

CONTESTED GROUNDS: THE BATTLE OVER FOREST RESOURCES IN NEPAL IN A TIME OF MAOIST UPRISING

Introduction

Over 90% of the world's poorest people depend on forests for their livelihood. Medicinal plants are an important forest resource that can provide a means for income generation. The medicinal plant market is a multi-billion dollar industry, especially given that 80% of the people in the world still depend on medicinal plant for a variety of remedies (World Health Organization 2002). Sales in herbal-based medicines ranges from US\$7.5 billion to US\$108 billion per year, the later as sales in processed medicines (Scherr et. al 2004). There are 2,000 plants that have been reported to have medicinal properties in Nepal. Nationally, it is a market between US\$22-70 million, making it the third largest export commodity (Olsen (b) 1998). Although the medicinal plant industry may seem robust, the current political environment has significantly affected the trade.

Over the last 8 years, Nepal has been facing a Maoist insurgency. This political movement has affected almost all aspects of life and it has specifically affected the use of forest resources because forests provide major hideouts for these rebels. This has major consequences on a large segment of Nepal's poor that heavily rely upon forests resources, specifically medicinal plants, for their livelihoods.

The issue of how access to natural resources is being affected by civil war in Nepal is a new area of research. This paper will make a rudimentary attempt to demonstrate how such a political movement has the potential to change the lives of migratory collectors of medicinal plants in the early stages of the commodity chain relating to harvesting (see Annex 1 for Commodity Chain of Medicinal Plants in Nepal). This paper will reveal how access to forests has evolved through different tenure regimes over time. It will show that overlapping forest tenure systems of common, state, and open property rights that the state and collectors maintained, never completely limited access to forests for the collectors, until the Maoist insurgency, which started in 1996. The current Maoist movement, through extortion and fear,

may seriously threaten access to forests, and therefore, the ability of collectors, who are most dependent on the medicinal plant trade, to harvest them for their income. This is likely to take place in Eastern Nepal where preliminary research on the affect of Maoists on natural resources was conducted. In order to fully understand this situation, the relationship between major players such as the state, Maoists, and collectors of medicinal plants, will be analysed through a political ecology and “bundle of rights” approach. The paper will also provide a synopsis of the ways in which the medicinal plant trade is being promoted in Nepal and a discussion about the extent to which migrant collectors within a national park context may continue to benefit from this trade by perhaps overriding the challenges the Maoist situation has created in Nepal.

Area of Study and Methodology

As a component of my doctoral fieldwork, I spent three months in Eastern Nepal (November 2003-January 2004) on a quest to understand the impact of commercialisation of medicinal plants on property rights within the Nepalese context. After covering various villages in the eastern districts of Dhankuta, Terhathum, and Sankhuwasabha (see Map 1), I realized that the Maoist’s impact on daily life of villagers in rural Nepal could not be ignored. This paper is based on the experiences of a migrant medicinal plant collectors, who travel between Sankhuwasabha and Dhankuta and their perception of the Maoist uprising. I have held series of in-depth interviews with 13 respondents whom I have met in village markets, using semi-structured questionnaires. Through their life history narratives, I have been able to assess how their lives have evolved with regards to accessing their forests over significant periods of forest and environmental history. Forest mapping tools also to further helped to verify that the most expensive medicinal plants the respondents rely upon are found in government-managed forests, such as national parks, which happen to be the contested grounds for the Maoists. This has lead me to also speak to government officials who manage national parks. The research methods to extrapolate information will be interpreted through a political ecology lens, using property rights and the “bundle of rights” approach to understand changes in tenure over forests and demonstrate how access to forests have changed over time.

Political ecology is a paradigm that helps to explain the nexus between human relationships and nature. At one level, the human-environment interaction can focus on the relationship among natural resources, the state, interstate relations, and global capitalism. At another level,

political ecology can help to understand location-specific aspects of ecological change. Finally, this perspective encourages the study of the effects of environment change on socio-economic and political relationships (Byrant and Bailey 1997; Stott and Sullivan 2000; Peet and Watts 1996). The political ecology perspective also uses an “actor-oriented” approach, which is based on the assumption that the costs and benefits of using natural resources are distributed unevenly. The differences among “actors” “not only signify wealth creation for some and impoverishment for others, it also thereby alters the ability of actors to control or resist other actors” (Bryant 1997: 29).



Map 1: Map of Nepal (arrows depicting area of fieldwork)

This paper will use political ecology to understand the relationship among four “actors”: the state, Maoists, collectors of medicinal plants, and a medicinal plant itself. However, instead of using the term “actors”, “agent” will be used to signify the potential of one institutional body to influence another. Within the national park context, the relationships between these agents will be explained through establishing their political and economic motives in relation to a specific medicinal plant called *Aconitum spicatum*, commonly known as Nepal Aconite in English and *bikh* in Nepali¹. The relationship between agents will determine how property rights over forest resources have overlapped and evolved. There are three types of property rights or tenure over forest that will be discussed in this paper: state, common, and open. It is important to note that although this paper focuses on the medicinal plant trade, and therefore, tenure over medicinal plants, the paper will primarily analyse the changes in forest tenure,

¹ It is important to note that natural resources need to be viewed as dynamic agents as well. Its botanical aspect, which will be discussed shortly, can also influence the political and economic motives of human agents as in the case of *bikh*.

since overall forest rights and regulations influence tenure over medicinal plants. Tenure over medicinal plants, which is derived from its plant ecology, is embedded within forest tenure, creating a tenure niche within the broader forest tenure framework. Therefore, tenure over forests must be discussed first before tenure over medicinal plants

In order to discuss tenure changes over forests, and hence forest resource such as *bikh*, over time, property regimes in conjunction with the “bundle of rights” approach will be used. There are five types of “bundle of rights” that influence property rights regimes. They are: 1) access: the right to enter a defined physical area, 2) withdrawal: the right to obtain resource units or products of a resource system, 3) management: the right to regulate internal use of the resource and “improve” the resource, 4) exclusion: the right to determine who will have the right of access and how that can be transferred, and 5) alienation: the right to sell or lease, withdraw, manage, and exclude (Ostrom 2001 (b); Agrawal and Ostrom 2001). These rights are also divided by the position of an agent such as owners, proprietors, authorized claimants, authorized users, and authorized entrants. For instance, an authorized entrant only has access rights whereas an authorized user has both access and withdrawal rights. Authorized claimants have the rights of access, withdrawal, and management. Proprietors are in a similar position but additionally have the right of exclusion. Owners have all these rights. The position of agents, which will now be discussed, defined by their bundle of rights will be analysed under forest tenures of open, common, and state.

State Forestry in Nepal

Thirty-seven percent of Nepal is covered with forests. Although the type and distribution of forests varies widely in Nepal because of the extreme differences in altitude and climate, forests play an important role in both the subsistence and market economy. At the subsistence level, forest products such as food, fuelwood, and fodder are crucial for supplementary diets, cooking, heating, and livestock care. At the commercial level, various non-timber forest products (NTFPs), such as paper, bamboo and cane products, ropes, brooms, and medicinal plants are a significant source of income. Although there are numerous combinations of informal or de facto rights over these forest resources, they are subjected to forest management schemes divided by community, leasehold, religious, protected, and government-managed forests in Nepal. This paper will only focus on government-managed forests or national parks.

Forest management has always been in flux and influenced by specific time in the political history and economy of Nepal. Prior to the mid 1800s, rulers of Nepal paid very little attention to forests that were situated in the Middle Mountain (610-4877m) ecological zone. Villagers would primarily manage forests through informal rules. It was not till the late 1950's when the monarchy was in full power over a unified Nepal that forests were governed by the state. In 1957, the Private Forest Nationalization Act, which nationalized private forests, started the shift towards government management of forests. The Forest Act of 1961 provided legislation for the state administration of forests. This Act not only categorized types of forests mentioned above, but also defined duties of the District Forest Office (DFO), listed forest offences, and prescribed penalties (Bhatia ed. 1999; Thapa 1999 (b)). It gave DFOs the authorization to grant licenses to utilize, remove, sell, distribute, export, or transport forest products (Ministry of Forest and Soil Conservation 1993). The Forest Protection Act of 1967 further enhanced the role of DFOs in managing government forests such as national parks. Forest products, such as medicinal plants, within government-managed forests are under the full ownership of the government, and thereby, it will receive royalty from any sales as mentioned in the Forest Products Rules of 1970 (Olsen (a) 1997). Under this Rule, plants can only be collected through permission from the DFOs. In other words, within state property, the state is the owner, and thereby, formally possesses the entire "bundle of rights". This paper will discuss the conditions within the Makalu Barun National Park (MBNP), which was established in 1992 and which covers 2,330km². There are 32,000 people who use the 830km² of the buffer zone, established in 1999 for their subsistence and commercial needs (Department of National Parks and Wildlife). Both collectors of medicinal plants and Maoists use MBNP.

The Maoist Issue

There are several reasons how and why the Maoist movement has developed in Nepal. The primary cause is inequality in economic, political, and social aspects of Nepali life. Economically, rural poverty has fuelled the Maoist insurgency (Lal ?; Thapa 2003). Forty-two percent of Nepal's population lives below the poverty line and are dependent on agriculture, a sector where growth is erratic. Economic indicators are also tied to life expectancy and education. These indicators demonstrate that the most Maoist-affected areas of Nepal fall below national levels with regards to such human development indicators. For instance, the

national life expectancy is 59 years and adult literacy is 51%. However, in the remote mountainous parts in the far west of Nepal (an area where Maoists have their stronghold), life expectancy is 42 years and adult literacy is 37% (Thapa 2003).

Economic based discrimination is strongly tied to political and social discrimination, which can be explained through the “center-periphery” paradigm. The economically well-off elites who live in urban “centers” are in charge of decision-making, formulating policies and laws, and budgetary allocations. The economically well-off elites also dictate social aspects of Nepali life, such as ethnicity and religion. They have proclaimed Nepal as a “Hindu state”, and have failed to recognize cultural diversity, and ethnic and caste minorities (Thapa 2003; Gyawali 1997). The Maoists are on the “periphery” because of the lack of economic power, with little to no ability to influence political and social life at the macro level.

The Maoists’ economic, political, and social grievances have been manifested in the form of violence against representatives of the government, such as the army, police, and infrastructure such as telecommunication centers, municipality offices, and last but not least, DFOs. Forests have always been the most popular hideout areas for Maoists, especially since they primarily operate out of rural and forested parts of Nepal. State forests are not an exception and are a contested ground for both Maoists and collectors of medicinal plants.

The Collectors

The collectors, or those who harvest medicinal plants from forest areas, vary widely in their socio-economic composition. However, dependency on medicinal plants for subsistence and economic use is correlated with altitude. Because Nepal is a poor country with two-thirds of the land covered in hills and mountains, those in higher altitudes have small landholdings, live on poor quality of agricultural land in remote areas, and lack infrastructure such as roads that allows access to employment opportunities. These limitations create greater dependency on medicinal plants as a significant source of livelihood for those living in high altitudes since forests resources are the closest available items for trade (Olsen and Helles 1997). The Bhote migrants of Eastern Nepal, who are of Tibetan origin, are no exception to these conditions. Forests cover 25.6% of land in Eastern Nepal, on which the Bhotes are dependent upon.

The challenges of mountain life can induce migration. Bhotes have created a culture based on trade and migration over centuries (Haimendorf 1975; Kunwar 1989). Among all those interviewed, the trade in medicinal plants provides 83% of their annual income. They collect the plants within the middle mountain altitude range in national parks that are government-managed and then sell them piece-wise on the roadside or in village markets. In order to access markets, Bhotes have an annual migration pattern which they follow. In the harsh, cold winter months, they migrate to lower altitudes to trade and then go back up in the summer to collect medicinal plants, herd, and cultivate a limited variety of agricultural crops. Among the respondents, all migrate back and forth from Sankhuwasabha (summer residence) and Dhankuta (winter residence), or to surrounding areas further south, especially since the northern border between Nepal and Tibet closed in the late 1950s. Collectors harvest medicinal plants from the MBNP. The state allows collectors to have access to MBNP and withdraw resources within the buffer zone, as long as they have permission from the state, making the collectors authorized claimants. However, the collectors are only authorized entrants if they venture beyond the buffer zone area, which formally prevents them from collecting medicinal plants.

Medicinal Plant: *Aconitum spicatum*

One of the many medicinal plants found within the MBNP is *Aconitum spicatum*. It shall be referred to by its Nepali common name, *bikh*. *Bikh* is the most popular plant collected among the Bhotes of Eastern Nepal and plays a vital role in subsistence purposes and trade. The detoxified paste of the root, which is harvested during the summer, is used to treat a variety of ailments from neuralgia, leprosy, cholera, to rheumatism (Manandar 2002). *Bikh* is found in the temperate to subalpine zone, in shady places. Commercially, it is considered to be a high-value medicinal plant, which has a strong market demand and elicits high prices (Food and Agriculture Organization 1998). When asked how much the selling price has changed among the respondents over the last 5 years per piece, the price has changed from NRs. 1-5 to NRs. 10-20 per piece. The increase in price is not due to scarcity of the resource in the forest, but scarcity in the market setting due to the possible curtailment of access to the forest. Although the price amounts to almost US\$30¢/piece, Bhotes sell many other medicinal plants, which can accumulate to maximum earning of NRs. 85,800/year or approximately US\$1175/year.

In addition to the subsistence and commercial value of *bikh*, its botanical components must also be considered in order to understand how plant ecology can act as an agent to influence human agents within the medicinal plant tenure niche. *Bikh* becomes mature in the summer and can only be found between 2100-3800m. The fact that *bikh*'s plant ecology will allow it to only grow in high altitude forest locations outside of buffer zone, and it is not easily cultivated in lower altitudes where agricultural land exists, can influence how human agents treat each other as will now be discussed.

Discussion: Evolution of Forest Tenure

The common contested battle ground that all of the agents share is the state forest of MBNP. Through a political ecology lens, which invites the analysis of relationships between "agents", it will be demonstrated that agents have changed forest tenure. Although state as a type of property right regime is the common ground, elements of common, and more so of open access regimes also play a role. Property rights regimes have always overlapped. Full state ownership of MBNP under the current political climate of Nepal is illusory. MBNP has evolved from common property status prior to 1957, to open/state till 1996, and now to an open/rebel property environment since the Maoist uprising in 1996. The relationship between agents will now be discussed with regards to the evolution of forest tenure, and hence, tenure over medicinal plants, which will likely lead to the decline of forest access for collectors in the light of the current political situation in Nepal.

Prior to 1957, rulers of Nepal did not place any formal rules on the management of forests or forest resources, especially in the Middle Mountain areas of Nepal. Settled populations managed forests and its resources informally or through "indigenous management" on common property. Common property resource (CPR), such as forests, can be defined as a something that possesses excludability, where it is difficult to control access, and subtractability, where the level of exploitation by one user adversely affects others (Ostrom 1990; Ostrom 2001 (b); Feeny et al. 1990). In Eastern Nepal, management of CPRs, such as forest resources consisted of de facto rules regarding monitoring and penalties, where community members could take responsibility of upholding rules in turn (Haimendorf 1975). There were also de facto rules that guided planting, protecting, harvesting, and distributing forest resources (Thapa 1999). The only de facto rule the Bhotas have been following prior to 1957 till today is based on their traditional knowledge of *bikh*. Most Bhotas do not harvest

when the plant is not mature, which implies a de facto rule within the medicinal plant tenure niche driven by its plant ecology. However, these rules have been diminished or abolished over time as more and more settled communities have migrated to southern areas of the Middle Hills and Terai where living conditions are easier, leaving forest areas to be under an open property regime. Even migratory Bhote communities cannot invest in CPR rules because of their migratory nature. Although their de facto rule about *bikh* is violated, their impermanence does not allow informal sanctions to be placed on the violator, leaving the area open, irrespective of the move to nationalize forests by the government. Open access entails non-excludability, undefined rights, and unregulated access. “Bundles of rights” do not apply in an open access regime.

When the monarchy was in full power in the late 1950’s there was a shift to nationalize forest areas or a transition from common to state property because of the “fear” of deforestation, which was a politically driven motive by the state. The 1957 Private Forest Nationalization Act and the Forest Act of 1961 divided Nepal’s forest areas into community, leasehold, religious, protected, and government-managed forests. Within the borders of MBNP, the state has the power or right to access, withdraw, manage, exclude, and alienate potential users. In other words, it possesses all property rights, since it owns the property. Until 1996, the state had had exclusive rights to national parks with de jure governance. The state created district forest offices to implement work plans authorized by the government. It also introduced check posts and rangers to monitor activities. Under the Forest Act, all authorized claimants within buffer zones, such as collectors, who wanted to access, withdraw, and manage medicinal plants from the forest would need permits, which would help the state keep record of its royalties. Permits as a means of managing national parks are primarily driven by profit motives by the state. In other words, political motives that created state property have now shifted to economic gain from it. Although the process of nationalization had formally eradicated common and open property regimes, the elements of open access have not fully dissolved.

On the one hand, the state formally manages forest resources in MBNP with the aid of rangers and district forest officers. On the other hand, Nepal’s mountainous terrain makes it very difficult for such officials to monitor legal or illegal activities, compromising the quality of their tasks. Collectors also ignore state rule by acting as authorized users when they are actually authorized entrants outside of buffer zones, especially where *bikh* is found. Collectors do not bother to get a permit as required by the state even within buffer zones because it is

extremely difficult for them to go to the district headquarters to get a permit, which maybe days away by foot. Collectors may also overlook the issue of permits because it means a loss of income for them when the state asks for royalties. Being so poor already, it is not difficult to see the rationale behind ignoring state rules. The act of defying the state rules due to economic reasons translates into politically not recognizing the state as an owner, which further legitimises open access property regime. Collectors, however, take the risk of being fined if they are caught collecting without a permit. The risks that they take also expose them to Maoist activities. As mentioned earlier, since *bikh* cannot be easily grown or cultivated in lower altitudes due to its plant ecology, and hence tenure niche, collectors must harvest beyond the buffer zone and into Maoist territory.

With the Maoist uprising since 1996, forest tenure has started to change. Maoists in Nepal who primarily operate from dense forests have specifically targeted government officials, and DFOs. In political defiance of the state, their use of guns, violence, and other types of threats have chased away forest officials. For instance, after having spoken to a ranger in Sankhuwasabha, he mentioned that there used to be check posts throughout MBNP for rangers to work in. Now, the rangers have moved to the Khandbari, the district headquarters, which is outside of the national park boundary. The Maoists are known to train their troops within the park and their fear has forced government officials to safer grounds (Post Report 2003). Ironically, however, the Maoists have taken over the same role that the state used to play. Respondents as well as government officials such as rangers state that Maoists not only patrol the area like rangers used to, but they also provide permits to collect medicinal plants and impose tax on collectors on whom they decide can be an “authorized users”². Through extortion, the Maoists use the money for their own needs (Collier et. al. 2001).

With the state presence gone and Maoists as owners of “state” property, the access to forests, and therefore, their ability to make a living from the medicinal trade by Bhote collectors have become unpredictable and based on happenstance. Through their narratives, it can be interpreted that Bhote respondents claim that there are days when they are lucky and days when they are not. If they happen to meet a Maoist they face violence and other forms of threats, and are charged taxes for collecting *bikh*. According to one respondent, the tax range for *bikh* could be from NRs.25-75/kg, with the likelihood for a richer collector, who is clearly

² Although “royalty” and “tax” are virtually the same, the term “tax” will be used in reference to what Maoists do and “royalty” with regards to a state activity.

not from the area to be charged more. Although the Maoists have driven away forest officials from the Park, which will allow collectors to escape royalty charges by the state, they may only be lucky to a certain extent. If collectors were to go to weekly village markets, which maybe the only market to sell, they will be seen by state officials and charged again. This results in a “double tax burden”: one placed by the state and the other by the Maoists. It is a burden that is very difficult to bear when one is already so poor. Interestingly, collectors are sensitive as to why both parties need to collect revenues: Maoists, who are themselves rural poor, need to feed themselves, while the state has the legal right to charge royalty on government owned land. The “lucky days” when neither Maoists nor government officials are seen, and the Park functions under an open property regime where one is free to collect *bikh* at will, seem to be fading as Maoists become stronger by the day. According to unofficial sources, Maoists already control 75% of rural Nepal.

Although the “double tax burden” has not been felt by majority of the respondents, perhaps because of happenstance, it is an issue that is heavily conversed about, along with the fear of going to forested areas by collectors and government officials. By interpreting their narratives and even the evasion of the topic leads to the interpretation that all of the respondents who are collectors are psychologically, if not financially and physically, affected by what the Maoist uprising has done to their ability to access forest areas and benefit from it. Therefore, there is a high probability of access to medicinal plants being curtailed under the open/rebel regime. Even with shifting and overlapping property regimes, from common property prior to 1957, to a combination of state and open access between 1957-1996, access to medicinal plants has never been greatly affected prior to 1996 as both formal and informal rules were applied to forest tenure. Collectors could still collect through a permit or popularly by defying state rules and collecting without a permit. It can be concluded and predicted that since 1996, the access to forests and forest resources such as *bikh*, will diminish either due to the royalties and taxes they must pay, or the fear of violence under a rebel operated/open property regime. The greatest irony regarding the battle over forests and its resources has been the contestation between two groups of the rural poor: the Maoists and the collectors. While it is the Maoist agenda to improve the lives of the rural poor, such as the collectors, Maoists will most likely affect the Bhotas’ quality of life.

Oddly enough, there is talk that the Maoists have contributed to forest regeneration now that they have scared away potential users (Shrestha 2003; Limbu 2002). However, with so many

of Nepalese dependent on various forest resources and who may actually use it “sustainably”, this is hardly a matter that is commendable. In reality, other forest tenure outside of national parks, such as the community forests of Nepal, have also been affected. For instance, Bhim Prasad Shrestha, the chairman of the Federation of Community Forest Users of Nepal claims that the “Maoist insurgency has affected nearly 11,500 forest user groups in 74 districts—which amounts to more than 1,196,199 households, undermining one of Nepal’s most successful environmental and conservation initiatives which took decades of persistence to build up” (Limbu 2002). Other forest officials claim that with Maoists issuing permission to harvest forest products, deforestation is on the rise. Not only do they allow harvesting of forest products in an unsystematic manner, but the lack of forest officials and/or community forest guards whom have been chased away also leaves forests resources vulnerable to illegal or unsustainable harvesting (Timilsinha 2003; Niraula 2004). Community forest users equally face fear from both Maoists and the army, as described by the Bhote community.

This paper has illuminated potential threat of having forest access for Bhotas curtailed. The question to be asked now is: can a migrant population benefit under the current political situation? The answer to this question would have to be market driven rather than political. There is a possibility of overcoming the barriers to forests, and thereby, still being able to benefit from the medicinal plant trade, which is devoid of direct impact of Maoist activities. This possibility would depend on the type of land one uses and the level of government investment to promote the medicinal plant trade as a significant forest enterprise.

Conclusion: Potential of Forest Enterprise in Nepal

As mentioned in the Introduction, the medicinal plant trade in Nepal can be a lucrative business and provide economic opportunities for those in rural areas, where employment opportunities are scarce. This is certainly true among the Bhotas but how likely are they able to benefit from this trade when access will most likely be curtailed under the current political situation, and especially when their lifestyle is based on migration within a national park context? Before answering this question, a summary of the ways in which the medicinal plant market is being promoted in Nepal will be described, which will help to understand the extent of the Bhotas’ ability to still work within the limits of a civil war.

There are very few businesses in Nepal that have not been affected by Maoist activities. However, regardless of their activities which bar movement of people and goods to markets, those who have private land or are members of community forests, are more likely to continue to have access, and therefore, steady supply of medicinal plants, rather than those who use state forests. Because of growing international demand, primarily from and through India, many medicinal plant based enterprises have developed, especially over the last 5 years. International and domestic non-governmental organizations (I/NGOs) and the private sector have become involved in marketing medicinal plants in collaboration with each other. With aid from I/NGOs, small to large scale medicinal plant companies have started to invest in individual farmers through contract farming schemes, as well as through common land, such as community forests, under co-operative schemes of producing medicinal plants (see Annex 1). However, contract farming and building co-operatives, requires one to be a permanent settler, specifically at lower altitudes. Bhotes do have private land but at very high altitudes, which is unsuitable for cultivating a variety of crops because of poor land quality. It is even more difficult to cultivate a medicinal plant such as *bikh* because of its botanical components. When they do migrate to their winter residence, their shelters are temporary and on minimal pieces of terrace land, too small to cultivate. It is possible, however, for them to join community forests, which is one type of tenure regime that is allowed within buffer zones and benefit from them as authorized claimants. However, joining community forests is also difficult because they are unable to invest in CPR rules due to their migratory nature. Those who are part of community forests usually have a similar lifestyle: they are settled agriculturalists, unlike Bhotes. Furthermore, Bhotes have no incentive to invest in CPR rules within a community forest, which are at lower altitudes, because medicinal plants that are more lucrative are available at high altitudes beyond the buffer zone.

Bhotes' migratory culture, their lack of prime agricultural land, and the current political situation leaves them outside of a potentially beneficial forest enterprise. Even though those with private land or those using community forests also face extortion and fear by Maoists, their ability to steadily produce medicinal plants, if not *bikh*, provides them with an added advantage of benefiting from the market more consistently compared to those who are migratory. The only alternative one could suggest, especially if the Maoist uprising continues, which may heavily curtail access to medicinal plants in national parks, is a stronger role of the government at the national level to firstly create NTFP or medicinal plant specific policies

and secondly to invest in documenting traditional knowledge, especially now that Nepal is a member of the World Trade Organization (WTO).

Currently, policies that govern medicinal plants differ by place, plant, and local institutions. NTFPs are mentioned for the first time in the Master Plan for the Forestry Sector in 1988 as an area of development. Since then, there have been no consistent policies except those driven by profit motives by the government. The only policies that exist on medicinal plants is related to requirement for collection permits, fines, royalty, transportation of goods, and plants that should be banned for collection by the government, which ignore scientific ecological monitoring, and acknowledgement of economic and social ties between plants and people who heavily depend on them. Policies need to encompass guidelines on scientific and systematic forest inventories, market information sharing, equitable distribution of financial benefits that come from the medicinal plant market, how to arbitrate overlapping laws and policies within the forestry sector, and last but not least, ways to formally involve those most dependent on the resource, such as Bhotas. For instance, scientific ecological studies to determine the availability of a certain plant can prevent arbitrary royalty price settings, making it more justifiable for collectors. Or, extending policies on medicinal plants beyond buffer zone borders may help to mitigate the difference between what is considered legal and illegal collection of medicinal plants, leading to a more transparent trade. At the moment, a policy on NTFPs and herbs is being drafted, which may include many of the missing elements of a sustainable medicinal plant trade. One of the poignant issues the policy needs to highlight is traditional knowledge, which Bhotas possess on the management of medicinal plants, especially when trade liberalization is inevitable.

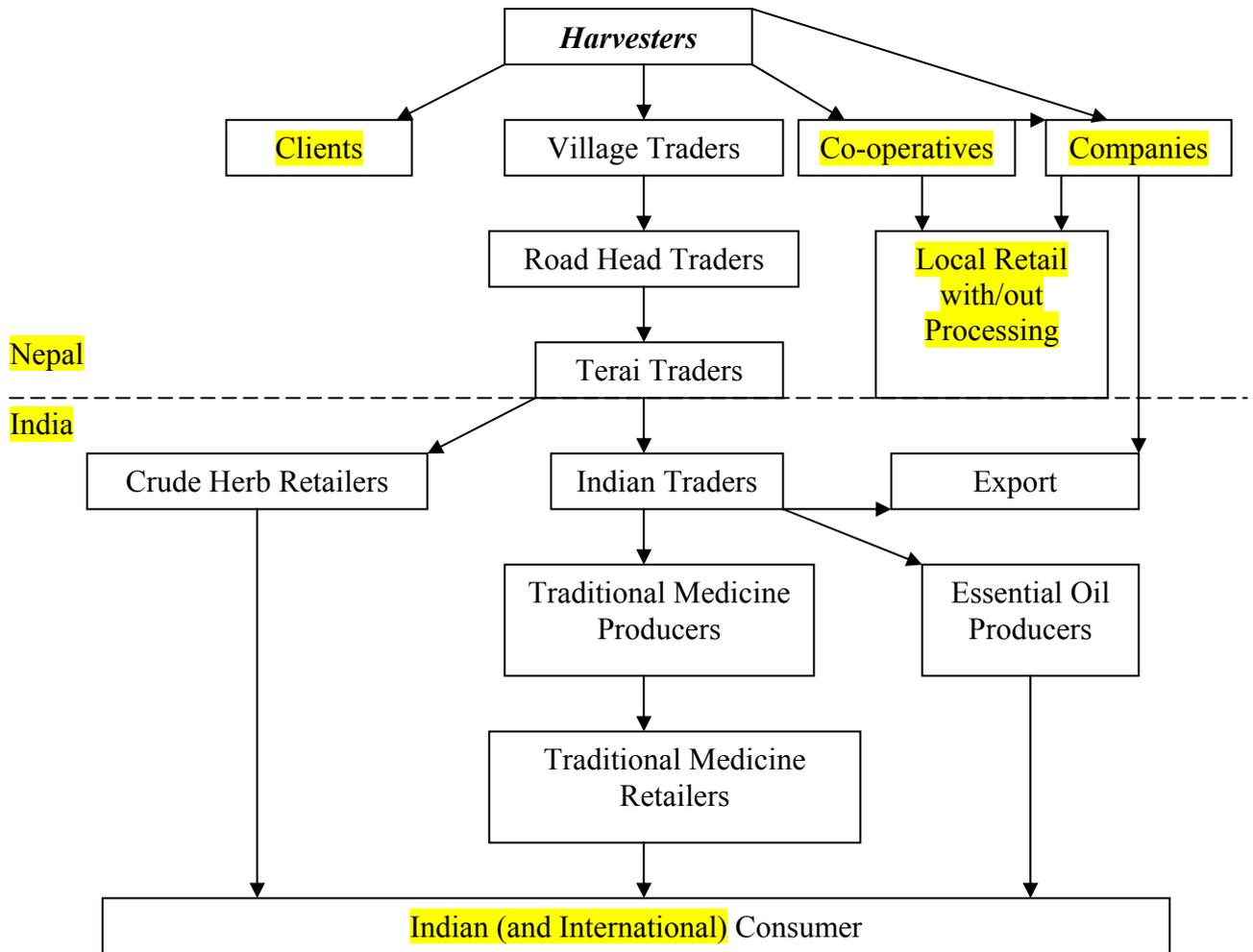
Medicinal plant policies also need to integrate to costs and benefits of biotrade, especially when trade liberalization begins with membership to the WTO. Biotrade, which is the trade in genetic material that can come from medicinal plants, is greatly being pursued by companies through a variety of bioprospecting schemes, which involves collection of genetic material for commercial development. Nepal will not be an exception to biotrade and bioprospecting by companies when trade borders are open. And, along with this, the controversies and complexities of patenting rights will also eventually emerge. Because Bhotas cannot benefit from contract farming, co-operatives, or the Maoist activities, there is a possibility that they may be able to benefit from patenting their traditional knowledge or intellectual property and receive royalties from companies that may eventually bioprospect the plants that are used by

Bhotes. The ability to benefit from the medicinal plant trade in this manner does not require one to own land or to be a member of a community forest within a buffer zone because benefit will thrive from knowledge, which is not tied to forest tenure. However, before such benefits can even be conceived, the government at the national level needs to strengthen medicinal plant policies to include the documentation and registration of knowledge on medicinal plants.

The challenge that communities, such as Bhotes', face is complex. Their future is grim as they are caught in a crossfire between Maoists and the state. Even though in addition to the political situation, migratory populations such as the Bhotes cannot benefit from contract farming or co-operatives, possibilities do exist beyond the current political situation. However, economic potentials will be unmet when there is no stable government to make policies that include them. Paradoxically, what the Maoists are fighting for may help the Bhotes' in the long run, given that the Maoist movement forces the government to direct more development activities to rural areas. This may eventually promote a more sustainable medicinal plant trade that villagers can benefit from, especially when forests are one of the few resources that are available for use and provide a viable source of income.

Annex 1

Commodity Chain of Medicinal Plants in Nepal



Adapted from Edwards, D.M. (1996). Non-timber Forest Products from Nepal. Kathmandu: Ministry of Forests and Soil Conservation.

Highlighted words are additions by the author to the original chart.

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