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Unleashing the Potential: Exploring Sustainable Financing Practices for Biodiversity Conservation in Nepal

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Abstract

Sustainable financing (SF) intends to generate fund over the longer term to finance projects and programmes through the introduction of innovative financing mechanisms. Sustainable financing applies to all the sectors of the development programmes and projects; however it has been extensive use in the management of natural resources. Specifically, SF aims to create a more predictable cash flow, through (a) attracting and administering external funds (b) generating funding to encourage conservation and (c) introducing market-based fees for goods and services. International and national practices clearly demonstrate that comprehensive legislation is essential for generating and mobilizing funds, however is a time consuming process. Nevertheless, there is possibility of implementing the fund concept in the present context by making provisions in the finance Act. However, clear operating guidelines or a directive is necessary for collecting and mobilizing revenue for the forestry sector development. Several sustainable financing mechanisms are already in practice in Nepal. Some of which have been introduced in the recent years, such as revenue sharing, royalty and cost sharing, conservation fee, community concessions, compensation payments, carbon finance, resource extraction fee, support from multilateral agencies etc to encourage conservation. Most of these practices are in evolutionary stages and clear operational guidelines in consistent with the existing legislations are necessary for the institutionalization of sustainable financing mechanisms. Apart from this, there are several options which have potential of generating finance over the longer term. However, detailed feasibility study for introducing such financing practices, including appropriate legislative framework need to be developed.

Keywords: Sustainable financing, biodiversity conservation, Nepal.

Introduction

Sustainable financing mechanism is generating sufficient, stable and long-term financial resources, allocate them in a timely manner and in an appropriate form, to cover full costs of nature resources and ensure that funds are effectively and efficiently managed with respect to conservation and other development objectives[1,2]. It involves both mobilizing and managing funds to address a range of challenges associated with biodiversity conservation. Although the concept of sustainable financing applies to all the sectors of the development programmes and projects, recent years have seen its extensive use in the management of natural resources. It is being applied to correct the problem of lack of funding for the conservation and management of natural resources. Sustainable financing mechanism intends to address the two key problems often found in the management of the natural resources, which include (a) inability of the governments of the developing countries to cope with the necessary funds required to protect natural resources and (b) responding to the involvement of all the stakeholders, who receive benefit or suffer from the ecological services derived from natural resource base and its conservation.

Different institutions and organizations worldwide have adopted different institutional mechanisms, processes and systems for sustainable financing within the protected area system. Most of the country have introduced "conservation fund model" for managing fund and providing support to long-term sustainable funding for conservation activities either in form of grants, direct payments, budgetary support and designing and implementing programs/projects[1-3]. Ministry of Forests and Soil Conservation (MFSC) is also implementing various programs and projects for supporting biodiversity conservation and livelihoods improvement with the financial support from various donors and bilateral organizations. Continuation of these interventions requires financial support after termination of these donor funded programs and projects. However, a number of possible financial sources and institutional mechanisms already exist for sustainable financing in Nepal. Some of which includes carbon financing, payment for ecosystem services, tourism entry fee, access to local government fund, forest taxation etc[4]. Recognizing this, this paper explores existing sustainable financing mechanism in Nepal and suggests sources for long-term predictable funding for conservation and sustainable management of natural resources.

Study Methods

The study adopted the inductive enquiry method, where semi-structured questionnaires were administered in the form of a focused interview with the different types and categories of stakeholders to analyze existing financial sources and/or mechanisms and their operational modalities.

Secondary sources of information/literature such as Terai Arc Landscape (TAL) strategy, National Biodiversity strategy, Local Self Governance Act (LSGA), Sectoral Acts and Legislations, Government of Nepal's financial policies etc were collected and collated to study existing financial mechanisms. This includes Local Development Fund (LDF) at the District Development Committee (DDC) District Forest Development Fund (DFDF) at the District Forest Office (DFO), and other relevant financing mechanisms in the country as well as some best practices from the other countries. Apart from this, stakeholder consultations were carried out at with the central, regional and district level stakeholders to identify potential financial sources to support and sustain biodiversity conservation initiatives. Consultations were carried out with the officials from MFSC, Department of Forests, (DoF), Department of National Park and Wildlife Conservation, DDC, District Forest Coordination Committee, District Line Agencies, federation and alliances, protected area management authorities, Buffer zone management committee members, conservation partners, Community Forest Coordination Committees etc.

Policy and Legislative Arrangements

Policy: Sustainable financing practices are relatively new in Nepal. Policy and legislations related to forestry, biodiversity and allied sectors have been reviewed to explore and analyze the use and possibility sustainable financing practices in Nepal. Revised forest policy[5] remains silent on institutionalizing sustainable financing practices. However, recent forestry sector polices and strategies have prescribed a few market based mechanisms and proposed trust fund concept for financing biodiversity conservation and sustainable management of resources.

Nepal Biodiversity Strategy[6] envisaged establishing Nepal Trust Fund for Biodiversity (NTFB) as autonomous legal entity. The NTFB is supposed to provide financial and technical support to governmental and non-governmental and other institutions involved in the conservation of biodiversity in Nepal and enable them to undertake appropriate activities, programs or projects inside and outside the protected areas. However, there has been no progress in this regard[4]. However, these strategies have not clearly defined linkages between trust fund and revenue generated from other sources such as market based mechanisms. Furthermore, most of the mechanisms have not been implemented.

TAL Strategy and Implementation Plan[7]: This strategy suggests to create sustainable funding mechanism through various market based mechanisms such as i. mobilizing revenue from tourism and visitors to the parks and wildlife reverses ii. use of water rights iii. proceeds from sale of NTFPs and timber iv. carbon funds and v. creative conservation fee. The most of the financing mechanism proposed by TAL strategy are yet to be implemented. Nevertheless, revenue has been generated from selling carbon through Bio-gas promotion in the TAL. Likewise, this strategy has envisaged for establishing two funds i. TAL trust fund and ii. community endowment funds at the user group level. The purpose of the TAL trust fund is to finance all priority interventions in the large scale undertaking and that of the community endowment fund is to provide community matching fund for future investment in the TAL related activities. However, the TAL strategy does not clearly define linkages of the TAL trust fund with the revenue generated from other market based mechanisms.

Legislations: Major legislations which govern the management of natural resources in general and forestry sector in particular include Soil and Watershed Conservation act[8], and Forest Act[9]. Most of these sectoral acts were promulgated more than a decade ago and largely remained silent or neutral on sustainable financing mechanism. There is lack of clear stated policies in the exiting legislations, especially on Soil and Watershed Conservation Act[8] and Forest Act[9]. Timely amendment of these acts and regulations is necessary to make appropriate provisions for institutionalizing sustainable financing mechanism in Nepal. Nevertheless, MFSC has attempted to introduce a few innovative financing mechanisms to finance forestry sector development through the establishment of the Forestry Sector Development Fund for financing forest sector programme.

Forest Development Fund Establishment and Operation Procedure Directives[10]: The Directive for establishing the Forest Development Fund (FDF) was approved by the MFSC in 2007. The purpose of the fund is to develop an appropriately decentralized and sustainable financial system at the local level to enhance the livelihoods of the local people through mass afforestation, conservation and effective management and utilization of local forests; and ii) to carry out different research and studies related to forest management.

Directives to provide forest land for other purpose[11]: According to the directive, the forest lands can be converted for other purposes only when no other alternatives are available. When the forest land is converted for other purposes, the responsible agency will be required to plant equal area of forests in the area stated by the District Forest Office (DFO) and bear all the protection and management costs up-to five years.

National Parks and Wildlife Conservation Regulation allows charging fees for entering and using the protected area resources. National Parks and Wildlife Conservation Act[12] has introduced various sustainable financing practices especially through sharing revenue with the hydropower developers, charging service fee and taxes, conservation fee, community concessions, implementation of compensatory programmes, tourism fee etc. Likewise, the Act authorized to generate revenue by allowing to operate hotels, lodges, public transport services or similar other services or facilities by itself or through other parties by entering into a contract. Revenues are also generated through i. providing hunting permit and licenses ii. charging wild animals hunting fee, iii. charging fee for video and documentary making, iv. wildlife specimen collection permit. The Act requires government to share thirty to fifty percent of the revenues collected from the protected area to the local communities for community development in co-ordination with the local bodies, especially DDC.

The Working Policy on Construction and Operation of Development Projects in Protected Areas[13]According to this policy, promoters of hydropower will be required to i. deposit 10 percent of their royalty in the revenue account of the national park or wildlife reserve or in the account of conservation office in the case of conservation area for environment conservation and community development after the production of the hydropower, ii. plant 25 trees for every single tree felled or harvested, iii. carry out plantations in the area of government land provided by the chief warden which will be equal to the land area in the national park, reserve, conservation area and buffer zone used by the promoter, and bear all the protection and management costs up-to five years.

Finance Act is the most influential legal instrument for institutionalizing sustainable financial mechanism (SFM). The Act empowered the government to implement its financial proposals, levy fees, taxes and duties, and to assume any other financial liability. Minister of Finance (MoF) submits Finance Bill to the Parliament every year to charge or revise fees, levies, taxes and duties. Few SFM which are proposed in the finance act include Health service tax, Education service fee, Road maintenance and improvement fee, Pollution control fee, Forest product utilization fee etc.

There is lot of possibilities to introduce SFM in the forestry sector too by imposing taxes, fees and services charges for biodiversity conservation and sustainable utilization of the natural resources by including such provisions in the Finance Act which is promulgated annually. However, clear operating guidelines or a directive will be necessary for collecting and mobilizing revenue. MFSC should come up with clear and comprehensive directives for collecting and mobilizing forestry sector revenue and submit to Ministry of Finance with due processes prior to the submission of the finance bill to the parliament.

Sustainable Financing practices in Nepal

Sustainable financing (SF) is to generate fund over the longer term to finance projects and programmes. Specifically, it aims to create a more predictable cash flow, through i. attracting and administering external funds, ii. generating fund to encourage conservation and iii. introducing market-based fees for goods and services[1]. It includes generating fund as well as effectively managing and allocating fund for conservation and management of natural resources.

Attracting and administering external funds: This mechanism is focused on mobilization and use of funds that originate from external sources, i.e. outside the natural resource sector. Different institutions and organizations generate fund from government, bilateral and multilateral funding sources, NGOs, individuals and companies, and administer for conservation and natural resource management. Some of the mechanism which are in practice in Nepal includes:

Forest Development Fund: MFSC has established this fund at the district and central level to enhance the livelihoods of the local people through mass afforestation, conservation and effective management and utilization of local forests. The fund has been established through charging resource extraction fee on forest products. Despite substantial amount of revenue have been deposited to this fund at the district level, mobilization of the fund for implementing forestry sector programme has not been possible. This has happened because the fund was established by the government decision and not backed by any laws of the country including the Forestry Act and the Finance Act.

Community Endowment Fund: Various projects implemented in Nepal have established community endowment fund to encourage conservation and improve the livelihoods of the people. For example, WTLCP and TAL have established endowment fund for facilitating bio-gas installation and income generation. Loan is mobilized either through the cooperatives or community forestry coordination committees. Likewise, Participatory Conservation Project had established the biodiversity conservation facility at the buffer zone user committee (BZUC) for providing loan for installation of biogas and carrying out income generating activities. Loan is mobilized through the cooperatives registered with the user committee.

Contribution of local government on forestry related activities: Local bodies have been contributing a part of their revenue for undertaking forestry related activities, natural resource conservation and environment protecting in their respective districts. For example, Makwanpur DDC has established the trust fund to protect the Churia region of the district through its revenue. For this, it has developed detailed guidelines for financing conservation programmes by mobilizing private, public and non government organizations. Likewise, DDC Dang has been providing incentives to those farmers who cultivate Jatropha (*Jatrophacurcas*). These are a few examples only. However, in general, contribution of local bodies with regard to financing forestry sector related programmes and projects from their own revenue source is almost negligible while forestry, environmental conservation and alternative energy promotion are the priority programmes of most of the local bodies. Information available from the DDCs reveals that a large part of the non-conditional block grant to the DDCs is spent on infrastructure development, particularly road construction. Biodiversity conservation sector is very unlikely to receive priority until and unless mandatory provisions are made in the legislations.

Grants and support from bilateral and multilateral donor agencies: The multilateral and bilateral donor agencies such as United Nations Development Programme, Department for International Development (DFID), Global Environment Facility (GEF), Netherlands Development Organization (SNV), and Japan International Cooperation Agency (JICA) have been either providing fund directly to the government or implementing conservation and development projects. Likewise, the World Conservation Union, World Wildlife Fund (WWF) are also supporting government's initiatives on biodiversity conservation, livelihoods improvement and sustainable utilization of the natural resources. Some of the projects are now being implemented in Nepal for conservation of biodiversity through the support of external agencies which, among others, include WTLCP supported by various funding agencies, TAL- protected area project supported by WWF, TAL-critical habitat restoration project supported by WWF, Biodiversity sector Support Programme in Siwalik and Terai supported by SNV, Conservation and Sustainable Use of Wetlands in Nepal supported by UNDP/GEF etc.

Support from the multilateral development banks: World Bank has selected Nepal as a member of the Forest Carbon Partnership Facility (FCPF), an innovative approach to financing efforts to combat climate change. Nepal will receive initial funding from FCPF to reduce emissions from deforestation and forest degradation (REDD). The grant money will be used to prepare future systems of positive incentives for REDD, specifically to establish emissions reference levels, adoption of REDD strategies, and designing monitoring systems[14].

Generating funds to encourage conservation: This aims at providing financial incentives for biodiversity conservation and sustainable use. Various types of financing mechanisms, which are used in Nepal includes.

Revenue sharing: Ten percent of revenue generated from the sale of forest products is shared with the local bodies, especially with the DDC. This amount shall be utilized for the conservation and sustainable utilization of the forestry resources. However, information available from the district sources reveal that a small proportion of income has been used for the implementing forestry related programmes and projects[3]. Likewise, 30 to 50 percent of the protected area revenue is shared with the Buffer Zone Management Committee to implement community development projects and programs. Similarly, income from the collaborative forest management group is shared with the local government, MFSC and user groups.

Royalty sharing: Recently provisions have been made to share hydropower royalty with National Parks, Wildlife Reserves, Conservation Areas, and Buffer zones as per the Working Policy on Construction and Operation of Development Projects in Protected Areas[13]. According to this policy, hydropower developers working in protected areas should deposit 10 percent of their royalty for environment conservation and community development in the revenue account of the national park or wildlife reserve or in the account of conservation area.

Cost sharing: "Adopt a park" concept have been introduced in Nepal for sharing cost of managing the protected areas. For example, management responsibility of the Annapurna Conservation Area, Gaurisankar Conservation Area and Mansalu Conservation Area has been handed over to the National Trust for Nature Conservation (NTNC) and Kanchanjunga Conservation Area has been handed over to the its management council.

Similarly, attempts have been made to transfer resources from high income protected area to the low income protected area. For example, BZMC of the Chitwan national park made provision to provide 5 percent of its total income to other adjoining low income protected areas. However, transfer of such fund has not been possible into operation due to lack of necessary legislative framework[3].

Add-up/round-up: Under this approach few amount of the income is allocated for the development of the particular sector through adding up or rounding up the revenue, For example, all the industrialists and business people, who carry out their business in Kailali district, provide one paisa per unit of the products sold by them to the Federation of Nepalese Chambers of Commerce and Industry (FNCCI) – Kailali for the tourism development. Likewise, local daily newspaper published in Kailali have created fund by contributing Rs 1 per every paper sold to promote natural resource conservation in the district. Likewise, the Yeti Airlines provides Rs 1 each to four NGOs on its every sold ticket to support various deprived sections of the community[3].

Conservation fee: Department of National Park and Wildlife Conservation has been charging conservation fee from the hotels which operate inside the protected areas, specifically, in Chitwan and Bardiya National Park as per the National Park and Wildlife Conservation Act. Conservation fee is charged as per the government decision, which is equivalent to the annual royalty amount, of renewing or issuing license. Hotel operators in Annapurna Conservation Area directly pay conservation fee to the NTNC. Of the total conservation fee collected, at least 25 percent of amount is to be spent for the community development in the localities where the entry gates of hotels are located. Likewise, 20 percent should be spent on conservation education. Rest of the amount can be used for biodiversity conservation, eco-tourism promotion and working conditions improvement, sustainable development, physical infrastructure development inside protected area etc.

Community concessions: Forestry related legislations have included various concessions to generate revenue as well as to develop positive attitude towards the biodiversity conservation. National Parks and Protected Area Regulation allows local people to collect the grass, thatch and canes from the protected areas every year with nominal entry fee. Likewise community forestry programme has received the highest priority in the Forest Act compared to other programs in the forestry sector.

Compensatory payments: With a view to discourage conversion of forest land to other purposes, various compensatory mechanisms have been developed. In the productive landscape, responsible agency has to plant equal area of forests in the area specified by the DFO and bear all the protection and management cost up-to five years when the forest have been converted for not for profit making. In case of the profit making purposes, responsible agency will be required to pay the royalty amount of land in addition to the above costs. In the protected areas, the responsible agency is required to i. plant 25 trees for every single tree felled or harvested and ii. plant equal area of forests in the area specified by the chief warden and bear all the protection and management cost up-to five years.

Compensation payments are an effective way to hold responsible agencies accountable for the impact they have on ecosystems and biodiversity. However, the study could not find evidences on mobilization of revenue generated through this sources being ploughed back to finance the programme and projects in the district. This reveals that clear operational guidelines are necessary when such provisions are made[3].

Market-based fees for goods and services: Forests produce many goods and services of high economic value. The market transactions and economic statistics typically do not reflect or register the full value of goods and services produced by the forests. Charging fee for goods and services help to create or strengthen financial incentives for producers and consumers to support biodiversity conservation and sustainable use, as well as raising new fund[1]. Various types of market based fees for goods and services which are being used in Nepal include:

Resource extraction fee: MFSC charges resource extraction fee at the rate of Rs Five per cubic feet of timber from the commercial sale of forest products from the national and private forests[11]. Likewise, DNPWC charges hunting fee when the wild animals are hunted even by obtaining the license. For example, a Nepalese and foreign national need to pay NRs 5000 and NRs 30,000 respectively for hunting leopard in addition to the license fee[9].

Tourism charge: Revenue has been generated from tourism fee with the establishment of the protected areas in Nepal. Tourism revenue is mainly generated through the entry fee along with the issue of travel and trekking permits.

Water conservation fee: Water use fee are charged from the Mineral Water Company. MFSC collects Rs 5 paisa per liter of water produced by the mineral water company.

Carbon finance: In Nepal's Terai Arc Landscape, WWF-Nepal has already created a renewable energy carbon project based on 7,500 individual household biogas units. The carbon credit is based on calculating the reduction of greenhouse gases (methane and carbon dioxide) that would otherwise be produced from the breakdown of livestock and human waste and from the burning of fossil fuels and fire wood that would occur in the absence of the biogas stoves. This project has been validated and is registered with the Gold Standard APX registry[15].

Generating Sustainable Finance - Menu of Options

Different SFM have been proposed for generating fund (revenue) to facilitate biodiversity conservation. Potential sources of fund have been identified based on i. review analysis of the existing sustainable financing practices in the world and Nepal, ii. analysis of provisions made in various sectoral policies and legislations and iii. consultations with the district and national level stakeholders. This section provides menu or options which have potential of generating finance over the longer term. However, detailed feasibility study for introducing such income sources, including appropriate legislative framework need to be developed for institutionalizing SFM. Table 1 presents possible ways to institutionalize financing practices suggested above. Amendments on various legislations may be necessary.

Attracting and administering external funds: Apart from the existing financial mechanisms of attracting and administering external funds, some of the most potential financing mechanisms which can be introduced are: i. **Ring fencing of the local bodies' budget:** Certain percentage of the non-conditional grant budget of the local bodies could be utilized for biodiversity conservation. For this, the block grant mobilization guidelines of the local bodies should be revised to make mandatory to spend on projects and programmes that support biodiversity conservation. ii. **Up-scaling of endowment funds:** As discussed earlier, several projects and programs have established the community endowment funds at the district and community level to provide incentives for biodiversity conservation. High emphasis should be given to upscale those funds at the local and district level through efficient mobilization of community, private sector and sectoral funds. iii. **Establishment of forestry development bank:** None of the financial institutions in Nepal have been financing forestry sector programmes including plantation of forestry crops. Therefore, it is high time to carry out a feasibility study to explore possibility of establishing the forestry development bank by mobilizing income of forestry user groups and the private sector. iv. **Corporate funding:** Companies can be encouraged to establish special funds to support biodiversity conservation programmes. This can be introduced by allowing the company to spend a fixed proportion of their profit on landscape level conservation through direct incentives such as the tax rebate. v. ***Cause-related marketing*** such as sale of products or services linking directly with the conservation, e.g. promotion of eco-labeled products, organization of special events such as trade fair, fund raising events, auctions etc.

Table-1
Ways of institutionalizing various sustainable financing practices

SN	Financing practices	Collection responsibility	Revue collection at	Possibility to regularized through	Revenue sharing from forest sector development fund
A. Attracting and administering external fund					
1	Ring fencing of the local bodies' budget	DDC	District	Amendment on LSGA	No, all amount will be utilized in respective district
2	Up-scaling of endowment funds	DDC/MFSC	District/Central	Not required	Not applicable
3	Establishment of forestry development bank	NA	NA	Not applicable	Not applicable
4	Corporate funding	DDC/MFSC	District/Central	Not required	Not applicable, funds will be used as per the agreement
5	Cause-related marketing	DDC	District	Not required	Yes
B. Generating funds to encourage biodiversity conservation					
1	Conservation fee to the forest based industry	DDC	District	Amendment on LSGA	Yes
2	Conservation fee to the tourist	Warden Office	Protected area	Amendment on NPWCA and FA	Yes
3	Conservation fee to the tourism related service industry	Warden Office	Protected area	Amendment on NPWCA and FA	Yes
4	Tourism service tax	Warden Office	Protected area	Amendment on NPWCA and FA	Yes
5	Revenue sharing with the forest user groups	DFO	District	Amendment on forest act	Yes
6	Royalty sharing with hydropower developers	DDC	District	Amendment on FA	Yes
7	Transferring resources to less income protected areas	MFSC	National	Amendment on NPWCA	No
8	Add-up/round up	DDC/MFSC	District/Central	Not required	Not applicable, funds will be used as per the agreement
9	Cost sharing	MFSC	Central	Not required	Not applicable
10	Compensatory payments	MFSC	Central	Amendment on NPWCA	Not applicable
C. Generating funds to encourage biodiversity conservation					
1	Tourism charges	Warden Office	District	Not required	Yes
2	Carbon finance	MFSC	Central	Forest Act	Yes
3	Water Use Fee	Warden Office	Protected area	Amendment on NPWCA	Yes
4	Resource extraction fee	Warden Office/DFO	Protected area/ District	Amendment on NPWCA and Forest Act	Yes
5	Bio-prospecting charges	DFO	District	Forest Act	Yes
6	Payment for watershed services	DSCO	Central/District	SWCA	Yes

Note: NPWCA – National Parks and Wildlife Conservation Act; FA- Finance Act; SWCA- Soil and Watershed Conservation Act

Generating funds to encourage biodiversity conservation: The study suggests for continuing the existing financing mechanism such as (a) Royalty sharing with hydropower developers (b) Adopt a park concept and (c) Compensatory payments. Apart from this, following potential financing mechanisms are suggested to generate funds to encourage conservation include: i. **Conservation fee to the forest based industries**: Conservation fee can be levied to the forest based industries such as Saw Mill, Furniture Industries and Forest Products Processing Industries from their annual turnover. ii. **Conservation fee to the tourists:** Most of the protected areas and a few community forests have been generating revenue from the tourism. Conservation fee should be levied to the tourists who visit protected areas and community forests. Conservation fee should not be more than the entry fee and that the entry fee should explicitly indicate the conservation fee. iii. **Conservation fee to the tourism related service industries:** Tourism related service industries such as hotels, restaurants, offering services related to jungle safari, elephant riding, bird watching etc. should be levied conservation fee based on their annual turnover. At present, hotels operating inside the national park are providing conservation fee, but yet to be introduced in other tourism related service industries operating in the buffer zone or inside the community forests. iv. **Tourism service tax:** The protected area and other amenities have been providing various services to the tourism but service tax from the tourists are rarely collected. In view of this, service tax can be collected from the tourists visiting protected areas and community forests for tourism related services such as canoeing, hiking, bike riding etc. v. **Revenue sharing with the forest user groups:** Some forest user groups have been generating a large amount of revenue from the sale of the forest products. But there is no mechanism to share the revenue with the local and central government. Hence, the government should consider possibility of revenue sharing with the community forest user groups based on annual turnover with the local government for promoting forestry activities in the forest scarce areas. vi. **Transferring resources to less income productive and protective landscape:** Mechanism need to develop to allow the high income protected areas to transfer their resources to less income productive and protective landscape. vii. **Add-up/round up:** The concept of add-up/round up is increasing in Nepal but it is yet to be practiced in the forestry sector. Marketing of add-up and round up-concept with the various entrepreneurs should be continually explored and promoted to financing forestry sector programme.

Market-based fees for goods and services: Charging market based fees for goods and services provides financial incentives for producers and consumers to support biodiversity conservation and sustainable use. Apart from continuing existing market based fees for goods and services such as (a) tourism charges through entrance fees, hotel taxes, and service (b) Carbon finance (c) Water use fee and (d) resource extraction fee, the study also suggests for institutionalizing following practices.

Bio-prospecting charges: Bio-prospecting charges will be introduced to companies who are involved in collection, processing and value additions of non-timber forest productions, medicinal and aromatic plants, and wild edible food.

Payment for watershed services: Mechanism will be developed for charging watershed services to the drinking water suppliers, hydro-power developers, irrigation water user and industrial water users. Likewise, the taxes will be levied to the people living in the down-stream for protection of the watershed in the up-stream area. The income generated from payment of watershed services will be used to promote sustainable natural resource management and poverty alleviation among poor communities living in the up-stream of the watershed.

Conclusion

Various sustainable financing mechanisms have been already introduced in Nepal through i. administering and mobilizing external fund such as conservation fund; Contribution of the funds by the local government for forestry related activities, Donor assisted projects and programs ii. generating funds to encourage conservation and iii. introducing market based mechanism through revenue, royalty and cost sharing, conservation fee, community concessions, compensation payments, add-up/round-up etc. and iv. market-based fees such as tourism charges, resource extraction fees, water conservation fee, carbon finance etc. These approaches have been able to generate significant amount of revenue for financing natural resources conservation and management programs. However, most of these practices are in evolutionary stages and clear operational guidelines in consistent with the existing legislations are necessary for the institutionalization of sustainable financing mechanisms.

Different sustainable financing practices being practiced worldwide includes biodiversity conservation includes i. national and international public budgets; ii. support from national and international bi and multi lateral agencies, iii. tourism; iv. sale of environment services and v. introduction of conservation fund model etc. Fund approach is considered as one of the sustainable financing mechanism but managing the fund is a complicated task which involves several institutional actors and stakeholders with different areas of jurisdiction and mandate. Most of the country have introduced “conservation fund model” for managing fund generated through various innovative financing practices. Generated fund (revenue) is deposited in the specific fund account. The fund is then invested into the program or activities that support biodiversity conservation and sustainable use of natural resources. Almost all fund revenue is ploughed back to same sector or areas from where the fund has been generated. Institutions dedicated to conserving the natural resources, environment, biodiversity, tourism etc or legally independent institutions are have been created for managing the funds. These institutions provide long-term sustainable funding for conservation activities either in the form of grants, direct payments, budgetary support and designing and implementing programs/projects that support conservation. Hence, MFSC should also conduct feasibility study to explore the possibility of introducing SFM practices along with development of clear operational guidelines for generating and mobilizing funds.

Several fund concepts has been introduced and established in Nepal. However, the fund concept has not become operational in reality due to the lack of clear operational guidelines in consistent with the exiting legislations. International experiences shows that most of the country has initiated the SFM as a pilot projects, which are then up-scaled based on lessons learned. Based on the lessons learned, strong policy and legal support with clearly defined operational guidelines were formulated for its institutionalization at the country level. Hence, the country should initiate sustainable financing practices in a pilot scale and should gradually upscale based on lessons learned.

Strong policy and legal support with clearly defined operational guidelines is necessary for institutionalizing SFM. There is a need for amendments, revision or preparation of policy and regulatory framework to establish mechanisms for institutionalizing SFM. Forests, Soil Conservation, National Parks and Wildlife Conservation Acts/Regulations need amendments to include mechanisms for generating and mobilization income from sale of ecosystem services. Promulgation of legislation takes time and it is lengthy processes. Despite of this, there is possibility of implementing the fund concept in the present context by making provisions in the Finance Act along with identification of appropriate institutions and delegation of authorities.

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