been using traditionally be handed over to them as a

community forest. Had they done so, then as traditional/customary users of the forest, as well as residents in close proximity to the area, it is likely that their application would have been successful. But unfamiliar with statutory provisions, and ignorant of their rights under the law, Bajho users were not able to convert their customary use into rights recognised by statutory law. Eventually, residents of Jhilke registered their own users group, the Pandu Mahabharat CFUG, and are awaiting a decision from the DFO regarding their application to take over management of the forest in question.

Understanding of Environmental Justice

Respondents in the study sites were asked to describe their views on environmental justice (Table 5).[27] For respondents in the study sites, equitable access to natural resources, participation in decision making and management, and equitable distribution of benefits are the primary determinants of environmental justice. Equitable access to and use of natural resources is almost twice as important for residents of Bajho as it is for respondents in Chulachuli. The lack of emphasis on the ability to exercise rights, in Bajho in particular, may be a reflection of the remoteness of the study sites and of the low literacy rate in Bajho.

Table 5: Understanding of environmental justice

Response	Chulachuli (%)	Bajho (%)
Equitable access to and use of natural resources	35.6	66.3
Participation in decision making and management	43.8	33.9
Distribution of benefits without discrimination	46.6	29.8
All citizens able to exercise rights to natural resources	15.1	1.4

Source: Field survey, 2006.

Table 6: Understanding of environmental injustice

Response	Chulachuli (%)	Bajho (%)
Inequity in access to and use of natural resources	6.2	3.0
Inequitable participation in decision making and management	36.9	49.3
Discrimination in distribution of benefits	-	-
Citizens unable to exercise rights to natural resources	43.1	46.1

Source: Field survey, 2006.

A large number of respondents—49.3 per cent from Bajho and 36.9 per cent from Chulachuli—think that inequitable participation in decision making and management results in injustice (Table 6). Very few—3 per cent and 6.2 per cent of respondents from Bajho and Chulachuli respectively—opine that environmental injustice results from inequity in access to and use of natural resources. Although the non-discriminatory distribution of benefits is considered a significant component of environmental justice, no respondents in either study site mention it as a factor leading to environmental injustice.

For respondents in both study sites, the inability of all citizens to exercise their rights to natural resources on which their livelihoods depend is considered to be a significant determinant of environmental injustice. Interestingly, relatively few respondents mention that the ability to exercise their rights is for them an important factor in environmental justice.

Table 7: Gateways used to resolve disputes concerning natural resources

Responses	Chulachuli (%)	Bajho (%)
Courts	-	1.3
District forest office	-	-
District administration office	1.2	-
District police office	2.4	-
Members of local government (VDC)	4.8	1.3
CFUG	10.8	17.1
Political leaders	28.9	43.4
Local elites	9.6	5.2
Community elders	34.9	67.1
Academics/intellectuals	59.0	63.1

Source: Field survey, 2006.

Table 8: Conflict resolution

Site	Gender	Status	Responses (%)	
			Committee meeting	Village, community*
Chulachuli	Male	Very poor	35.3	58.9
		Small	60.0	30.0
		Middle	50.0	35.7
		Big	37.5	50.0
	Female	Very poor	46.2	38.5
		Small	28.6	71.4
		Middle	75.0	16.7
		Big	50.0	50.0
Bajho	Male	Very poor	66.7	33.3
		Small	30.0	60.0
		Middle	49.2	44.4
		Big	81.8	18.2
	Female	Very poor	66.6	33.3
		Small	25.0	25.0
		Middle	62.5	37.5
		Big	50.0	50.0

* Meetings with village elders, local elites, academicians and local leaders. Decisions are arrived at by consensus.

Source: Field survey, 2006.

Rights to land and other resources tend to be exercised and defended through traditional dispute resolution mechanisms. In situations where customary rights are recognised by statutory law, as in the case of prescriptive title to land, those rights may in principle be exercised and defended through statutory authorities and courts. In the case of land rights, the statutory regime provides criteria that are in fact less stringent than if customary rights alone were the determining factor. Nepali courts have not to date recognised customary rights that have not been given statutory cover.

Instead of turning to the courts or relying on local administrative officials, respondents in the study area depend for conflict resolution mainly on a combination of village and community meetings, consultations with local elites and elders, and users group committees. Not a single respondent in the study sites mentions that he or she has resorted to defensive use of the legal system to prevent the violation of their rights to natural resources or property.

In the study area, disputes related to natural resources are resolved through a number of primarily extra-legal gateways, although use of statutory gateways is reported by a small percentage of respondents (Table

7). By far the largest number of respondents in Chulachuli (59 per cent) state that they have visited local academics or intellectuals. A large proportion of the residents of Bajho (63.1 per cent) also tend to turn to academics but here the greatest number (67.1 percent) consult community elders. Political leaders appear to also to play an important role, with 43.4 per cent of Bajho respondents and 28.9 per cent in Chulachuli selecting this option. Merely 17.1 per cent in Bajho and 10.8 per cent in Chulachuli seek conflict resolution through CFUGs. Fewer still turn to district officials or members of local government, while no respondents in Chulachuli and just 1.3 per cent in Bajho have used the courts to resolve disputes related to natural resources.

Respondents explain that village and community meetings are used to resolve social- and caste-related issues, as well as disputes related to natural resources, while committee meetings address matters related to natural resources and the related statutory rights (Table 8). In general, very poor farmers in Bajho have greater faith in committee meetings than do farmers in this same category in Chulachuli. In the case of big farmers, all express the same level of confidence in this forum, except for men in Bajho who are overwhelmingly in favour of committee meetings.

Village and community meetings are used by between 30 and 40 per cent of poor farmers in both study sites, with the exception of Chulachuli, where nearly 60 per cent of poor male farmers prefer this option. Village-level gatherings and community meetings are also used when parties to a dispute are dissatisfied by a decision taken by a users group committee. In such cases, village meeting serve de factor as a forum of appeal, and decisions taken at village meetings are final.

In general, middle farmers across the board also prefer taking their disputes to committee meetings. Large farmers appear to have mixed opinions with no clear trend emerging, but this may be because of the sample size for the survey.

Legal Gateways

Few respondents in the study area have made use of the courts or approached the district administrative office to resolve conflict related to natural resources (see Table 7). In the study area, this is only partly because a large percentage of the population is poorly educated and there are no lawyers. A number of other factors also deter respondents from making use of the legal gateways that are available. Table 8 shows that people have comparatively little confidence in statutory mechanisms or in the rules of users groups as a means to resolve conflict

Not only are respondents reluctant to visit the courts, they are equally hesitant about seeking redress from administrative offices such as the District Administration Office, District Forest Office, District Drinking Water Office and District Irrigation Office.

The Courts

In urban areas, many cases related to natural resources have been lodged against the state, and various government functionaries and bodies. Cases have also been filed in the public interest concerning issues such as the right to a clean and healthy environment, the protection of biological diversity and cultural heritage, the prevention and control of pollution in the Bagmati River in Kathmandu, the supply of potable water in the Kathmandu valley, the setting up of water quality standards by the government, and the enforcement of key provisions of the Environment Protection Act 1996. Most such cases filed in the Supreme Court are brought by public interest lawyers, with or without the support of donor agencies, non-governmental organisations and other civil society groups.

For the general public in both urban and rural areas, however, access to the courts is limited despite legal provisions aimed at improving access to the legal system. Almost all courts provide court-appointed attorneys in criminal cases but the Legal Aid Act 1998, which provides for free legal aid in all types of cases, applies only to those with an annual income of less than 40,000 rupees (approximately 597 US dollars). This law is in force in 53 districts across the country, including Ilam District, but residents of the study sites do not appear to be aware of its provisions.

In general, the courts are busy in municipalities and particularly in industrial and business centres. In such areas there are three or four district court judges, depending on the case load. In rural and hill districts, the case load is comparatively low. In most hill districts there is a single judge in the District Court, which is the court of first instance. The case load in Ilam District is relatively high, with a single judge required to dispose of about 500 cases annually.

Table 9: Reasons for not visiting the courts

Site	Gender	Status	Responses (%)				
			Distance	Cost	Time	Dispute not serious	Lack of knowledge
Chulachuli	Male	Very poor	38.5	38.5	-	38.5	23.1
		Small	70.0	70.0	-	30.0	10.0
		Middle	66.6	58.3	-	33.3	8.3
		Big	71.7	71.5	28.6	14.3	28.6
	Female	Very poor	49.9	49.9	8.3	41.6	16.6
		Small	66.6	66.6	-	66.6	-
		Middle	62.5	62.5	-	12.5	37.5
		Big	66.6	66.6	-	66.6	-
Bajho	Male	Very poor	72.8	72.8	9.1	36.4	36.4
		Small	77.7	77.7	-	44.4	33.3
		Middle	87.6	93.9	-	37.6	31.3
		Big	75.0	62.5	12.5	25.0	50.0
	Female	Very poor	80.0	80.0	-	40.0	60.0
		Small	66.6	66.6	-	66.6	33.3
		Middle	66.7	33.4	16.7	33.4	16.7
		Big	100.0	100.0	-	16.7	50.0

Source: Field survey, 2006.

According to survey results, not a single case related to natural resources has been filed by respondents in the study sites. Respondents were asked to list the reasons why they chose not to take their disputes to court (Table 9).[28] Overall, distance and cost emerge as the two most important factors that deter respondents from taking their disputes to court. The time required to follow through with court proceedings, including factors such as tedium, are the least important for the overwhelming majority of respondents, most of whom did not even select this option. Ignorance about the role of the court appears to be more of an issue among some groups, particularly in Bajho. Here, as can be expected, the highest number of responses concerning lack of awareness (60 per cent) come from very poor women. What is interesting, however, is that a significant proportion (50 per cent) of big farmers in Bajho also cite ignorance as a reason why they do not approach the court.

Perhaps the most surprising finding is that at least 12 per cent of respondents in certain groups, and as many as 66.6 per cent in some categories, think that their disputes were not serious enough to be taken to court. The highest number of such responses (66.6 per cent) come from three groups, all of them women. Equally interesting is the fact that the lowest overall response in this category (12.5 per cent) also come from women. Anomalies of this kind may be attributed to the overall sample size.

While the overwhelming majority of respondents have never been to court to resolve a dispute related to natural resources, a small number of male and female small and middle farmers state that they have been to the courts to settle other types of disputes. Some respondents state that they would definitely go to court if their rights to natural resources were violated.

For most, it seems the key issue is the absence of legal entitlement. Respondents are of the view that in order to approach a court they must first be able to prove that they are the legal owners of the land on which they live and farm. Yet none have approached the courts for the settlement of land entitlements.

Although respondents in the study sites are reluctant to move the courts with respect to their rights to land, and to the use of forest resources, there are legal precedents in some cases for such litigation to be successful (see Box 3).

Box 3: Using the courts

The courts have in the past taken customary rights into account in settling water rights. The Supreme Court has upheld rights based on customary water use with respect to water located in private property (Shrestha v. Kathmandu Town Panchayat (2043) 28 NKP 436). A dispute arose when the petitioner constructed a boundary wall, preventing others from accessing the well in their land. The action resulted in a shortage of drinking water for the people of that locality. On receiving a complaint, the Kathmandu Municipality pulled down the newly constructed wall and made the well accessible. A writ petition was filed in the Supreme Court against the Municipality's actions. The respondent, the

Municipality, contended that it had demolished the wall to make drinking water available to the people of that locality. The Supreme Court held the action of the Municipality to be unlawful but ruled that the local people should be given access to the well because they had been dependent on it for a long time.[29]

Similarly, in a dispute over land encroachment, a case was filed claiming that the defendant encroached upon land on which a pond was also located (Tamang v. Lama (2043) 28 NKP 465). The defendant denied the charge. The Supreme Court held that the encroachment of the land by the defendant was unlawful but also allowed both parties to use water from the pond because they had been doing so jointly for a long time.

In another case, the petitioner approached the Pyuthan District Court to establish their rights to use water, requesting also that the defendant pay compensation for damage caused to wooden pipes the petitioner had installed to supply water to their canal (Maskey v. Dhami (2039) 24 NKP 96). The District Court ordered the defendant to pay compensation. On appeal, the Mid Western Regional Court held that if the new canal has disturbed the old one, no claim should be entertained. On further appeal, the Supreme Court held that all the farmers have an equal right to use the disputed canal, and may use the water as was done traditionally and customarily (Maskey v. Dhami (2039) 24 NKP 96).

Various users groups have also approached the Supreme Court in the past under its extraordinary jurisdiction for the protection of access and use rights. Since the adoption of the Forest Act 1993, a number of cases have been brought before the Supreme Court. Such cases concern disputes between users groups and individuals (Karki v. District Forest Office (2051) 20 SCB 678; Karki v. Ministry of Forest and Soil Conservation (2051) 36 NKP 920; and Upadhyaya v. Land Measurement Committee (2057) 42 NKP 678), or have involved pre-existing use in a community forest (Bogati v. Prithvi Military Barrack, (2057) 23 SCB 9).[30] Disputes have also arisen between users groups and the District Forest Office (Ale v. Regional Director of Forest (2053) WP 2234 of 2053).[31] In most cases, the "approach of the court by and large remained traditional, tangential and ad-hoc. No environmental jurisprudence or precedent as such has been expounded in these cases" (Bhattarai and Khanal, 2005: 61).

Another important case is related to a government policy decision of 1 May 2000, which discouraged the handing over of national forest to communities. The government decision required users groups to give to the government 40 per cent of the revenue generated from the sale of timber. The government's decision was challenged in the Supreme Court, which ruled that the government's decision lacked legal basis, and held it to be illegal (Neupane v. Cabinet Secretariat (2059) WP 4242 of 2057).

District Offices, Local Bodies

The DFO is entitled to hear and decide disputes over natural resources within a forest area, as well as to hear cases related to the misuse or mismanagement of forest resources and the

encroachment of forest land. The only situation in which a community in the study sites has used this gateway has been in the case of the community forest near Jhilke village in Bajho VDC, which was handed over to Shivalaya CFUG from Chulachuli in the year 2000. Residents of Jhilke village lodged an application with the DFO asking that this forest be handed over to them. To date, no action has been taken on this application.

The DAO functions as a quasi-judicial body and is empowered to settle disputes related to natural resources. To date, only one respondent from Chulachuli has gone to the DAO to resolve a dispute. VDCs also have jurisdiction to settle disputes related to the use or security of natural resources. Only a few respondents from each study site report visiting a VDC to resolve disputes related to natural resources.

Users Groups

Users groups have limited powers to settle disputes regarding natural resources. The Forest Act empowers CFUGs to take action against any member of the group found to be violating the terms of the work plan (section 29). The executive committee of a CFUG may hear and resolve cases regarding access, use, management and benefit sharing, arising out of working a community forest (section 29). In any dispute arising between members of the same users group, the CFUG has the authority to hear and settle the dispute (section 29). To date, respondents in the study area have not approached the DFO to resolve a dispute within a users group. Such disputes have been resolved internally.

CFUGs are not authorised to hear or dispose of cases involving non-members. If the dispute is between two users groups, they are required to seek remedy from the DFO (section 27(1)). Users groups dissatisfied with the DFO's decision may file an appeal in the courts (section 65(3)). In cases where the DFO is unable to resolve the dispute, the matter may also be taken to court (section 65(3)). Similarly, disputes between users group members and non-members fall under the jurisdiction of the DFO.

If a DFO decides to dissolve a users group, an appeal may be lodged with the Regional Forest Director and this decision is final (section 27(2)). No further appeal may be lodged in any court of law. The only recourse thereafter is to invoke the writ jurisdiction of the Supreme Court (Bhattarai and Khanal, 2005: 56).

Extra-Legal Gateways

Instead of resorting to judicial remedies, or those available through other statutory mechanisms, respondents in the study sites prefer to settle disputes in non-formal forums (Table 10). In the study area, these include community elders, local intellectuals and politicians.

Table 10: Reasons for choosing extra-legal gateways*

Gender	Farmer status	Responses (%)								
		Site	Cost, time	Distance	Tradition	No need	Knowledge	Capacity	Reputation	Trust, impartiality
Male	Very poor	B	33.3	16.7	16.7	33.3	15.4	-	7.7	76.9
		C	43.8	12.5	25	18.8	5.9	29	17.6	41.2
	Small	B	30	30	20	20	-	20	-	80
		C	25	12.5	37.5	25	10	20	10	60
	Middle	B	56.3	12.5	12.5	18.8	-	28	-	83.7
		C	58.3	16.7	16.7	8.3	14.3	7.1	21.4	57.2
	Big	B	64. 6	11.1	-	33.3	-	18	-	72.7
		C	62.5	-	25	12.5	-	13	37.5	50
Female	Very poor	B	33.4	16.7	16.7	33.3	16.7	-	33.3	50
		C	38.5	7.7	15.4	38.5	38.5	7.7	30.8	30.8
	Small	B	-	25	25	50	-	-	25	50
		C	100	-	-	-	14	28	-	28.3
	Middle	B	37.5	25	-	37.5	-	13	-	100
		C	50	25	16.7	8.3	25	16.6	8.3	58.3
	Big	B	-	16.7	16.7	33.3	16.7	-	-	83.3
		C	75	25	-	50	25	25	-	-

* Includes community elders, local academics, local elites and political leaders.

Source: Field survey, 2006.

The primary reasons given by most categories of respondents in both study sites for choosing extra-legal gateways are that they are more cost-efficient and less time-consuming, and that they are more trustworthy and impartial. When people have faith in dispute resolution mechanisms available at the village level, it is unlikely that they will approach a court or administrative office to resolve their disputes. In contrast to reasons given for not approaching the courts, distance and cost are less important factors in why respondents opt to use extra-legal gateways. The perception that natural resource disputes are not important enough to take to the courts, as shown in Table 9, is also reflected as a reason why respondents tend to rely on extra-legal gateways.

Women in both study sites tend to think that extra-legal gateways have more knowledge for resolving disputes. This may well be linked to the fact that women, regardless of their socio-economic status, tend to be less confident about their own intellectual capacities. Among men, even the poorest have chosen this response the least, while among women, even larger farmers bring up the knowledge issue. Only the responses of “small farmer” females match those of the majority of men. That may be a reflection of the fact that they are not so well off that others do their work for them, which in turn means that they probably have a better practical understanding of their own problem-solving skills and capacities in general. Because they are not among the very poor, these capacities have paid off to some extent, which in turn reinforces their sense of self-worth and confidence. Interestingly, female respondents from Chulachuli have less faith in extra-legal gateways than do female respondents in Bajho. That may be a reflection of the level of literacy in Bajho.

Alternative Dispute Resolution

Though alternative dispute resolution is recognised in Nepal, only court-referred mediation is required by statute. The Supreme Court Regulations 1992, Appellate Court Regulations 1991 and District Court Regulations 1995 allow these courts to direct disputing parties to seek mediation.

The District Court Regulations empower the Bench to order mediation where appropriate, with a court registrar, local government official, social worker, lawyer, teacher or any person or institution involved in mediation serving as mediator (section 32(a)(1)). The District Court registrar is required to develop a roster of mediators, taking into account the qualifications, experience, character, impartiality, honesty and loyalty of the persons to be included as mediators (section 32(a)(2)).

Statutory provisions concerning mediation are relatively recent but the study site communities have been using traditional mediation-type mechanisms to settle disputes for a long time and continue to do so, as illustrated by Table 8 (see Box 4).

Box 4: *Thari* as a judge in local disputes

Seventy-three year old Duryodhan Rai hails from Marchebung village, Ward No. 2, Bajho. His father served as a *thari* and was responsible for collecting and submitting land tax to the local administration. The youngest of seven sons, in his youth Rai was notorious for his cruelty in dealing with other villagers, threatening those who were unable to pay taxes to his father and not averse to using physical punishment.

In addition to his responsibilities as a *thari*, Rai's father was also appointed by the local administration to serve as a judge (*chitaidar*), in which capacity he would hear and settle local disputes. Rai recalls that he used to give advice to his father in these matters.

Today, Rai has taken on this his father's role as a judge, albeit on an informal level, and provides these services free of charge. Local people regard him as a *chitaidar* and come to him to settle their disputes. He is a well-respected member of the community, widely recognised for his good ideas and public service. Although he himself was never appointed in any official capacity, the people refer to him as Thari. During important festivals such as Dashain, they bring fruit and other food to their revered judge.

In the community where Rai serves, there is no question concerning the validity of his decisions, although there is no legal provision that recognises this method of customary conflict resolution. To date, not a single case has ever been lodged in any court of law, quasi-judicial body or administrative office by any individual belonging to his village. Rai hears and resolves all cases.

Conclusions and Recommendations

Environmental justice is an unknown concept for the rural communities where field studies were conducted. Many respondents believe that development issues such as education, health and employment also fall into the matrix of environmental justice. They think that environmental justice in their specific context requires that matters such as education, health and employment are included in addition to the other elements highlighted in the study. While acknowledging the undeniable importance of the broader development context of equity and justice, this summary of the findings of this study focuses on the elements of environmental justice in the context of natural resources and rural livelihoods.

The opportunity to exercise and defend rights to natural resources is the weakest aspect of environmental justice in the study sites, while equitable participation in decision-making and management is the next-weakest.

Equitable and Fair Access to and Use of Natural Resources

Although substantial progress has been made in this area in the last two decades, access to natural resources cannot yet be described as equitable in the study sites. The Interim Constitution contains provisions on access to biological resources, but which unfortunately are in the form of Directive Principles and Policies of the state and not enforceable in any court. Statutory law regulating natural resources focuses on restricting access rather than ensuring that it is fair. Villagers in the study sites continue to rely on customary rights, for the most part unrecognised under statutory law, to govern access to natural resources.

Land is the fundamental resource for the agrarian communities in the study sites. Nepali law does not recognise community rights to land. Private land rights were reallocated by statute more than 40 years ago, with a provision for distributing land to Dalits and members of other minority groups. In practice, however, statutory rights to land have been recognised for only a minority of the residents of the study sites. Economic and political power remain the basis for entitlement. By allowing residents to register to vote, run for local government seats and receive community forests, the state implicitly recognises that residents have, at a minimum, rights of possession of the land they occupy and cultivate in both villages. But multiple attempts to settle those rights have been inconclusive. In the absence of statutory rights, the majority rely on customary law to define and defend land rights, which leaves them vulnerable to statutory authority.

Nepali law recognises community use rights in national forests that have been formally transferred to a community to manage, as well as private rights in forests on private land. As there is no statutory community right to own land, there is no corresponding community right to own forest. State ownership of all water in Nepal was codified as recently as 1992. Individuals and communities may acquire use rights to water. Communities acquire use rights by forming WUAs while individuals do so by obtaining a license for all use of water other than domestic use.

Almost half of the respondents in both villages believe that access to natural resources under statutory law is inequitable. CFUGs and WUAs established in the study sites have to some extent helped to facilitate access to natural resources, but not for all members of the communities, as membership in users groups is closed to the poorest residents of a community who cannot afford to pay the membership fees.

Statutory law offers the potential of 'hard', private tenure rights to land but to date that potential has not been realised in the study sites. There is currently no option of community land tenure. The law offers communities 'soft' use rights to forest resources and water. Community application of those rights through users groups remains discriminatory in the study sites, excluding economically disadvantaged members of the community. The persistence in the study sites of customary norms governing natural resources is due at least in part to the need to compensate for the inequities created by the statutory regime.

Participation in Decision Making and Management

Equitable participation in decision making and management is among the weakest aspects of environmental justice in the study areas, with the perception of inequity being three times stronger in Bajho than it is in Chulachuli.

While statutory arrangements such as users groups established under the Forest Act and the Water Resources Act promote benefit sharing, they are perceived as less successful in giving villagers equitable opportunity to participate in the management of natural resources and in making decisions about resource use. Individuals who are members of users groups in the study sites are able to participate in decision making but membership is not open to everyone a community.

Not surprisingly, local elites tend to control resource management and decision-making processes, through users groups, often taking what are perceived as inequitably large shares of the benefits of resource use, while Dalits, women and Janajatis are under-represented in these processes.

Distribution of Benefits Without Discrimination on the Basis of Caste, Gender, Religion or Economic Status

The Interim Constitution supports the principle of sharing benefits arising from the use natural resources, a principle which must be implemented in law in order to be effective. Laws governing forest and water resources provide for the establishment of users groups to, in part, promote non-discriminatory sharing of benefits arising from the use of natural resources. While CFUGs and WUAs established in the study sites promote benefit sharing among their members, membership is open only to those who can afford to pay the membership fees. In practice this means that the poorest members of the communities, who tend to be lower-caste minority groups and women, are excluded from sharing benefits as they are from participation in decision making.

All Citizens are Able to Exercise Their Rights to the Natural Resources on Which Their Livelihoods Depend

The opportunity to exercise and defend rights to natural resources is the weakest aspect of environmental justice in the study sites. The Supreme Court has established that legal remedies for infringement of property rights to land are contingent upon proof of title to the land. In the study sites where residents have been holding and managing land for more than 40 years without yet having received title to it, this effectively means that statutory legal remedies with respect to land are out of the reach of the majority of the people.

The use of statutory gateways to environmental justice is minimal. Overall, the overwhelming majority of resource users in the study sites depend on extra-legal gateways to exercise and defend their rights to natural resources. Although district courts and quasi-judicial district administrative authorities are available, residents of the study sites have never used the legal system defensively. The majority of people who sought remedies did so through members of local government rather than district-level authorities or the courts.

Members of CFUGs and WUAs may exercise the use rights allocated to them through their groups. In turn, the executive committees of users groups can take action against any group member who violates the group's by-laws or operational plan. The executive committee acts as a quasi-judicial body for members of the group only, hearing and resolving issues concerning access, use, management and benefit sharing. Members of a users group who are not satisfied with a decision made by the executive committee have the right to challenge the decision through administrative or judicial channels. In practice, residents of the study sites use extra-legal village meetings to 'appeal' users group decisions with which they are dissatisfied.

Users of forest and water resources who are not members of users groups have the option of recourse to government administrative authorities or the courts, but prefer customary mechanisms.

Alternative dispute resolution is legally recognised in Nepal but the extra-legal gateway of customary dispute resolution is not, even though statutory alternative dispute resolution is in fact based on customary practices of settling disputes. Currently in the study sites, as long as the disputants honour extra-legal decisions made by local intellectuals, community elders and political leaders, lack of statutory recognition of the decisions does not become an issue.

As this study focused on two wards of one district, its findings cannot be generalised for all of Nepal. The findings do indicate, however, that there is scope for expanding the concept of environmental justice in Nepal to encompass rural populations and rights to natural resources. More time and research is required to expand this work beyond the scope of this study, to other regions of Nepal and to other ecological zones.

Recommendations

The basic elements of environmental justice, such as equitable and fair access to and use of natural resources, participation in decision making about their management, sharing of the benefits arising from them, and options for exercising resource rights, should be integrated into the new Constitution. The Forest Act and Water Resources Act should also be amended in order to include these elements of environmental justice.

Representation of Dalits, women, Janajatis and other disadvantaged groups in users groups and users group executive committees needs to be guaranteed and increased through positive discrimination and amendment of users group by-laws. In particular, opportunities to pursue traditional occupations need to be assured through users groups as well as through other policy, legislative and programme initiatives. Users group executive committee members need training to give them the knowledge and skills they need to better resolve disputes over natural resources that arise within their groups.

The Legal Aid Act needs to be implemented in the study area. The first assistance should be provided to settle outstanding land claims for the residents of Bajho and Chulachuli. In conjunction with this, information on statutory resource rights and associated responsibilities needs to be made accessible to local people on a continuous basis. Only if people are fully aware of their rights will they be able to exercise them to ensure their livelihood security.

Steps need to be taken to begin the process of gaining judicial recognition of traditional mechanisms for dispute resolution.

A study similar to this one should be carried out in five other districts, one in each ecological zone of the country, to build understanding of environmental justice in the rural and natural resource context. Proposals for policy and legal reform should be developed and advocated on the basis of the consolidated findings of this study and the future ones.

Notes

[1] Marginalised groups in Nepal include women and the poor, as well as Dalits and Janajatis. The history of caste-based discrimination is 3,000–3,500 years old. 'Dalit' is the term used to refer to the 'untouchables', members of the lowest Hindu caste. Both untouchability and descent-based division of labour were imported to Nepal from North India, and later imposed by the so-called high-caste Hindu rulers of Nepal. A four-level caste-based hierarchy was codified in Nepal in 1854. Although officially abolished since 1964, caste-based discrimination persists today, and is stronger in the western and far-western regions of the country than in the eastern region. Caste-based discrimination against Dalits is found not only among high-caste Hindus and indigenous nationalities but also within Dalit groups themselves.

[2] The Siwalik Range also represents one of the world's most important sources of later tertiary fossil mammals and provides a basis for much of our current knowledge about the evolution of Asian fauna (Itihara et al., 1972: 89).

[3] The Mahabharat Range stands higher than the Siwalik Range, with altitudes between 1,000 and 3,000 metres.

[4] A village development committee (VDC) is the lowest tier of local government.

[5] In recent years, arranged marriages between Brahmins, Kshetris, Rais and Limbus have been reported, although this practice is not widespread.

[6] Population figures for the ward level are not available with the Bureau of Statistics.

[7] 'Well-being ranking' is generally carried out in consultation with households as well as local elites, teachers, members of non-governmental organisations, community-based organisations and users group committee members. This system of classification is employed by users groups to identify poor, middle-class and rich segments within a community. Development organisations and government agencies also use this system.

[8] All respondents were above the age of 18, based on voter lists of the Election Commission of Nepal, updated 15 April 2006.

[9] Prior to the promulgation of the Interim Constitution of Nepal 2007, the right to a clean and healthy environment was upheld in a judgement of the Supreme Court (Leaders v. Godawari (2052) 4 SCB 1).

[10] Nepal is signatory to a number of multilateral environmental agreements (MEAs), notably the Convention on Biological Diversity (CBD) (1992), United Nations Framework Convention on Climate Change (1992) and Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar) (1971), whose provisions include obligations for the sustainable use of natural resources, benefit sharing and public participation.

[11] Certain laws in force, although not enacted specifically to implement Nepal's obligations under various MEAs, do nevertheless conform to such requirements. For example, the Forest Act and the National Parks and Wildlife Conservation Act contain some provisions which conform to the requirements of the CBD and the Ramsar Convention.

[12] The *raikar* system of tenure has been described as a system of 'state landlordism' under which the rights of an individual to use the land are recognised by the state as long as taxes are paid (Regmi, 1965).

[13] *Birta* was land granted to a noble as a reward for services rendered to the state. *Birta* holdings were free of taxes and could be inherited (Chapagain et. al, 1999: 5–6).

[14] Under *guthi* tenure, land was held in trust by communities for the upkeep of religious or welfare institutions (IUCN RELPA, 2006: 95–128).

[15] *Kipat* is an ancient form of tenure under which a community was granted land by the king in recognition of traditional communal tenure (Chapagain et. al, 1999: 5). Rights under *kipat* tenure

emerged not because of the royal grant but because the owner, as a member of a particular ethnic community, was in customary occupation of lands situated in a particular geographical area (Regmi, 1999: 87). The *kipat* system was abolished in 1968, following the Second Amendment to the Land Act 1964 (Takahatake, 2001: 18).

[16] The *subba* was a headman or chieftain (Takahatake, 2001: 8), while the *thari* was a sub-headman (Jones, 1976: 63–75).

[17] The Land Act 1964 (section 64) repeals the Land and Cultivators' Records Compilation Act 1956, Land Act 1957, Land Rules 1960 and Agricultural (New Arrangements) Act 1963.

[18] *Zamindars* (literally, 'land owners') are large landlords. They serve as local functionaries for the government, and are empowered to collect land revenue and maintain law and order in the areas under their control.

[19] Prior to this amendment, tenancy rights could be inherited by family members upon the death of a tenant.

[20] The Forest Act 1993 (section 74) repeals the Forest Act 1961 and the Forest Conservation (Special Arrangements) Act 1968.

[21] The Forest Regulations 1995 repeal the following instruments: Forest Products Sale and Distribution Regulations 1970, Forest Protection (Special Arrangements) Regulations 1970, Panchayat Protected Forest Regulations 1978, Leasehold Forest Regulations 1978, Panchayati Forest Regulations 1978 and Private Forest Regulations 1984.

[22] The Water Resources Act 1992 (section 25) repeals the Canal, Electricity and Related Water Resources Act 1967.

[23] The Local Self Governance Act 1999 (section 268(1)) repeals the Decentralisation Act 1982, District Development Committee Act 1991, Municipality Act 1991 and Village Development Committee Act 1991.

[24] The responses shown in Table 4 are grouped thematically, according to the key elements of environmental justice. The sum total for responses shown does not add up to 100 per cent because respondents were allowed to provide more than one response, while some gave responses that were not directly related to the issues discussed in this study.

[25] The Forest Act 1961 was repealed by the Forest Act 1993 (section 74(1)(a)).

[26] Historically, Limbu *kipat* landholdings were extensive. To meet the need both for labour and for a following, the Limbus awarded land grants, called *sorrani*, to non-Limbu migrants and settlers. At the time, settlers received chits from local administrative officials confirming these land grants. The term *sorrani* is a contraction of '*sora anna*', meaning '16 annas' (one Indian rupee). Most Limbu informants insist that their forefathers gave their lands to immigrant settlers in exchange for this meagre sum (Caplan, 2000: 54).

[27] For survey results shown in Tables 5 and 6, respondents were allowed to provide more than one response.

[28] A large proportion of respondents listed more than one reason.

[29] It is interesting to note that, following the promulgation of the Water Resources Act, not a single such case has been reported or registered in Supreme Court to date.

[30] This case concerns a military firing range.

[31] This decision involves a community forest that was 'resumed' by a district forest officer for alleged violations of the work plan. The Supreme Court rejected the petition.

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Appellate Court Regulations 1991	Punarabedan Adalat Niyamawali, 2048
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Civil Code 1963	Muluki Ain, 2020
Civil Rights Act 1955	Nagarik Adhikar Ain, 2012
District Court Regulations 1995	Jilla Adalat Niyamawali, 2052
Drinking Water Regulations 1998	Khane Pani Niyamawali, 2055
Electricity Act 1992	Bidyut Ain, 2049
Environment Protection Act 1996	Batawaran Sanrakshan Ain, 2053
Environment Protection Regulations 1997	Batawaran Sanrakshan Niyamawali, 2054
Forest Act 1993	Ban Ain, 2049
Forest Regulations 1995	Ban Niyamawali, 2053
Interim Constitution of Nepal 2007	Nepalko Antarim Sambhidhan, 2063
Irrigation Regulations 2000	Sinchai Niyamawali, 2056
Land (Survey and Measurement) Act 1963	Jgga (Naap Jaanch) Ain, 2019
Land Acquisition Act 1977	Jgga Prapti Ain, 2034
Land Act 1964	Bhumi Sambandhi Ain, 2021
Land Administration Act 1967	Bhumi Prashasan Ain, 2024
Legal Aid Act 1998	Kanooni Sahayata Sambhandhi Niyamawali, 2055
Local Administration Act 1971	Sthaniya Prashasan Ain, 2028

* Repealed laws discussed in this study are not listed here.

** The Bikram Sambat (BS) calendar, devised in 57 BCE by the Indian king Bikramaditya (or Vikramaditya), is 57 years ahead of the Gregorian calendar. It was adopted as Nepal's official calendar in 1903 AD.

Local Self Governance Act 1999	Sthaniya Swayatta Shasan Ain, 2055
Mines and Minerals Act 1985	Khani Tatha Khanij Padartha Ain, 2042
National Foundation for Development of Indigenous Nationalities Act 2002	Adivasi/Jajanjati Utthan Rastriya Pratisathan Ain, 2058
National Parks and Wildlife Conservation Act 1973	Rastriya Nikunj Tatha Vanya Jantu Sanrakshan Ain, 2029
Nepal Treaties Act 1990	Nepal Sanhdhi Ain, 2047
Private Forest Nationalisation Act 1957	Niji Ban Rastriyakaran Ain, 2047
Public Roads Act 1974	Sarbajanik Sadak Ain, 2031
Supreme Court Regulations 1992	Sarbochha Adalat Niyamawali, 2049
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Ram Bahadur Tamang and others v. Krishna Raj Lama. 1986 (2043 BS). 28 NKP 465.

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IUCN
The World Conservation Union

Founded in 1948, the World Conservation Union (IUCN) brings together States, government agencies and a diverse range of non-governmental organisations in a unique world partnership: over 1,000 members in all, spread across some 140 countries.

As a Union, IUCN seeks to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. A central Secretariat coordinates the IUCN Programme and serves the Union membership, representing their views on the world stage and providing them with the strategies, services, scientific knowledge and technical support they need to achieve their goals. Through its six Commissions, IUCN draws together over 10,000 expert volunteers in project teams and action groups, focusing in particular on species and biodiversity conservation and the management of habitats and natural resources. The Union has helped many countries to prepare National Conservation Strategies, and demonstrates the application of its knowledge through the field projects it supervises. Operations are increasingly decentralised and are carried forward by an expanding network of regional and country offices, located principally in developing countries.

The IUCN Asia Region extends from Pakistan in the West to Japan in the East, Indonesia in the South and Mongolia in the North. There are 23 countries in the region. IUCN maintains offices in Bangladesh, Cambodia, China, India, Lao PDR, Nepal, Pakistan, Sri Lanka, Thailand and Viet Nam. The regional office is located in Bangkok, Thailand. There are more than 150 IUCN members in Asia, including most major nature conservation NGOs in the region.

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