

CROSS BORDER INSTITUTIONAL COOPERATION ON ENVIRONMENTAL PROTECTION IN EASTERN HIMALAYAN REGION

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This paper examines the cross border Institutional cooperation on issues related to environmental protection in Eastern Himalayan Region with a focus on India, Bhutan and Nepal. Eastern Himalayan Region is a trans-boundary region where biodiversity, landscape and geography are same, but politics and policies are different. The countries of the Eastern Himalayan Region shares same landscape, but lack a uniform policy to address environmental issues. This creates immense challenge to achieve environmental goals. In such a case environmental problems in the Eastern Himalayan region might not get addressed. Therefore cooperation between states becomes important. However to bridge this policy gap, institutions addressing the issue of environment are playing active role to bring cooperation among these countries to preserve the environment.

Key Words: Eastern Himalayas, Environmental Cooperation, Biological Diversity, Mountain Development, Conservation.

Environmentalism as a global agenda has gained currency particularly in the aftermath of 1970s when some international events on environmental issues took place around the world. The diverse theoretical perspectives have been advanced to understand the rise of environmental agenda at global level and its consequential impact on sovereign states. It has increasingly been claimed by the scholars of neoliberal institutional theory that the environmental problems are such issues that can attract the attention of the whole world and generate cooperation among nation-states for its solution.

Neoliberal institutionalism theory gained momentum in the second half of the last century with the rise of new issues on the horizon of world politics. The proponents of neoliberal institutionalism are¹ Robert Keohane (1989), Oran R. Young (1989), Mathews (1991), Porter and Brown (1991), Hurrell and

¹ Keohane, Robert O, "International Institutions: Two Approaches", *International Studies Quarterly*, 32, 4 (1988): 379-396. Hurrell, A. & Kingsbury, B, "The International Politics of the Environment", *International Affairs*, 69, 1, (1992):144-145.

Kingsbury (1992), and Hass et al. (1993). The neoliberal institutional theorists characterize states as key actors in deciding the course of international politics. It also maintains that although states are important actors in the anarchic international system, they are not the only actors. The non-state actors, such as, nongovernmental organizations (NGOs), institutions and others also play a crucial role in determining the outcome of international system by facilitating cooperation among states. The advocates of this tradition argue that international institutions can make cooperation easier and far more likely. Woodrow Wilson is considered to be the first liberal institutionalist who pointed out the importance of institutions to transform the international relations from a jungle of chaotic power politics to a zoo of regulated and peaceful intercourse.²

The works of Keohane (1989), Krasner (1983), Rittberger (1993), Young (1989), and Oye (1986) explain in detail all the aspects associated with institutions that help in facilitating cooperation in international relations on environmental issues.³ Robert Keohane who is primarily associated with neoliberal institutional approach defines institutions as, “persistent set of rules formal and informal that prescribe behavioral roles, constrain activity, and shape expectations.”⁴ Neoliberal institutionalists put emphasis upon the need of formation of various kinds of international organizations, NGOs, and institutions with a view to find solutions to the global environmental problems. It has been argued by advocates of this approach that in the international environmental politics a wide range and large number of non-state actors including companies, local authorities, financial institutions, social groups, and individuals are typically at least as important as states as actors in these processes.

The neoliberal institutionalist accounts of international environmental politics contest the state-centric biases of Realist explanations. Keohane, Hass, and Levy argue that institutions help in appropriation of agenda through the convergence of political

² Jackson R. & Sorensen G, *Introduction to International Relations: Theories and Approaches*, (New Delhi: Oxford University Press, 1999).

³ Keohane Robert, *International Institutions*.

⁴ *Ibid.*

and technical consensus about the nature of environmental threats. Institutions mediate in the intergovernmental bargaining and thereby contribute in formulating a comprehensive and specific international policy. Moreover, their contribution is significant in national policy making that is instrumental in checking environmental degradation.⁵

Neoliberal institutionalist takes the environmental issue as a new area of potential cooperation in international relations. Hurrell and Kingsburg argue international cooperation is required both to manage global environmental problems and to deal with domestic environmental problems in ways that do not place individual states at a political or competitive disadvantage.⁶ The non-state actors and a host of different actors, other than states, are seen as important actors in the collective pursuit for environmental stability and environmental sustainability. On various problems of environmental degradation, neoliberal institutional perspective has provided thorough framework to study them and provide possible solutions to tackle them.⁷ Neoliberal institutionalism with specific focus on institutions provides an ample scope to interpret the developments that led to the creation of United Nations Framework Convention on Climate Change.⁸

The international environmental institutions construct a system of ideas, norms, and identities. These ideas, norms, and identities play an important role in shaping the behavior of states which eventually reshape states priorities to power and interests.⁹ Institutions play an important role in modifying or inducing changes

⁵ Keohane Robert, *International Institutions*.

⁶ Hurrell and Kingsbury, 1992.

⁷ Rajnish S, "Global Environmental Agenda: The Neoliberal Institutional Perspective", Retrieved on 23/10/ 2018, URL: <https://doi.org/10.1177/0973598415599882>.

⁸ Paterson M, "IR Theory: Neorealism, Neoinstitutionalism and the Climate Change Convention", in John Vogler & Mark F. Imber, (eds.), *The Environment and International Relations*, (London: Routledge, 1996).

⁹ Mitchel, Ronald B, "Of Course International Institutions Matter: But When and How?" in Frank Biermann, Rainer Brohm and Klaus Dingwerth, (eds.), *The Global Environmental Change and the Nations States: Proceedings of the 2001 Berlin Conference on the Human Dimensions of Global Environmental Change*, (Germany: Potsdam Institute for Climate Impact Research, 2002).

in the behavior of states through development, dissemination, and improvement in scientific and technical knowledge. Institutions help states not only to improve their understanding of material interests but also to develop new identities and roles over a period of time. The commitment on the part of states to environment goals and the international pursuit of those goals is by and large conditioned by the process of scientific investigation that explains the anthropogenic impact on environment. The process of scientific investigation is more often than not carried out by institutions. Therefore, institutions invariably exercise great influence on the decision-making process of states involving environmental issues.¹⁰

Effective institutions can influence the political process at three key points in the environmental policy making and policy implementation process: by contributing to more appropriate agendas and reflecting the convergence of political and technical consensus about the nature of environmental threats; by contributing to more comprehensive and specific international policies agreed upon through a political process whose core is intergovernmental bargaining; and by contributing to national policy responses that directly control sources of environmental degradation. Although effectiveness in setting agendas and in international policy formulation is a facilitating condition, effectiveness in national policymaking is a necessary condition for improvement of environmental quality through the actions of international institutions.¹¹

Thus, Eastern Himalayan Region considered as one of the world's most important ecosystems is the direct source of livelihood for a million people. The ecosystem plays an important role in biodiversity and the function of the eastern Himalayas as a water reservoir. Particularly in the Eastern Himalayan regions, climate change and steadily increasing exploitation pressures are contributing to deterioration in the condition of the sensitive mountain ecosystems. These challenges can only be overcome by cross-border institutional cooperation both governmental and

¹⁰ Mitchell, *International Institutions*.

¹¹ Haas P. M, & Keohane R, *Institution for the Earth: Sources of Effective International Environmental Protection*, (Cambridge: MIT Press, 1993).

nongovernmental. Thus International and regional Institutions act as a platform for environmental cooperation in the Eastern Himalayan Region. Through knowledge sharing and expert dialogues, Institutions have brought the Eastern Himalayan nations and their national expert organizations together to implement joint regional programmes.

Cooperation is the process of working or acting together for a common purpose or benefit. Cross-border cooperation is a form of international cooperation exercised bilaterally or multilaterally between countries or regions across shared and non-shared borders to yield benefits or reach common goals¹². Institutional cooperation comprises collaboration and joint working within and across organizations in order to develop and implement an environmental protection. Such cooperation requires the sharing of objectives, knowledge, resources, powers or consent between several actors.¹³

International environmental cooperation has increased dramatically since many decades. The question about the effect of institutions is also at the center of a broader debate in international relations theory. The study of institutions has made an important comeback since the 1970s. It has contributed significantly to the international cooperation literature by explaining when, how and why international institutions emerge or change.¹⁴ The focus is on International environmental institutions. Such institutions are here defined as sets of international regulations and organizations that were intentionally established by preexisting actors such as states through explicit, legally or politically binding, international agreements in order to regulate anthropogenic sources of negative externalities affecting the natural environment.¹⁵

¹²Gerfert S, *Cross-Border Cooperation: Transforming Borders*, Retrieved on 24/10/2018, URL: essay.utwente.nl/60149/1/BSc_S_Getfert.pdf

¹³ Cré, Ivo & Mourey, Thomas (2016), *Institutional Cooperation*, Retrieved on 24/10/2018, URL: www.Eltis.Org/Sites/Eltis/Files/Sump-Manual_Cooperation_En.Pdf

¹⁴ Kratochwil, F & Ruggie, J.G, "International Organization: A State of the Art on an Art of the State", *International Organization*, 4, 40 (1986): 753-775.

¹⁵ Hurrel, A. & Kingsbury, B, "The International Politics of the Environment", *International Affairs*, 1, 69 (1992): 144-145.

The Eastern Himalayas encompass Nepal, Bhutan, the North Eastern states and North Bengal hills in India, Southeast Tibet, southern parts of Yunnan province of China and Northern Myanmar, a total of nearly 525,000 square kilometers¹⁶. The Eastern Himalayas are counted in the crisis ecoregions, biodiversity hotspots; endemic bird area; mega diversity countries¹⁷. The forests of the Eastern Himalayas sustain many rivers and landscapes. These rivers and landscapes provide valuable goods and services not only by providing water and biodiversity, but also by providing services such as soil retention, climate regulation, carbon sequestration, and providing reservoirs of pollinators and natural predators. The welfare of millions of people downstream is inextricably linked with the natural resources of the Eastern Himalayas. Threats to biodiversity from climate change could be acute in the Eastern Himalayan Region which is rich in endemic species that have narrow and restricted ranges of distribution.¹⁸

Fragmentation and loss of habitat are threatening the survival of some endemic species in the region. Conversions of forest to agriculture land for development purposes and the exploitation of forests for timber, fodder and fuel woods are some of the common threats to biodiversity in this region. The region is rich in endemic species and poaching is a major threat to wildlife in the region, especially endangered species like tigers, elephants and rhinos. Killing wildlife also takes place as a result of human-wildlife conflict (WWF, 2015). Temperature in the Himalayas has been increasing for last many decades and as a result global and high altitude systems are at a greater risk.

The infrastructure and development in Eastern Himalayan region creates a greater demand for energy. The Eastern Himalayas relies on hydroelectric power, and the countries of the region are taking advantage of this resource. The creation of numerous

¹⁶ Sharma E, *Climate Change Impacts and Vulnerability in the Eastern Himalayas*, (Nepal: Hill Press Publications, 2009).

¹⁷ Brooks T M, Mittermeier R. A & Hoffmann M, "Global Biodiversity Conservation Priorities", *Science*, 313(2006): 58-61.

¹⁸ Root T L, Price J, Hall K R & Schneider S H, "Fingerprints of global warming on wild animals and plants", *Nature*, (6918) 421 (2003): 57-60

dams without due environmental impact assessment leads to the submergence of arable lands and biodiversity hotspots. With the creation of reservoirs it not only affects habitats, but villagers would also be displaced. The effect of dams on fisheries and fish ecology is also a matter of concern (WWF, 2015).

In the Eastern Himalayas, the glacier melt is leading to the formation of high altitude lakes which are very dangerous as they cause glacier lake outburst floods (GLOFs) with great damage to life, property, forests, farms and infrastructure. A number of glacial lakes in the Eastern Himalayas have burst leading to a glacial lake outburst floods with catastrophic consequences for nature and humans alike; GLOFs have occurred at various locations in the Eastern Himalayas including in Bhutan, India, and Nepal (ICIMOD, 2007).

Various environmental issues are found in Eastern Himalayan region having common concerns to India, Bhutan and Nepal. Several approaches to conservation and protection have evolved in this region but recently there is paradigms shift with emphasis on a more participatory approach at the landscape and ecosystem level.¹⁹ Local water governance, integrated water management efforts of the community, engaging the farmers to participate, reviving traditional means of conservation, propagating equitable distribution etc are important methods used for the environmental protection under this new paradigm.²⁰

Biodiversity conservation and management interventions in the Eastern Himalayas date back to the 19th Century with the exploration of the region by renowned botanists, zoologists, and nature explorers from across the world.²¹ In 1992, the Convention on Biological Diversity (CBD) produced global objectives for the conservation of biological diversity, for the sustainable use of its components, and for fair and equitable sharing of the benefits arising from genetic resources. India, Bhutan and Nepal are signatories to

¹⁹ Sharma E, *Climate Change Impacts and Vulnerability in the Eastern Himalayas*, (Nepal: Hill Press Publications, 2009).

²⁰ Sharma E, *Climate Change*.

²¹ *Ibid*.

the Convention on Biological Diversity (CBD) and are committed to conservation as a measure towards the immediate protection of globally significant landscapes.

In 2004, the Conference of Parties under Convention on Biological Diversity (CBD) adopted an ecosystem approach²² to biodiversity conservation and management which included a programme of work on Mountain Biodiversity to reduce the loss of mountain biological diversity significantly at global, regional, and national levels. The countries of the Himalayan region have already started to fulfill their role as signatories to the Convention on Biological Diversity (CBD) by setting aside considerable biodiversity rich areas for different forms of protection.

Many new approaches to conservation have evolved in this region. The conservation initiatives undertaken by the World Wide Fund for Nature (WWF) with the support of ICIMOD, the United Nations Development Programme (UNDP), and other organizations have identified many conservation landscapes and corridors across the Eastern Himalayas. This has been further supplemented by the identification of gaps, potential corridors and conservation target sites, and species outcomes across the region.²³ Their aim is to provide connectivity conservation management, assisted by transboundary protected area management which helps to minimize species extinction and maintain healthy environments and catchment. National Adaptation Plan of Action (NAPAs) is also currently being prepared by countries under the initiative of the UN Framework Convention on Climate Change.

²² The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Application of the ecosystem approach will help to reach a balance of the three objectives of the Convention. It is based on the application of appropriate scientific methodologies focused on levels of biological organization which encompass the essential processes, functions and interactions among organisms and their environment.

²³ Chettri N, Shakya B, & Sharma E, *Biodiversity Conservation in the Kanchenjunga Landscape*, (Nepal: Hill Side Press Ltd. 2008).

Role of Institutions in Environmental Protection in Eastern Himalayan Region

International environmental institutions can be considered to be responses to problems caused by inadequate responses by governments, acting without institutional support, to environmental threats. The inadequacy of governmental responses derives principally from the major factors such as low levels of concern about the environmental threat, lack of capacity to manage it, and the inability to overcome problems of collective action. Thus, effective environmental Institutions help to improve the quality of efforts to protect the environment and also help to overcome each of these factors. Some Environmental Institutions are discussed below which address the various Environmental Issues at cross national and regional level.

World Wide Fund for Nature (WWF)

The WWF is an international non-governmental organization founded in 1961, working in the field of the wilderness preservation, and the reduction of human impact on the environment. The aim is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. Currently, their work is organized around these six areas: food, climate, freshwater, wildlife, forests, and oceans (WWF, 2018).

World Wide Fund is working in the Eastern Himalayan region since the start of the conservation movement and the founding of organization in 1961. In 2009, the Living Himalayas Initiative (LHI) was established as one of WWF's global initiatives to bring about transformational conservation impact across the three Eastern Himalayan countries of Bhutan, India (North-East) and Nepal. Since then, Living Himalaya Initiative built on WWF's many years of conservation experience in this region by WWF India, WWF Nepal and WWF Bhutan. The Living Himalayas Initiative urges the governments of Bhutan, India and Nepal and other stakeholders to commit to cooperate on conservation efforts that transcend the borders of the three countries to protect the landscape and the livelihoods of the people (WWF, 2015). At the 2011 Climate Summit, the Eastern Himalayan nations India, Bhutan and Nepal signed a

declaration and a regional framework of cooperation(FOC) that addressed use, ensuring food security and livelihoods, securing the natural freshwater systems of the Himalayas and ensuring food security and enhancing alternate technologies.²⁴

International Centre for Integrated Mountain Development

International Centre for Integrated Mountain Development (ICIMOD) is a regional intergovernmental learning and knowledge sharing centre serving the eight regional member countries of the Hindu Kush Himalayas. It functions as a facilitator for the 8 member countries of the Himalayan Region India, China, Nepal, Myanmar, Pakistan, Afghanistan, Bhutan and Bangladesh for conservation and sustainable development of the Himalayas. It brings together a partnership of its regional member countries, partner institutions, and donors with a commitment for development action to secure a better future for the people and environment of the extended Himalayan region. ICIMOD is working for the transboundary cooperation on Kanchenjunga landscape initiative in India, Bhutan and Nepal.²⁵

GB Pant National Institute of Himalayan Environment & Sustainable Development

G.B. Pant National Institute of Himalayan Environment and Sustainable Development is an autonomous Institute of the Ministry of Environment, Forest & Climate Change (MoEF&CC), Government of India, which has been identified as a focal agency to advance scientific knowledge, to evolve integrated management strategies, demonstrate their efficacy for conservation of natural resources, and to ensure environmentally sound development in the entire Indian Himalayan Region (IHR). The Institute works for Implementation of conservation & Sustainability related action plans in the Himalayas. The mandate of the Institute has also been changed from Conservation of the Himalayan Environment to Sustainable Development of the Himalayan Region for addressing environmental, economic and social issues and concerns. This

²⁴ WWF, Living Himalayas Report 2015, Retrieved on 25/09/2018, URL:https://d2ouvy59p0dg6k.cloudfront.net/downloads/final_lhi_special_report.pdf

²⁵ ICIMOD, *Annual Report 2013: Integration, Innovation, Impact*, (Nepal: Quality Printers, 2013).

Institute mainly focuses on four broad areas such as Food security, Water security, and Livelihood issues including Infrastructure development & quality of life and Conservation of natural resources. Apart from undertaking research and technology development and demonstration on its own, the institute has linkages with national and international organization committed to environment and development linked issues in the mountain Regions. It is also the nodal Institution for ICIMOD activities. This institution is also working with India, Bhutan and Nepal for environmental cooperation.²⁶

International Union for Conservation of Nature (IUCN)

International Union for Conservation of Nature also works for environment and development challenges. IUCN's work focuses on valuing and conserving nature, ensuring effective and equitable governance of its use, and deploying nature based solutions to global challenges in climate, food and development. IUCN supports scientific research, manages field projects all over the world, and brings governments, NGOs, the UN and companies together to develop policy; laws and best practice. In the IUCN Programme for 2017–2020 conserving nature and biodiversity is inextricably linked to sustainable development and poverty reduction. In coordination with various governmental and non- governmental agencies, IUCN has been working in Nepal to conserve biodiversity to improve and secure livelihood.²⁷

Ashoka Trust for Research in Ecology & the Environment (ATREE)

Ashoka Trust for Research in Ecology & the Environment is a global NGO which generates interdisciplinary knowledge to form policy and practice towards conservation and sustainability. It is working on social environmental issues from local to global policy level. It is working on project sustainable use of bio resources in eastern Himalayas. This organization is also working with India, Bhutan, and Nepal for the Kanchenjunga landscape conservation and development Initiative.²⁸

²⁶ G.BPIHESD, *Annual Report 2014-2015*, Retrieved on 15/09/2018, URL:gbpihed.gov.in/

²⁷ IUCN, *Annual Report 2017*, Retrieved on 25/09/2018,URL: <https://www.iucn.org/about/programme-work-and-reporting/annual-reports>

²⁸ ATREE, *Annual Report 2016-2017*, Retrieved on 26/09/2018,URL:<https://www.>

The Mountain Institute (TMI)

The Mountain Institute is an international non-profit organization dedicated to protecting the world's mountains by conserving mountain ecosystems and empowering the people in mountain communities. The Mountain Institute works with mountain region to address their most critical challenges by focusing on conservation, community & culture. The Mountain Institute's pioneering approach to preserving the cultural and natural resources of the eastern Himalaya incorporates a transboundary strategy recognizing the biological and cultural linkages between various parks and protected areas. In helping to create and support various parks and protected areas in the region, The Mountain Institute has been instrumental in encouraging the protection of a contiguous region. The Mountain Institute also partners with local and regional organizations to promote biodiversity conservation in the nearby Himalayan state of Sikkim in India, featuring Khangchendzonga National Park (The Mountain Institute, 1996). This National Institute also works for biodiversity conservation on Eastern Himalayan Region India, Bhutan and Nepal.

Royal Society for the Protection of Nature (RSPN)

Royal Society for protection of Nature is Bhutan's first and only non-governmental organization with nationwide operations. Since its establishment in 1987, the Royal Society for the Protection of Nature has promoted environmental education and advocacy. The Royal Society for the Protection of Nature is active in research and conservation of endangered species. To meet the environmental and social needs, RSPN initiated projects to promote sustainable ecotourism, alternative energy, and gender and water, waste management, wetland conservation, organic farming, income generating options such as souvenir making and in the conservation of forest resources in close collaboration with the Department of Forest and Park Services.²⁹

Bhutan Trust fund for Environmental Conservation (BT FEC)

Bhutan Trust fund for Environmental conservation, established in 1992 as a collaborative venture between the Royal Government of

atree.org/sites/default/files/report/atree_ar_2016_17.pdf

²⁹ John D, 2010.

Bhutan, United Nations Development Program, and World Wildlife Fund. The main mission is to promote the socio-economic welfare of Bhutan by funding conservation of their flora, fauna, diverse eco-system and biodiversity; and addressing the adverse effects of development on Bhutan's natural environment.³⁰

Practical Action

Practical action is one of the pioneer non governmental organizations in Nepal. It mainly works for climate change adaptation programme, implements projects and studies on climate change issues. This organization prioritized its work in Nepal into four sectors: Access to energy; Agriculture, markets and food security; Urban waste, water and sanitation; and Disaster risk reduction.³¹

National Trust for Nature Conservation (NTNC)

The National Trust for Nature Conservation (NTNC) is another NGO that works in the field of nature conservation and sustainable development in Nepal. This trust has undertaken projects on nature conservation, biodiversity as well as cultural heritage protection, ecotourism, and sustainable rural development. It is also supported by many international partners. The Annapurna Conservation Area Project³² and Manaslu Conservation Area Project³³ with many other projects in and around national parks and wildlife reserves are managed by this trust.³⁴

The Energy Research Institute (TERI)

The Energy Research Institute (TERI) is a non profit Institute of India, established in 1974. Its mission is to develop and promote technolo-

³⁰ BTFEC Report, Retrieved on 16/09/2018, URL:www.bhutantrustfund.bt/wp-content/uploads/2017/10/EnvSocial-Framework.pdf

³¹ Practical Action Nepal, Retrieved on 16/09/2018, URL: <https://practicalaction.org/nepal>

³² The Annapurna Conservation Area is Nepal's largest protected area covering 7,629 km² in the Annapurna range of the Himalayas across the Manang, Mustang, Kaski, Myagdi, and Lamjung districts.

³³ The Manaslu Conservation Area is a protected area in Nepal. It was established in 1998 and it covers 1,663 km² in the Mansiri Himal range of the Himalayas in the Gorkha District.

³⁴ The National Trust for Nature Conservation Nepal, Retrieved on 16/09/2018, URL:<https://www.ntnc.org.np/nepal>

gies, policies, and institutions for efficient and sustainable use of natural resources. It is working for community based biodiversity conservation in the Himalayas.³⁵

Cross Border Environmental Initiatives in India, Nepal and Bhutan

There is a growing concern about the environment and biodiversity preservation within the Eastern Himalayan Region of India, Bhutan and Nepal. In this regard, Environmental Institutions play an important role in raising environmental concerns, developing awareness of environmental issues and promoting sustainable development in this region. In recent years, the range of activities undertaken by environmental Institutions and other major groups has broadened. They now undertake a much wider range of activities than simply raising environmental awareness. Their activities now include environmental monitoring; promoting environmental education, training and capacity-building; implementing projects; conducting advocacy work in partnership with the government; and the promotion of regional and international cooperation on environment. Following are the major policies and initiatives taken by institutions in response to environmental protection in the Eastern Himalayan Region of India, Bhutan and Nepal.

Kanchenjunga Landscape Conservation and Development Initiative (KLCDI)

The Kanchenjunga Landscape is part of a Himalayan biodiversity hotspot harboring a significant portion of the world's biodiversity. It covers an area of 25,080.8 km² and spreads across part of Eastern Nepal, Sikkim and West Bengal of India and the western and south-western parts of Bhutan.³⁶

ICIMOD with support from the MacArthur Foundation and GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit)³⁷ and in collaboration with partner institutions in Nepal, India and Bhutan, has been working proactively over a decade since 2002 to promote

³⁵ The Energy Research Institute India, Retrieved on 17/09/2018, <http://www.teriin.org/india>

³⁶ Sharma *et al.*, 2008.

³⁷ German Development Agency.

and sustain participatory transboundary biodiversity conservation and development initiative in this globally significant landscape. The initiative aims to promote transboundary biodiversity and cultural conservation, ecosystem management, climate change adaptation and sustainable development within Kanchenjunga Landscape thereby using landscape approach as a conservation measure. The conservation efforts are focused on developing habitat contiguity by connecting isolated protected areas with environmentally managed corridors so as to reduce habitat shrinkage and isolation of already small population thereby making them less vulnerable to extinction and strengthening regional cooperation through institutional set up and mechanisms.

ICIMOD, together with the governments of Nepal, India and Bhutan have been closely involved in the process of creating a Kanchenjunga Transboundary Landscape Conservation and Development Initiative. Particularly, the Ministry of Agriculture and Forests from Bhutan, World Wide Fund, Ashoka Trust for Research in Ecology & the Environment, G.B.Pant Institute of Himalayan Environment and Development, and Department of Forest from West Bengal and Sikkim of India and Ministry of Forests and Soil Conservation from Nepal are the main partners of ICIMOD in developing this landscape initiative so as to conserve biodiversity through the development of conservation corridors among protected areas. India, Nepal and Bhutan have taken initiative for Kanchenjunga trans-boundary landscape to address biodiversity conservation in a sustainable way in the Himalayan region.³⁸

The Kanchenjunga Landscape Conservation and Development Initiative (KLCDI) was conceived and launched with the collaborating partner institutions in the three countries. They set the following programmes: Prepare country wise and regional Feasibility Assessment Reports (FARs); Conservation and Development Strategies (CDSs); Comprehensive Environmental Monitoring Plans (CEMPs) for long term conservation and development and for monitoring changes in the Kanchenjunga

³⁸ ICIMOD Eastern Himalayan Region, Retrieved on 20/06/2018, www.icimod.org/?q=

Landscape; Prepare a Regional Cooperation Framework (RCF) for conservation and management of rich biological diversity, cultural heritage, and vital ecosystem services through transboundary ecosystem management and participatory approaches fostering human wellbeing in the landscape; and Enhance cooperation among the participating countries with a common goal of conservation and sustainable development within the landscape. The program also focuses on building capacity among local communities so as to provide better livelihood opportunities and to sustainably manage and conserve natural resources as well as cultural values of the landscape. For instance, biodiversity based micro- enterprises such as ecotourism, medicinal and non timber forest products (NTFPs), are being promoted in the region by providing trainings to the local people residing within the landscape, wildlife programme like integrated schemes for coping with human wildlife conflicts are implemented.³⁹

Transboundary Reducing Emissions from Deforestation and Forest Degradation (REDD+) Initiative

Conservation of forest and sustainable forest management are now recognized as important strategies for sustaining growth. Providing better livelihood options to forest-dependent mountain communities through incentives that enhance ecosystem services is now the new paradigm. This result-based management of forest resources is the basis for Reducing Emissions from Deforestation and Forest Degradation (REDD+). A series of international negotiations at the Conference of Parties (COPs) under the United Nations Framework Convention on Climate Change (UNFCCC) have supported REDD+ as one of the potential measures to address climate change impacts. The ICIMOD regional member countries of Bhutan, Bangladesh, India, Pakistan, Myanmar, and Nepal have endorsed REDD+ under the UNFCCC. Many of these countries are now embarking on the REDD readiness phase.⁴⁰

³⁹ ICIMOD, *Workshop Report 2014: Kangchenjunga Landscape Conservation and Development Initiative*, Retrieved on 19/09/2018, lib.icimod.org/record/29641/files/KL-procd.pdf

⁴⁰ IUCN, *Report Transboundary REDD+ Programme in Himalayas*, Retrieved on 18/09/2018, <https://www.iucn.org/sites/dev/files/content/documents/transboundary-redd-himalayas-12nov-cop22.pdf>

ICIMOD has been one of the pioneers of REDD+ in the region. ICIMOD started to engage in community carbon forestry project since 2003 with the support of the Directorate-General for International Cooperation (DGIS), Government of the Netherlands, working in India and Nepal. India, Nepal, Bhutan and Myanmar have started taking steps to engage themselves in REDD+ programmes. Some pilot projects have been initiated through bilateral and multilateral funding. All these countries are at different levels of preparedness for REDD+ implementation. India is in a relatively strong position on account of its national forest monitoring systems and the Joint Forest Management (JFM) structure. These countries under the aegis of ICIMOD have started implementing a Trans-boundary REDD+ Programme in the Eastern Himalayan region of India, Bhutan and Nepal. The programme focus on capacity building and training, technical and organizational advice, and the development of methods for the measurement, reporting and verification of carbon storage. These countries started national strategy and Action Plans, developing REDD+ Reference Emission Levels, Safe guard Information Systems and the Systems of National Forest Monitoring (NFM). The countries also started the program of Green Mission and National Action Plan on Climate Change in response to reduction of Greenhouse Gas. In addition, ICIMOD is also supporting the UN-REDD Programme with work on forest economic valuation and developing indicators for monitoring REDD interventions in Nepal.⁴¹

Transboundary Manas Conservation Area Initiative (TraMCA)

Transboundary Manas Conservation Area is a conservation landscape that extends along the South Eastern Bhutan and North Eastern India. It includes several protected areas and reserved forests, connected via habitat corridors along the international boundary between Bhutan and India. The landscape's protected areas are important for conservation of some endangered animals and species. The idea of Transboundary Manas Conservation Area (TraMCA)⁴² Bhutan & India (TraMCA) was also conceptualized

⁴¹ IUCN Report Transboundary REDD+ Programme in Himalayas, Retrieved on 18/09/2018, <https://www.iucn.org/sites/dev/files/content/documents/transboundary-redd-himalayas-12nov-cop22.pdf>

⁴² TraMCA is a region of high biological diversity and forms a vital mosaic of
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in 2011 as a larger transboundary space which connects protected areas, biological corridors and adjoining reserve forests of South Eastern Bhutan with that of North Eastern India.

In 2012, WWF's Living Himalayas Initiative helped to bring together stakeholders from the TraMCA landscape of Bhutan and India to develop a joint TraMCA vision and action plan to address the threats for the long term conservation and management of this rich transboundary space in the heart of the Eastern Himalayas. In 2015, the action plan was endorsed by India's Bodoland Territorial Council (BTC) and Bhutan's Royal Manas Park, Phibso Wildlife Sanctuary and Jomotsangkha Wildlife Sanctuary authorities. The action plan Living Himalayas Initiative continues to support TraMCA in mobilizing resources and through communications support.⁴³ The action plan includes the joint patrolling and the creation of protocols, working together on creating a trans-border world Heritage site, the need for joint monitoring of large mammals, to increase cooperation for stopping cross-border poaching and felling on threatened wildlife. The REDD+ initiative project includes Ecotourism, Habitat Management Salt Licks, water holes was restored, grassland management and Spatial Monitoring and Reporting Tool (SMART) was introduced for poaching of Wildlife, Human Wildlife conflict prevention schemes was introduced.⁴⁴

Conclusion

Eastern Himalayan Region especially comprising India, Nepal and Bhutan face many environmental challenges. These countries are under tremendous pressure to develop the region and provide modern facilities to their people on the one hand and secure their nature/biodiversity on the other. In this context, close cooperation

conservation spaces across the Eastern Himalayas. It is home to flagship species like tigers, elephants, rhinos and more than 1,500 other species of mammals, birds and vascular plants. The space is equally rich with diverse cultures and traditions of indigenous communities.

⁴³ WWF, *Living Himalayas Report 2015*, Retrieved on 25/09/2018, https://d2ouvy59p0dg6k.cloudfront.net/downloads/final_lhi_special_report.pdf

⁴⁴ WWF, *TraMCA for the Living Planet Conservation Achievements through wwf Japan's Support*, Retrieved on 18/09/2018, https://www.wwf.or.jp/activities/data/WWF201606TraMCA_report.pdf

between countries become important for protecting the rich biodiversity of the Region and ensure a sustainable development in this region. Therefore, cooperation through various institutions (includes both governmental and nongovernmental institutions) become crucial in shaping the developmental discourses in the region. Major initiatives of such institutions like Kanchenjunga Landscape Conservation and Development Initiative (KLCDI), Transboundary Reducing Emissions from Deforestation and Forest Degradation (REDD+) Initiative and Transboundary Manas Conservation Area Initiative (TraMCA) have larger implications on addressing environmental issues in the region.

What is important here is that, the three countries under study have recognized the importance of cross border institutional cooperation and developed certain collaborative mechanisms through which a system of interstate cooperation is materialized. Various activities such as ecotourism, human wildlife conflict prevention scheme, community carbon forestry project, joint forest management, sustainable resource management, regional partnership development, capacity building and training biodiversity conservation, collaborative research and long-term monitoring, reporting and verification of carbon storage etc. are currently being undertaken through these institutions/under such initiatives across borders. To conclude, cross border institutions cooperation is creating a foundation for shaping discourses on sustainable development through preservation of environment/nature, and successful cross-border collaboration among Bhutan, Nepal and India.