



Forests and the Biodiversity Convention

**Independent Monitoring of the
Implementation of the Expanded Programme
of Work
in Nepal**

Resources Himalaya Foundation



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Cover:

One of the most natural forest types in Nepal.

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EXECUTIVE SUMMARY

Nepal has to overcome impoverishment in several fronts. Incidence of poverty has come down to 24.1% from 38% of the population in 2005 because of remittance influx. Of the population living below the poverty, 95% are rural, 71% is illiterate and 51% have less than a 1 ha farm to live on. Poverty reduction is difficult because of huge rural/urban disparity and feeble institutional capacity.

Several government policy and guidelines are based on sustainable use of forest for the economic development and well being of the poorer rural communities. Biodiversity is sustained in 5 key areas: forest, water-bodies, rangeland, agriculture and livestock genetics. Although forests provide both biological wealth and sustenance to Nepal's populace, Nepal's 29% forest cover is hard to maintain. Agriculture is the foundation of the national economy, accounting for 40% of GDP, and provides the livelihood for an estimated 80% of the population. Deficiencies in the conservation of biodiversity primarily stem between the forestry and agriculture sectors because their conservation strategies on biological resources are not cohesive and comprehensive.

Community forests are the finest examples of forest management regimes that have progressed from the state to communities ensuring protection of rights, bearing responsibilities and sharing of benefits. However, linkages between improved ecosystem health and poverty reduction has not been significant. It has been argued that richer households benefit more from community forests. Development aid agencies have played a key role in supporting the community forestry program.

Although establishment of protected areas (PAs) in Nepal has been progressive covering 18% of the land, it needs to be visionary to cope with growing population in buffer zone without hurting ecology with economics. Also, PAs that harbor endangered species need to accept the fact that the risk and crisis management will become an integral part of conservation. Strong linkages between academia, institutions and the government agencies to grasp information for management, are much needed. As PAs are isolated conservation units, landscape level approach is a new untested dimension to biodiversity conservation in Nepal.

Forestry sector contribute to the Millennium Development Goals. Also, over 50 percent of the volume of tourism visit protected areas. Policy change and alternative approaches to privately owned ecotourism industry may redirect an appreciable amount of revenue to local development and strengthen local guardianship to protect forest and endangered species.

For the future, forest biodiversity in Nepal will be guided by good governance, forest tenure, benefit sharing, capacity building, adaptive policies and collaborative partnership. These vital aspects of forestry need to be monitored independently to ensure long-term biodiversity conservation.

1. STATUS OF NEPAL

1.1. Geophysical Background

Nepal (147,181 km²) lies in one of the 25 global hotspots, and 200 globally important ecoregions, as it has diverse climatic and altitudinal zones (elevation: 8,848 - 65 m). These geophysical settings contribute to 35 different forest types. Some 118 ecosystem types range from the dense tropical monsoon forests of the Terai to deciduous and coniferous forests of the subtropical and temperate regions and finally to the subalpine and alpine pastures and snow covered Himalayan peaks, with their cold streams, glaciers and lakes. As Nepal is at the junction of the Palearctic and Oriental biogeographical regions, species richness is high and several species are endemic to the Himalayas.

Although human population (25 million people growing at 2.3% per year) is rapidly growing with a multitude of over 105 caste/ethnic groups, Human-related contribution to Nepal's biodiversity is incredible as 24 indigenous breeds of cattle, buffalo, sheep, goats, pigs, and poultry exist, mainly in small farming systems. Both agriculture biodiversity and livestock genetics safeguard rural households from stochastic events like crop failures by providing a wide variety of food and food products in other words food security. It is widely reported that local cultivars have been seriously depleted because a small number of hybrid crop varieties have largely replaced traditional varieties. Traditional varieties are, nevertheless, still used in remote parts of the Nepal Himalaya. Nepal, therefore, may be a critical repository of these genetic resources of the Himalayas, and thus merit special attention.

1.2. Socioeconomic Status

With a per capita GDP of U\$260 per year, current challenges to overcome impoverishment include lower life expectancy (60 years), high rate of infant mortality, gender disparities (literacy: male 62% and female 26%), and fragmented small land holdings with the highest ratio of population to arable land in the world.

Nepal's Gross Domestic Product (GDP) is expected to grow by 4% this year which is considered a return to a new phase of sustained growth and development. The current account recorded a surplus in 2006 helped by large workers' remittances and rapid poverty reduction. Agriculture is the foundation of the national economy, accounting for 40% of GDP, and provides the livelihood for an estimated 80% of the population. About 22% (32,000 km²) of the total land area of Nepal is under cultivation and agriculture biodiversity is vital to the marginalized mountain communities in maintaining food security. This is apparent from the 172 families, 294 genera, and 551 species/subspecies of agricultural crops.

Economic development has begun to shift its focus from agriculture to the service sector. In 2005, the share of remittance to GNP was 11.65% totaling NPR 65.42 billion. Direct benefits of short-term economic migrants not only bring money but also valuable work experience, enhanced skills and useful networks that can promote economic activity, innovation and entrepreneurship. However, the fiscal situation remains weak with growing recurrent expenditure, low capital spending and a high budget deficit. Nepal receives between \$350-400 million from Official Development Assistance (ODA) annually.

Poverty reduction is difficult because of huge rural/urban disparity and feeble institutional capacity. Others include human resource development, low quality education, slow rural development, sluggish agricultural productivity and less effort to address environmental management. Incidence of poverty has come down 24.1% from 38% of the population in 2005 because of a huge influx of remittance. Of the population living below the poverty, 95% are rural, 71% is illiterate and 51% own farm less than 1 ha.

The Tenth Plan (2003-2007), incorporating the Millennium Development Goals into its strategic framework, aimed to reduce poverty with emphasis on sustainable economic growth, social sector development, targeted programs for the poor and disadvantaged, and good governance.

1.3. Environment

The 1993 Nepal Environment Policy and Action Plan states that deforestation and forest degradation have seriously reduced the availability of timber, fuelwood, leaf litter, fodder and forage, escalating soil erosion and fertility loss, damaged ecosystems and other adverse environmental impacts. However, Nepal has one of the lowest per capita energy consumption rates (14.06GJ). Nepal's energy consumption is dominated by household use (90%), mainly fuelwood which was 89%, agriculture residue 4.4% and cattle residue 6.6 percent. The 2001 census shows that 66% of the total employed population is engaged in agriculture, forestry, and fishery. Therefore, Nepal's population is dependent on its natural resources – arable land, water, forests and rangeland.

Biogas in Nepal gets carbon credit which means support money. Until 2006, there were 156,575 biogas plants with more than 96% of these plants in operating conditions. Although biogas program is heavily dependent on subsidies from donors, two biogas projects been registered as Clean Development Mechanism (CDM) projects. As each biogas plant saves equivalent of 7.33 tons of CO² each year, CDM prospect of the biogas program can sustain renewable energy plan that has global environmental benefits as well as significant local benefits.

1.4. Current Political Status

Following a 10 year-old insurgency, resurgence of economic and institutional reforms is in the offing to re-address Nepal's disappointing development record. Nepal is currently in the midst of significant transitions. Three processes stand out. First, the resumption of democratic processes that resulted from an intense people's movement against the King and his style of governance; second, the decision of the CPN Maoists to renounce violence and join the government; and third, Constitutional election will be held in April, 2008 . The constitution-making process will be watched and scrutinized by many including international civil societies, which can be catalytic for effective new mobilization of social justice and securing freedom of choice.

For rebuilding Nepal, the government and all political parties including the Maoists, have acceded to the concept of federalism with four tiers: center, state, region and villages. As of now, eight federal governance models with number of states ranging from 4 – 9 are floating. A federal system of governance in Nepal may usher devolution of political and economic power from the center to local government to enhance ethnic structures, economic prosperity and preserve their environment. However, the final cut has yet to arrive to explain working modality between the central and federal governments and ethnic structures.

Economic prosperity and the scale of sustained development of a given federal state will largely depend on existing natural resource base, land productivity and their exploitation to a level that guarantees that environment is not degraded. Therefore, some states may get head on start and others may need jump start. Given these, a development plan based on natural resources to benefit poor and to protect environment will be the first step for each federal state.

It is logical to assume that the eastern and central states will fare even better than the western states, given their agriculture prosperity, infrastructure, high scenic mountains, volume tourism and industrial growth. For the western states, all priorities will be at the top and that may riddle the development plan. There are many to cope with, such as landless people, dalits and Kamaiyas, high incidence of poverty, food security and a growing rate of disappearing forest. For example, Kanchanpur District (Far west Nepal) in the plains that adjoins Uttaranchal of India, had forest cover of 386 km² in 1994. With the second highest forest cover loss in Terai districts of Nepal, it is now required to accommodate 8,250 landless families and 8,963 illegally settled families, now. The western mountain communities in Nepal,

are at worst as all of them face food deficit. Therefore, poverty alleviation in these states must remain a top priority along with a large scale investment on natural resources for energy and to empower people and their communities. Perhaps these setbacks can be tackled by up scaling ongoing hydropower development schemes and petroleum exploration which have preponderance in the west.

2. MONITORING FOREST BIODIVERSITY

2.1. Characterization of Forests

Biodiversity Conservation in Nepal is sustained in five key areas: forest, water-bodies, rangeland, agricultural biodiversity and livestock genetics. Government estimates about 5.83 million hectares (29.6% of Nepal) as forest and the Food and Agricultural Organization of the United Nations estimates 3.9 million hectares (27.3%). Although forests provide both biological wealth and sustenance to Nepal's populace, the present status of Nepal's forest cover is hard to maintain as deforestation in the Terai in the last 12 years (1978 – 91) has been estimated to be 990 km² with annual deforestation rate of 1.3%.

Nepal's forests are largest natural resource in terms of area coverage and provide products such as firewood, fodder, timber and herbs. The forests provide fuel wood for about 79 percent of the population and about 42 percent of total digestible nutrients for cattle. To control loss of forest cover is complex because encroachment and illicit tree felling are intertwined with local politics, state machinery, timber lobby groups, smugglers and armed conflicts. In this regard, Terai forestry issues connected with service delivery approaches and mechanisms are not sufficiently explored, discussed and addressed in existing policies, guidelines and legislations.

2.2. Land Tenure Regime and Forest Management

In Nepal, forests are managed as: 1) state owned and managed (protected forest and production forest); 2) community forests; 3) privately managed; 4) leasehold forests (for poor, ecotourism and industry); 5) religious forests; and 6) recently introduced collaborative forest (in 8 Terai districts).

Based on the Master Plan for the Forestry Sector (1989), Forests are managed as: 1) production and utilization; 2) conservation of ecosystems and genetic resources; 3) social aspect of landuse; 4) a role of the private sector; and 5) classification of forests and protected areas. The factors behind forest depletion were: 1) uncontrolled, excessive use of wood for fuel in Terai; 2) intense cattle grazing; 3) inappropriately designed forest policies that allowed uncontrolled access to public forests; 4) forest area encroachment in Terai; 5) illicit timber trade; and 6) unregulated collection non-timber forest products (NTFP) and medicinal and aromatic plants (MAPs).

Armed insurgency in Nepal until 2005, has impacted forest resources heavily. Such has not been brought under control until now. Deforestation is widespread and poaching of wildlife inside parks, is widespread. Since the peace accord two years back, forest amounting to 21,000 ha in Kailai District (far west Nepal) alone, has been encroached which includes some vital parts of the Terai Arc Landscape.

Conflict also exists between the government agencies and the rural communities as the government changed its restricting the amount of royalty paid to the communities from the sale of community forest products. The Federation of Community Forest Users of Nepal has protested against this arbitrary decision on the part of the government and the discussion is still ongoing. Similarly, the local self-governance act granted local governments (VDCs and DDCs) their control over natural resources but at the same time the powers that were traditionally exercised by national line agencies over natural resources have not been revoked, creating antagonism and confusion as to who should manage local forests, water and other natural resources.

2.3. Status of Forest People

Indigenous knowledge systems have used, managed and protected forests in the past. Forest is essential for indigenous communities for their survival and spiritual well being. Thus, their loss of access to forests has threatened them in every way.

Historically, forestry planning had emphasized much on its ecological aspect. It has given less attention to traditional and customary users of forest as dependent, making it exclusive and inequitable. As forest-dependent communities are not homogenous in Nepal, four categories are distinctive: 1) indigenous groups such as Raji, Chepang, Raute, Kusunda, Tharu, Tamang, and Satar; 2) occupational castes (dalits); 3) forest dependents (herders, landless); and 4) displaced users (distant communities and gender). As of now, there has been a serious deliberation for reconsideration of the rights of the forest people.

2.4. Forest Management Policies and Practices

Several government policy and guidelines are based on sustainable use of biodiversity for the economic development and well being of the poorer rural communities. They are National Conservation Strategy for Nepal (1998), Master Plan for the Forestry Sector (1988), Nepal Environmental Policy and Action Plan I (1993), Agriculture Perspective Plan (1995), Nepal Environmental Policy and Action Plan II (1998), Revised Forest Policy (2000), Nepal Biodiversity Strategy (2002), Water Resources Strategy (2002), National Wetland Policy (2002), Nepal Water Plan (2002), Sustainable Development Agenda for Nepal (2003) and Agriculture Policy (2004). In the 10th Plan (2002 – 2007), forest and biodiversity conservation are a priority area for poverty alleviation through sustainable use of its components and broader participation of the local people.

A number of approaches have been developed to deal with the problems of managing such resources, usually centering on bringing resource users together as a group to limit access and extraction within ecologically sustainable levels and to manage the resource collectively ("common property" management). This collective approach requires strong mechanisms to control access and to prevent exploitation or over-harvest by outsiders. The Federation of Community Forest Users of Nepal (FECOFUN) is one such group which advocates the promotion of community forestry. It has district and zonal units, which work for the benefit of forest user groups and community forests. About 70% of forest user groups are members of this federation which participates in national community forestry debates to empower user groups.

Community forests and conservation areas are the finest examples of forest management regimes that have progressed from the state owned to communities ensuring protection of rights, bearing responsibilities and sharing of benefits. In this regard, it is important to note that community forestry has sustained management practices in some 11,000 km² of forest which is almost double than the total forest cover (5,827 Km²) in the protected areas (PAs) of Nepal. The annual income of NPR 913.8 million from the community forestry, is arguably undervalued and it is estimated as high as NPR 1.9 billion. As 36% of their income money is spent on community development, poor receives little. They reinvest 28% of the revenue in forest protection and very little (2%) in capacity building.

Natural resources that benefit the poor are often of low value. Even when such is subjected to the equitable distribution of benefits, pro-poor issues are compounded by asymmetrical power relationships, gender, caste, and income, and disparities in terms of land holdings. After the community forestry came into effect with the Forest Act of 1993 and Forest Regulations of 1995, Nepal institutionalized the leasehold forestry for the poor. After leasehold forestry to address poverty, gradual expansion of pro-poor approaches like second generation issues under community forestry, special target groups in PA buffer zones, conservation area

management, participatory watershed management and collaborative forest management, have emerged with success.

To conserve biodiversity in protected areas, the Department of National Parks and Wildlife Conservation (DNPWC) has been a key player since early seventies. The National Parks and Wildlife Conservation (NPWCA) Act amended in 1992 to incorporate provisions for "buffer zones" in the protected area system and the sharing of up to 50% of the park/reserve annual revenue with the buffer zones. A buffer zone is a designated area surrounding a national park or reserve within which forest products are regulated by local people to ensure sustainability. Buffer zone institutions are not fully functional. Although they have received nearly \$ 3 million until now from the park revenue for their land stewardship, poaching of rhinos in Chitwan reached crisis level because of volatile political situation, disparity between decisions of policy makers and operations of ground-level managers, and growing nexus of poachers, army, local politicians and businessmen in Kathmandu.

As maintenance of ecological integrity of protected areas, is difficult because of land dynamics, investment is much needed for "new found knowledge" with progressive policy guidelines, adaptive strategies, and management prescriptions. Therefore, collaboration and partnership between academia, research-based organization, think tank and development agencies, will be the guiding principles for biodiversity conservation. Both government and donors need to invest on the accretion of knowledge about biodiversity. The trend has curtailed conservation-based capacity building in academia, de-emphasize mentorship, thus, severed local research institutional linkages.

Protected areas that harbor endangered species, need to accept the fact that risk and crisis management will become an integral part of conservation. For example, poachers in Chitwan killed 149 rhinos in the last 7 years (2000 – 2007). In Bardia, a total of 83 rhinos were translocated and only over 27 rhinos survive today. Did the Government and donors learn any by introducing 72 rhinos in the Babai Valley of Bardia and their total decimation in 20 years?

Protected areas are isolated conservation units which are too small to support viable population of mega vertebrates and ecological processes. Therefore, landscape level approach adds a new dimension to biodiversity conservation in Nepal. Although untested in real terms, it hinges on livelihood of local communities for long-term conservation. Large landscapes can also link protected areas of two countries but as of now, formal bilateral agreement is in want.

The Terai Arc Landscape (TAL) encompasses the only remaining natural habitat in the lowland Himalayas extending from the Bagmati River (Nepal) in the east to the Yamuna River (India) in the West, covering an area of 49,500 km². As people in TAL, depend on forest products and environmental services like food, fuel wood, medicinal plants, fodder and water for their subsistence, community forestry program has been an effective tool to restore degraded corridor, prevent encroachment of forestland by squatters and promote equitable decision making, benefit sharing and fund mobilization for sustainable resource use at the local level. Seven direct causes of environmental degradation and loss of biodiversity in TAL, are: forest conversion, overgrazing, unsustainable timber and fuelwood extraction, Churiya watershed degradation, forest fire and poaching of wildlife. The Churiya Range is experiencing tremendous changes with very far reaching environmental implications and consequences of these changes are not fully understood.

Likewise, the Sacred Himalayan Landscape (SHL) is a trans-boundary area (39,021 km²). Of its area, 73.5% is in Nepal, 24.4% in Sikkim of India and 2.1% in Bhutan. Large landscapes are expected to convert the current vulnerabilities to securities for ensuring biodiversity conservation and sustainable livelihoods where people are heavily dependent on natural resources.

2.5. Market-based Conservation Mechanisms

Linkages of forest sector with the Millennium Development Goals contribute to: Goal 1: Eradication of poverty, Goal 3: Promote gender equality and empower women, and Goal 7: Ensure environmental sustainability.

In Nepal forest marketing opportunities involve risk in raising the demand for forest products, over-exploitation degradation of the forest resources. The total revenue collected by Department of Forests in 2005 was NPR 303 million (timber 81.5%, minor forest products including stone and boulders 14.6% and value added tax on timber of community forests and private lands 3.9%). Therefore, forest products must bear financial viability, and practice sustainable yield. Nepal has over 16,000 ha of community forests certified by Forest Steward Council (FSC) but such is criticized as costly affairs by communities. Therefore, the volume of market-based conservation practices appears not to interfere with the implementation of the CBD/POW.

Tourism in Nepal makes about 4.4% of GDP. Almost over 50 percent of total tourists in Nepal, visit protected areas. A recent study suggested that ecotourism in Chitwan National Park, as it is currently structured, provides little employment potential, has a marginal effect on household income, and offers few benefits to local people. Thus, it is not a panacea for long-term biodiversity conservation. On the contrary, the seven concessionaires argue that the lion's share (over 50%) of Chitwan's annual income of US\$ 708,000 in 1997/98, comes from them and over 95% of the Park's income is related to tourism.

Policy changes and alternative approaches to privately owned ecotourism industry, may redirect an appreciable amount of revenue to local development and strengthen local guardianship to protect endangered species and their habitats. The poor can have a direct stake in the tourism industry not just through jobs but also through many business opportunities, particularly in the informal sector, where there are many small-scale, locally run tourism enterprises. Many of the existing problems can be resolved or minimized with proper planning and management to ensure better economic links between larger tourist operators and poorer households and communities.

2.6. Role of International Institutions

Both direct and indirect threats to forest resources in Nepal, include: 1) overexploitation or over-harvesting of resources; 2) lack of science-based information to make informed decisions; 3) poverty, stemming in large part from inequitable distribution of land and access to natural resources; 4) weak regulation and enforcement structures; and 5) insecure land and natural resource tenure.

To combat these threats, several national and international NGOs are working on environmental protection and nature conservation and their scale of operations range from village level conservation to decision making bodies. Development aid agencies in Nepal, played a key role in supporting the country's community forestry program with strong social as well as environmental benefits. In this case, external assistance helped build local institutions and enhance the capacity of forest officials and users for management and sustainable use of forest resources. Today, these approaches to forest management in Nepal are now well established. International NGOs include World Wildlife Fund Nepal Program, Care Nepal, International Center for Integrated Mountain Development, SNV, Winrock International, and many others. Prominent national NGOs include, Federation of Community Forestry Users of Nepal, National Trust for Nature Conservation, LiBird, Resources Himalaya Foundation, Bird Conservation Nepal, Nepal Forum for Environmental Journalists, and others. Although their works relate to biodiversity conservation, the majority of these organizations have focused on NGO-related activities, community forests and buffer zone areas.

Multilateral donors include Global Environment Facility, World Bank and Asian Development Bank. Also, Nepal gets assistance from United Nations Development Program, Food and Agriculture Organization and the World Conservation Union (IUCN). Other global grant-making institutions are Ford Foundation and MacArthur Foundation. Their support is mainly on human

resources development, peace and security with a focus on poverty reduction, environmental protection, forestry and agriculture-related infrastructures.

At least 14 major bi-lateral donor agencies are working on natural resource management in Nepal to address more opportunities to improve livelihoods and biodiversity. For example, DFID is assisting rural communities in equitable, efficient and sustainable use of forest resources, SNV the Netherlands is strengthening governance of natural resources and selected institutions, USAID in self sustaining forestry, biodiversity conservation and equitable economic development, UNDP in conservation and sustainable use of biodiversity. They also have contributed more on the policy issues and landscape-level conservation in the Terai as well as in the eastern Himalaya.

Financial support for forest-related conservation and development from donors and INGOs may range between \$ 6 – 10 million annually. Although sustainable development hinges on poverty eradication and environmental sustainability, faulty governance in the past and now, have failed to arrest large scale conversion of forests. In this regard, Nepal lacks professional human capacity to manage, monitor and regulate their environmental assets and resources.

3. FUTURE CHALLENGES FOR MONITORING FOREST BIODIVERSITY

3.1. Governance

Ecosystem management and biodiversity conservation are closely linked with participation and livelihood. The current participatory approaches appear too shallow focusing just on physical attendance, representation and other quantitative aspects. The key issues of unequal relations of power, influence and legitimacy are often less focused or ignored. At the local level marginalized groups have participated in the given frameworks just to provide legitimacy to the local elites. At the national level the representatives of local people, civil society and private sector have been given limited spaces in the forest policy process. The unequal power sharing between socially and culturally differentiated groups is the biggest hindrance to the sustainable management forests and conservation of biodiversity.

3.2. Tenure Rights

Forests have provided refuge for thousands of landless and other marginalized, indigenous and ethnic minority groups who rely on and interact with the forests everyday. But, they have no secured tenure over the forest. As a result, both the forests and the livelihoods of these people are in crisis. Inadequate understanding or appreciation of this link between tenure security and conservation outcomes has resulted in ambiguity or uncertainty over tenure security in several aspects.

3.3. Benefit Sharing

Local people's contribution to manage and conserve forests has not been properly rewarded. The revenue generated from the commercially valuable forests goes directly to the government's treasury with exception of buffer zone of protected areas where revenue sharing mechanism is in place. More importantly, relevant regulatory and institutional arrangement have not been developed to ensure local people's intellectual property rights over genetic resources and indigenous knowledge on the use of these resources.

There are widespread problem of elite capture, exclusion and inequitable share of costs and benefits of forest management at the local level. As critics argue, inequity in community forestry exists in multidimensional forms, different scales and intensities. The 'distant users' are left out in some cases in Terai exclusion of many poor or socially weak people from membership and elite capture in decision making are among the key criticisms.

3.4. Payments for Environmental Services

A very few communities have benefitted for their contribution in conserving forests and watershed introduced as in the case of buffer zone program around the PAs and payment local farmers in Kulekhani hydropower area. These are important initiatives. But, we need to understand that PES works where direct revenues is generated. Such may not happened in all forest biodiversity areas of Nepal.

3.5. Capacity Building

Current focus on capacity building is often focused at the community level that is limited to stand-alone trainings, aimed to meet the specific need of a particular project. At the central level, government officials get their uninterrupted overseas study tours. Young graduates from Academia are never entertained. Forward and backward linkages along the temporal line are little considered. Therefore, capacity building has stagnated. The aid agencies often talk of institutional strengthening of the government agencies within the broader umbrella of capacity building. One of the unintended consequences has been that these support result in strengthening of the unwanted bureaucratic structures. Therefore, the whole notion of capacity building should be redefined in favor of balancing the resources, capacities and competencies of actors.

3.6. Policy Process

The forestry sector is considered technical portfolio at national level, where Nepali communities often rely on forest professionals in the government and bureaucrats on policy issues. Therefore, bureaucrats serve both as administrators and technical service providers. These forest bureaucrats have become the sole actors in shaping and making forest policies. Meanwhile, forest sector has been one of the priority sectors for aid agencies and many forest policies are the result of heavy donor engagement and influence.

As local communities, civil and peer-review societies can not formulate ground-level legal instruments, forest policies, regulations and guidelines are largely the product of bureaucratic exercise within the government's structure. Thus, biodiversity conservation has centered on the power mechanics of opportunity grabbers who deprive knowledge-based communities and institutions. One probable way out is donors can encourage: 1) devolution of centers of power (government and foreign NGOs); 2) widen transparency in local communities and institutions; 3) usher good practice of science for accurate land-based information; and 4) curtail support to the existing, ambiguous policies that benefit a few, through action research.

3.7. Collaborative Partnership.

Forest biodiversity management is complex because it has multiple actors with diverse interests, capacities and perspectives. However, both in government managed forests and community managed modalities, the management has not been able harness the range of resources, capacities and perspectives of the stakeholders. In the context of emergence of diverse sets of institutions and processes at local to national levels, their meaningful collaboration and partnership is crucial to broaden our understanding and synergize efforts on biodiversity conservation. One good example is knowing about changes in annual forest cover of Nepal, which is next to impossible and one is required to wait for 10 years for the government to deliver. Conversely, it has been proven that it can be done by local knowledge-based

institution like Resources Himalaya. Therefore, Nepal must make all-out effort to minimize the effect of unequal relations of power between the socially differentiated, unequal actors to usher a non-threatening environment for a meaningful dialogue and collaboration to protect forest biodiversity.

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