



Nepal Development Research Institute ■

Annual Report

FY 2023/24



NDRI

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FOREWORD FROM THE EXECUTIVE DIRECTOR

The continual growth of NDRI with service of excellence in the capacity of a think tank/research institute for 21 years portrays that it is running as envisioned. Nonetheless, we are reviewing its past mileage on the auspicious occasion of its 21st Annual General Meeting (AGM) with the view to identifying the pathways for the future. The annual report published each year during the AGM is a blueprint to reflect what the institute is doing at this moment. Remarkably, NDRI is running smoothly with more activities than ever before, even during times of pandemic and disasters, in all its attributes: research, events, and publications.



Research:

The connectivity of NDRI has been sizably increased during the fiscal year, both nationally and internationally. In the fiscal year, NDRI got a chance to work with new collaborators: IUCN-Switzerland, Vanguard Economics-Rwanda, Wageningen University & Research-the Netherlands, ICEM-Vietnam, US Department of State, UK Department of Energy Security & Net Zero, Justus Liebig University-Germany, Mid-west University-Nepal, NDRRMA-Nepal, and various palikas-Nepal, among others, in addition to the regular collaborators such as Cancer Research UK, Kivu International-UK, GCRE, University of Edinburgh-UK, APN-Japan, CSIRO-Australia, IDRC-Canada, UNICEF, ICIMOD, ILO, IFRC, Practical Action, and Ministry of Health and Population-Nepal, Ministry of Education, Science and Technology-Nepal, PRI-Nepal, Nepal Open University, University of Nepal, and Lalitpur Metropolitan City-Nepal, among others, covering all the thematic areas of NDRI (details of research activities provided in the 'Project Highlight' section). In addition to the externally funded research activities, NDRI has also initiated its own studies such as (i) Nepal's Journey towards Zero Hunger: State of Food Security and Nutrition 2024 (ii) Foreign Direct Investment Dynamics in Nepal: An Analytical Perspective (iii) Unlocking Opportunities for Hemp Products: A Feasibility Analysis and (iv) Strengthening National Capacity for Landslide Management in Nepal, among others (details provided in the 'NDRI Initiatives' section).

Events:

NDRI served as an organizing partner in two important events in Kathmandu (1) the 30th Annual ISDRS Conference on Sustainable Development Research (June 11-13, 2024), where 204 presentations were delivered by students and scholars from more than 40 countries around the world and (2) Regional Groundwater Symposium: Challenges and Opportunities for Sustainable Development and Management of Groundwater

(March 18, 2024). NDRI also organized various seminars and workshops in various parts of Nepal (details provided in the 'Events and Outreach' section). In addition to these events in Nepal, NDRI also actively participated in various international conferences, workshops, training, and congresses in Germany, Switzerland, Rwanda, Sri Lanka, Bangladesh, and the UK in the fiscal year in the field of water resource engineering and management, economic development, GESI, climate change and tobacco economics (details provided in the 'International Visits' section).

One of the highlights of the fiscal year was NDRI awarded with the prestigious 'Niti Samman 2081' (Policy Award/Honor 2024) on 26 September 2024, in recognition of the invaluable contribution to Nepal's policy research ecosystem and evidence-based policy-making system through research, feedback, advocacy, and capacity building in various policy areas. The "Niti Samman 2081" award was the result of a rigorous selection process among more than 100 research organizations identified across Nepal. An independent committee evaluated institutions based on various indicators, including policy research, feedback, advocacy, capacity development activities, and digital presence. NDRI emerged as the top institution showcasing excellence in evidence-based research and impactful contributions to public policy.

The keynote presentation/lecture by Dr. Pema Gyamtsho (Director General of the International Centre for Integrated Mountain Development (ICIMOD)) entitled "Climate and the Hindu Kush Himalaya: Critical Decade for Securing our Shared Future" followed by a panel discussion session on "Way Forward for a Climate Resilient Future" during the auspicious occasion of 21st Annual Day of NDRI (12 April 2024) was also an important event in the fiscal year which was participated and acknowledged by high level national and international delegates from embassies, government agencies, bilateral and multilateral agencies, research institutes, academic institutes and media (details provided in the 'Events and Outreach' section).

As a part of its corporate social responsibility, in solidarity with the victims of the 2023 Jajarkot earthquake, the NDRI family organized a fundraising initiative, pooling contributions from staff and members, the collected fund was handed over to Mr. Anil Pokharel, the Chief Executive of National Disaster Risk Reduction and Management Authority (NDRRMA), reflecting NDRI's commitment to supporting disaster-affected communities and contributing to national recovery efforts. Similarly, in response to the Social Welfare Council and District Administration Office-Lalitpur recommendations, NDRI implemented a school health program in five schools of Lalitpur Metropolitan City to address tobacco's impact on public health by raising awareness among school adolescents. NDRI in coordination with Resources Himalaya Foundation has been running a popular scientific discourse series in a wide range of intellectual forums named Contemporary Policy Dialogue (CPD) (previously, Covid-19 Support Network Group) which is running on its 207th episode. Similarly, the NDRI Talk Series has been continued with presentations by relevant experts on contemporary and emerging

issues followed by fruitful discussions (details provided in the 'Events and Outreach' section).

Publications:

Various research papers have been published in the journals in the fiscal year such as the International Journal of Disaster Risk Reduction, Journal of Agriculture and Food Research, Sustainability, and PRADESH VIKASH: A Journal of Provincial Development, among others. Similarly, newspaper articles, conference papers, and several project (technical) reports and policy briefs have been published whereas a few research papers are being reviewed in international journals and are expected to be published in the next fiscal year.

At this moment, I take the opportunity to acknowledge the researchers and management staff for their hard work, all the NDRI members / senior research specialists for their persistent guidance and encouragement, all the associated experts for their professional contribution, and all the collaborators for their continuous support. I look forward to receiving continuous support from all the key stakeholders including NDRI Alumni to make the upcoming years more fruitful.



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Shankar Shrestha, Ph.D.
Executive Director

ABBREVIATIONS

CDO: Climate Data Operator
CRA: Climate Risk Assessment
DEM: Digital Elevation Model
DOED: Department of Electricity Development
EbA: Ecosystem-based Adaptation
EDCD: Epidemiology and Disease Control Division
ETCCDI: Expert Team on Climate Change Detection and Indices
FDI: Foreign Direct Investment
FY: Fiscal Year
GCM: General Circulation Model
GDP: Gross Domestic Product
GPD: Generalized Pareto Distribution
GPEP: Growth Potential Enterprises Promotion
GESI: Gender, Equality and Social Inclusion
ICIMOD: International Centre for Integrated Mountain Development
ISP: Innovation Support Program
HAT: Helping Adolescent Thrive
KII: Key Informant Interview
LDC: Least Developed Country
MEDPA: Micro-Enterprise Development Program for Poverty Alleviation
MoEST: Ministry of Education, Science and Technology
MoEWRI: Ministry of Energy, Water Resources and Irrigation
MoHP: Ministry of Health and Population
MoICS: Ministry of Industry, Commerce and Supplies
MoLESS: Ministry of Labour, Employment and Social Security
MMAP: Measurement of Mental Health among Adolescents at the Population Level
NDRRMA: National Disaster Risk Reduction and Management Authority
PDM: Post Distribution Monitoring
RCP: Representative Concentration Pathways
RCM: Regional Climate Models
SDG: Sustainable Development Goal
SEL: Socio-emotional Learning
SPHY: Spatial Processes in Hydrology Model
SSC: Suspended Sediment Concentration
SSP: Shared Socioeconomic Pathways
TCP: Tobacco Control Program
VCA: Vulnerability and Capacity Assessment
WASH: Water, Sanitation and Hygiene
WRRB: West Rapti River Basin
WECS: Water and Energy Commission Secretariat
YSEF: Youth and Small Entrepreneurs Self-Employment Fund

NDRI AT-A-GLANCE

Nepal Development Research Institute (NDRI) is an independent, non-profit institution that addresses contemporary and emerging challenges through quality research for evidence-based policy and programming. Established in 2004, NDRI comprises an interdisciplinary team of experts with the highest academic standings, and a wealth of national and international experiences. NDRI focuses on creating opportunities for research, dialogue, and collaboration. NDRI has been able to strengthen the linkage between policymakers, academia, different national and international organizations, and a pool of experts. The beneficiaries of NDRI's activities include political bodies, government institutions, national and international organizations, universities, research institutes, and society at large.

NDRI works on 4 thematic areas: (i) Livelihood and Food Security; (ii) Water and Climate; (iii) Health, Education, and Environment; and (iv) Economic Development and 2 cross-cutting areas: (a) Disaster Management and (b) Gender Equality and Social Inclusion.

With a multitude of activities across multiple sectors during more than two decades of existence, NDRI has now evolved as one of the leading think tanks in Nepal. NDRI believes in the power of evidence for social transformation and has been making relentless efforts to influence policies based on evidence from quality studies and research. Thus, NDRI is equally active in outreach, communications, and engagement with various stakeholders including at the policy level.

As a result of our dedicated work over the past two decades, NDRI has been the recipient of the prestigious 'Niti Samman 2081' (Policy Award/Honor 2024), awarded on 26 September 2024 by the Policy Research Institute (PRI), the Government think tank of Nepal, in recognition of the 'invaluable contribution to Nepal's policy research ecosystem and evidence-based policy-making system through research, feedback, advocacy, and capacity building in various policy areas'

Core Values:

- Supporting the decision-making process
- Delivery of the best knowledge
- NDRI personnel and products: ambassadors of positive changes

Vision:

To become the Centre of Excellence for quality research, education, and development.

Mission:

To provide substantive analytical inputs for policymaking on contemporary issues through rigorous research and dissemination of findings.

Objectives:

- Carry out research and academic activities on various contemporary and emerging issues.
- Contribute to rational opinion-building by disseminating information.
- Exchange resources, technology, and information with relevant national and international institutions.
- Contribute to capacity building of young professionals and local communities.
- Provide professional services to the clients on mutually agreed areas.

Thematic Areas:

PROJECT HIGHLIGHTS





HEALTH, EDUCATION AND ENVIRONMENT

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Tobacco Control Program

Background:

The Tobacco Control Program (TCP) is a collaboration between NDRI and Kivu International, funded by Cancer Research UK, aimed to generate locally tailored research on tobacco control economics and expand NDRI's capacity in this area. It focuses on leveraging this research to design targeted policy advocacy strategies and establish partnerships with key stakeholders in Nepal to jointly drive tobacco control efforts.

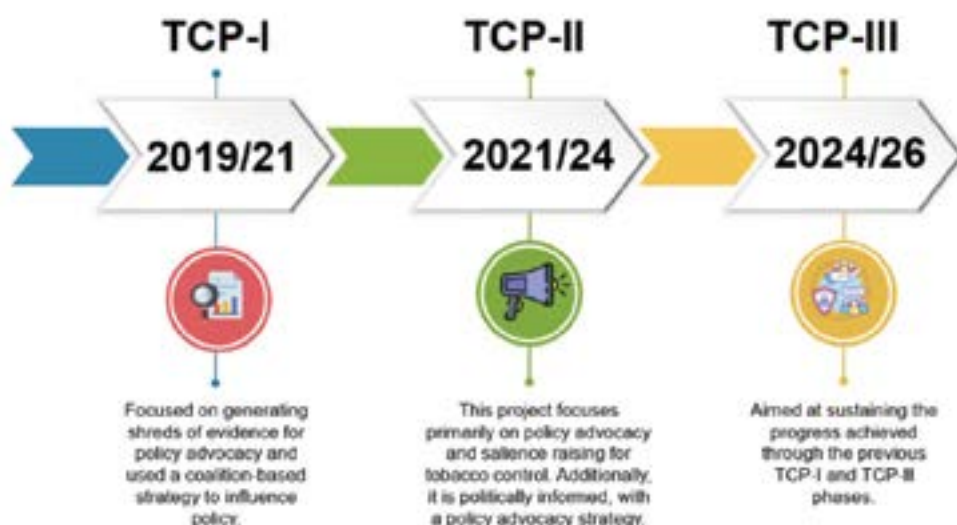
Study Team:

Dr. Jaya Kumar Gurung

Mr. Kamal Chaulagain

Ms. Anjana Lamichhane

Collaborators:



Objectives:

The general objective of the program is to achieve policy influence by substantially expanding and intensifying efforts to raise public and political salience through a “coalition-based” approach to policy advocacy.

And the specific objectives are:

- Further increase the supply of quality policy-relevant, politically informed research outputs.
- Further deepening NDRI's networks with powerful government officials and politicians.
- Developing effective and context-appropriate policy influencing coalitions of influential partners.
- Capacity building for NDRI and other coalition partners.

Activities:

Research and Evidence Generation:

The Tobacco Control Program understands that robust research and evidence generation underpins effective tobacco control efforts. Our team conducts study to analyze the health and economic impacts of tobacco use, study tobacco industry marketing strategies, and assess the real-world effects of various tobacco control policies. This vital research provides stakeholders with the data and analysis needed to develop sound tobacco regulations, raise public awareness about tobacco's harms, and continuously strengthen our approaches to reduce tobacco consumption and exposure. By prioritizing evidence-based policymaking, we aim to maximize the impact of tobacco control initiatives.

Policy Advocacy:

Policy advocacy remains a core pillar of the Tobacco Control Program's mission. We work closely with policymakers, providing them with comprehensive research and data to support the adoption of stronger tobacco taxation measures, comprehensive smoke-free laws, restrictions on tobacco advertising and promotion, and other proven strategies to reduce tobacco use and protect public health.

Major Achievement:

NDRI, as a center of excellence, has been working on a new policy issue. The research conducted by NDRI has generated evidence for policy change and bridged gaps in knowledge.

NDRI has been successful in bringing the policy impact. The FY 2021-22 Budget included the highest rise in tobacco taxation in over a decade, a 25% increase in cigarette excise rates and the 2022-23 Budget included a 20% rise in excise duty. This has been possible because of evidence-informed policy advocacy activities conducted by NDRI.

Another achievement includes the formation of a coalition with local CSOs, government organizations, and politicians to support more effective tobacco control strategies. NDRI has been leading this coalition for policy advocacy and change. NDRI also received the Health Minister Bloomberg Public Health Award from the Ministry of Health and Population in 2023 for its significant contributions to tobacco control.

After successfully completing the first two phases of the tobacco control program, NDRI is now implementing the third phase (TCP-III) and conducting preparatory work, particularly in drafting proposals to seek funding to sustain the momentum gained so far.

Endline Study in Mental Health Programme

Background:

NDRI, in association with UNICEF Nepal, conducted an Endline study in the Mental Health Programme. Mental health problems affect 10-20% of children and adolescents worldwide, accounting for 15- 30% of disability-adjusted life years during the first three decades of life. Failure to recognize and address mental health problems among adolescents is a serious public health concern. Screening mental health status in adolescents is a very important step for early detection and timely intervention. To respond to this need, as part of the Helping Adolescent Thrive (HAT) initiative, UNICEF Nepal country office is designing a socio-emotional learning (SEL) package and along with its partner TPO Nepal, the Ministry of Health and Population/ Epidemiology and Disease Control Division (MOHP/EDCD), Provincial Health Directorate (PHD) Karnali, is testing the package in Karnali province, before rolling that out among more than 50,000 adolescents in the province.

Objectives:

The overall objective of the study was to conduct an end-line assessment of the Social and Emotional Learning (SEL) interventions among a representative population of 10-14 years and 15-19 years and conduct a Measurement of Mental Health Among Adolescents at the Population Level (MMAP) among the same adolescent populations to understand the prevalence of mental health issues among adolescents in the particular region.

Methodology:

The research employed a descriptive cross-sectional design to collect data using structured survey questionnaires and interviews with adolescents aged 10-14 years and 15-19 years attending schools in the Karnali province of Nepal. The endline study was conducted in selected schools of Surkhet, Dailekh, and Salyan districts of Karnali province.

Findings:

- Adolescents often experience various mental health conditions like anxiety disorders and depression. 6.70% of adolescents were found positive for depression caseness in the end-line study, which was slightly lower than the baseline study (8.70%). Female adolescents showed slightly higher rates of depression caseness (7.1%) compared to males (6.3%).

Study Team:

Mr. Rajendra Khatri
Dr. Suraj Shakya
Ms. Kabita Yadav

Collaborator:

unicef 

- 12.0% of adolescents were found positive for anxiety caseness, similar to the baseline study. Anxiety caseness was more prevalent among adolescents aged 15-19 years.
- Mental health problems have varying impacts on the ability of adolescents to engage in activities or maintain relationships. In the majority of adolescents, mental health problems have had no significant impact on their daily activities.
- Disturbingly, 7.9% of adolescents reported suicidal thoughts in the past year, while 8.8% had such thoughts within the last two weeks, and 6.6% had attempted suicide in their lifetime.
- 40 % of adolescents understood the connection between mental and physical health. 48.2% of adolescents could identify how different emotions affect their bodies. 68.6% of adolescents had healthy ways to calm themselves down when stressed or upset. 63.1% of adolescents thought of different ways to solve problems whereas 72.3% of adolescents believed that problem-solving skills are important to overcome challenges.
- Overall, the SEL package has contributed positively to various aspects of students' mental health and well-being, highlighting the importance of incorporating social and emotional learning into educational settings to support students' holistic development.

Conclusion:

The end-line study on mental health, particularly focusing on the intervention of SEL packages, has provided invaluable insights into the effectiveness of such interventions among adolescents aged 10-14 years and 15-19 years. The study has underscored the significance of addressing social and emotional skills alongside traditional mental health interventions. Through the implementation of SEL packages, it was observed that adolescents exhibited improvements in various social and emotional competencies, including self-awareness, self-regulation, empathy, interpersonal relationships, and decision-making. These enhancements are pivotal in bolstering overall mental well-being and resilience among adolescents, equipping them with the necessary skills to navigate the complexities of adolescence and mitigate the risk of mental health problems.



WATER AND CLIMATE

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Understanding the Gender, Equality, Social Inclusion, and Distributional Implications of the Economics of Climate Change, the Costs of Adaptation, and Bankable Adaptation Projects (ECONOGENESIS)

Collaborators:

Study Team:

Dr. Divas B. Basnyat	Mr. Girish R. Lamsal
Dr. Shankar Shrestha	Mr. Pranav Karki
Ms. Shreya Bajimaya	Ms. Sophiya Shrestha
Dr. Manjeshwori Singh	Mr. Daya Shrestha
Ms. Divya Laxmi Subedi	



Background:

The research aims to address the disproportionately high economic costs of climate change and adaptation in developing countries, particularly for vulnerable groups, by filling the significant knowledge gap on the gender, equality, and social inclusion (GESI) dimensions of these costs. Focusing on developing countries (Study Area: Nepal, Rwanda, and Zanzibar), the study will update data on the economic impacts and adaptation costs, emphasizing GESI and distributional implications. Given the crucial role of adaptation in mitigating climate impacts over the next 20 years, the research will explore how these costs vary across different social groups to support gender and climate justice. It will also address the substantial adaptation finance gap by identifying short-term measures using an iterative risk management approach and assessing their effectiveness in tackling economic and social inequalities. Through co-creation with government, private sector, and civil society partners, the study will integrate GESI elements into development planning and climate finance, while also providing capacity-building and early-career researcher programs to develop gender-sensitive finance strategies and scale up adaptation funding through innovative approaches.

Objectives and Research Questions:

The research aims to provide new insights into the economics of climate change, the costs of adaptation, and financeable adaptation projects, focusing on gender, equality, social inclusion (GESI), and distributional effects. It seeks to fill three knowledge gaps:

- Assessing the GESI and distributional implications of the economic costs of climate change.
- Analyzing the costs of adaptation and how these costs are distributed among women, girls, socially excluded groups, and different social segments.
- Identifying adaptation finance solutions for study areas that support GESI.

The research will address the following questions:

1. What are the economic costs of climate change in representative LDCs, and do these costs differ by gender and social group?
2. What are the costs of adaptation (including investment needs) in these LDCs, and do these vary by gender and social group?
3. How can study area advance adaptation finance solutions that promote gender, equality, and social inclusion?

Methodolog:

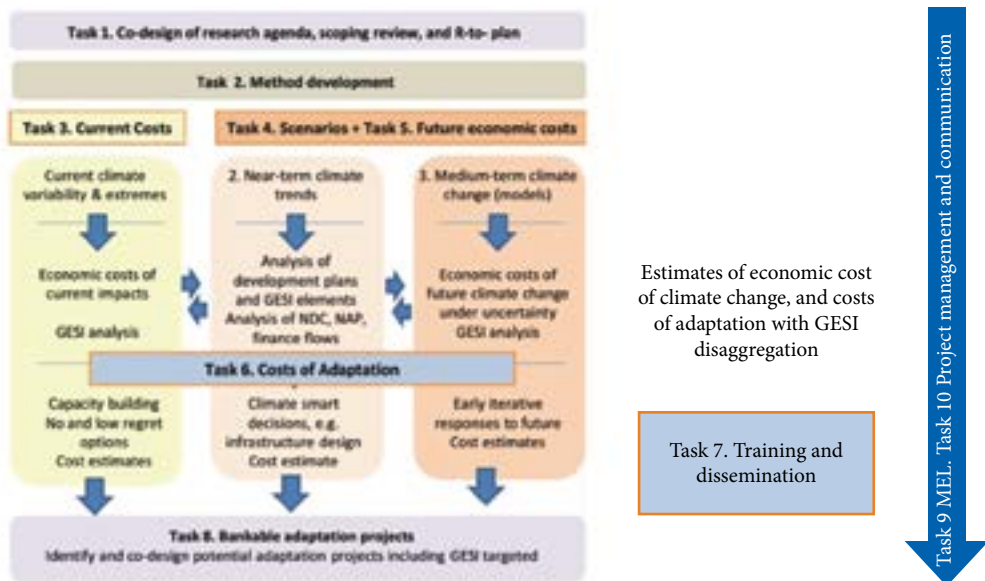


Figure 1: Methodology

Activities Carried Out:

In the initial six months of the ECONOGENESIS project, progress was made with a literature review and research methods. A co-design meeting to validate the research questions and focus, followed by a networking dinner with stakeholders was held. The Research Team participated in a 2-day ten multi-country CLARE-projects workshop and organized a Workshop and panel discussion with ICIMOD on closing the adaptation gap. The survey questions are currently being developed.

Climate Resilient Guideline for Hydropower and its Application in the Narayani Basin

Collaborator:



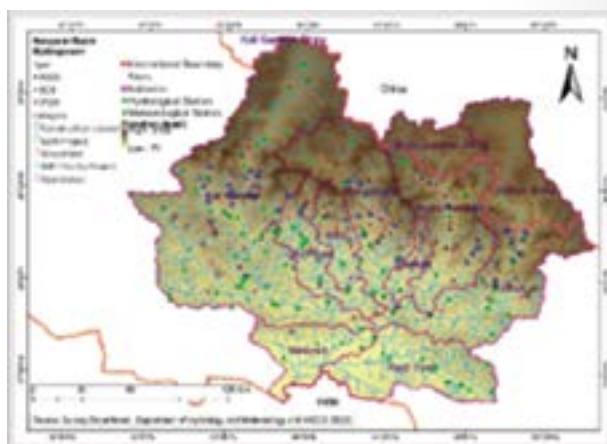
Study Team:

Dr. Divas B. Basnyat	Mr. Saroj Bhattarai	
Dr. Hari Pandit	Mr. Girish Lamsal	Mr. Rupesh Baniya
Mr. Dibesh Shrestha	Ms. Sunita Magar	Mr. Rajendra Shrestha
Mr. Sonu Khanal	Mr. Samyog Bhandari	Mr. Pawan Ghimire

Background:

The current climate and hydrological variability are major drivers of risk to hydropower projects in Nepal. The high uncertainty of future climate change will further exacerbate the climate risks to hydropower. This requires the planning of hydropower projects to consider resiliency to a highly uncertain future climate. Mitigation measures for managing climate change risks to hydropower are thus as important as those from hydropower projects for the environment.

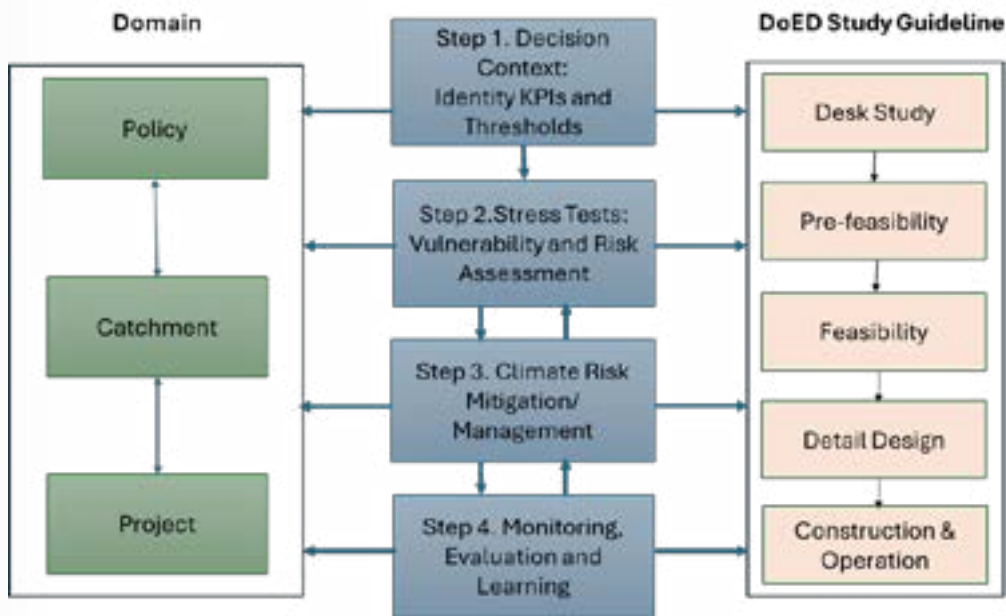
The Guidelines for Study of Hydropower Projects (2018) prepared by the Department of Electricity Development (DOED) and the Hydropower Environmental Impact Assessment Manual (2018) prepared by the Ministry of Forests and Environment provide guidance on risk analysis, but they are limited to current hydrological, financial, design and construction risk assessment, as well as environmental impact assessment, but both documents are silent on climate risk assessment. International climate resilience guidelines prepared by the International Hydropower Association in 2019 and the World Bank in 2015 provide useful references, but these are generic and focused on the project-level risk assessment, and do not cover policy and basin (catchment) level risks and further needs to be customized and operationalized in the context of Nepal. The Guideline for Climate Resilient Hydropower in Nepal (2022), prepared by a team of Research Consultants and ICIMOD, proposes six steps to develop guidelines for climate-resilient hydropower in Nepal.



Study Area: Narayani Basin with Ongoing and Proposed Hydropower Projects

NDRI, in collaboration with ICIMOD, conceptualized the study to implement the steps in the current portfolio of hydropower projects identified in the Narayani Basin. The study, carried out from Sep 2023 to March 2024, aimed to develop a detailed method for the assessment of vulnerability and risk due to climate change, explore mitigation and adaptation methods, and conduct economic benefits and trade-offs for the selected mitigation and adaptation methods. The study led to the preparation of the Guidelines for Climate Resilient Hydropower in Nepal.

The framework of climate-resilient hydropower is presented below.



Framework for climate-resilient hydropower

It uses a 4-step process for climate-resilient hydropower. These steps are applicable to climate risk assessment and management (mitigation) at policy, catchment (basin), and project levels (domains).

List of additional Activities conducted during this project:



1. Inception Workshop on Generation of evidence and knowledge on the basin scale climate and environmental risks to the hydropower sector in Nepal- 13 Dec 2023, ICIMOD Headquarters, Khumaltar.
2. Consultation Workshop on Developing Guidelines for Climate-Resilient Hydropower in Nepal - 19 April 2024, ICIMOD Headquarters, Khumaltar.
3. The project team helped as a resource person Training Workshop on Climate Risk Assessment for Water Resources Management 5-8 Feb 2024, Square Hotel, Lalitpur.



4. Girish Raj Lamsal presented as a resource person on “Provincial Capacity Building Workshop: Hazards and risks posed by climate change on cryosphere and hydrology of Narayani Basin” 13–14 May 2024, Pokhara, Nepal.



5. Dr. Divas B. Basnyat presented the guideline framework at the Regional Dialogue on Accelerating Climate Resilience in the Hydropower Sector of the Hindu Kush Himalaya" on July 30, 2024, at ICIMOD Headquarters, Khumaltar

Mitigating Flood Risks Through Women's Leadership in EbA Interventions

Collaborators:

Study Team:

Dr. Divas B. Basnyat	Mr. Girish Lamsal
Dr. Manjeshwori Singh	Mr. Pranav Karki
Ms. Shreya Bajimaya	Ms. Sophiya Shrestha



Background:

Nepal is one of the most vulnerable countries to climate change threats and natural hazards such as floods and landslides. It has been actively striving to adapt to the challenges posed by climate change. Recognizing the importance of adaptation measures, Nepal has developed a National Adaptation Programme of Action (NAPA), and it has made a promising start in developing a Local Adaptation Plan of Action (LAPA) to implement the national adaptation priorities. However, the consideration of Ecosystem-based Adaptation (EbA) measures in LAPAs, and other disaster management or climate change policies is limited despite of significance of the EbA measures to address climate risks. In addition, the role of women in climate change adaptation is often restricted to participation in events while their leadership role is suppressed.

In this context, this project seeks to capture evidence of gender-responsive EbA measures from Nepal's experience, identify the hotspots for climate adaptation interventions, and identify and prioritize EbA responses through a co-creation process with women and indigenous communities. A watershed restoration plan, an integration of EbA measures in the pertinent disaster management or climate-related policy of study municipalities, will be a key output. An accompanying GEDSI action plan for the watershed will be co-created to promote the role of women in EbA design, construction, monitoring, and maintenance. The distillation of lessons learned and recommendations can then inform and be an input to the next NAPA. The project will also facilitate capacity building of local government and communities to adopt EbA approaches to mitigate flood risks at the watershed level.

Objective:

The project aims to manage flood risk through the integration of gender-responsive EbA measures into LAPA or other pertinent disaster management

or climate change policies of the Mohana-Khutiya river basin.

Study Area:

The project area is the Mohana-Khutiya River Basin which originates from Chure hills and flows through the Terai. The basin lies in the far-western region of Nepal covering an area of 702.4 sq. km. The basin lies in six rural and urban municipalities of Kailali and Kanchanpur districts, within the administrative boundary of Sudurpaschim Province. The municipalities are: Chure Rural Municipality, Dhangadhi Sub-metropolitan City, and Gauriganga, Godawari, Krishnapur and Punarbas municipalities. Mohana-Khutiya River Basin is one of the priority river basins for flood risk management projects implemented by the Government of Nepal through the Ministry of Energy, Water Resources and Irrigation (MoEWRI).

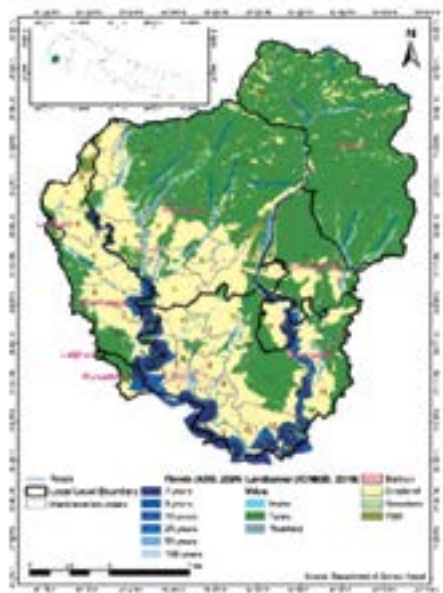
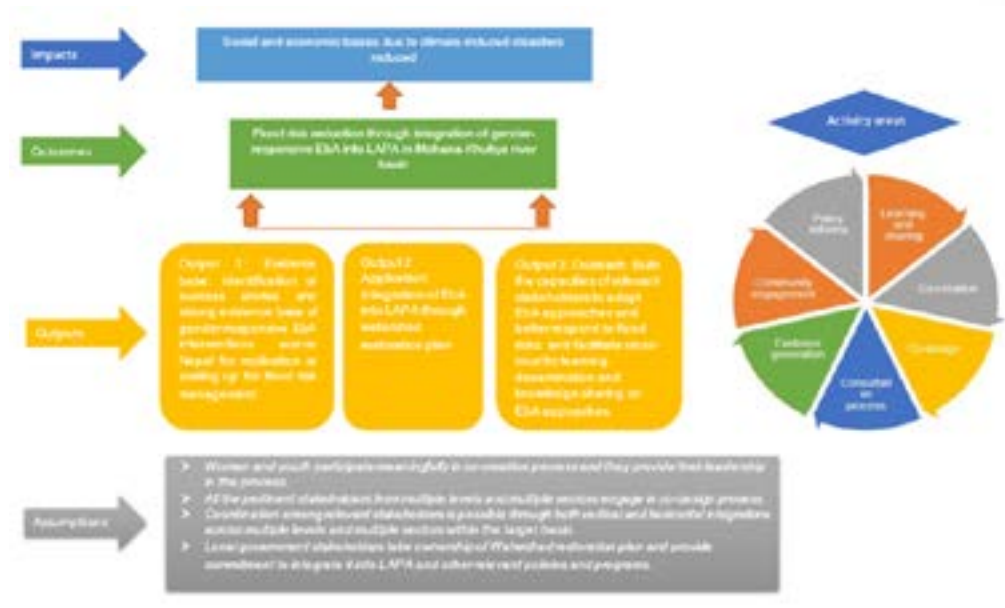


Figure 1 Mohana-Khutiya River Basin

Project Theory of Change:



Key Activities Conducted:

- An inception workshop was carried out at the basin level in Dhangadhi Sub-metropolitan city, involving pertinent stakeholders from the government and other agencies working on disaster management in the basin. The workshop provided an overview of the project's objectives and gathered information about ongoing disaster management activities, policies, and potential for EbA interventions within the project area.
- Vulnerability and capacity assessment (VCA) was carried out to understand the vulnerabilities of different communities within the river basin and identify community-based adaptation measures adopted for flood risk management. Altogether, 83 household surveys were conducted in the flood-prone areas and 8 Focus Group Discussions along with community mapping, institutional network analysis, historical timeline, and problem tree analysis were done in each municipality.
- Case studies on EbA interventions carried out for flood risk management across Nepal and other countries have been developed.

Making an Economic Case for Ecosystem-based Adaptation for Flood Risk Management

Study Team:

Ms. Shreya Bajimaya

Mr. Girish Lamsal

Mr. Pranav Karki

Advisors:

Dr. Divas B. Basnyat

Dr. Shankar Shrestha

Dr. Ho Huu LOC (Wageningen University & Research)

Collaborator:



Background:

Nepal is prone to different types of water-induced disasters, including floods, which have become more frequent in recent years and causing damage to human lives, property, and infrastructure. Various adaptation options – both structural and non-structural measures are adopted to minimize the impacts of disasters. Soft-structural and non-structural measures are Ecosystem-based Adaptations (EbA) that address improvements and maintenance of ecosystem services that can significantly complement engineering options, for contributing to flood risk reduction. However, the selection of effective adaptation options based on empirical evidence of good adaptation practices and through systematic economic analysis is still limited. Therefore, this study intends to conduct a valuation of EbA measures through an analysis of benefits, costs, and potential impacts arising from implementing selected EbA approaches in the upper region of the Mawa-Ratuwa watershed of Nepal. The study will also identify and recommend appropriate and cost-efficient adaptation options to be implemented for flood protection in the study watershed.

Objective:

- To review and synthesize the state-of-the-art knowledge focusing on good practices of EbA carried out for flood risk reduction, focusing on the different physiographic regions of Nepal (mountains, hills, and terai).
- To identify and curate appropriate EbA options and conduct a valuation of selected EbA options for flood risk reduction in the Mawa-Ratuwa watershed (originating from the mid-hill and flowing into the plains).
- To build the evidence base for developing an economic case for EbA for mainstreaming into national and local climate change policies.

Study Area:

The study focuses on Mawa-Ratuwa River Basin, located in eastern Nepal and covers 413 sq. km. The basin originates from the Chure and Mahabharat region and drains towards the Terai Plains. The basin lies in the eastern region of Nepal covering 8 urban and rural municipalities- Chulachuli, Damak, Gauradaha, Gaurigunj, Kamal, Miklajung, Ratuwamai, and Uurlabari. Mawa-Ratuwa River Basin is one of the priority river basins for flood risk management projects implemented by the Government of Nepal through the Ministry of Energy, Water Resources and Irrigation (MoEWRI).

Methodology:

Stakeholder consultation, interviews, and focus group discussions with community people and relevant experts will be done in addition to a literature review of disaster management and climate change-related articles, reports, policy, and other relevant documents. The research will encompass a comprehensive evaluation of selected EbA options. The least cost and benefit-cost analysis will be performed for the selected adaptation options. Using the information from the secondary review and primary data collected, the cost of implementation of the EbA approaches, the benefits derived from the ecosystem services, and the cost of avoided damages will be calculated. The cost of not pursuing any adaptation options and the cost of flood damage will also be computed. The Net Present Value, the Annualized Net Present Value, and the Benefit-Cost Ratio will also be calculated to aid in decision-making. A sensitivity analysis will also be performed to examine the effects at different time horizons and discount rates. Based on the outcomes of the Cost-Benefit Analysis, the study will make recommendations for mainstreaming appropriate and cost-effective adaptation options in national climate change policies.

Key Activities Conducted:

- An inception workshop was carried out at the basin level in Damak Municipality, Jhapa, involving pertinent stakeholders from government and other agencies working on disaster management in the basin. The workshop provided an overview of the project's objectives and gathered information about ongoing disaster management activities, policies, and potential for EbA interventions within the project area.
- Vulnerability and capacity assessment (VCA) was carried out to understand the vulnerabilities of different communities within the river basin and identify community-based adaptation measures adopted for flood risk management. Altogether, 79 household surveys were conducted in the flood-prone areas and 8 Focus Group Discussions along with community mapping, institutional network analysis, historical timeline, and problem tree analysis were done in each municipality.
- Participated in Research and Training workshops organized by SANDEE where the progress of research was presented.

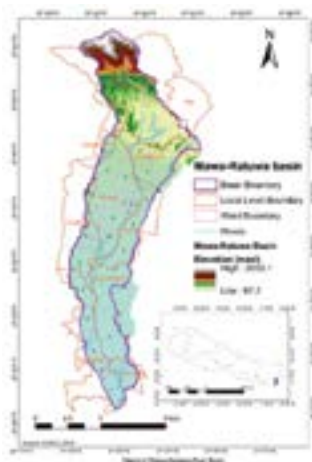


Figure 2 Mawa-Ratuwa River Basin

Building Capacities for Climate-Resilient Water Resources Development under Climate Uncertainty

Study Team:

Mr. Dibesh Shrestha	Mr. Girish Lamsal
Dr. Divas B. Basnyat	Ms. Divya Laxmi Subedi
Dr. Dhiraj Pradhananga	Ms. Sunita Magar
Dr. Shankar Shrestha	Ms. Sophiya Shrestha

Collaborator:



Capacity Building Workshop on Climate Risk Assessment:

Climate Risk Assessment (CRA) is integral to sustainable and climate-resilient Water Resources (WR) development. It is necessary to analyze the inherent vulnerabilities and resilience of WR systems to uncertainties in the climate and other risk factors (like natural hazards). For this purpose, capacity building of WR practitioners is integral in conducting CRA.



A four-day Capacity Building Workshop on Climate Risk Assessment for Water Resources Management was jointly organized by Nepal Development Research Institute (NDRI) and Tribhuvan University (TU) from 5-8 February 2024 in Lalitpur, Nepal. This capacity-building workshop, targeted at early career water resources researchers and practitioners, was a part of the project “Building Capacities for Climate Resilient Water Resources Development under Climate Uncertainty” funded by the Asia-Pacific Network for Global Change Research (APN). The main focus was on utilizing the WECCS-Gen (WEather generator and Climate Change Scenario Generator) Tool, developed by NDRI, to build

the participants' capacity to effectively use the tool. The primary objective of the workshop was to equip water and climate researchers and practitioners with the skills and knowledge necessary to conduct effective CRA.

Twenty-seven individuals from notable national and international organizations actively participated in this workshop. Notably, among these participants, five individuals represented foreign countries: Bhutan, Bangladesh, India, Sri Lanka, and the Philippines. Various governmental organizations from Nepal were represented in the workshop including the Ministry



of Energy, Water Resources and Irrigation (MoEWRI), Department of Water Resources and Irrigation (DWRI), Department of Hydrology and Meteorology (DHM), and Water and Energy Commission Secretariat (WECS). Additionally, esteemed educational institutions such as TU - Nepal, Purbanchal University (PU) - Nepal, the Asian Institute of Technology - Thailand, the Central University of Rajasthan - India, and the Royal University of Bhutan were represented. Non-governmental research organizations, including the Centre for Policy Dialogue (CPD) in Bangladesh, The Small Earth Nepal (SEN), Centre of Research for Environment, Energy, and Water (CREEW) as well as various private and public organizations, also participated in the workshop.

Day 1 began with introductory sessions covering climate change risk assessment fundamentals and terminologies. The technical sessions introduced the climate risk assessment methodology, focusing on water resources and hydropower projects, and included discussions on climate change models (Representative Concentration Pathways (RCPs), Shared Socioeconomic Pathways (SSPs), General Circulation Models (GCMs), and Regional Climate Models (RCMs)) and their significance. Participants also learned to download climate data from sources like Copernicus and WCRF CMIP6. The WECCS-Gen tool was introduced, followed by a hands-on session where participants installed the necessary tools. The day concluded with a networking dinner.

Day 2 focused on data sources, GCM selection, and bias correction/statistical downscaling of GCMs. The technical sessions covered climate, water resources, soil, land, agriculture data sources, and DEMs. The "envelope method" for

selecting climate models was explained, and participants practiced using the Climate Data Operator (CDO) tool for operating climate data and bias correction.



Day 3 involved introducing bias-corrected data to a hydrological model (HBV model) to generate runoff for various scenarios. Participants also used the WECCS-Gen tool for climate change scenario generation, focusing on understanding the inputs, processes, and results of these tools.

Day 4 featured sessions on the impact of climate change on runoff, climate hazards, stress tests using hydropower design models, and climate-resilient hydropower design. Dr. Madan Lall Shrestha and Prof. Hari Pandit provided key insights. The workshop concluded with remarks from the resource persons and feedback from participants, who appreciated the workshop's effectiveness in enhancing their understanding of CRA and related tools. Participants were awarded certificates for their active involvement.

Dissemination Workshop:

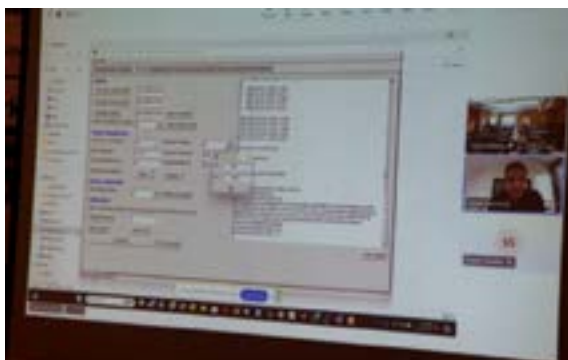
Nepal Development Research Institute (NDRI), in collaboration with Tribhuvan University (TU), organized a dissemination workshop on March 15, 2024 (Friday) as part of the Asia-Pacific Network (APN) funded project titled "Building Capacities for Climate-Resilient Water Resources Development under Climate Uncertainty." The workshop aimed to disseminate the project's findings, highlight key activities conducted throughout the project duration and promote Climate Risk Assessment (CRA) at the national level.



The workshop had notable participation from various governmental entities, including the Water and Energy Commission Secretariat (WECS), the Department of Electricity Development (DoED), and the Department of Water Resources and Irrigation (DWRI). Academic and research institutions were also well represented, with attendees from the Institute of Engineering (IOE), Tribhuvan University (TU), Practical Action Nepal, Hydro Lab, and Jalsrot Vikas Sanstha (JVS). Additionally, notable associations such as the Independent Power Producers Association Nepal (IPPAN), Small Earth Nepal (SEN), and the Society of Hydrologists and Meteorologists (SOHAM) enriched the discussions with their valuable insights and expertise.

The session covered Climate Risk Assessment (CRA) and its practical applications, including explanations of GCMs, RCMs, RCPs, and SSPs. The session emphasized the differences between top-down and bottom-up approaches, using examples from ongoing projects, and highlighted climate risks associated with hydropower projects, along with strategies for risk management.

The WECCS-Gen tool was introduced, with a focus on its importance in generating climate change scenarios beyond GCMs. The session included a demonstration of the tool's functionality, covering both top-down and bottom-up approaches, and explaining key terminologies and concepts. A discussion followed, addressing queries related to the tool's functionalities. The session concluded with discussions on current practices and capacity in CRA for water resources, the application of CRA tools, and prospects for future collaboration. Participants provided recommendations, including establishing data-sharing mechanisms, integrating CRA into policy frameworks, promoting CRA tools, organizing capacity-building programs, engaging academic institutions, and exploring community-based applications of CRA tools.



The closing session expressed gratitude to participants and organizations for their active involvement and interest in extended dissemination workshops and future collaborations in CRA.

Capacity-building Case Studies:

Following the successful conclusion of the Training on Climate Risk Assessment (CRA) for Water Resources Management from February 5 to 8, 2024, under the



APN-funded project “Building Capacities for Climate Resilient Water Resources Development under Climate Uncertainty,” NDRI opened a call for the national participants to develop case studies in Climate Risk Assessment. This initiative aimed to provide the participants with the opportunity to apply the lessons learned from the training to both research and practical applications in water resources, providing a platform for them to refine their skills. The objective of the case study was to carry out the climate risk assessment using the upgraded WECCS tool to assess the climate change impact on the selected water resources projects. From a pool of applicants who submitted their concept proposals, four were selected, covering various disciplines related to water resources, including hydropower, irrigation, water supply, and hydrology. These successful applicants undertook their case studies over a period of three months, with both technical and financial support provided by NDRI resource persons.

Rainfall Extremes, Urban Flood Risk and Future Climate Projections

Study Team:

Dr. Divas B. Basnyat Ms. Divya Laxmi Subedi
Dr. Shankar Shrestha Ms. Rojina Haiju
Mr. Dibesh Shrestha

Collaborator:



Background and Study Area:

The damaging impact of climate change on the hydrological cycle has been very evident, and even more so in recent years. Globally, over 2 billion individuals living in low-to-middle-income countries are exposed to numerous hazards such as landslides, and floods, which threaten the lives and livelihood of the people. As urban areas continue to grow at an unprecedented pace, it is projected that this number will increase to 4 billion by 2050. Failing to integrate multi-hazard disaster risk into urban planning and decision-making is a significant barrier to sustainable development and eradicating poverty in all forms. However, this challenge also presents an enormous opportunity as almost 60% of the area anticipated to be urban by 2030 has yet to be constructed. The current rise seen in extreme rainfall events results in huge socio-economic damage and is mostly unprecedented. With the temperature rise, climate-related extremes are projected to occur more frequently and intensely.

Tomorrow's Cities is the UK Research Innovation (UKRI) Global Challenges Research Fund (GCRF) Urban Disaster Risk Hub- a five-year (2019-2024) global interdisciplinary research hub. Through Tomorrow's Cities project, which aims



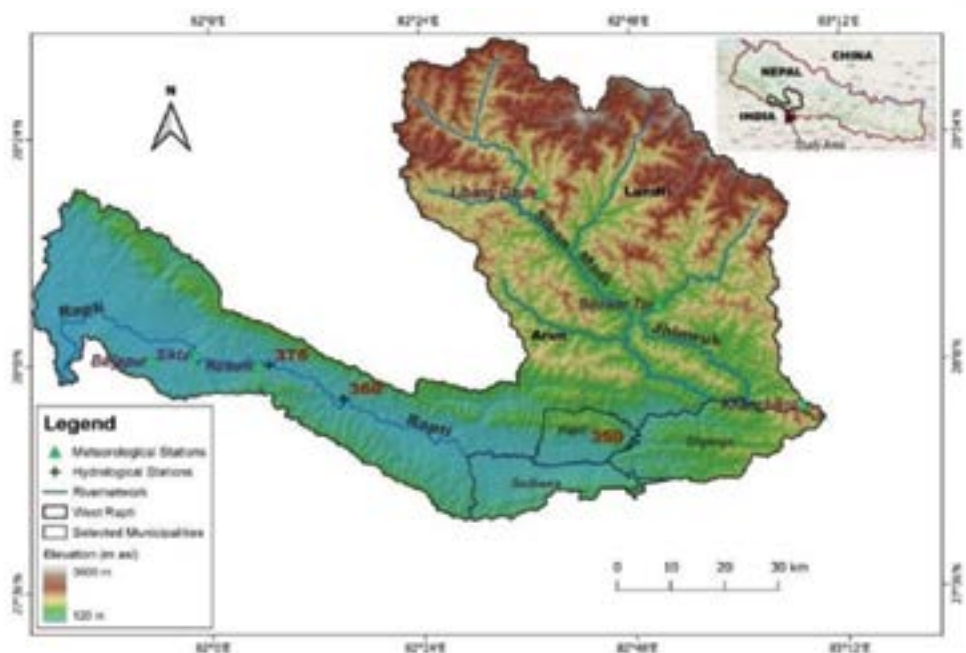
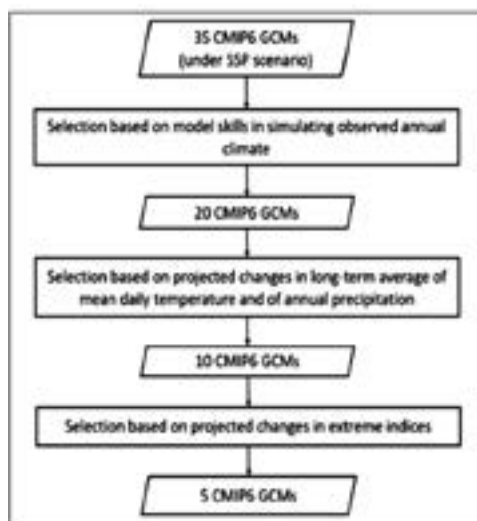
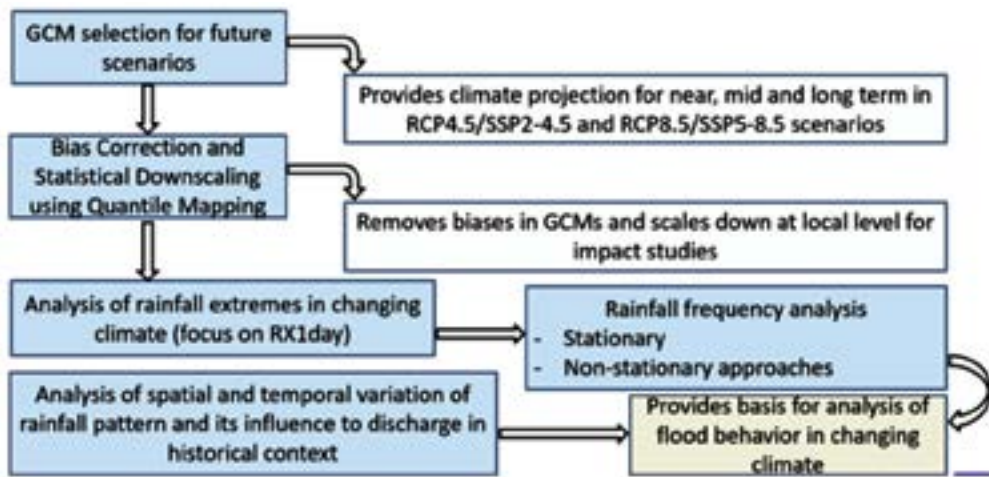


Figure 1: Study area (clockwise): Chittagong and Cox's Bazaar in Bangladesh, Nablus in Palestine and West Rapti in Nepal

to catalyze a transition from crisis management to multi-hazard risk-informed planning and decision-making for cities in low-and middle-income countries, In the third phase of the project (May 2023 – Apr 2024), NDRI has studied the changes in future rainfall extremes and/or to analyze the impact of spatial and temporal patterns of extreme historical rainfall events in West Rapti River Basin (WRRB) in Nepal, Nablus in Palestine, and Chittagong and Cox's Bazaar in Bangladesh.

Methodology:





Note: CMIP6 = Coupled Model Intercomparison Project Phase 6 (Climate Data of Intergovernmental Panel on Climate Change 6th Assessment Report), GCM = General Circulation Model (Climate Model). RX1Day= One-day Maximum Rainfall

Results:

- Under projected Climate change, In West Rapti, RX1day (maximum one-day rainfall) is projected to increase by up to 69% in the future. In Cox's Bazaar, the highest increase in future RX1 days is projected to be 8% and 18%. In Nablus, a maximum of 24% increase in RX1day is projected.
- Magnitude and frequency of rainfall extremes are projected to increase. For example, in West Rapti, 1 in 100-year return period rainfall will be equivalent to 1 in 25-year return period rainfall for mid future scenario. A negative change in future rainfall can also be observed in Cox's Bazaar, with a -6% change in mid-future 1 in 100-year return period rainfall. Up to 60% increase in 1 in 100-year return period rainfall is projected by one of the selected models in Nablus.
- The changes in the frequency and magnitude of extreme rainfall will have approximately equivalent changes in the flood peak.
- The study demonstrates the importance of weather patterns (in terms of temporal and spatial variations of extreme rainfall) in flood impact assessment of climate change.



ECONOMIC DEVELOPMENT PROGRAM



Promoting Innovation and Inclusion in Growth Potential Enterprises: Evidence from Nepal

Study Team:

Prof. Dr. Raj Kumar Bhattarai	Mr. Rajendra Khatri
Dr. Shankar Shrestha	Ms. Nirmita Shrestha
Dr. Rabita Shrestha Mulmi	Ms. Dikshya Barasaini

Collaborator:



Background:

NDRI, in collaboration with the International Development Research Centre (IDRC), Canada, is conducting a three-year research project titled “Promoting Innovation and Inclusion in Growth Potential Enterprises: Evidence from Nepal” from March 2023 to February 2026 under the IDRC's Evidence for Innovation program. The primary aim of this study is to evaluate the effectiveness of two government-initiated innovation support programs (ISPs): Micro-Enterprise Development Program for Poverty Alleviation (MEDPA), managed by the Ministry of Industry, Commerce, and Supplies (MoICS), and Youth and Small Entrepreneurs Self-Employment Fund (YSEF), managed by the YSEF Secretariat. It explores the genuine requirements of growth potential entrepreneurs, either supported or not supported by the ISPs, and assesses whether and how the additional support services contribute to the growth of their business.

Objectives:

The specific aim of this study is to:

- assess the impacts of two interventions-MEDPA and YSEF- to support the growth of the MSME sector in terms of employment generation, process improvement, product/market development, and sales growth.
- implement a randomized controlled trial (causal-comparative study) to assess the impact of intervention/ support services on growth potential MSMEs participating and/ or not participating in the MEDPA and YSEF programs.
- determine if the interventions of the MEDPA and YSEF programs are reaching their intended beneficiaries (e.g., youth, women, entrepreneurs in low-income settings) and detail what could be done to bolster their equity, diversity, inclusion, and innovation outcomes.
- utilize the findings to inform the development of growth potential enterprises promotion (GPEP) policies and strategies for the promotion of business innovation ecosystems that support the enterprises in Nepal.

Methodology:

The research design employed in this study is causal comparative, which involves comparing outcomes between enterprises that have benefited from MEDPA and YSEF programs and those that have not participated in both programs. The study uses a combination of qualitative and quantitative methods for data collection to assess multiple business dimensions of enterprises related to MEDPA, YSEF, and an independent group. The following methods are undertaken to accomplish the project objectives:

- Review national policies, innovation support program guidelines, and relevant policies
- Administer surveys and conduct case studies with enterprises that have benefited from and have not benefited from MEDPA and YSEF programs.
- Identify and select growth-potential entrepreneurs from the MEDPA and YSEF programs and other independent entrepreneurs in the three target sectors.
- Execute interventions for the identified growth potential enterprises.

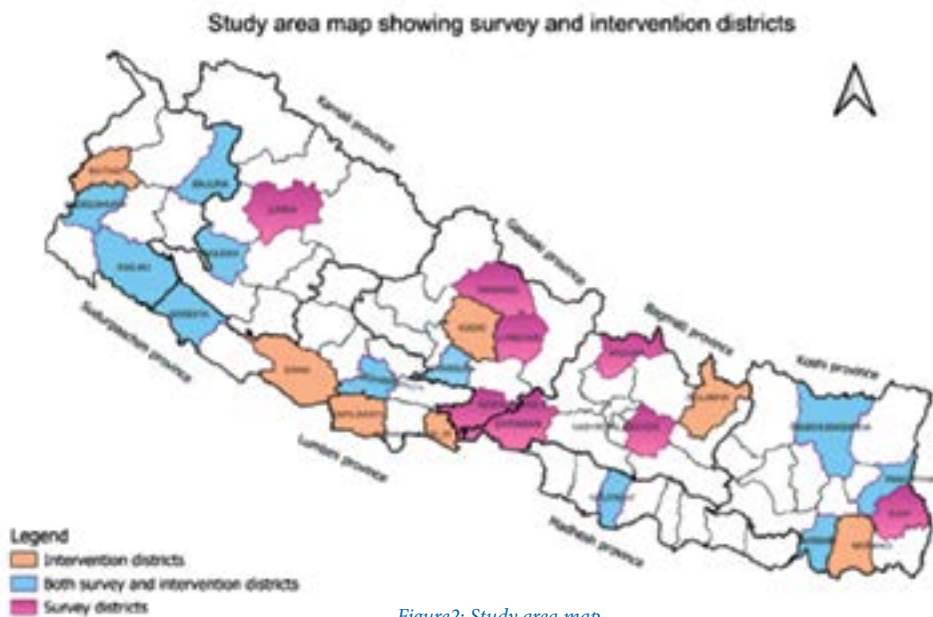
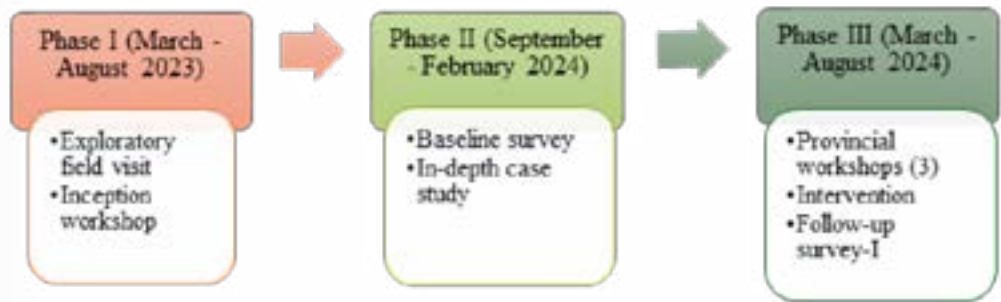


Figure2: Study area map

This research project is being conducted across all seven provinces of the country. The map below highlights the areas where the study is being carried out.

Major Project Activities (to date):



The figure below outlines the activities the project has completed so far.

Igniting an urgency of innovation in business practices across the governments and entrepreneurs
Increasing expectations of the MoICS for inputs that are instrumental in reviewing and reshaping the MEDPA program
Exciting 39 local governments to go for a strong network of collaboration
Encouraging the local governments towards a localized enterprising ecosystem (Keiretsu and Michi no Eki)
Developing a strong foundation for the policy makers to shift their attentions from their conventional ways of ISPs to a sustainable growth model of entrepreneurship

Key Project Achievements:

Intervention/Support Activities:

According to the research design, 42 enterprises across seven provinces were to intervene, as the fourth arm of the research. The enterprise selection basis was the exploratory field visit, baseline survey, comprehensive case study, and local recommendations. The intervention followed the enterprise need-based approach and was verified at the site during the intervention of each enterprise.

Some glimpses of interventions



Figure 4: Key project achievements

Mapping and Review of Enterprise Registration and Renewal Processes, Practices, and Existing Policy Incentives in Nepal

Study Team:

Mr. Ganesh Bista

Ms. Shreya Bajimaya Mr. Ram Prasad Devkota

Mr. Rajendra Khatri Ms. Salisha Raila

Collaborator:



Background:

The informal economy in Nepal, defined by the International Labour Organization (ILO) Recommendation 204, encompasses economic activities by workers and units that are not adequately covered by formal arrangements, excluding illicit activities. The Nepal Labour Force Survey (2019) describes the informal sector as enterprises that lack registration with relevant authorities. While these informal enterprises contribute significantly to employment and income generation, they face numerous challenges, including the denial of labor rights and inadequate social protection. The high prevalence of informality in Nepal's labor market hinders poverty reduction, equality promotion, and sustainable development. In response to these challenges, the ILO, in collaboration with Nepal's Ministry of Labour, Employment, and Social Security (MoLESS), initiated the "Mapping and Review of Enterprise Registration and Renewal Processes, Practices, and Existing Policy Incentives in Nepal" project where NDRI contributed as the key research partner from August 2023 to June 2024.



Objectives:

- Map and document the existing enterprise registration and renewal processes.
- Document the costs associated with registration from different perspectives.
- Identify specific incentives for formalization.
- Provide recommendations to inform the consensus-building process among government and social partners on actions needed to better facilitate enterprise formalization.

Methodology:

To achieve the study's objectives, a multifaceted approach was employed, combining desk reviews, field surveys, and consultations with stakeholders. The key activities included a thorough desk review of existing policies, regulations, and practices concerning enterprise registration and renewal. This was followed by mapping and documenting the registration and renewal processes across local, provincial, and federal levels of government. The study analyzed the associated costs, challenges, and benefits from the perspectives of various economic units, including both small and large enterprises. Additionally, existing incentives and punitive measures related to enterprise formalization were identified and documented. Engaging with government authorities, entrepreneurs, and other stakeholders provided valuable insights and feedback on the current processes. Based on these findings, recommendations were formulated to streamline the registration and renewal processes, enhance incentives for formalization, and improve coordination among different government levels.



Findings:

The study successfully mapped the complex registration process for economic units across various government tiers, revealing the significant administrative burden and intricacies involved. Key findings highlighted procedural challenges, such as the necessity for economic units to register with multiple government authorities, which complicates and burdens the process. Small economic units, particularly own-account workers like street vendors, face difficulties in meeting registration requirements, such as providing rental agreements. Gender-specific challenges were also noted, with women entrepreneurs often depending on intermediaries or male family members for registration assistance due to communication barriers and unwelcoming behavior at government offices. Additionally, inconsistencies in registration and renewal costs across different local entities create disparities in the business environment. Furthermore, there is limited awareness among economic units regarding the importance of registration, the benefits of formalization, and the consequences of non-compliance with regulations.

The study also provided actionable recommendations to address these challenges, including:

- Simplifying the registration procedures and establishing a one-door registration mechanism at the local government level.
- Institutionalizing intermediaries to assist with the registration process under the supervision of government authorities.
- Conducting regular awareness campaigns and developing comprehensive information materials to educate economic units about the benefits of formalization.
- Enhancing digital platforms for registration and renewal and improving coordination between different levels of government to streamline the process.

The study's findings and recommendations are expected to play a crucial role in facilitating the formalization of enterprises in Nepal, contributing to sustainable economic development, and improving labor rights and social protection for workers.

Entrepreneurship Literacy Evaluation

Collaborator:

Study Team:

Prof. Dr. Tara Nidhi Bhattarai Ms. Nirmita Shrestha
Dr. Rudra Suwal Ms. Salisha Raila
Ms. Ashma Aryal



Introduction:

Nepal, rich in raw materials and untapped market opportunities, offers significant potential for entrepreneurs. The Economic Survey of FY 2079/80 reported a 5.46% growth rate, highlighting entrepreneurship's role in driving economic activities and production. Recognizing this, the government has taken steps to promote entrepreneurship, including the Industrial Enterprise Act, the Company Act, and the Labor Act. Additionally, the government has introduced the Start-up Enterprise Loan Fund, offering collateral-free loans to qualifying startups. Various subsidies and incentives are also available to support agro-based industries, innovative startups, and marginalized communities. However, entrepreneurship literacy remains crucial for successfully starting and managing enterprises in Nepal.

Objectives:

To assess the level of entrepreneurship literacy, including the knowledge, skills, and mindset necessary for identifying and managing entrepreneurial opportunities.

Methodology:

The methodology for this project involved evaluating an individual's entrepreneurship mindset through a quantitative questionnaire. The assessment was structured around key components, including Foundational Knowledge, Entrepreneurial Mindset/Attitude, Business Financial Literacy, Resource Management Skills, Market Analysis Ability, Value Creation or Value Addition Ideas, a Goal-Oriented Sustainable Approach, and Technological Knowledge. Each component was carefully integrated into the questionnaire to measure various dimensions of entrepreneurship, allowing for a comprehensive analysis of the respondent's readiness and capability to navigate the entrepreneurial landscape effectively.

Conclusion:

Foundational knowledge, including financial literacy and regulatory awareness, is crucial for launching and managing ventures. An entrepreneurial mindset supports proactive decision-making, while financial literacy ensures informed resource management. Effective market analysis and value creation strategies help businesses stay competitive, and a goal-oriented approach aligns objectives with sustainability. Technological knowledge further enhances productivity and innovation. By developing these skills, aspiring entrepreneurs can thrive in the competitive business landscape, driving growth and innovation in the MSME sector.



LIVELIHOOD AND FOOD SECURITY PROGRAM



Building Climate Adaptive Farming Opportunities and Improved Livelihoods for Women and Marginalized Groups in Nepal

Study Team:

Mr. Rajendra Khatri Ms. Binita Shahi
Dr. Manjeshwori Singh Mr. Daya Shrestha
Mr. Ram Prasad Devkota

Collaborator:

**Practical
ACTION**

Background:

Agriculture is essential to Nepal's economy, supporting the livelihoods of a large portion of the population. However, women, marginalized groups, and people living with disabilities face numerous challenges within this sector, which are further exacerbated by climate change. To address these issues, Practical Action, in partnership with DECOS, launched the SAMUNNATI project in 2022, supported by UK Aid, to build climate-adaptive farming opportunities and improve livelihoods in eight rural municipalities across Dang, Rolpa, and Rukum East districts. The project focuses on promoting sustainable agriculture, improving market access, enhancing financial literacy, and fostering social inclusion through climate-resilient practices. The Nepal Development Research Institute (NDRI) conducted a final evaluation of this project. NDRI's work involved a detailed field study to assess the project's impact, sustainability, and alignment with OECD/DAC criteria, providing insights for future development initiatives.

Objective:

The final evaluation was carried out to conduct an independent review of the performance of the project, extract lessons learned, and prepare recommendations for similar future projects. The project evaluated the results (overall progress against the log frame indicators) of the project using the six OECD/DAC evaluation criteria (relevance, effectiveness, impact, coherence, efficiency, and sustainability).

Methodology:

The evaluation was carried out using both quantitative and qualitative methods for data collection. Surveys were carried out among direct beneficiaries of the project in the 8 rural municipalities of Dang, Rolpa, and Rukum East of the Lumbini Province. Qualitative assessments including Focused Grouped Discussions (FGDs), Key Informant Interviews (KIIs), In-depth Interviews (IDIs), and case studies were conducted among representatives of local government, cooperatives, people with disabilities, lead farmers, etc. among others.



Feasibility Study on the Use of Irradiation Technology for Enhancing Food Security in Nepal

Study Team:

Dr. Jaya Kumar Gurung

Dr. Shankar Shrestha

Ms. Binita Shahi

Collaborators:



Background

The Nepal Development Research Institute (NDRI) is leading a feasibility study on the application of irradiation technology to improve food security in Nepal. With the collaboration of CRDF Global, the US Department of State, the UK Government's Energy Security Office, and numerous national stakeholders like the Ministry of Education Science and Technology (MoEST), the Ministry of Agriculture and Livestock Development (MoALD), the Ministry of Health and Population (MoHP), the National Agriculture Research Centre (NARC), the National Academy of Science and Technology (NAST), the Department of Food Technology and Quality Control (DFTQC), the Plant Quarantine and Pesticide Management Centre (PQPMC), and the Department of Environment (DOE) among many others, NDRI is in a strong position to carry out this crucial assessment in its capacity as the lead institution. The study's main goal is to investigate the viability of irradiation technology particularly in the agricultural sector such as prolonging the shelf life of foods, augmenting food quality, and meeting phytosanitary regulations—all of which are critical for strengthening Nepal's food security.

The pre-feasibility consultative sessions which took place earlier in 2024 brought together relevant government agencies and subject matter experts which laid the foundation for this study by coordinating their efforts to address technological and infrastructural shortcomings. By the time of its completion in mid-2025, the feasibility study will offer an in-depth evaluation of irradiation technology's potential to reduce post-harvest losses, improve food quality, and enhance the export capabilities of Nepal's agricultural commodities. Moreover, the study will focus on capacity-building efforts, ensuring that Nepal is equipped with the necessary knowledge and skills to safely implement and manage this technology.

The study intends to generate concrete recommendations for the government of Nepal to improve food security and adhere to international food safety standards by combining global expertise and adapting lessons from international experiences. The results of this feasibility study will also open the door for additional cooperation with the International Atomic Energy Agency (IAEA) and other international partners, guaranteeing a coordinated strategy for utilizing nuclear science and technology for peaceful purposes and benefiting Nepal's food industry.

Post Distribution Monitoring Survey: Karnali Earthquake Response in Nepal

Collaborator:



Study Team:

Mr. Rajendra Khatri

Ms. Kabita Yadav

Background:

NDRI, in association with IFRC, had conducted a Post Distribution Monitoring Survey: Karnali Earthquake Response in Nepal from April to June 2024. On November 3, 2023, a devastating 6.4 magnitude earthquake struck Jajarkot District. The epicenter was located in Ramidanda, Jajarkot district, resulting in the deaths of 154 people—101 in Jajarkot and 53 in Rukum West—and injuring 366 individuals. The earthquake in Jajarkot and nearby districts has displaced many households, both temporarily and permanently. The displaced population is now residing in transitional shelters. In the immediate aftermath of the earthquake, there was an urgent need for shelter, water, sanitation and hygiene (WASH), livelihood support, and protection, especially with the onset of the winter season. The Nepal Red Cross Society (NRCS) has played a crucial role in providing swift response to the disaster-affected populations in these districts. NRCS engaged in delivering relief services, including shelter items, hygiene kits, cash grants, and other non-food items. Following the completion of relief activities, the Nepal Development Research Institute (NDRI) conducted a Post Distribution Monitoring Survey to extract key lessons from the NRCS relief operations and offer recommendations for future disaster responses in Nepal and beyond.

Objectives:

1. To document and gather evidence regarding the support provided to the affected families.
2. To gauge the level of satisfaction among the beneficiaries with the assistance received.
3. To assess the effectiveness of the distribution process.
4. To solicit feedback from the beneficiaries themselves.
5. To derive valuable recommendations to enhance future relief operations in similar contexts.

Methodology:

The study employed a mixed-method approach, incorporating both quantitative and qualitative data collection. A household survey was conducted with 403 beneficiaries of the relief services, complemented by Focus Group Discussions, Key Informant Interviews, and Timeline analysis for the qualitative component.

Findings:

- Two-thirds of the respondents (70 percent) received notification about receiving relief materials in advance out of which 27.60 percent had received on the day of distribution while 37.69 percent had received 1-2 days ahead. The majority of the respondents (49 percent) received information through a person.
- Almost 95 percent of the beneficiaries reported that the criteria used for selecting beneficiaries to receive the relief items were communicated and applied. Out of them, 90 percent said that the selection criteria were fair while 10 percent said that it was not fair.
- Only 63.8 percent of the respondents said that they received relief materials in time while 36.2 percent didn't receive relief materials in time. Almost 46% of respondents received relief materials after one month of disaster. The delay in distributing relief materials is largely attributed to the difficult geographical terrain and remote location of the area, interruption in road and transport due to disaster in the affected areas, shortage of relief materials, or delay in sending relief materials to the district chapters from headquarters and conflict in finalizing beneficiary list as there is need for approval from local government and verification with the police report.
- In terms of beneficiary satisfaction, 82 percent of the respondents felt that the distribution was well organized and 54.6 percent of respondents reported receiving information on ways of using relief materials. 100 percent reported that their attitude towards NRCS has positively changed post the event.

Conclusion:

The Post Distribution Monitoring (PDM) Survey revealed that NRCS effectively provided rescue, evacuation, and relief support to families affected by the earthquake during the immediate post-earthquake period. Effective coordination between NRCS and various governmental and non-governmental agencies enabled efficient delivery of aid to the target population. Households that were completely or partially damaged by the earthquake were addressed by NRCS, and the relief operation prioritized vulnerable populations to a significant extent. Beneficiaries, as well as representatives from local government, the District Administration Office (DAO), and security forces recognized NRCS's efforts across the three districts.



NDRI INITIATIVES

●●●

Nepal's Journey Towards Zero Hunger:

State of Food Security and Nutrition in Nepal 2024

Study Team:

Dr. Krishna Pahari

Dr. Jagannath Adhikari

Mr. Ram Hari Gaihre

Dr. Manjeshwori Singh

Prof. Dr. Punya Prasad Regmi



Background:

Eliminating hunger is a top priority globally and also in Nepal. Zero hunger is one of the most important among the Sustainable Development Goals (SDGs). Indeed, it is not acceptable to have people suffer from hunger in this modern age. Governments throughout the world have committed to achieving Zero Hunger by 2030. Nepal is no exception and has made this a high priority.

In the last few decades, Nepal has made some significant progress in improving the food security and nutrition situation of its population, while there are a multitude of challenges in achieving Zero hunger. This report presents an analysis of the trends in Nepal in the last few decades, and the current situation vis-à-vis the regional and global context. It also provides an analysis of various factors contributing to food security, an overview of the challenges, and recommendations for the way forward. The report also provides an analysis of the trend of food consumption patterns in Nepal, based on the series of national living standard surveys, including the latest survey conducted in 2022-23.

About to be released in December 2024, the report is expected to serve as an important reference for informed policy and programming in addressing food security and nutrition in the country.



NDRI School Health Program

Study Team:

Dr. Jaya Kumar Gurung

Mr. Kamal Chaulagain

Ms. Anjana Lamichhane

Ms. Subekshya Basnet

Mr. Upendra Saud



Background:

Tobacco use is a major public health issue, contributing to 8 million global deaths annually, with 37,529 of these deaths occurring in Nepal. Despite ongoing efforts, 34% of Nepalese are tobacco users, with increasing use among youths. NDRI has been engaged in the tobacco control program since 2019. In response to the Social Welfare Council and District Administration Office-Lalitpur recommendations, NDRI implemented a school health program in five schools of Lalitpur Metropolitan City to address tobacco's impact on public health by raising awareness among school adolescents.



Objectives:

- Educate school adolescents about the health risks associated with tobacco use to increase awareness.
- Leverage students to spread public awareness and promote healthier practices in their families and communities, awaken the existing regulations of tobacco
- Motivate adolescents to overcome tobacco addiction through support, resources, and guidance.

Activities:

Key presentations covered various aspects of tobacco, including its types, chemical compounds, regulatory acts, and the benefits of quitting. Informative fun games and interactive discussions were incorporated to engage students and enhance their understanding. Stories of patients affected by tobacco highlighted the severe health and financial impacts. Personal experiences and commitments to quit tobacco were shared, engaging students and school leaders in promoting a tobacco-free lifestyle

**Key Achievements:**

- Raised awareness about the severe consequences of tobacco use among students and community members.
- Facilitated personal commitments to quitting tobacco and engaged students as ambassadors for tobacco control.
- Received strong support and collaboration pledges from school leaders and local representatives.
- Enhanced community and school involvement in promoting healthier lifestyles and addressing tobacco use.

Foreign Direct Investment Dynamics in Nepal: An Analytical Perspective

Study Team:

Ms. Salisha Raila

Dr. Shankar Shrestha

Dr. Rudra Suwal

Ms. Anjana Lamichhane



Background:

Foreign Direct Investment (FDI) is crucial for economic growth, employment creation, and technological advancement in developing countries. In Nepal, the Industrial and Foreign Direct Investment Policy of 1992 was a significant move towards attracting foreign investment. Despite these efforts, Nepal continues to face challenges in converting approved FDI into actual inflows, affecting industrial growth and overall economic development. The total FDI inflow in the country is less than one-third of the committed FDI. This lack of materialization in the committed FDI of Nepal is a huge problem in Nepal and the reason behind this must be explored. Therefore, to analyze the current FDI scenario and to find out the major reasons of the low materialization of FDI in Nepal, this study (November 2023 to June 2024) was conducted with the following objectives:

Objectives:

- To assess the status of FDI and know the disparity between committed and actual FDI inflow in Nepal
- To compare the status of FDI in Nepal with neighboring countries.
- To understand the issues related to FDI inflow and materialization of committed FDI in Nepal
- To identify the areas of improvement for enhanced FDI scenario in Nepal

Methodology:

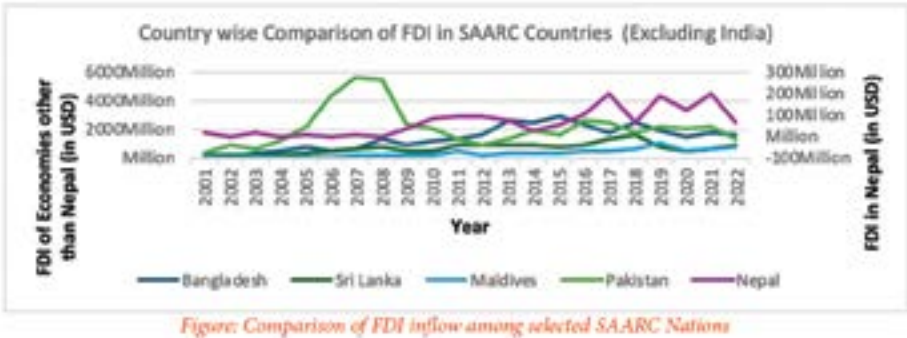
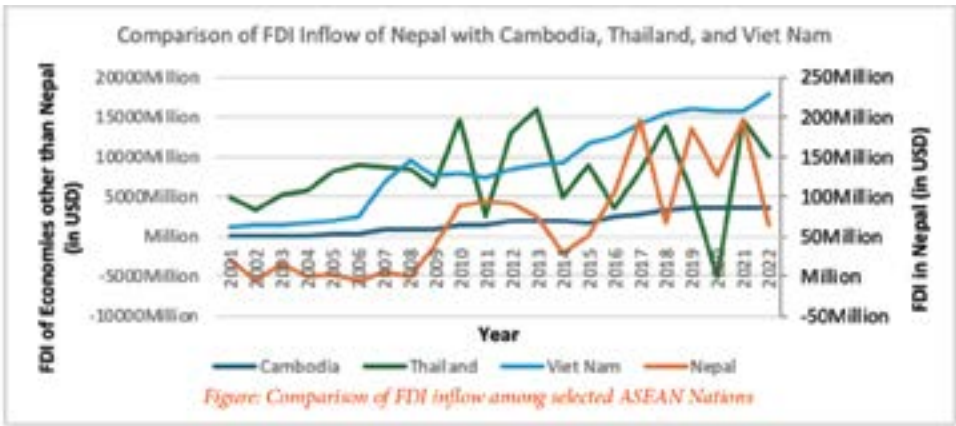
The study employed a multi-faceted approach to analyze FDI in Nepal. This included a comprehensive desk review of secondary data from sources such as Nepal Rastra Bank, UNCTAD, and the World Bank. A comparative analysis was conducted to evaluate FDI trends and policies in South Asian and ASEAN countries, assessing their impact on GDP and policy effectiveness. Primary data was collected through Key Informant Interviews (KIIs) with officials from the Ministry of Industry, Commerce and Supplies (MOICS), Nepal Rastra Bank, Federation of Nepalese Chambers of Commerce and Industry (FNCCI), the Department of Industries, and legal representatives of investors. Additionally,

the study reviewed existing FDI-related policies in Nepal to identify gaps and recommend improvements.

Key Findings:

The comparison of the FDI inflow of Nepal with neighboring SAARC and ASEAN countries shows that Nepal is lagging far behind in terms of FDI inflow among the SAARC and ASEAN neighbors. The graph of Nepal seems flat as compared to that of the neighboring countries.

Furthermore, the study identified key barriers to foreign direct investment (FDI) in Nepal, including bureaucratic inefficiencies, corruption, high land costs, and ineffective one-stop service centers. To address these issues, the study proposed actionable policy recommendations aimed at improving governance, streamlining bureaucratic processes, and enhancing parliamentary oversight to make Nepal a more attractive investment destination. It also suggested innovative approaches, such as adopting the Build-Operate-Transfer (BOT) system and other strategic models, to facilitate FDI through partnerships between local and international investors. Additionally, the study provided comparative insights from neighboring countries, highlighting best practices that could be adopted to enhance Nepal's investment climate



Feasibility Study of Local Resource-based Manufacturing Products in Nepal



Study Team:

Dr. Rudra Suwal Ms. Bipashwi Nepal
Ms. Salisha Raila Dr. Shankar Shrestha
Ms. Prapti Shrestha

Background:

Nepal's manufacturing sector plays a minimal role in the economy, contributing only a small portion to the national GDP and leading to a significant trade deficit due to heavy reliance on imports. Despite the potential for industrial growth to drive economic advancement, the sector faces challenges like low foreign investment, inadequate infrastructure, and resource scarcity. This study aims to address these issues by evaluating the feasibility of adding value to local products, from production to consumption. By identifying viable production processes and guiding informed investment decisions, the study seeks to revitalize Nepal's manufacturing sector, reduce trade imbalances, and promote sustainable economic growth.

Objectives:

The general objective of this study is to conduct a comprehensive feasibility study of local resource-based manufacturing products in Nepal for informed production decision-making. The specific objectives are:

- To assess the availability of resources (capital, infrastructure, human resources) and cost of production associated with the product.
- To assess the business environment related to the product.
- To provide a detailed picture to the investor regarding the viability of production.

Methodology of the Study:

This study is based on both primary and secondary data in order to fulfill the objectives of the study. The study attempts to conduct a comprehensive desk review for the understanding of the related literature and the regulatory environment related to the production, sales, and export of the product. Similarly, a consumer survey with the help of a structured questionnaire is used for the understanding of the consumer perception regarding the product. Furthermore, the study also attempts to conduct a Key Informant Interview (KII) with the stakeholders involved in the entire product life cycle in order to understand the entire business environment of the product. In this manner, the study attempts to understand whether production is viable or not. With the

help of this method, the study attempts to aid potential investors regarding the viability of the investment in the product, leading to informed and less risky investment.

Expected Outputs, Outcomes, and Impacts:

Objectives	Expected Output	Expected Outcome	Impact
• To assess the availability of resources (capital, infrastructure, human resource, raw materials) and cost and benefit associated with the production of the product.	• Resource availability will be assessed. • Cost of Production of the product will be assessed. • Cost-benefit Analysis will be conducted • BEP Analysis will be conducted • Pay Back Period will be calculated	• Informed Decision-making • Rational Investment	• Reduction of loss in investment due to informed and rational decision. • Establishment of Research-backed investment culture.
• To assess the business environment related to the product.	• Business Environment will be assessed		
• To provide a detailed picture to the investor regarding the viability of production.	• Feasibility study report		

Current Pre-feasibility study titled Unlocking Opportunities for Hemp Products:

A Pre-Feasibility Analysis:

As a first step to the feasibility analysis of the local resource-based manufacturing in Nepal, NDRI is currently involved in the pre-feasibility study of Hemp products, which are produced using hemp.

Hemp (*Cannabis sativa*) is a versatile and eco-friendly resource gaining attraction as a sustainable alternative to conventional materials like plastic and cotton. Despite its historical use in Nepal for textiles and other products, the sector faces challenges, including legal restrictions and infrastructure limitations. With the global industrial hemp market valued at USD 4.71 billion in 2019 and projected to grow annually by 15.8% by 2027, exploring hemp's potential in Nepal could significantly impact local economic development and reduce the country's trade imbalance.

Objectives:

- To assess the availability of resources (capital, infrastructure, human resources, raw materials) and cost and benefit associated with the production of hemp products.
- To assess the internal and external business environment related to the production and sales of hemp.
- To assess the local and international market of hemp-related products as well as the customer perception towards hemp products.
- To prepare a comprehensive report informing the investors regarding the viability and profitability of the investment.

Methodology:

The study employed a range of data collection methods to comprehensively assess the hemp industry. A desk review provided an in-depth analysis of existing literature on hemp, covering legal, policy, and market aspects both nationally and internationally. Key Informant Interviews (KIIs) were conducted with hemp producers and associations to evaluate internal and external factors impacting production and marketing. Additionally, a questionnaire survey was administered to gather insights into consumer behavior and perceptions of hemp products in Nepal. Data analysis involved transcribing and analyzing KII responses to identify strengths, weaknesses, opportunities, and threats, while survey results were processed using charts and tables to gauge consumer attitudes and market potential.

Findings:

The study identified several key barriers and opportunities related to the hemp textile industry. Major issues highlighted include regulatory challenges,

a lack of skilled labor, and high transportation costs, which currently impede industry growth. However, significant market potential was recognized, driven by increasing consumer demand for sustainable products and the possibility of generating income in rural areas. Policy insights were provided, recommending improvements to legal frameworks and infrastructure to better support the hemp industry. Additionally, consumer insights revealed a positive attitude towards hemp products, indicating promising opportunities for market expansion.

Way Forward:

The study team has been able to assess the availability of the resources as well as the internal and external environment of manufacturing hemp-related products. However, the cost-benefit analysis of manufacturing hemp products, as well as obtaining the perception of a diverse range of customers, is yet to be done. The next step of the study team is to obtain concrete data relating to the cost and benefit of manufacturing hemp products, along with the perception from the wide range of potential customers of hemp products in Nepal.

Strengthening National Capacity for Landslide Management in Nepal

Study Team:

Prof. Dr. Tara Nidhi Bhattarai

Dr. Krishna Pahari

Er. Shanmukhesh Chandra Amatya

Ms. Sunita Magar

Dr. Jaya Kumar Gurung

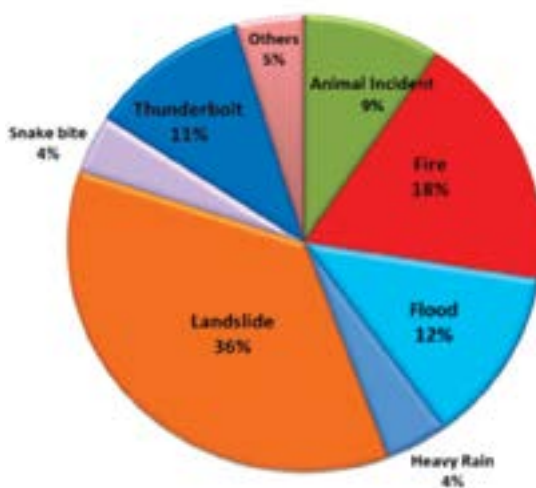


Background:

Nepal lies in the central part of one of the youngest and tectonically most active regions- the Himalayas. Owing to its intricate tectonic setup and geographical complexities, Nepal is susceptible to various types of natural disasters among which landslides cause significant losses of lives, property, and infrastructures each year. For instance, in 2078 BS (14 April 2021 to 13 April 2022), 508 fatalities were reported in the country due to various natural disasters, and among this 36% (183 fatalities were due to landslides). More than 500 landslide events

(<https://bipadportal.gov.np/incidents>) are recorded every year. The country faces a persistent threat from landslides, due to its rugged topography, diverse geomorphology, occasional seismic events, and complex geological processes. The proliferation of rural road construction in recent years without a systematic plan, involving slope cutting without sound geotechnical considerations, has made the slopes vulnerable, contributing to recurring landslides. Additionally, the influence of climate change such as concentrated localized rainfall patterns, particularly in earthquake-affected areas has made hill slopes vulnerable to various types of mass movement hazards. Besides, rising temperatures leading to rapid ice melting, in the northern part of the country, further amplifies the landslides and snowfall susceptibility including extreme riverbank scouring due to flooding in the snow-fed rivers. To minimize the adverse impacts, it

Loss of Lives from Disasters 2078
(Apr 14 2021-Apr 13 2022) Total death=508



Loss of Lives from Disaster 2078, Source: MoH (Others= Avalanche, Boat capsizes, Forest fire, snow, Storm)

is crucial to identify landslide-prone areas and then categorize hot spot areas considering the risk of landslide. This will help identify effective structural and non-structural mitigation measures based on study and research.

Objectives:

The primary objective of this study is to:

- Identify areas susceptible to landslides at the provincial level and subsequently focus on identifying the most vulnerable areas within local municipalities to assess the extent of the hazard.
- Perform a comprehensive landslide inventory mapping, conducting detailed studies (at a scale of 1:1000) of critical sites and preparing hazard map zonation. Subsequently, based on the findings, propose suitable structural and non-structural measures to mitigate risks, and estimate the associated costs for the municipality concerned as necessary.
- Revise and update the land map of the concerned municipality in accordance with the final findings and outputs of this investigation.
- Identify and recommend safer sites for relocating settlements affected by landslides, ensuring safety and minimizing risk for residents (http://dx.doi.org/10.1007/978-3-030-60713-5_7).
- Establish a Landslide Data Collection and Management Portal at NDRI, facilitating centralized access to collected landslide data and offering free accessibility to researchers.

National Budget Analysis of Nepal (FY 2081/82)

Study Team:

Dr. Rudra Suwal

Ms. Salisha Raila

Ms. Anjana Lamichhane

Dr. Shankar Shrestha

Dr. Deependra Rokaya



Background:

Nepal's 74th budget for the fiscal year 2081/82, amounting to NPR18 kharba 60 arba 30 crores, was unveiled on April 30, 2024. This represents a 6.2% increase from the previous year's budget and a 21.56% rise from the revised estimate of the previous fiscal year. The budget allocation includes 61.31% for current expenditure, 18.94% for capital expenditure, and 19.74% for financial management. Revenue is primarily sourced from taxes (67.74%), with additional funding from grants and loans. Despite an increase in capital expenditure, the budget remains heavily weighted towards current expenditure, with internal borrowing rising to 17.73% of the total budget.

In sectoral allocations, health and education receive insufficient funding relative to their needs. The health sector is allocated NPR 86.24 billion (4.64% of the total budget), yet only 3.08% is directed specifically towards health programs. This allocation prioritizes treatment over preventive care and overlooks potential revenue from taxing tobacco and other harmful products. Education funding is also lacking, with only 3.12% of the total budget allocated, reflecting a decrease in investment compared to previous years. Both sectors require a more substantial financial commitment to ensure sustainable development and improve overall public services.

Major Takeaway:

The major focus of the analysis of the national budget 2081/82 was that the budget allocated by the government is still not enough for the achievement of the targeted growth rate of 6%. The tax base must be expanded rather than the tax rate in order to increase the budget for the effective implementation of policies and programs of the budget. Similarly, the budget allocated for capital expenditure is too low for the economy to develop efficiently. The budget must focus on allocating more amount for capital expenditure in order to achieve sustainable development and growth of the economy.



Figure: Revenue and expenditure structure of National Budget 2081/82

EVENTS AND OUTREACH



NDRI Honored with Prestigious 'Niti Samman 2081':

For Contributing to Nepal's Policy Research Ecosystem and Evidence-based Policy-making System

On September 26, 2024, on the occasion of the 6th anniversary of the Policy Research Institute (PRI), the Government think tank of Nepal, Nepal Development Research Institute (NDRI) was honored with the prestigious 'Niti Samman 2081' (Policy Award/Honor 2024). The event began with a message from Right Hon'ble Prime Minister K.P. Sharma Oli, delivered by Dr. Khaganath Adhikari followed by PRI Executive Chairman's (Prof. Dr. Lekhnath Sharma) presentation of PRI activities, and the presentation of various awards. The Keynote Speeches were delivered by Dr. Yubaraj Khatiwada (Economic Advisor to the Prime Minister and Former Finance Minister) and Prof. Dr. Suresh Raj Sharma (Former Vice-Chancellor of Kathmandu University). NDRI President, Dr. Krishna Pahari, on behalf of NDRI, received the 'Niti Samman 2081' from the Right Hon'ble Speaker of the House of Representatives, Mr. Devraj Ghimire, and delivered his remarks upon receiving the esteemed award.



Following a rigorous selection process among 115 research institutions in Nepal, NDRI has been recognized as the top institution. This honor recognizes NDRI's invaluable contribution to Nepal's policy research ecosystem and evidence-based policy-making system through research, feedback, advocacy, and capacity building in various policy areas. The event was graced by the esteemed presence of high-level dignitaries. NDRI was represented by President Dr. Krishna Pahari and Executive Director Dr. Shankar Shrestha. This recognition further enhances NDRI's commitment to advancing impactful research and providing meaningful policy insights for the development of Nepal.

Contemporary Policy Dialogue Series

In a dynamic response to the COVID-19 pandemic, the Nepal Development Research Institute (NDRI), in collaboration with the Resources Himalaya Foundation (RHF), launched the "COVID-19 Support Network Group (CSNG)" virtual talk series. Initially focused on providing timely information during the pandemic, this initiative evolved into a long-term platform now known



as the "Contemporary Policy Dialogue (CPD)." Spearheaded by Dr. Dinesh Bhuju (RHF), Dr. Nawa Raj Khatiwada (NDRI), and Dr. Jaya Kumar Gurung (NDRI), under the chairmanship of Former Minister of Education, Science, and Technology Hon. Ganesh Shah, CPD has become a space for experts from various fields to discuss current issues and share insights.

Recently, the series celebrated its milestone 200th episode with a special discussion session reflecting on its remarkable journey. With over 206 episodes, CPD has transitioned to a fortnightly format, covering a broad range of topics from science and technology to global challenges. This series not only showcases



expert perspectives but also encourages audience interaction through Q&A sessions, solidifying NDRI and RHF's commitment to fostering informed discourse on contemporary issues.

Rethinking Wildlife Research in Nepal Through Elephants' Lens



On May 15, 2024, NDRI hosted an insightful seminar titled “Rethinking Wildlife Research in Nepal Through Elephants’ Lens,” presented by Dr. Sanjeeta Sharma Pokharel, an elephant biologist and JSPS Postdoctoral Fellow at Kyoto University, Japan. Dr. Pokharel shared her research on the stress physiology of wild Asian elephants in challenging landscapes, highlighting how limited knowledge about these animals often leads to misunderstandings and conflicts in human-elephant interactions. Conducted in a hybrid format, the event drew NDRI staff, members, and guests, fostering greater awareness of the need for empathy and coexistence with wildlife. The seminar concluded with a lively discussion session, where Dr. Pokharel answered audience questions in depth.

Upgrading Nepalese Traditional Medicine as a Source for Disease Prevention: from Local Concepts to Commercial Production.



On May 2nd, 2024, Nepal Development Research Institute (NDRI) organized a captivating talk program at its conference hall, featuring Dr. Binod Shrestha,

Assistant Professor at Kyoto University, Japan as the key speaker. The event focused on the topic "Upgrading Nepalese Traditional Medicine as a Source for Disease Prevention."

Dr. Shrestha delivered an insightful presentation that delved into the potential of Nepalese traditional medicines. The talk was followed by a lively discussion session, where attendees engaged with Dr. Shrestha, seeking clarification and sharing their perspectives on the topic. The discussion also explored potential collaboration opportunities between NDRI and the Institute of Natural Resources Innovation (INRI) in Nepal which Dr. Shrestha was also affiliated.

Talk Program on Karnali Province Development



On January 4, 2024, the Nepal Development Research Institute (NDRI) held a talk program to discuss the developmental status of Karnali Province, featuring Hon. Yogendra Shahi, Vice-chairman of the Karnali Province Planning Commission. In his address, Hon. Shahi offered a comprehensive overview of the province's development, focusing on government resource distribution, the impact of federalism on the socio-economic landscape, and the tourism potential within the region. He also discussed infrastructure projects, including transportation and communication, aimed at sustainable growth. Concluding with the province's vision and future plans, Mr. Shahi's talk fostered valuable insights and dialogue, strengthening commitment to Karnali's development agenda.

ECONOGENESIS Networking Gala: Shaping Future Economies Together!

On October 1, 2024 (Asoj 15, 2081), Nepal Development Research Institute (NDRI), in collaboration with Paul Watkiss Associates (PWA)-UK, hosted a successful networking dinner event at Hotel Vivanta, Jhamsikhel, Lalitpur. The event, which was a part of the ongoing "ECONOGENESIS" project, brought

together a diverse group of key stakeholders and experts (such as policymakers, researchers, and representatives from various sectors) to discuss climate change economics and adaptation. The project is funded by the UK Government's Foreign, Commonwealth & Development Office and the International Development Research Centre, Ottawa, Canada as part of the Climate Adaptation and Resilience Program (CLARE).



The main objective of the event was to align the project's overarching research questions with the priorities of the stakeholders and explore potential collaboration opportunities. The discussions revolved around critical issues such as the economic costs of climate change, adaptation investment needs, and the role of gender and social inclusion in shaping equitable climate solutions. The networking dinner served as a platform for fostering collaboration, ensuring the research aligns with national and sectoral priorities, and that its findings will be timely and impactful in addressing the economic challenges posed by climate change effectively and equitably.

Visit of IDRC Regional Director to Nepal



On August 22, 2024, Dr. Kapil Kapoor, IDRC's Regional Director, visited NDRI in Lalitpur for discussions with NDRI officials and project team members on

ongoing initiatives and future directions. Prof. Bhattarai, Principal Investigator, highlighted project progress, the role of research in supporting MSMEs, and collaboration potential with innovation agencies. Dr. Kapoor emphasized IDRC's goal of impactful research, aligning with NDRI's objectives to inform policy and enhance municipal support for MSMEs. A follow-up meeting with MoICS officials at Hotel Hilton further underscored the importance of research in strengthening government innovation programs, such as MEDPA.

Waste Management & Climate Conference 2024 (WMCC 2024)

Waste management, coupled with climate change, is an area of interest for NDRI, which drew our attention to the conference, 'Waste Management & Climate Conference 2024 (WMCC 2024),' held on June 5th at The Soaltee Hotel, Kathmandu, in observance of World Environment Day."



The event was a collaborative effort organized by the Ministry of Forests and Environment (MOFE), the Confederation of Nepalese Industries (CNI), the Coca-Cola Foundation, Khaalisisi, the National Human Rights Commission (NHRC), the Confederation of Nepalese Industries Young Entrepreneurs Forum (CNIYEF), and Women for Human Rights (WHR).

As reported by the two attendees from NDRI, Dr. Jaya Kumar Gurung and Ms. Sophiya Shrestha, the beauty of the event was the initiative of the private sector (industries), the federal government, and the local government, along with national and international CSOs. Interestingly, the program was facilitated by the Human Rights Commission, which examined the issue from a rights-based lens.

One of the highlights of the conference was the Mayor's Forum: The State of Waste Management in Nepal. The sessions brought together investors, startups,

and policymakers to explore the challenges and opportunities within the waste industry. Strategies were discussed for Nepal to tap into the potential of carbon and plastic credits. Hon. Dr. Toshima Karki, a member of the House of Representatives, provided remarks on the impacts of air pollution, urging the audience to initiate a legacy of change. Overall, WMCC 2024 served as a crucial platform for sharing knowledge, discussing challenges, and strategizing for improved waste management and environmental sustainability in Nepal.

NDRI as an Organizing Partner and Presenter at the 30th Annual ISDRS Conference on Sustainable Development Research



The 30th Annual International Conference of the International Sustainable Development Research Society (ISDRS) on Sustainable Development Research was held in Nepal from June 11th to 13th, 2024. During the three-day event, participants from across the globe engaged in exchanges and discussions on a wide range of sustainable development topics, such as sustainability and science, education and sustainability, and climate change and energy. The aim was to provide recommendations for solutions to achieve the Sustainable Development Goals (SDGs) by 2030.

There were 204 presentations delivered by students and scholars from more than 40 countries around the world, based on the ten themes set by ISDRS and aligned with the Sustainable Development Goals established by the United Nations Conference in 2012. Dr. Shankar Shrestha, Executive Director of NDRI, also participated in some sessions as an organizing partner. On the first day of the conference, Ms. Sunita Magar, a Research Associate at NDRI, presented “Identifying Gaps in Landslide Studies to Expedite Sustainable Development in Nepal.”

The conference served as a global platform for different countries to come

together to share efforts undertaken, and accomplishments achieved, and to provide solutions on how to achieve the SDGs by 2030. This year, the program



was organized by ISDRS in collaboration with the Resources Himalaya Foundation (RHF), Nepal, Mid-West University, Nepal, and Nepal Open University, Nepal. The Nepal Development Research Institute (NDRI) was also one of the organizing partners for the event. Rt. Hon'ble Vice President Mr. Ram Sahaya Prasad Yadav served as the Chief Guest of the inauguration program. He shared that the commitment to sustainable development is a necessity for the preservation of our planet and the well-being of future generations, calling the event a testimony to our shared commitment to a sustainable future for all.

On the second day, Ms. Divya Laxmi Subedi, also a Research Associate at NDRI, presented on “Climate Change Impacts on Future Extreme Rainfall: A Study in Nepal, Palestine, and Bangladesh,” and Ms. Ashma Aryal, Outreach and Communication Officer at NDRI, resented on “Understanding the Development Dynamics: A Comparative Study on Nepal and Australia.” Additionally, Ms. Shreya Bajimaya, Senior Research Associate at NDRI, moderated two sessions on Biodiversity and Ecosystem Services.

On the final (third) day of the conference, Dr. Krishna Pahari, President of NDRI, presented on “Nepal’s Zero Hunger Journey: Challenges and Opportunities.” Overall, it was an informative program where people from all over the world presented their research findings and worked towards finding a way forward. The three days of the program consisted of formal sessions, presentations, poster presentations, and workshops. The event also provided a valuable networking platform for researchers from around the world

IDRC Funded Project Team Conducts Provincial Workshops

As a part of the IDRC research project, the project team of NDRI conducts a series of provincial workshops across the provinces of the country. The workshops were crucial for sharing key findings, particularly to ensure

the effective tracking of both the MEDPA and YSEF programs at the local levels. The workshop participants included Mavors and Deputy Mavors of



municipalities, Chairpersons and Vice-Chairpersons of rural municipalities, Chief Administrative Officers, Employment Coordinators, Enterprise Development Facilitators (EDFs), Loan Facilitators (LFs), and representatives from the provincial Ministry of Industries.

The first workshop was held on 7 June 2024 at Hotel Maden Inn in Itahari, Sunsari, combining participants from Koshi and Madhesh provinces. Over 30



participants from different municipalities across the two provinces attended the workshop.

Similarly, the second workshop held on 21 June 2024 in Rato Gurans Resort, Dadeldhura, Sudurpaschim

province. The workshop included 15 participants from different municipalities/ rural municipalities of Sudurpaschim province.

The third workshop was held on June 26, 2024, at Dreamland Gold Resort in Butwal, combining participants from Lumbini, Karnali, and Gandaki provinces. Over 40 participants from various municipalities, rural municipalities, and provincial ministries attended the workshop.

NDRI at the Digital Nepal Conclave 2024, Focused on "Harmonizing Digitization and Development"

Dr. Krishna Pahari, President of Nepal Development Research Institute, and Mr. Prabin Shrestha, Senior Research Assistant from the Nepal Development

Research Institute (NDRI) participated in the Digital Nepal Conclave 2024, held on the 7th of June 2024 and organized by the ICT Foundation Nepal, the event was inaugurated by Honorable Prime Minister Pushpa Kamal Dahal. With over 500 participants, including government officials, stakeholders, experts, and entrepreneurs, the conclave focused on "Harmonizing Digitization and Development." The main objectives of the conclave were to foster collaborative partnerships, promote inclusive digitization, enhance digital infrastructure, facilitate innovation and entrepreneurship, foster policy coherence, drive inclusive digital development, ensure digital governance and citizen engagement, and build digital leadership capabilities.



The agenda of the conclave comprised presentations and panel sessions on various pertinent topics, including Digital Public Infrastructure, Sustainable Telecommunications for Digital Transformation, Innovative Technologies for Development, Digital Empowerment and Inclusion, Digital Governance and Data for Development, and Digital Economy and Investment for Digital Nepal. Additionally, exclusive power dialogue sessions were conducted with former Prime Minister KP Sharma Oli and the Honorable Minister of Communication and Information Technology, Ms. Rekha Sharma. Furthermore, insights on the digital economy and ICT in the new fiscal year's budget were shared by the Honorable Minister of Finance, Mr. Barsha Man Pun, highlighting the government's commitment to advancing digital initiatives.

National Budget Analysis 2081/82

On May 30, 2024, the Nepal Development Research Institute (NDRI) held a press meeting titled "Analysis of the National Budget 2081/82" to present a detailed review of the recently announced budget. Moderated by Dr. Dipendra Rokaya, Senior Research Specialist at NDRI, the event drew over 50 participants, including media personnel. Dr. Shankar Shrestha, NDRI's Executive Director, opened with remarks on the importance of budget analysis for transparent economic

policies. Dr. Rudra Suwal, Lead of NDRI's Economic Development Program, delivered an in-depth presentation highlighting key allocations, expected economic impacts, and challenges for the upcoming fiscal year. Following this, Dr. Nawa Raj Khatriwada and Dr. Jaya Kumar Gurung shared sectoral insights into the environment, education, healthcare, infrastructure, and economic reforms.

The event then transitioned to an open discussion, fostering a lively exchange of perspectives among attendees. Ms. Salisha Raila, economist at NDRI, presented a press release summarizing the event's main points for broader public and media access. Concluding the event, Dr. Krishna Pahari, NDRI President, emphasized the role of continuous dialogue and research in strengthening Nepal's economic policies and expressed gratitude to all participants for their engagement.



Interactive Workshop on World No Tobacco Day



Nepal Development Research Institute (NDRI), in collaboration with Lalitpur Metropolitan City Ward 5, organized an interactive workshop on May 31, 2024, to mark World No Tobacco Day. The event took place at the Buddhi Bikash Mandal Hall and aimed to foster community engagement while addressing local issues related to tobacco use and its impact on public health.

The workshop brought together a diverse group of participants, including ward

representatives, schoolteachers, representatives from women's groups, youth clubs, Female Community Health Volunteers (FCHVs), and other community members. The sessions were designed to be interactive, featuring group discussions and presentations focused on the dangers of tobacco use, effective strategies for tobacco control, and promoting a tobacco-free community.

Participants actively engaged in brainstorming potential solutions and initiatives to reduce tobacco consumption and its harmful effects on public health. The event was a significant step toward enhancing community collaboration and ensuring that diverse voices are heard in the fight against tobacco use, ultimately aiming to improve the health and well-being of Lalitpur Metropolitan City.



Making an Economic Case for Ecosystem-based Adaptation for Flood Risk Management: Inception Workshop



On April 28, 2024, NDRI hosted an inception workshop for the SANDEE-ICIMOD-funded project “Making an Economic Case for Ecosystem-based Adaptation for Flood Risk Management” at Hotel Kamakshya in Damak-5, Jhapa, Koshi Province, Nepal. Led by Ms. Shreya Bajimaya,

Senior Research Associate at NDRI, the workshop introduced the project's objectives, focusing on assessing ecosystem-based adaptation strategies for flood risk reduction in the Mawa-Ratuwa watershed. Participants included local representatives and experts from various municipalities and organizations like the Nepal Red Cross Society, who discussed flood-prone areas, disaster governance, and community-based flood management measures. Valuable insights gathered from the workshop are expected to advance the project’s goals.

Nepal Investment Summit 2024 Concludes With High Hopes for Investment

In a determined effort to establish Nepal as a premier investment destination, the Government of Nepal (GoN) hosted the Third Nepal Investment Summit

(NIS) 2024 on April 28-29 in Kathmandu, themed “Emerging Nepal.” Co-organized by the Federation of Nepalese Chamber of Commerce & Industries (FNCCI), Confederation of Nepalese Industries (CNI), and Nepal Chamber



of Commerce (NCC), with the Office of the Investment Board Nepal (IBN) serving as the secretariat, the summit convened over 2,000 participants from 50+ countries. Dr. Shankar Shrestha, Executive Director of NDRI, was among the distinguished delegates. The summit featured an inaugural session chaired by Prime Minister Pushpa Kamal Dahal "Prachanda," and plenary sessions led by high-level dignitaries, exploring investment opportunities and sharing success stories. Additionally, 11 panel discussions covered critical sectors, including renewable energy, green finance, infrastructure, and ICT, each chaired by government ministers. Side events such as project showcases and expressions of interest complemented the discussions, culminating in a closing session with former Prime Minister K P Sharma Oli as chief guest. Through NIS2024, the GoN underscored its commitment to fostering private sector and foreign direct investment (FDI) by amending laws and streamlining procedures to enhance ease of doing business, aligning with Nepal's strategic development goals.

21st NDRI Annual Day Program

The 21st NDRI Annual Day, held on April 12th, 2024, at Hotel Himalaya, was a landmark event with over 100 in-person attendees and 50 virtual participants. The program featured the Hon. Nawal Kishor Sah Sudi, Minister of Forests and Environment, as the Chief Guest, highlighting the importance of environmental conservation. Keynote speaker Dr. Pema Gyamtsho, Director General of ICIMOD, delivered an impactful address on "Climate and the Hindu Kush Himalaya – Critical Decade for Securing our Shared Future," while esteemed guests like Ms. Ayshanie Medagangoda-Labe, UN Resident Coordinator a.i., and others enriched the discussions.



The event was chaired by Dr. Krishna Pahari, President of NDRI, and expertly hosted by Ms. Ashma Aryal, Outreach and Communication Officer. Highlights included the unveiling of NDRI's special report "A Reflection on 20 Years of Service" and a panel discussion on "Way Forward for a Climate Resilient Future" moderated by Dr. Divas B. Basnyat. The day concluded with a vote of thanks by Dr. Manjeshwori Singh, General Secretary of NDRI, followed by a networking lunch.

Analyzing Socio-Economic Factors and Tobacco Policy in Nepal

On April 5, 2024, the Nepal Development Research Institute (NDRI) hosted a workshop to disseminate the findings of the National Survey on the socio-economic and policy aspects of tobacco use in Nepal. Chaired by NDRI President Dr. Krishna Pahari, the event gathered policymakers, researchers, and health advocates to discuss tobacco control. Hon. Prakash Adhikari,



Hon. Prakash Adhikari, Member of Parliament, served as the Chief Guest, with Dr. Dipendra Raman Singh, Additional Secretary, and Saroj Dhungel, Chair of the Health Journalist Forum Nepal, as Special Guests. Dr. Jaya Kumar Gurung, Senior Research Specialist at NDRI, emphasized the importance of tobacco taxation, while Kamal Chaulagain, Research Associate, presented key findings from the survey.



The report, officially unveiled by Hon. Prakash Adhikari and other guests,

sparked discussions on the urgent need for comprehensive tobacco control in Nepal. Participants agreed on the necessity of evidence-based policies, taxation, public awareness, and collaboration among stakeholders to address tobacco-related health and economic challenges. The workshop underscored the importance of coordinated efforts to implement tobacco control measures and protect public health in Nepal.

Mitigating Flood Risks through Women's Leadership in Ecosystem-based Adaptation (EbA) Interventions: Inception Workshop

On 28 March 2024 (Thursday), NDRI in collaboration with Wageningen University and Research (WUR) and the International Centre for Environmental Management (ICEM) organized its inception workshop for the Global EbA/ IUCN-funded project titled “Mitigating flood risks through women’s leadership in EbA (Ecosystem-based Adaptation) interventions”. The program was organized in Hotel Devotee in Dhangadhi, Sudurpaschim Province, Nepal. The inception workshop aimed to provide an overview of the project’s objectives and gather information about ongoing disaster management activities within the watershed area.



Mr. Anup Kumar Upadhyay, then Vice-President of the Sudurpaschim Province Policy and Planning Commission honored the gathering as the chief guest. Distinguished guests gracing the workshop included Mr. Devidatta Kandel, the Mayor of Gauriganga Municipality; Mr. Hem Raj Ojha, the Mayor of Krishnapur Municipality; and the Deputy Mayor of Punarbas Municipality Ms. Bhuliya Kumari Rana. Additionally, the Chief Administrative Officer, disaster management focal



person, and other representatives from these municipalities, along with representatives from the Sudurpaschim Province Policy and Planning Commission, the Ministry of Industry, Tourism, Forest, and Environment, as well as various organizations such as UNDP Nepal, FAYA Nepal, LAGHE Nepal, and Nepal Red Cross Society, actively participated in the workshop, bringing together a diverse range of expertise in disaster risk reduction and watershed management.

The workshop highlighted the importance of the leadership role of women and community members in addressing flood risks. Further, the necessity of conducting in-depth case studies in disaster-prone areas and the significance of mapping risk areas, addressing existing policy challenges, and fostering collaboration among stakeholders was also highlighted. Understanding the interconnectedness between upstream and downstream areas was also underscored as crucial for effective flood risk management strategies.

Sensitizing Member of Parliament on Tobacco Issue

On March 17, 2024, the Nepal Development Research Institute's (NDRI) Tobacco Control Program organized a pivotal meeting with Members of Parliament to discuss key measures for reducing tobacco consumption in Nepal. Led by Dr. Jaya Kumar Gurung, Senior Research Specialist at NDRI, the session emphasized the importance of taxation as a critical tool in tobacco control, comparing tobacco taxes across South Asia and their role in lowering health risks.

Nine Members of Parliament from major political parties, including Nepali Congress, CPN-UML, CPN-Maoist, and People's Socialist Party, attended the meeting. Hon. Ganesh Shah, former Minister of Environment, Science, and Technology, delivered the welcome remarks. The parliamentarians expressed strong support for increasing tobacco taxes and pledged to advocate for the initiative in the Parliamentary Committee on Education, Health, and Information Technology, signaling a unified political commitment to advancing tobacco control in Nepal.



NDRI in Groundwater Symposium 2024

On 18th March 2024, Ms. Shreya Bajimaya presented the proposed project titled “Springwater Management, Agriculture, and Resilient Livelihood in the Mid-Hills of Nepal (SPAN)” at the Groundwater Symposium 2024. This event, organized by the Center of Research for Environment, Energy and Water (CREEW) took place at Hotel Aloft, Kathmandu. Dr. Shankar Shrestha, Mr. Girish Lamsal, and Ms. Sunita Magar also attended the symposium, which focused on the theme “Challenges and Opportunities for Sustainable Development and Management of Groundwater”.



The SPAN project commenced from 15 November 2024, with CSIRO (Commonwealth Scientific and Industrial Research Organization) as the commissioned organization. Along with NDRI, the partner organizations



are SIAS (South Asia Institute of Advanced Studies), NWCF (Nepal Water Conservation Foundation), ANU (Australian National University), TU (Tribhuvan University), and KU (Kathmandu University). The project focuses on improving Springwater management in the midhills of Nepal for inclusive and resilient rural livelihoods. The broader benefits of the project are improved federal, provincial, and local government capacity to promote socially inclusive and gender-aware spring water management and agricultural livelihoods. The project intends to achieve this by piloting participatory socio-technical solutions, participatory learning, generating transdisciplinary knowledge, exploring governance options, building stakeholder capacity, and mainstreaming spring shed management into public policy and development planning.

Sustained Dialogue Kick off the prospect of Ionization Technology in Nepal

Hon. Member of Parliament and former Minister of Science and Technology, Mr. Devendra Paudel, emphasized the importance of connecting scientific research



with peace and development during a consultative program held on February 2, 2024. Facilitated by the Nepal Development Research Institute (NDRI) in coordination with the Ministry of Education, Science, and Technology (MoEST), the meeting brought together a team of experts from the United States, including representatives from

the US Department of State, UK Department of Energy Security & Net Zero, USAID, Texas A&M University, and Kansas State University. The consultation aimed to explore the potential of ionizing technology in Nepal, specifically in food safety and security, and included diverse stakeholders such as MoEST, the Ministry of Agriculture and Livestock Development, the Ministry of Health and Population, and several academic and private sector organizations. Participants engaged in meaningful exchanges, providing insights into their level of understanding, interest, and commitment to this technology.

The meeting, held on January 29, 2024, at Hotel Himalaya, inspired enthusiasm among stakeholders, particularly those researching e-beam technology, shifting many from initial hesitance to embracing the prospects of modern nuclear science and technology for Nepal's socioeconomic growth. NDRI's Executive Director, Dr. Shankar Shrestha, and President, Dr. Krishna Pahari, discussed Nepal's food security challenges and the potential of ionizing technology to reduce post-harvest losses. Concluding the consultation, Secretary Pramila Devi Bajracharya from MoEST thanked all participants, underscoring the Ministry's commitment to cooperation and recommending a feasibility study to advance ionization technology for food security.

NDRI's Fundraising Solidarity for Jajarkot Earthquake Victims

In solidarity with the victims of the 2023 Jajarkot earthquake, the NDRI family organized a fundraising initiative, pooling contributions from staff and consultants. The collected funds were formally handed over by Dr. Krishna Pahari, President of NDRI to Mr. Anil Pokharel, the Chief Executive of the National Disaster Risk Reduction and Management



Authority (NDRRMA), reflecting NDRI's commitment to supporting disaster-affected communities and contributing to national recovery efforts.

Seminar on Small Area Estimate

A seminar entitled “Measuring nutrition, health, and poverty in small areas – how low can you go?” was organized by NDRI on the 9th of January 2024, with more than 50 participants, the program had a good representation from various government agencies, Development Organizations, Academicians, and think tanks.



The presentation included various examples from different countries, particularly in Nepal, of how small area estimates (SAE) could produce statistically representative data on various indicators at the lower level by using data from national surveys such as the National Living Standards Survey (NLSS) and the Census data. This was followed by a Q&A session, and then remarks by Dr. Hem Raj Regmi, Deputy Chief Statistician, National Statistics Office (NSO), Dr. Shridhar Thapa, VAM Officer at the UN-World Food Program in Nepal, and Dr. Krishna Pahari, President of NDRI. It was followed by a discussion on the way forward moderated by Dr. Pahari, where representatives from WFP (Mr. Haile Abera, Head of Programme), NSO (Dr. Hem Raj Regmi), and other participants all agreed on the need to conduct a fresh round of SAE in Nepal which is likely to produce important data representative at the municipality level, which could be very useful for evidence-based planning to meet the aspirations of reducing poverty and achieving zero hunger. Dr. Pahari concluded the session with his remarks that NDRI would be happy to coordinate this process by engaging with various stakeholders in Nepal and with Prof. Haslett's team. Ms. Ashma Aryal, Outreach and Communication Officer of NDRI served as the Master of Ceremony, and Dr. Shankar Shrestha, Executive Director at NDRI concluded the event with a vote of thanks which was followed by an interactive high tea.

NDRI Annual General Meeting

Nepal Development Research Institute (NDRI) celebrated its 20th Annual General Meeting on December 16, 2023, at the Square Hotel, Pulchowk, marking two decades of policy research contributions. The event, chaired by NDRI President Dr. Nawa Raj Khatiwada, featured keynote lectures from prominent figures, including Prof. Dr. Ram Manohar Shrestha, who encouraged NDRI to pursue transformative and co-creative research, and Dr. Arjun Karki, who emphasized the need for think tanks to address ethical and knowledge gaps in



Nepal.

A major highlight of the event was the election of new leadership and the unveiling of NDRI's Annual Report 2022/23 by Prof. Dr. Madhav P. Pokharel. The gathering underscored NDRI's vision to expand its global influence and continue its impactful research.

Following the event, a closed meeting was held among NDRI members, where new leadership was elected. Dr. Krishna Pahari was elected as President, with Prof. Dr. Tara Nidhi Bhattarai as Vice President. Dr. Manjeshwori Singh was elected to the role of General Secretary, while Dr. Rudra Suwal was elected Secretary. Dr. Rabita Shrestha Mulmi was elected as Treasurer, and Dr. Divas B. Basnyat and Dr. Jaya Kumar Gurung were elected as Executive Committee members.

INTERNATIONAL VISITS





Mr. Girish Lamsal presents in Germany

The 8th Water Security and Climate Change Conference (WSCC 2024), held from October 9-11 in Giessen, Germany, gathered leading researchers, policymakers, and practitioners to tackle the critical issues of water security in the face of climate change. Hosted by Justus Liebig University in collaboration with the SDG-nexus Network and supported by the German Academic Exchange Service (DAAD), the conference focused on three pivotal themes: Integrated Urban-Rural Water Management, Agriculture and Resource-Use

Transformation, and Creating a Sustainable Water Future.

Attendees engaged in plenary keynote sessions, expert panels, and thematic discussions, underscoring the power of transdisciplinary strategies in addressing complex societal challenges. Emphasis was placed on the role of universities as key players in regional innovation and enhancing urban-rural water resilience. Highlights included sessions on advanced technologies for water management, such as data-driven flash flood forecasting, nature-based solutions, and the circular economy's role in wastewater management. Hands-on workshops allowed participants to explore practical tools like WATSAT for water security assessment and to discuss nature-based solutions suited to specific socio-environmental contexts.

The conference underscored the necessity of collaborative, innovative approaches for sustainable water management and created a dynamic platform for developing adaptive strategies aligned with climate resilience.



Among the notable contributions, Mr. Girish Raj Lamsal (Research Associate at Water and Climate Program, NDRI) presented his work, “Optimal Operation of Multi-Reservoir Systems for Urban and Rural Water Management: A Case Study from South Asia,” which focused on optimizing water allocation across

Kathmandu Valley's urban and rural sectors through the Dhap and Nagmati Dams. His research employed the equi-marginal principle and Particle Swarm Optimization (PSO) to balance competing water demands. Utilizing hydrological simulations from the SWAT model, Mr. Lamsal calibrated strategies for efficient reservoir operation based on historical data from the Bagmati River. While the model proved effective, he highlighted the continued challenge of meeting the city's dry season demands under rapid urbanization and suggested further integration of climate change projections within the optimization framework to enhance resilience.

Dr. Gurung in Switzerland representing NDRI

Dr. Jaya K. Gurung, Program Coordinator at NDRI, represented the institute at the prestigious World Cancer Congress (WCC), held in Geneva from 17th to 19th September 2024. The event brought together global leaders in cancer prevention, research, and advocacy, providing a platform for meaningful exchanges.



NDRI's primary objective at WCC-2024 was to strengthen its global network, particularly in cancer prevention and tobacco control, areas where the institute has been actively engaged. Dr. Gurung highlighted NDRI's ongoing efforts in tobacco research and advocacy, emphasizing the institute's crucial role in Nepal's fight against tobacco-related diseases.



During the congress, Dr. Gurung had the opportunity to meet Jeff Dunn, President of the Union for International Cancer Control (UICC), along with several high-ranking UICC officials, research scholars, practitioners, and campaigners from around the world. A key highlight was a session sponsored by Cancer Research UK (CRUK), where Ms. Olivia Stevan, Policy Advisor at Kivu International, shared reflections on the Tobacco Control Program (TCP) implemented in Nepal and Sri Lanka.

The WCC-2024 served as an excellent platform for NDRI to showcase its achievements in tobacco control and explore future collaborations. Several organizations expressed admiration for NDRI's

initiatives, with some countries partnering with CRUK showing interest in replicating NDRI's Tobacco Control Program under customized frameworks.

In addition, Dr. Gurung was invited to the World Health Organization (WHO) Headquarters in Geneva by Dr. Binayak Mohan, Senior Program Manager/ Advisor for FCTC Implementation, to discuss public health challenges in Nepal and South Asia, particularly the impact of tobacco use. Dr. Gurung also provided updates to the CRUK team on the ongoing Tobacco Control Program (TCP-III) and shared insights on the program's future direction.

Dr. Singh Participated in the CLARE Gender Equality and Inclusion Workshop in Kigali

Dr. Manjeshwori Singh, Senior Research Specialist of NDRI, participated in the CLARE Gender Equality and Inclusion Workshop held from 16th to 20th September 2024, at the Park Inn Hotel in Kigali, Rwanda, representing the ECONOGENESIS project team of NDRI as GESI Expert. This five-day workshop aimed to unite Gender Equality and Inclusion (GESI) experts with early career researchers from various disciplines. The workshop focused on enhancing participants' understanding of GEI and its practical applications under the CLARE program in interactive peer learning in their work. Attendees included postdoctoral researchers, junior faculty, and staff eager to deepen their knowledge and share experiences related to integrating GEI into project activities.



The agenda featured a blend of theory and practice, emphasizing intersectional approaches and participatory methodologies such as Photo Voice and ethnography. Participants were encouraged to prepare a practical component related to their current projects, fostering an atmosphere of collaboration and knowledge exchange. A key highlight of the workshop was a planned field trip on the third day to visit one of the Gender Equality in a Low Carbon World (GLOW) projects funded by the International Development Research Centre (IDRC). This visit aimed to provide hands-on experience and insights into real-world applications of gender equality initiatives. Facilitators for the

workshop included GEI focal points from various projects such as SUCCESS, AWARD, and RURBANISE, alongside representatives from the GEI working group and the Capacity Strengthening Hub. The workshop also featured online virtual sessions for all CLARE partners to ensure broader participation and engagement. Dr. Singh's involvement in this significant event underscored her commitment to advancing gender equality research and practices within Nepal and beyond. The collaborative efforts at this workshop are expected to contribute positively to ongoing initiatives aimed at integrating gender considerations into development projects globally.

SDPU Initiative of Nepal: A Step Ahead at Geneva Event

The Sustained Dialogue on Peaceful Uses (SDPU) held an event titled "NPT in Action: Showcasing Progress on Expanding Peaceful Uses" at the NPT Preparatory Committee (PrepCom) on July 25, 2024, at the United Nations Palais in Geneva. Funded by the US and UK governments and operated by CRDF Global, SDPU aims to reduce barriers to nuclear science and technology for global development. The event showcased SDPU activities in Ghana, Nepal, Nigeria, Paraguay, and Thailand, and encouraged support for peaceful nuclear technology in food, health, and water. Dr. Surbhi Grover from the University of Pennsylvania highlighted SDPU's complementary role to the IAEA in this field.



Representing Nepal, Dr. Jaya K. Gurung from Nepal Development Research Institute (NDRI) presented the use of ionizing radiation technology for food security. Christine R. Martin from the U.S. Department of State acknowledged Nepal's stakeholders, including key ministries, for their commitment during

the consultations held earlier in 2024. David Riley OBE from the UK emphasized collaboration across sectors and international experience-sharing, while Dr. Shota Kamishima from the IAEA expressed interest in partnering on Nepal's feasibility study and capacity development. With plans for completion by mid-2025, NDRI, CRDF Global, and partners are preparing for a feasibility study on food irradiation in Nepal.

Ms. Shreya Bajimaya Participates in SANDEE's Biannual Research and Training (RnT) Workshop held in Sri Lanka

Ms. Shreya Bajimaya, Senior Research Associate at NDRI, and Principal Investigator of the research titled "Making an Economic Case for Ecosystem-

based Adaptation (EbA) for Flood Risk Management” participated in the 46th and 47th Biannual Research and Training Workshop organized by SANDEE, ICIMOD. The South Asian Network for Development and Environmental



Economics (SANDEE), a research capacity and academic leadership development program at the International Center for Integrated Mountain Development (ICIMOD), supports research in South Asia and the Hindu Kush Himalaya (HKH) region on the interconnection between environmental and development issues.

The main objective of the research is to conduct a valuation of EbA measures through analysis of benefits, costs, and potential impacts arising from the implementation of selected EbA approaches in the Mawa-Ratuwa River basin of Nepal. Ms. Bajimaya shared her research progress at both workshops while engaging in detailed discussions with SANDEE mentors. The workshop provided critical input and feedback that were instrumental in refining and enhancing the project. The 46th RnT was held in Hotel Himalaya Drishya, Dhulikhel from 9-12 December 2023 and the 47th RnT was held in Hotel Club Dolphin, Sri Lanka from 8-11 July 2024. Participants included SANDEE grantees from Nepal as well as India, Bangladesh, Pakistan, Sri Lanka, Myanmar, China, and Bhutan.

Mr. Kamal Chaulagain Attends an International Course on Tobacco Industry Monitoring

Kamal Chaulagain, a Research Associate from the Nepal Development Research Institute, participated in the “Tobacco Industry Monitoring, Research and Accountability” course hosted by the Tobacco Control Research Group (TCRG) at the University of Bath. Held from July 1-5, 2024, this intensive program brought together global experts to examine the tobacco industry's tactics and develop strategies to counter their interference in public health policies.

The course featured comprehensive training on advanced research tools and methodologies essential for documenting and combating tobacco industry

activities. Participants from around the world shared their experiences, fostering a collaborative environment aimed at strengthening global tobacco control efforts.

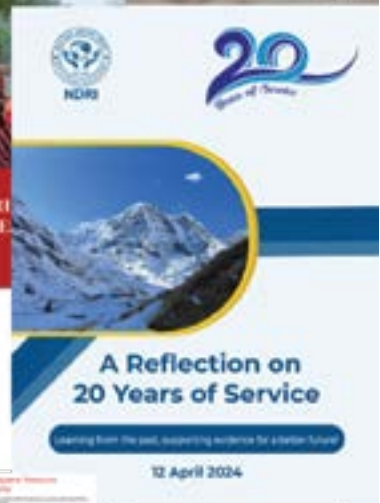
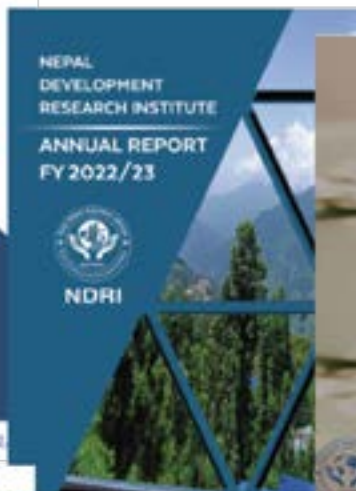
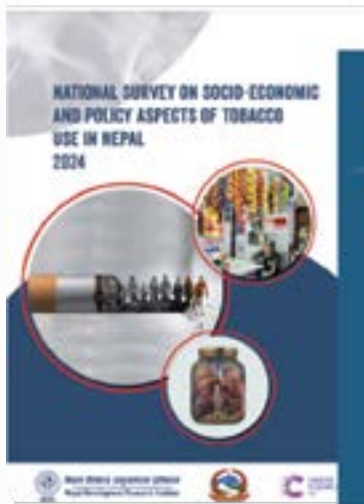
His insights from Nepal underscored the nation's challenges with tobacco industry interference and highlighted the efforts of the Nepal Development Research Institute. These contributions, including work on tobacco taxation policy advocacy, emphasized the importance of collective action and evidence-based advocacy.

Equipped with new knowledge and strategies, He is poised to enhance Nepal's efforts in mitigating tobacco industry influence, guided by the principles of the WHO Framework Convention on Tobacco Control.



REPORTS AND PUBLICATIONS





MEMBERS AND STAFF



NDRI MEMBERS 2024



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Prof. Dr. Tara N. Bhattarai
Vice-President



Dr. Manjeshwori Singh
General Secretary



Dr. Rabita Shrestha Mulmi
Treasurer



Dr. Rudra Suwal
Secretary



Dr. Divas B. Basnyat
Executive Committee Member



Dr. Jaya Kumar Gurung
Executive Committee Member



Dr. Shankar Shrestha
Member/Executive Director



Dr. Basu Dev Pandey
Member



Dr. Deependra Rokaya
Member



Prof. Dr. Gopal B. KC
Member



Dr. Jagannath Adhikari
Member



Dr. Jyoti Giri
Member



Dr. Kishor Chandra Dahal
Member



Prof. Dr. Madhav P. Pokharel
Member



Dr. Nawa Raj Khatriwada
Member



Prof. Dr. Punya P. Regmi
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Prof. Dr. Raj K. Bhattarai
Member



Dr. Sunil Babu Shrestha
Member



Er. Shanmukesh Amatya
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Member



Dr. Mahesh Gautam
Member



Dr. Bhuwaneshwor Sah
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Dr. Girija Shrestha
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Ms. Subekchya Basnet
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Mr. Upendra Saud
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Ms. Sarita Chaudhary
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Mr. Anuj Dhakal
Research Intern



Mr. Bishnu Kumar Baniya
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Mr. Kumar Kandel
Security Guard

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Outreach & Communication
Officer



Mr. Anjan Silwal
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Assistant



Ms. Seetal Luitel
Front Desk Officer



NDRI is committed to consistently meeting or exceeding quality objectives and customer requirements, guided by the following precepts:

- Customer requirements are collected effectively to ensure that NDRI is capable of achieving their requirements.
- Interested parties' requirements are also clearly understood so that our products and services can be delivered in a timely and professional manner.
- All processes employed by NDRI to deliver services are determined, resourced appropriately documented, monitored and measured to ensure its objectives and any statutory and regular- tory requirements.
- All NDRI employees are competent in their areas of work through academic achievements, training, and experience where appropriate.
- The QMS is an integral part of our process management and NDRI has established a Quality Management System (QMS) in line with the requirements of the ISO 9001:2015 Standard.
- NDRI top management is dedicated to evaluate risks and opportunities throughout the process of service AND its continual improvement by evaluating, monitoring, and measuring the performance of the QMS and customer satisfaction.

.....
Dr. Shankar Shrestha
Executive Director

FINANCIAL HIGHLIGHTS

Accounting System:

Nepal Development Research Institute has been following a systematic accounting system and record keeping which has led the organization to achieve the desired output. The reliable system for collecting, recording, and reporting financial transactions is followed by the organization. The accounting procedures therefore permit a direct reconciliation of the costs and revenue declared in respect to the different programs/projects with the corresponding supporting documents.

NDRI believes in producing outstanding results with a proper accounting system. The accounts of NDRI are maintained in accordance with Nepal Accounting Standards for Not-for-profit Organizations. Financial and administrative laws and by-laws developed by the institute are in practice as per requirements.

Auditing of the Organization:

The internal audit of the organization is carried out on a timely basis to check the financial accuracy of the organization. This is done for the purpose of daily monitoring and evaluation of activities on whether the financial activities of the organization are managed as per the organizational and legal requirements or not. Regular financial auditing is done by an accredited firm that is endorsed by the General Assembly Meeting.

Process for International Standard ISO 9001:2015

Nepal Development Research Institute has also initiated the process for international standardization of ISO 9001:2015 which is the most popular and most commonly used standard for quality management system. With this approach, NDRI is trying to establish a system of quality control and quality management system designed to ensure that the firm and its personnel comply with professional standards and regulatory and legal requirements. It aims to enhance customer satisfaction through the effective application of the system, including processes for improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

Financial Capacity:

The Financial functions of the organization are performed by a separate “Finance” department led by Admin and Finance Officer with supporting Admin and Finance assistant. The Admin and Finance Officer is responsible for the preparation of consolidated financial statements as well as managing daily financial and administrative functions. NDRI has transitioned from the previously applied Nepal Accounting Standards (Previous GAAP) to the Nepal Accounting Standard for Not-for-Profit Organizations (NAS for NPOs). If there are any changes in the statement, it needs to be approved by the Executive Committee. The financial statements of the organization include a Balance Sheet, Income Statement, Cash flow Statement, Statement of Changes in Reserves, and Notes to the Financial Statements. There is a policy of formulating the annual plans and budget of the institute implementing them transparently and effectively, and running its financial activities pursuant to the prevailing laws.

PARTNER ORGANIZATIONS

GOVERNMENT AGENCIES

Alternative Energy Promotion Centre (AEPIC)	Ministry of Agriculture and Livestock Development (MOALD)	National Health Research Council (NHRC)
Agriculture Information and Communication Centre (AICC)	Ministry of Communication and Information Technology	National Planning Commission (NPC)
Center for Education and Human Resource Development (CEHRD)	Ministry of Education Science and Technology (MOEST)	Nepal Academy of Science and Technology (NAST)
Department of Agriculture (DOA)	Ministry of Finance (MOF)	Nepal Agricultural Research Council (NARC)
Department of Water Supply and Sewerage	Ministry of Federal Affairs and Local Development (MOFALD)	National Statistics Office (NSO)
Department of Hydrology and Meteorology (DHM)	Ministry of Industry Commerce and Supply (MOICS)	Social Welfare Council (SWC)
Karnali Province Planning Commission	Ministry of Population and Environment (MOPE)	Ministry of Energy, Water Resources and Irrigation (MoEWRI)
Lalitpur Metropolitan City (LMC)	Ministry of Social Development Karnali Province	Youth and Small Entrepreneur Self-Employment Fund (YSEF)
Policy Research Institute	Ministry of Forests and Environment	Water & Energy Commission Secretariat,
Provincial governments	Municipalities	

ACADEMIA

Tribhuvan University (TU)	Kathmandu University (KU)	Asian Institute of Technology (AIT)
Department of Human Ecology (HUMECO), University of Tokyo	Kansas State University	Massachusetts Institute of Technology
University of Edinburgh	Cornell University	University of Massachusetts
Western Sydney University	Nepal Open University	Hokkaido University
Khulna University of Engineering & Technology-Bangladesh	Wageningen University & Research-Netherlands	Padjajaran University

DEVELOPMENT PARTNERS

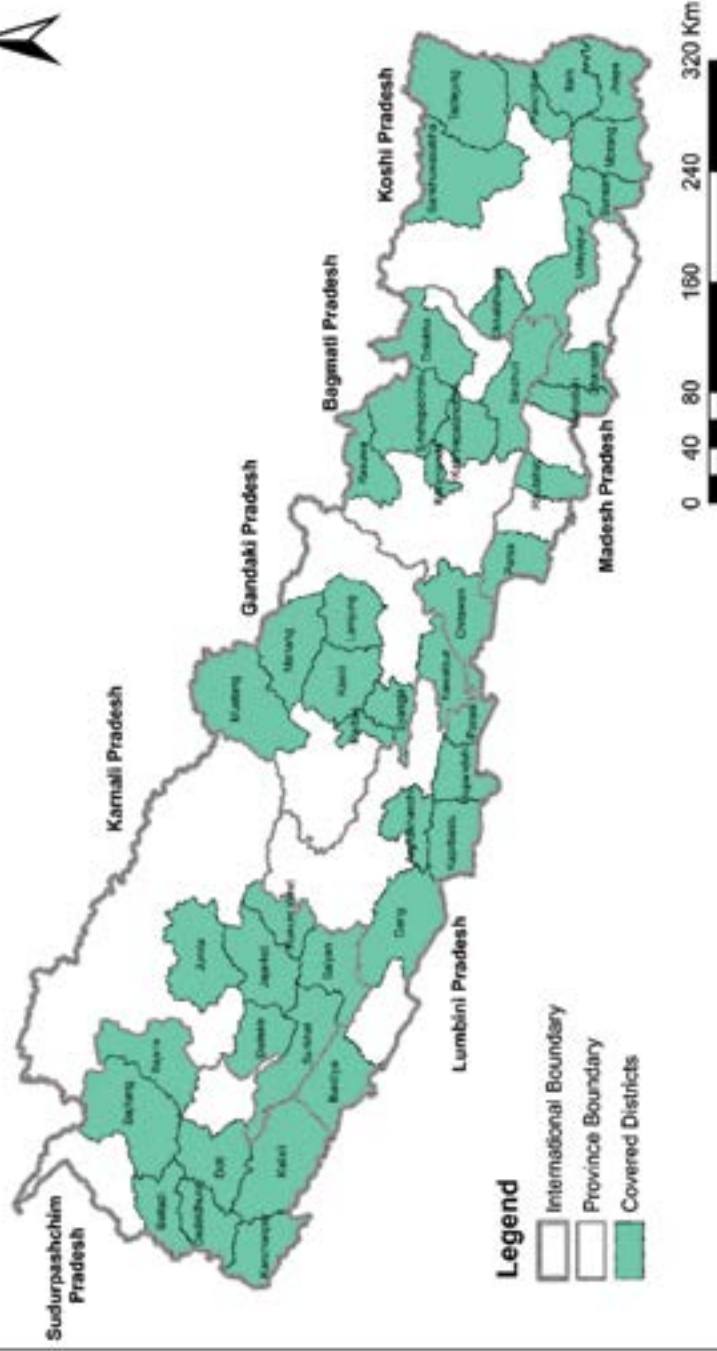
Asian Disaster Preparedness Centre (ADPC)	Asia-Pacific Network for Global Change Research (APN)	Asian Development Bank (ADB)
Cancer Research UK (CRUK)	Centre for Policy Dialogue (CPD), Dhaka	Climate Change, Agriculture and Food Security (CCAFS)
Climate Change Strategy and Action Plan (CCSAP)	Climate and Development Network (CDKN)	Commonwealth Scientific and Industrial Research Organization (CSIRO)
Consultative Group on International Agricultural Research (CGIAR)	International Centre for Tropical Agriculture (CIAT)	Department For International Development (DFID)
Department of Human Ecology University	Danish Hydraulic Institution (DHI)	Emergency Response and Disaster Management Plan (ERDMP)

Food and Agriculture Organization (FAO)	Good Neighbors International	Global Climate Adaptation Partnership (GCAP)
Global Challenges Research Fund (GCRF)	Habitat for Humanity Nepal	Green Climate Fund (GCF)
Helen Keller International (HK)	International Centre for Integrated Mountain Development (ICIMOD)	International Centre for Water Hazard (ICHARM)
Ipas Nepal	International Fund for Agricultural Development (IFAD)	International Union for Conservation of Nature (IUCN)
International Development Research Centre (IDRC), Canada	Kangbuk Samsung Hospital	Institute for Global Environment Strategies (IGES)
International Labor Organization (ILO)	Mercy Corps Nepal	Korea International Cooperation Agency (KOICA)
Kivu International	OXFAM Nepal	American Red Cross
Norwegian Embassy	Practical Action Nepal	Plan Nepal
Planete Enfants & Development (PE&D)	PSI Nepal	SAMARTH-NMDP
Project for Agricultural Commercialization & Trade Nepal (PACT)	Save The Children	SOS Children's Villages Nepal
United Nations Children's Fund (UNICEF)	Swiss Agency for Development and Cooperation (SDC)	Swiss Contact Nepal
United Nations Population Fund (UNFPA)	United Nations Development Programme (UNDP)	United Nations Office for Project Services (UNOPS)
UK Research and Innovation (UKRI)	United Nations Resident Coordinator Office (UNRCO)	UN Women
Vitti Research Foundation	United States Agency for International Development (USAID)	United States Forest Service (USFS)
The World Bank	Voluntary Services Overseas (VSO)	Welt Hunger Hilfe (WHH)
WWF Nepal	Asian Development Bank Institute (ADBI)	World Health Organization (WHO)
World Food Programme (WFP)	Foreign, Commonwealth and Development Office (FCDO)	(Civilian Research and Development Foundation) CRDF Global
Economic Policy Research Institute	Jaya Mental Health	International Centre for Environmental Management (ICEM)

NATIONAL NGOS, THINK TANKS AND CIVIL SOCIETY

Resources Himalaya Foundation	Small Earth Nepal	Nepal JSPS Alumni Association (NJAA)
Japan University Alumni Association in Nepal (JUAAN)	Nepal Red Cross Society	Nepal CRS Company
Prakriti Resources Centre (PRC)	Street Child of Nepal	

Geographical Coverage by NDRI in the year 2023/2024



Data Source: Survey Department, Government of Nepal



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