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Data Need Assessment
of **Karnali Province** *for*
Bipad Portal
Localization and
Development of LDCRP

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Data Need Assessment of Karnali Province for Bipad Portal Localization and Development of LDCRP

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EXECUTIVE SUMMARY

To effectively manage the risks of disasters and climate change, reliable access to scientific data is crucial. The Bipad Portal, a comprehensive disaster information management system, has been established to facilitate data sharing and collaboration among national, provincial, and municipal governments. Operating on a bottom-up approach, it empowers local governments to adhere to DRRM Act mandates and leverage the National Climate Change Policy for resilient decision-making. By utilizing an Information Management System, the Bipad Portal enables informed choices, fostering coordination among stakeholders and enhancing disaster and climate change initiatives.

This assessment focuses on identifying the data gaps and needs of nine municipalities in Karnali Province for localizing the Bipad Portal and preparing Local Disaster and Climate Resilience Plans (LDCRPs). While all municipalities have established Disaster Risk Reduction Management (DRRM) Acts, none of them possess digital records of

past disaster incidents, damages, and losses. Although Disaster Preparedness and Response Plans (DPRPs) have been published in all project municipalities, there is limited data available on capacities and resources such as education, health, water infrastructure, sanitation, banking, and finance, lacking standardization and unified formats. Overall, the municipalities show poor databases related to disaster information, emphasizing the need for standardized data collection, validation processes, and digitalization within the Bipad Portal. Additionally, the limited information on capacities and resources necessitates comprehensive assessments of the municipalities' vulnerabilities and strengths. The lack of integration between climate change and disaster planning within the local government framework highlights the importance of developing LDCRPs to enhance community resilience, which will be supported by the Climate Fellowship, following the guidelines of the Ministry of Federal Affairs and General Administration (MoFAGA).



ACRONYMS

BIPAD	Building Information Platform Against Disaster
CBS	Central Bureau of Statistic
DIMS	Disaster Information Management System
DPRP	Disaster Preparedness and Response Plan
DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction and Management
EPRP	Emergency Preparedness and Response Plan
GoN	Government of Nepal
HDI	Human Development Index
HPI	Human Poverty Index
ICIMOD	International Center for Integrated Mountain Development
LDCRP	Local Disaster and Climate Resilience Plan
LDMC	Local Disaster Management Committee
METEOR	Modelling Exposure Through Earth Observations Routines
MoFAGA	Ministry of Federal Affairs and General Administration
N/A	Not Applicable
NDRRMA	National Disaster Risk Reduction and Management Authority
SFDRR	Sendai Framework for Disaster Risk Reduction
SOPs	Standard Operating Procedures
YI-Lab	Youth Innovation Lab

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INTRODUCTION

COVID-19 pandemic coinciding with the ongoing climate crisis is impacting all sectors and populations, including Nepal. The nation's economy suffered a significant contraction of 2.1%¹ in the fiscal year 2020–2021 due to the pandemic's devastating effects. Vulnerable and marginalized groups, already affected by humanitarian and climate crises, were hit the hardest. Among Nepal's provinces, Karnali, Sudurpashchim, and Madhesh are particularly at risk of climate-related disasters due to their exposure to climatic stressors and lower adaptive capacity. To address climate challenges and improve coping mechanisms, it is crucial to involve youth in local policies, program planning, and development. Climate change is a major contributor to disasters in areas with exposure and vulnerability, making it essential to integrate climate change and sustainable development into DRR efforts. As part of this shift, the nation is moving from conventional disaster management to risk-based disaster management, prioritizing preparedness and risk reduction. Access to reliable and timely disaster datasets is vital for understanding and assessing disaster risk, as well as for effective communication and dissemination of information.

The understanding of disaster risk is influenced by various factors, including multi-hazards, the extent of spatial exposure and risk knowledge, real-time digital data, evidence-based social data, and geo-information tools and processes. To effectively store and utilize disaster-related datasets for policymaking, planning, and disaster risk reduction and management (DRRM) activities, the establishment of an integrated disaster information management system (DIMS) platform becomes crucial. The National DRR Policy (2018), National DRR Strategic Action Plan (2018–2030)², and DRR National Policy 2018³ mandate the development and operation of national, provincial, and local DIMS. Additionally, the introduction of the National Climate Change Policy, 2076 B.S., aims to foster a climate-resilient society, promote a green economy, and enhance technology development and information service delivery related to climate change. It emphasizes integrating climate change concerns into policies, strategies, plans, and programs at all levels and mainstreaming gender equality and social inclusion into climate change mitigation and adaptation efforts.

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- 1 GoN/MoF, “Public Announcement of Income-Expenditure Details of Fiscal Year 2021/22” (Government of Nepal/ Ministry of Finance, 2021).
 - 2 National DRR Strategic Action Plan (2018-2030 <https://bit.ly/3kHTRam>)
 - 3 Disaster Risk Reduction and Management (DRRM) Act, 2017, GoN: <http://drrportal.gov.np/uploads/document/1509.pdf>

Recognizing the crucial role of data and information in effective disaster risk reduction and climate change adaptation, the Government of Nepal (GoN) has initiated the development of a comprehensive and integrated Disaster Information Management System (DIMS). The Bipad Portal is a result of this effort, aiming to consolidate credible digital and spatial data accessible across various government agencies, non-governmental organizations, academic institutions, and research groups onto a single platform. Following a bottom-up approach, the portal fosters disaster data partnerships by connecting a national portal with separate platforms for federal, provincial, and municipal administrations. This creates a unified system for disaster management, enabling data collaborations across all levels of government and stakeholders. Municipalities, especially those in rural areas, serve as independent local governments under the new federal framework and play a critical role in serving their communities.

To plan and make informed decisions, they must maintain comprehensive databases of their administrative areas.

The Disaster Risk Reduction and Management (DRRM) Act of 2017 mandates local governments to take responsibility for disaster management and preparedness. As a result, the integration of DRR criteria into the planning and budgeting process becomes essential for effective and sustainable disaster management. Local governments in Nepal also have the authority to develop plans and policies for disasters and climate change based on the specific needs of their municipalities.

Therefore, this assessment will examine the availability of data needed for the localization of Bipad Portal at the municipal level and development of local disaster and climate resilient plan. It will further assess what type of data are available and how disaggregated they are.

OBJECTIVES

The primary aim of this report is to establish baseline data and identify information requirements and deficiencies necessary for crafting the Local Disaster and Climate Resilience Plan (LDCRP) and localizing the Bipad Portal at the provincial and municipal levels. The assessment covered nine project municipalities within Karnali Province and province ministry and aimed to evaluate the accessibility of datasets related to disasters, including DRRM policies, plans, incidents, inventory, capacities, resources, documents,

relief activities, and other pertinent information at both municipal and provincial tiers. The specific goals of the assessment include:

- Evaluating the types of data present in the Bipad Portal for the nine project municipalities.
- Identifying data gaps and need for localizing the Bipad Portal at the community level.
- Assessing the types of data available in municipalities according to the LDCRP guidelines outlined by MoFAGA.

BIPAD: BUILDING INFORMATION PLATFORM AGAINST DISASTER

The Building Information Platform Against Disaster (Bipad) Portal is an integrated Disaster Information Management System overseen by the National Disaster Risk Reduction and Management Authority (NDRRMA) in Nepal. Initiated by the Ministry of Home Affairs, this comprehensive portal aligns with the global principles of the Sendai Framework for Disaster Risk Reduction (SFDRR) and aims to bring about significant improvements in disaster governance in Nepal.

The Bipad Portal consists of six modules: the Dashboard, Incident, Damage and Loss, Real-time, Profile, and Risk Info. It serves as a central repository of data and information, facilitating post-incident cooperation, disaster communication, insights into disaster trends, and disaster response. Following a bottom-up approach, the portal is designed with

separate autonomous platforms for the federal, state, and local governments. Initially hosted by the Government of Nepal at <https://bipadportal.gov.np/>, it is now also being implemented by provincial and local governments.

Bipad Portal seeks to bridge the data gap between research and the general public in the field of disaster risk reduction and management (DRRM). However, these data have been scattered, limited, and poorly synchronized. To address this, the Bipad Portal collects reliable digital and spatial data from various government agencies, non-governmental organizations, academic institutions, and research groups, bringing them together on a single platform. This centralized approach enhances accessibility and collaboration in disaster management efforts across Nepal.

BIPAD PORTAL MODULES AND THEIR DESCRIPTION AND POTENTIAL USE

BIPAD MODULES	DESCRIPTION	POTENTIAL USE FOR THE LOCAL GOVERNMENT
Dashboard	It gives the alerts of recent incidents/events including the data source, hazard causing the alerts, date of alerts, and geospatial location of alerts.	Alerts can help municipalities to stay updated on potential hazards and provide information to prepare for disasters and they can use the data for response and hazard impact analysis. (Municipalities have access to view only)
Incident	Incident data (death, injury, economic loss) coming directly from Nepal Police who is the first responder to any disaster.	Incident data is relevant for emergency response, planning for response, recovery and rehabilitation, hazard impact analysis, loss and damage estimation. (Access to view and comment)
Damage and Loss	Historical data on damage and loss – this section has six categories – incidents, people death, estimated loss, livestock, infrastructure, and agriculture. For incidents that are more than a month old, their damage and loss details automatically get recorded in the Damage and Loss module. Incident forms are first filled by Nepal Police from the local level and damage and loss data are enriched by concerned officials from the national government.	Damage and loss data are important for analyzing and comparing historical disaster data and identifying which type of incidents are likely to impact which sector (lives, livelihood, agriculture, and infrastructure). (Access to view and compare)
Real Time	Pulls real-time data on rainfall and river watch, earthquake, air pollution, and forest fires ⁴ . The stream flow forecast dataset gives probabilistic forecast information of major rivers and stream flow.	Real-Time is relevant for early warning, early action, and response. (Access to view)

4. Real-Time applications for rivers and rains are pulled from the Department of Hydrology and Meteorology and earthquake from the Department of Mines and Geology and Nepal seismology center through API integration. Stream flows forecast is pulled from ICIMOD through API integration.

Profile	<p>Demographics give an overview of demographic profile that is disaggregated by sex, household, literacy rate, and age group.</p> <p>Projects give information on ongoing projects in the DRRM.</p> <p>Contacts contain and allow users to manage the records of all the committee and non-committee members related to disaster risk reduction and management.</p> <p>Document page is a repository for disaster-related documents such as Acts, guidelines, laws, regulations, and alike.</p> <p>NEP-DAT Profile generates disaster reports at the national, provincial, district, and municipal levels for the selected time frame.</p>	<p>The profile is relevant for risk-informed development and DRRM governance. (Access to add, edit, and delete for contact and documents section)</p>
Risk Info	<p>Hazard Flood hazard map from the GoN and METEOR project⁵; seismic hazard map from METEOR project; landslide hazard from Durham University; flood inundation map from World Food Program.</p> <p>Exposure Visualization Building Exposure Map</p> <p>Vulnerability Human Development Index, life expectancy, Human Poverty Index, Per Capita Income from National Planning Commission. Household data that includes communication, water, toilet, education from Central Bureau of Statistic (CBS)</p> <p>Risk Earthquake and landslide risk map from Durham University.</p> <p>Capacity and Resources Capacity and resources data on educational institutions, health, government institutions, tourism, cultural sites, industries, and communication.</p> <p>Climate Change Climate change scenarios (temperature and precipitation data) of Nepal taken from the National Adaptation Plan report with reference period (1981 - 2010), mid-term (2016 - 2045), long-term (2036 - 2065)</p>	<p>Risk info relevant for risk reduction and risk informed development. For Capacity and Resources section of Risk Info module, municipality can add, edit, and delete)</p>

5 Modelling Exposure Through Earth Observations Routines (METEOR) is a UK Space Agency's project, <https://meteor-project.org/>

METHODOLOGY

The assessment was conducted using the Bipad Portal and its modules as a framework. Data models from the Bipad Portal guided the understanding of necessary data for localizing the portal, while the LDCRP guidelines and VCA toolkits provided a framework to assess available data at municipalities. The technical handbook for Municipalities and Rural Municipalities, along with the User Handbook, was studied to comprehend the concepts and data accessible to municipalities through the Bipad Portal. An overview of municipalities and their DRRM-related actions was obtained by reviewing documents such as municipality profiles, DRRM Acts, District Disaster

Preparedness and Response Plans (DPRPs), and the municipal red book, collected by the project fellows. Consultations with key informants like DRR focal points, department heads, and IT officers at the project municipalities were also conducted.

Data evaluation and identification of data gaps and needs were carried out using a template based on the Bipad Portal modules. Climate change data assessment at the Risk Info module was excluded from the template as it involves larger regional scale changes in temperature and precipitation rather than localized data.

DATA ASSESSMENT TEMPLATE

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts		
Incident	Incidents (including inventory/stockpile)		
Damage and loss			
Real-Time			
Profile	Demographics		
	Projects		
	Contacts		
	Documents		
	NEP-DAT Profile		
Risk info	Capacity and resources		
	Exposure		
	Vulnerability		
	Hazard		
	Risk		
	Relief		

Similarly, to comply with the LDCRP guidelines established by MoFAGA, a data availability and gaps assessment was carried out in the municipality using the following template. Certain components from

the previous template were omitted in the version provided below. The data need assessment of the municipality was conducted based on the template as per the Bipad Portal and LDCRP guidelines.

DATA ASSESSMENT TEMPLATE

COMPONENTS	DATA NEEDED AS PER THE GUIDELINE	DATA AVAILABLE IN THE MUNICIPALITY
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage, and loss and affected population.	
Hazard Ranking	Identification of major recurring hazards and their ranking on the basis of their impact.	
Risk Map	Map showing the social aspects of the municipality including the risk and hazard-prone areas, and Critical Infrastructures.	
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts, and their role in DRRM.	
Calendars	Hazard Calendar, Climate Calendar, and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather, and crops, respectively.	

DATA NEEDS ASSESSMENT

For each of the project municipalities and the province ministry, data need assessment has been carried out separately to get the picture of what data in relation to DRRM are available in each project areas that would be valuable to incorporate into the Bipad Portal and LDCRP preparation.

BARAHATAL RURAL MUNICIPALITY

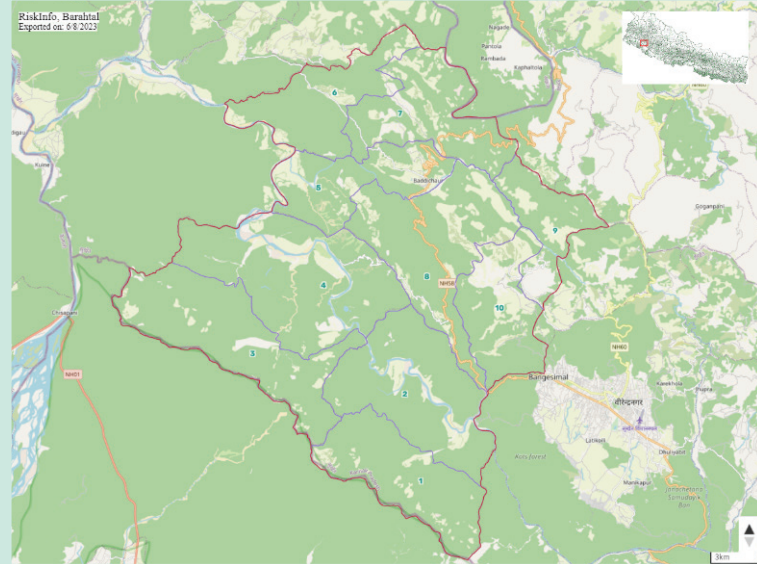
Barahatal rural municipality is situated in the central part of Surkhet district and was established in 2017 through the merger of former VDCs, namely Hariharpur, Taranga, Kunathari, Pokharikada, and Lekhgau. The administrative division of the municipality is organized into 10 wards, covering an area of 455.09 sq. km. The main administrative center, Kunathari, is located 30 km away from Birendranagar.

The municipality shares its borders with Birendranagar Municipality in the east, Panchapuri Municipality in the west, Dailekh District in the north, and Bardiya and Kailali Districts in the south. It holds the distinction of being the largest rural municipality in Surkhet district, both in terms of geographical area and the number of wards. The name "Barahatal" is derived from the largest lake in Surkhet, known as Barahatal Lake.

Several significant rivers flow through the municipality, including the Karnali River, Bheri River, Sot River, Battise River, Biureni River, and Hatteri River. The major sources of income for the residents are related to forestry, herbs, plants, and agricultural products.

In terms of disaster management, the municipality endorsed the DRRM Act in 2076 BS. It has also published the Barahatal Rural Municipality Profile 2074 and Disaster Preparedness and Response Plan (DPRP) 2079. For the current fiscal year, the total budget allocated to the municipality amounts to NPR 762 billion with NPR 1.00 million specifically allocated for Disaster Management. The municipality maintains records of incidents in paper-based formats, but it also benefits from the historical incident database available on the Bipad Portal.

According to data from the Bipad Portal covering the period from January 2015 to June 2023, the municipality has experienced 53 recorded incidents resulting in 11 fatalities and an estimated loss of 58 million.



Source: <https://bipadportal.gov.np/>

Data Assessment of Barahatal Rural Municipality

This section examines the data available in Bipad Portal for Barahatal Rural Municipality and at the municipality. From the municipality, municipal profile, municipal website, and red book were

studied to assess the available data. The table below illustrates what data are available in the Bipad Portal and what are available at the municipality.

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts	Four alerts were recorded in the last six months.	N/A
Incident	Incidents (including inventory/stockpile)	The incident data in the Bipad Portal are detailed and in disaggregated format. The detailed data includes frequency, magnitude, spatial and temporal data. Incident data from 2011 onwards are available.	Data on previous and current incidents are not available. Similarly, data on inventory and stockpiles are also unavailable at the municipality levels.
Damage and loss		The data on Damage and loss in the Bipad Portal is available in the disaggregated format up to the ward level categorized by the incident, people's death, estimated loss, infrastructure destroyed, and livestock destroyed. Since 2011, 128 incidents have been reported causing death of 58 people, loss of 1502 infrastructure and an estimated loss of 10 billion.	The data on the damage and loss is not recorded on the Municipality website.
Real-Time		No Real-time station for Rain Watch	N/A
Profile	Demographics	An overview of population, literacy rate with gender breakdown, household count, and age distribution of total population demographic data for the municipality from the 2011 Census is available.	The municipality's website consists of the municipal health profile with demographics, age and sex distribution, disaggregated population data by caste and ward wise, and health related data information.
	Projects	Information on Project is not available.	Information not available
	Contacts	Contacts Information of the Disaster Management Committee has not been added.	The website contains the contact information of elected officials, contact information of municipal staffs and former employee.
	Documents	Documents have not been added.	The office of the municipal executive has published various acts, laws, policies, and programs, red book of rural municipality, and progress reports available on the municipal website.

Risk info	Capacity and resources:	8 health facilities and 6 helipads are mapped in the Bipad Portal.	N/A
	Exposure	Visualization of building exposure map	Information not available
	Vulnerability	The national level of vulnerability data is also available up to the municipal level. Data for HDI, life expectancy, HPI, Per Capita Income, and household data such as communication, water, toilet, and education are available for the municipality	Information not available
	Hazard	Has flood hazard and Earthquake information from METEOR Project simulation done at the national level, and Landslide information from Durham University that is available up to ward level.	Information not available
	Risk	Earthquake and landslide risk score are from Durham University. Earthquake risk score is available up to district level and Landslide risk score is available up to ward level.	Information not available
	Relief	Information not available	Information not available

Components	Data needed as per the guideline	Data available in the municipality
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage and loss and affected population.	Data not available.
Hazard Ranking	Identify major recurring hazards and ranking on the basis of its impact.	Data not available
Risk Map	Map showing the social aspects of the municipality including the risk and hazard prone areas, and Critical Infrastructures.	Data not available
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts and their role in DRRM.	Data not available
Calendars	Hazard Calendar, Climate Calendar and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather and crops, respectively.	Data not available

Data Gaps and Needs of Barahatal Rural municipality

The data that are currently available in Bipad Portal for Barahatal rural municipality are not recent data. From the above analysis, it is found that data and information on different modules for the municipality are mostly unavailable and when available are

outdated and incomplete.

Looking at the data needs, there is a need for updated, complete, and standardized data. A complete analysis of data gaps and needs for each module is presented in Table below.

Modules		Data Gaps	Data Needs
Dashboard	Alerts	N/A	N/A
Incident	Incidents	The municipality has paper based limited record of incidents, however, Bipad Portal has a historical incident database in disaggregated form.	Need to ensure incidents are reported with details of magnitude of the incident, frequency, spatial and temporal data, and in disaggregated format by Nepal police. Complete information on inventory and stockpiles in standard format/template is needed.
Damage and loss		The municipality has paper-based record of damage and loss, however, Bipad Portal has a historical database in disaggregated form.	There is a need to ensure the collection of damage and loss data by using a standardized collection method at the local level that includes all the historical data and current incidents in a disaggregated format.
Profile	Demographics	The municipality has the demographic data. Information on resources and loss is available but scattered within different departments of the municipality.	Updated information on demographic, resources, and losses from the municipality in standard format needs to be uploaded in Bipad Portal.
	Projects	Information on Project is not available.	Need to contact local bodies and organizations working in the municipality and collect and update information on ongoing projects at the municipality.
	Contacts	Information on LDMC is available but has not been updated in Bipad Portal.	Need to update contact information of DRRM of municipal and ward level in Bipad Portal.
	Documents	The published documents are not uploaded to Bipad Portal.	Documents are available in the municipality that is not uploaded to the Bipad Portal. Need to identify the documents and upload them to the Bipad Portal and website. Link to documents available at municipality: https://bit.ly/3qFjVdM
Risk info	Capacity and resources:	There is a limited database on capacity and resources which is scattered and not in a standard format.	The existing capacities and resources available at the municipal level to respond to disasters need to be identified and mapped to all those resources in a standard format to integrate into Bipad Portal.
	Exposure, Vulnerability, Risk, and Hazard	Localized hazard information for the municipality is not available.	Need to check with the municipality if data are available in the required format to incorporate into Bipad Portal.
	Relief	The budget is allocated for relief activity and documented at the municipality but not updated in Bipad Portal	Information on flow and release is available. Need to cross-check with the municipality and update information in the Bipad Portal.

The data on capacity and resources, past disaster incidents, stakeholder analysis, and hazard-prone areas is unavailable in the municipality. There is a need to conduct a Vulnerability and Capacity Assessment in each ward of the municipality to prepare LDCRP.

PANCHAPURI MUNICIPALITY

Panchapuri municipality is situated in the western region of Surkhet district. It is composed of the former village development committees of Babiyachaur, Bidhyapur, Chhapre, Salkot, and Tatapani, which have now been reorganized into 11 wards. This restructuring involves merging Salkot into wards 1, 2, and 3, Babiyachaur into wards 4, 5, and 6, Chhapre into ward 7, Bidhyapur into wards 8 and 9, and Tatapani into wards 10 and 11. The municipality covers a land area of 329.9 square kilometers, making it the largest in terms of geographical coverage. The population comprises mainly of Brahmin, Chhetri, Magar, and Dalit communities.



Source: <https://bipadportal.gov.np/>

Panchapuri municipality shares borders with Barahatal Rural Municipality to the east, Chaukune Rural Municipality to the west, Achham District to the north, and Bardiya and Kailali Districts to the south. The prominent rivers flowing through this area are the Karnali River and Bheri River. Notable natural features include the Chamero Gufa and Madal Gufa caves, as well as the Daha Tal.

The DRRM act for the municipality was endorsed in 2075 BS. Additionally, various documents have been published, including guidelines related to the documentation of old buildings in the municipality in 2077, the Criteria for the Distribution of Relief and Financial Assistance to Disaster-Affected Individuals/Families 2078, and the DPRP 2079. For the current fiscal year 2079/80, the municipality has a total budget of NPR 795 million with a designated allocation of NPR three million for disaster management. While disaster-related data are stored in the municipality's records, there is no digital repository for incident information. However, the Bipad Portal contains a historical incident database. According to Bipad Portal data from January 2015 to June 2023, a total of 21 incidents have been documented, resulting in three fatalities and an estimated loss of 10 million.

Data Assessment of Panchapuri Municipality

This section examines the data available in Bipad Portal for Panchapuri Municipality and at the municipality. From the municipality, municipal profile, municipal website, and red book were

studied to assess the available data. The table below illustrates what data are available in Bipad Portal and what are available at the municipality.

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts	19 alerts were recorded in the last six months	N/A
Incident	Incidents (including inventory/stockpile)	The added incident data in the Bipad Portal are detailed and in disaggregated format. The detailed data includes frequency, magnitude, spatial and temporal data. Incident data from 2019 onwards are available.	Data on previous and current incidents are not available. Similarly, data on inventory and stockpiles are also unavailable at the municipality levels.
Damage and loss		The data on Damage and loss in the Bipad Portal is available in the disaggregated format up to the ward level categorized by the incident, people's death, estimated loss, infrastructure destroyed, and livestock destroyed. Since 2019, 21 incidents have been reported causing the death of 3 people, loss of 16 infrastructure, and an estimated loss of 10 million.	The data on the damage and loss is not recorded on the Municipality website.
Real-Time		One Real-time station for River Watch in Ward 5	N/A
Profile	Demographics	An overview of the population, literacy rate with gender breakdown, household count, and age distribution of total population demographic data for the municipality from the 2011 Census is available.	The municipality's website consists of the municipal health profile with demographics, age and sex distribution, disaggregated population data by caste and ward wise, and health-related data information.
	Projects	Information on Project is not available.	Information not available
	Contacts	Contacts Information of the Disaster Management Committee has not been added.	The website contains the contact information of elected officials, Members of the Municipal council, CAO and IT officer, emergency contacts and contacts of other municipal staff.
	Documents	Documents have not been added.	The office of the municipal executive has published various acts, laws, digital municipal profile, budget, and programs available on the municipal website.

Risk info	Capacity and resources:	13 health facilities, 14 banking and finance, and 1 governance are mapped in the Bipad Portal.	N/A
	Exposure	Visualization of building exposure map	Information not available
	Vulnerability	The national level of vulnerability data is also available up to the municipal level. Data for HDI, life expectancy, HPI, Per Capita Income, and household data such as communication, water, toilet, and education are available for the municipality	Information not available
	Hazard	Has flood hazard and Earthquake information from METEOR Project simulation done at the national level, and Landslide information from Durham University that is available up to ward level.	Information not available
	Risk	Earthquake and landslide risk scores are from Durham University. The earthquake risk score is available up to the district level and Landslide risk score is available up to ward level.	Information not available
	Relief	Information not available	Information not available

Components	Data needed as per the guideline	Data available in the municipality
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage and loss, and affected population.	Data is not available.
Hazard Ranking	Identify major recurring hazards and ranking on the basis of their impact.	Data is not available
Risk Map	Map showing the social aspects of the municipality including the risk and hazard-prone areas, and Critical Infrastructures.	Data is not available
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts, and their role in DRRM.	Data is not available
Calendars	Hazard Calendar, Climate Calendar, and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather, and crops, respectively.	Data is not available

Data Gaps and Needs of Panchapuri municipality

The data that are currently available in Bipad Portal for Panchapuri municipality are not recent data. From the above analysis, it is found that data and information on different modules for the municipality are mostly unavailable and when available are

outdated and incomplete.

Looking at the data needs, there is a need for updated, complete, and standardized data. A complete analysis of data gaps and needs for each module is presented in the Table below.

Modules		Data Gaps	Data Needs
Dashboard	Alerts	N/A	N/A
Incident	Incidents	The municipality has a paper-based record of incidents, however, Bipad Portal has a historical incident database in disaggregated form.	Need to ensure incidents are reported with details of magnitude of the incident, frequency, spatial and temporal data, and in disaggregated format by Nepal police. Complete information on inventory and stockpiles in standard format/template is needed.
Damage and loss		The municipality has only recorded the information on damage and loss in paper-based datasets, however, Bipad Portal has a historical database in disaggregated form.	There is a need to ensure the collection of damage and loss data by using a standardized collection method at the local level that includes all the historical data and current incidents in a disaggregated format.
Profile	Demographics	The municipality has the demographic data. Information on resources and loss is available but scattered within different departments of the municipality.	Updated information on demographic, resources, and losses from the municipality in standard format needs to be uploaded to Bipad Portal.
	Projects	Information on Project is not available.	Need to contact local bodies and organizations working in the municipality and collect and update information on ongoing projects at the municipality.
	Contacts	Information on LDMC is available but has not been updated in Bipad Portal.	Need to update contact information of DRRM of municipal and ward level in Bipad Portal.
	Documents	The published documents are not uploaded to Bipad Portal.	Documents are available in the municipality that is not uploaded to the Bipad Portal. Need to identify the documents and upload them to the Bipad Portal and website. Link to documents available at municipality: https://bit.ly/448Jjh2 .
Risk info	Capacity and resources:	There is a limited database on capacity and resources which is scattered and not in a standard format.	The existing capacities and resources available at the municipal level to respond to disasters need to be identified and mapped to all those resources in a standard format to integrate into Bipad Portal.
	Exposure, Vulnerability, Risk, and Hazard	Localized hazard information for the municipality is not available.	Need to check with the municipality if data are available in the required format to incorporate into Bipad Portal.
	Relief	The budget is allocated for relief activity and documented at the municipality but not updated in Bipad Portal.	Information on flow and release is available. Need to cross-check with the municipality and update information in the Bipad Portal.

The data on capacity, resources, past disaster incidents, stakeholder analysis, and hazard-prone area is unavailable in the municipality. There is a need to conduct a Vulnerability and Capacity Assessment in each ward of the municipality to prepare LDCRP.

CHAUKUNE RURAL MUNICIPALITY

Chaukune Rural Municipality is positioned in the western part of Surkhet district. It encompasses the former village development committees of Lagam, Betan, Bijaura, Gutu, and Ghatgaun, which have now been restructured into 10 wards. The municipality's name, Chaukune, is derived from its hilltop location that extends in four directions. It occupies an expanse of 381.03 square kilometers, with its central hub situated in Ward 6 of Gutu village development committee. The population of the municipality is characterized by diverse ethnic groups, including Brahmin, Chhetri, Magar, Dalit, and Raji communities.



Source: <https://bipadportal.gov.np/>

Chaukune Rural Municipality shares borders with Panchapuri Municipality to the east, Doti District to the west, Achham District to the north, and Kailali District to the south. Noteworthy rivers within this rural municipality's domain include the Karnali River, Seti River, and Bheri River. Particularly, there are river confluences at Talagaun where Seti and Karnali rivers meet, as well as at Ghatgaun where Bheri and Karnali rivers converge. The Betan Karnali PRoR Hydroelectricity Project is also operational in this region.

In 2079, the DRRM Act was enacted by the municipality, along with the formulation of operational procedures for the Chaukune Rural Municipality's Disaster Management Center, Chaukune Rural Municipality Disaster Management Fund (Operation) Procedure of 2079, and a bill outlining the Disaster Risk Mitigation and Management Plan for 2079. A DPRP for 2079 was collaboratively prepared by the Local Disaster Management Committee (LDMC) with support from the BHAKARI team. The municipality's current fiscal budget totals NPR 590 million with NPR 5 million designated for Disaster Management. While the municipality lacks records of incidents, the Bipad Portal maintains a historical incident database, which reports 11 incidents between January 2015 and June 2023. These incidents led to the unfortunate loss of two lives and an estimated financial impact of 4 million.

Data Assessment of Chaukune Rural Municipality

This section examines what data are available in Bipad Portal for Chaukune Rural Municipality and what is available on its municipal website. Doing so, it gives a picture of what information is already available and what is needed the in Bipad Portal to make it more relevant to the municipality and to support it to make a disaster risks evidence-based decision for DRRM.

This analysis focuses on available data within the municipality and Bipad Portal. There is limited information on the profile, capacity and resources, inventory, and relief on the municipal official website, and the red book of the local government. This analysis focuses on the available data within the municipality and Bipad Portal. The table below illustrates what data are available in Bipad Portal and which are available at the municipality.

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts	No alerts were recorded in the last six months	N/A
Incident	Incidents (including inventory/ stockpile)	The added incident data in the Bipad Portal are detailed and in disaggregated format. The detailed data includes frequency, magnitude, spatial and temporal data. Incident data from 2018 onwards are available.	Data on previous and current incidents are not available. Similarly, data on inventory and stockpiles are also unavailable at the municipality levels.
Damage and loss		The data on Damage and loss in the Bipad Portal is available in the disaggregated format up to the ward level categorized by the incident, people's death, estimated loss, infrastructure destroyed, and livestock destroyed. Since 2018, 11 incidents have been reported causing the death of 2 people, the loss of 5 infrastructure, and an estimated loss of 4 million.	The data on the damage and loss is not recorded on the Municipality website.
Real-Time		No Real-time station for Rain Watch and River Watch.	N/A
Profile	Demographics	An overview of the population, literacy rate with gender breakdown, household count, and age distribution of total population demographic data for the municipality from the 2011 Census is available.	The municipality's website consists of the municipal LG profile with ward-wise population distribution. Also, it contains a health profile that displays information regarding health facilities and other demographic information.
	Projects	Information on Project is not available.	Information not available
	Contacts	Contacts Information of the Disaster Management Committee has not been added.	The website contains the contact information of elected officials, Members of the Municipal council, CAO and IT officer, emergency contacts, and contacts of other municipal staff.
	Documents	Documents have not been added.	The office of the municipal executive has published various acts, laws, digital municipal profiles, budgets, and programs available on the municipal website.

Risk info	Capacity and resources:	10 health facilities, 3 banking and finance, 1 governance, and 2 helipads are mapped in the Bipad Portal.	N/A
	Exposure	Visualization of building exposure map	Information not available
	Vulnerability	The national level of vulnerability data is also available up to the municipal level. Data for HDI, life expectancy, HPI, Per Capita Income, and household data such as communication, water, toilet, and education are available for the municipality	Information not available
	Hazard	Has flood hazard and Earthquake information from METEOR Project simulation done at the national level, and Landslide information from Durham University that is available up to ward level.	Information not available
	Risk	Earthquake and landslide risk score are from Durham University. Earthquake risk score is available up to district level and Landslide risk score is available up to ward level.	Information not available
	Relief	Information not available	Information not available

Components	Data needed as per the guideline	Data available in the municipality
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage and loss and affected population.	Data is not available.
Hazard Ranking	Identify major recurring hazards and ranking on the basis of its impact.	Data is not available.
Risk Map	Map showing the social aspects of the municipality including the risk and hazard prone areas, and Critical Infrastructures.	Data is not available.
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts and their role in DRRM.	Data is not available.
Calendars	Hazard Calendar, Climate Calendar and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather and crops, respectively.	Data is not available.

Data Gaps and Needs of Chaukune Rural municipality

The data that are currently available in Bipad Portal for Chaukune rural municipality are not recent data. From the above analysis, it is found that data and information on different modules for the municipality are mostly unavailable and when

available are outdated and incomplete.

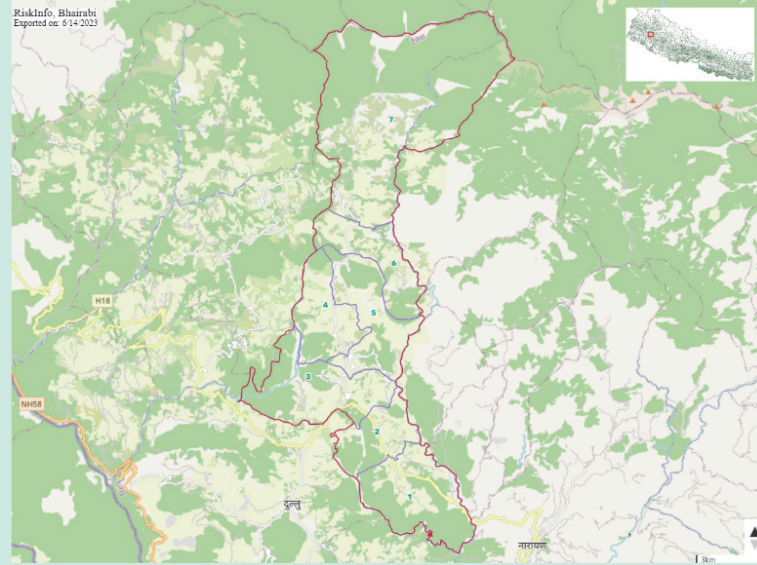
Looking at the data needs, there is a need for updated, complete, and standardized data. A complete analysis of data gaps and needs for each module is presented in the table below.

Modules		Data Gaps	Data Needs
Dashboard	Alerts	N/A	N/A
Incident	Incidents	The municipality has no record of incidents, however, Bipad Portal has a historical incident database in disaggregated form.	Need to ensure incidents are reported with details of magnitude of the incident, frequency, spatial and temporal data, and in disaggregated format by Nepal police. Complete information on inventory and stockpiles in standard format/template is needed.
Damage and loss		The municipality has no record of damage and loss, however, Bipad Portal has a historical database in disaggregated form.	There is a need to ensure the collection of damage and loss data by using a standardized collection method at the local level that includes all the historical data and current incidents in a disaggregated format.
Profile	Demographics	The municipality has the demographic data. Information on resources and loss is available but scattered within different departments of the municipality.	Updated information on demographic, resources, and losses from the municipality in standard format needs to be uploaded to Bipad Portal.
	Projects	Information on Project is not available.	Need to contact local bodies and organizations working in the municipality and collect and update information on ongoing projects at the municipality.
	Contacts	Information on LDMC is available but has not been updated in Bipad Portal.	Need to update contact information of DRRM of municipal and ward level in BIPAD Portal.
	Documents	The published documents are not uploaded to Bipad Portal.	Documents are available in the municipality that is not uploaded to the Bipad Portal. Need to identify the documents and upload them to the Bipad Portal and website. Link to documents available at municipality: https://bit.ly/3NBsG09 .
Risk info	Capacity and resources:	There is a limited database on capacity and resources which is scattered and not in a standard format.	The existing capacities and resources available at the municipal level to respond to disasters need to be identified and mapped to all those resources in a standard format to integrate into Bipad Portal.
	Exposure, Vulnerability, Risk, and Hazard	Localized hazard information for the municipality is not available.	Need to check with the municipality if data are available in the required format to incorporate into Bipad Portal.
	Relief	The budget is allocated for relief activity and documented at the municipality but not updated in Bipad Portal.	Information on flow and release is available. Need to cross-check with the municipality and update information in the Bipad Portal.

The data on capacity, resources, past disaster incidents, stakeholder analysis, and hazard-prone area is unavailable in the municipality. There is a need to conduct a Vulnerability and Capacity Assessment in each ward of the municipality to prepare LDCRP.

BHAIRABI RURAL MUNICIPALITY

Bhairabi Rural Municipality was officially established in 2017 (2073 BS) as a local governing body within Nepal. The administrative headquarters of this rural municipality is situated in Bhairi Kalikathum, a region located in the Dailekh district of the Karnali Province. The formation of this entity was a result of the amalgamation of former Village Development Committees (VDCs) – Bhairi Kalikathum, Kushapani, and Rawalkot. This rural municipality has been structured into 7 wards for efficient administration, covering a geographical area of 110.46 square kilometers.



Source: <https://bipadportal.gov.np/>

Positioned within the Karnali Province, Bhairabi Rural Municipality shares its borders with Mahabu Municipality to the east, Chamunda Bindrasaini Municipality to the west, Kalikot District to the north, and Dullu Municipality to the south. The landscape of this region boasts substantial potential in various domains, including agriculture, animal husbandry, tourism, and small-scale entrepreneurial ventures. Notably, prospects for resources like petroleum, Sylhet stones, and herbs also exist. The primary rivers within this rural municipality's territory include Chhamghat Khola, Bhairabi Khola, and Gadajula Khola.

In 2074 BS, Bhairabi Rural Municipality published its municipal profile followed by DRRM Act in 2077 and the DPRP in 2079. For the present fiscal year, the municipality's budget amounts to NPR 545 million of which NPR 3.65 million has been allocated to support Disaster Management, preparedness, Search, and Rescue initiatives. Relevant datasets concerning disasters are maintained in paper-based format within the rural municipality's records. While the municipality lacks a comprehensive repository of incident records, the Bipad Portal has historical incident database. Analysis of Bipad Portal data spanning from January 2015 to June 2023 reveals documentation of 8 incidents that resulted in the unfortunate loss of one life and an estimated financial impact of NPR 790 thousand.

Data Assessment of Bhairabi Rural Municipality

This section examines the data available in Bipad Portal for Bhairabi Rural Municipality and at the municipality. From the municipality, municipal profile, municipal website, and red book were

studied to assess the available data. The table below illustrates what data are available in Bipad Portal and what are available at the municipality.

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts	One alert was recorded in the last six months.	N/A
Incident	Incidents (including inventory/stockpile)	The added incident data in the Bipad Portal are detailed and in disaggregated format. The detailed data includes frequency, magnitude, spatial and temporal data. Incident data from 2018 onwards are available.	Data on previous and current incidents are not available. Similarly, data on inventory and stockpiles are also unavailable at the municipality levels.
Damage and loss		The data on Damage and loss in the Bipad Portal is available in the disaggregated format up to the ward level categorized by the incident, people's death, estimated loss, infrastructure destroyed, and livestock destroyed. Since 2018, 8 incidents have been reported causing death of 1 people, loss of 1 infrastructure and an estimated loss of 790 thousand NPR.	The data on the damage and loss is not recorded on the Municipality website.
Real-Time		No Real-time station at rural municipality	N/A
Profile	Demographics	An overview of the population, literacy rate with gender breakdown, household count, and age distribution of total population demographic data for the municipality from the 2011 Census is available	The municipality's website consists of a health profile that displays information regarding health facilities and other demographic information with a lot of data. The available data includes area, population, etc.
	Projects	Information on Project is not available.	Information not available
	Contacts	Contacts Information of the Disaster Management Committee has not been added.	The website contains the contact information of elected officials, Members of the Municipal council, CAO and IT officer, emergency contacts, and contacts of other municipal staff.
	Documents	Documents have not been added.	The office of the municipal executive has published various acts, laws, directives, digital municipal profiles, audit reports, and progress reports available on the municipal website.

Risk info	Capacity and resources:	18 health facilities, 1 banking and finance, 3 governances, 1 culture, and 1 helipad are mapped in the Bipad Portal.	N/A
	Exposure	Visualization of building exposure map	Information not available
	Vulnerability	The national level of vulnerability data is also available up to the municipal level. Data for HDI, life expectancy, HPI, Per Capita Income, and household data such as communication, water, toilet, and education are available for the municipality	Information not available
	Hazard	Has flood hazard and Earthquake information from METEOR Project simulation done at the national level, and Landslide information from Durham University that is available up to ward level.	Information not available
	Risk	Earthquake and landslide risk scores are from Durham University. Earthquake risk score is available up to district level and Landslide risk score is available up to ward level.	Information not available
	Relief	Information not available	Information not available

Components	Data needed as per the guideline	Data available in the municipality
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage and loss and affected population.	Data is not available.
Hazard Ranking	Identify major recurring hazards and ranking on the basis of its impact.	Data is not available.
Risk Map	Map showing the social aspects of the municipality including the risk and hazard prone areas, and Critical Infrastructures.	Data is not available.
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts and their role in DRRM.	Data is not available.
Calendars	Hazard Calendar, Climate Calendar, and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather and crops, respectively.	Data is not available.

Data Gaps and Needs of Bhairabi Rural Municipality

The data that are currently available in Bipad Portal for Bhairabi rural municipality are not recent data. From the above analysis, it is found that data and information on different modules for the municipality are mostly unavailable and when available are

outdated and incomplete.

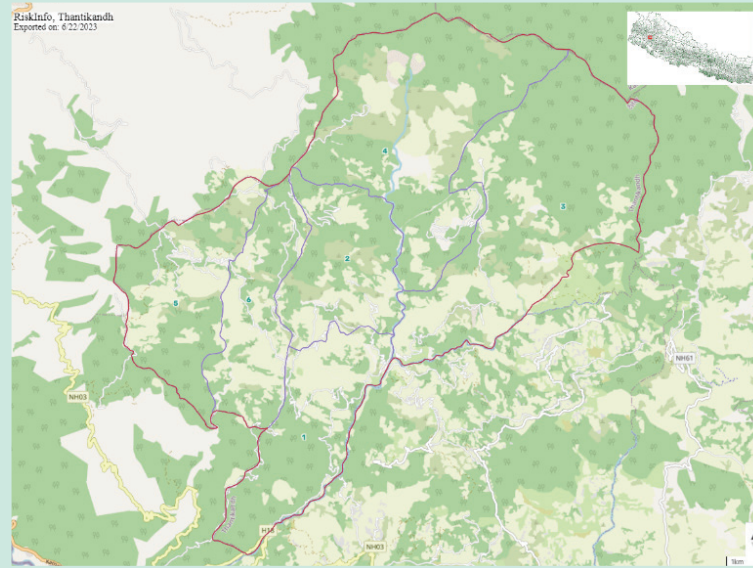
Looking at the data needs, there is a need for updated, complete, and standardized data. A complete analysis of data gaps and needs for each module is presented in the table below.

Modules		Data Gaps	Data Needs
Dashboard	Alerts	N/A	N/A
Incident	Incidents	The municipality has a paper-based record of incidents, however, Bipad Portal has a historical incident database in disaggregated form.	Need to ensure incidents are reported with details of magnitude of the incident, frequency, spatial and temporal data, and in disaggregated format by Nepal police. Complete information on inventory and stockpiles in standard format/template is needed.
Damage and loss		The municipality has no record of damage and loss, however, Bipad Portal has a historical database in disaggregated form.	There is a need to ensure the collection of damage and loss data by using a standardized collection method at the local level that includes all the historical data and current incidents in a disaggregated format.
Profile	Summary	The municipality has the demographic data. Information on resources and loss is available but scattered within different departments of the municipality.	Updated information on demographic, resources, and losses from the municipality in standard format needs to be uploaded in Bipad Portal.
	Projects	Information on Project is not available.	Need to contact local bodies and organizations working in the municipality and collect and update information on ongoing projects at the municipality.
	Contacts	Information on LDMC is available but has not been updated in Bipad Portal.	Need to update contact information of DRRM of municipal and ward level in BIPAD Portal.
	Documents	The published documents are not uploaded to Bipad Portal.	Documents are available in the municipality that is not uploaded to the Bipad Portal. Need to identify the documents and upload them to the Bipad Portal and website. Link to documents available at municipality: https://bit.ly/46eKbvS .
Risk info	Capacity and resources:	There is a limited database on capacity and resources which is scattered and not in a standard format.	The existing capacities and resources are available at the municipal level to respond to disasters need to be identified and mapped to all those resources in a standard format to integrate into Bipad Portal.
	Exposure, Vulnerability, Risk, and Hazard	Localized hazard information for the municipality is not available.	Need to check with the municipality if data are available in the required format to incorporate into Bipad Portal.
	Relief	The budget is allocated for relief activity and documented at the municipality but not updated in Bipad Portal.	Information on flow and release is available. Need to cross-check with the municipality and update information in the Bipad Portal.

The data on capacity, resources, past disaster incidents, stakeholder analysis and hazard-prone area is unavailable in the municipality. There is a need to conduct a Vulnerability and Capacity Assessment in each ward of the municipality to prepare LDCRP.

THANTIKANDH RURAL MUNICIPALITY

Situated in the northwest region of Dailekh district, Thantikandh Rural Municipality shares its boundaries with Chamunda Bindrasaini municipality and Bhairabi rural municipality to the east, Subha Kalika rural municipality in Kalikot district to the north, Aathabis municipality in Dailekh district to the west, and Chamunda Vindrasaini district to the south. This rural municipality is a merger of Vishala, Tolijaisi, and Lakandra VDCs, encompassing an area of 88.22 square kilometers, divided into six wards. As of the 2078 national census, the population stands at 18,301.



Source: <https://bipadportal.gov.np/>

The northern expanse of this rural municipality is rich in forests, providing abundant water sources, herbs, wildlife, sapphires, as well as opportunities for apple and alaichi cultivation. Notable rivers in this area include the Ramgad River to the east, Bhootgad River to the north, and Chinekhola flowing in the west.

The DRRM act for the municipality was issued in 2079 BS, accompanied by the publication of the DPRP in 2080 with support from the Bhakari Project. For the ongoing fiscal year, the municipality's total budget is NPR 455 million with NPR 4 million allocated for Disaster Management. While disaster-related datasets are maintained within the rural municipality, excluding relief distribution data, there is an absence of information regarding incidents, damage, loss, and recovery or reconstruction efforts. Although the municipality lacks comprehensive incident records, the Bipad Portal possesses a historical incident database. Analyzing Bipad Portal data spanning from January 2015 to 8 June 2023, a total of 7 incidents are documented, leading to the unfortunate loss of 4 lives and an estimated financial impact of NPR 50 thousand.

Data Assessment of Thantikandh Rural Municipality

This section examines the data available in Bipad Portal for Thantikandh Rural Municipality and at the municipality. From the municipality, municipal profile, municipal website, and red book were

studied to assess the available data. The table below illustrates what data are available in Bipad Portal and what are available at the municipality.

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts	No alerts were recorded in the last six months	N/A
Incident	Incidents (including inventory/stockpile)	The added incident data in the Bipad Portal are detailed and in disaggregated format. The detailed data includes frequency, magnitude, spatial and temporal data. Incident data from 2018 onwards are available.	Data on previous and current incidents are not available. Similarly, data on inventory and stockpiles are also unavailable at the municipality levels.
Damage and loss		The data on Damage and loss in the Bipad Portal is available in the disaggregated format up to the ward level categorized by the incident, people's death, estimated loss, infrastructure destroyed, and livestock destroyed. Since 2018, 7 incidents have been reported causing the death of 4 people, the loss of 1 infrastructure, and an estimated loss of 50 thousand.	The data on the damage and loss is not recorded on the Municipality website.
Real-Time		No Real-time station for Rain Watch and River Watch.	N/A
Profile	Demographics	An overview of the population, literacy rate with gender breakdown, household count, and age distribution of total population demographic data for the municipality from the 2011 Census is available.	The municipality's website consists of the municipal digital profile and health profile containing data regarding population distribution and information on health facilities available in the municipality.
	Projects	Information on Project is not available.	Information not available
	Contacts	Contacts Information of the Disaster Management Committee has not been added.	The website contains the contact information of elected officials, Members of the Municipal council, CAO and IT officer, emergency contacts, and contacts of other municipal staff.
	Documents	Documents have not been added.	The office of the municipal executive has published various acts, laws, digital municipal profiles, plan and policy, and progress reports available on the municipal website.

Risk info	Capacity and resources:	8 health facilities and 1 banking and finance are mapped in the Bipad Portal.	N/A
	Exposure	Visualization of building exposure map.	Information not available
	Vulnerability	The national level of vulnerability data is also available up to the municipal level. Data for HDI, life expectancy, HPI, Per Capita Income, and household data such as communication, water, toilet, and education are available for the municipality.	Information not available
	Hazard	Has flood hazard and Earthquake information from METEOR Project simulation done at the national level, and Landslide information from Durham University that is available up to ward level.	Information not available
	Risk	Earthquake and landslide risk score are from Durham University. Earthquake risk score is available up to district level and Landslide risk score is available up to ward level.	Information not available
	Relief	Information not available	Information not available

Components	Data needed as per the guideline	Data available in the municipality
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage and loss and affected population.	Data is not available.
Hazard Ranking	Identify major recurring hazards and ranking on the basis of its impact.	Data is not available.
Risk Map	Map showing the social aspects of the municipality including the risk and hazard prone areas, and Critical Infrastructures.	Data is not available.
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts and their role in DRRM.	Data is not available.
Calendars	Hazard Calendar, Climate Calendar and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather and crops, respectively.	Data is not available.

Data Gaps and Needs of Thantikandh Rural municipality

The data that are currently available in Bipad Portal for Thantikandh rural municipality are not recent data. From the above analysis, it is found that data and information on different modules for the municipality are mostly unavailable and when

available are outdated and incomplete.

Looking at the data needs, there is a need for updated, complete, and standardized data. A complete analysis of data gaps and needs for each module is presented in Table below.

Modules		Data Gaps	Data Needs
Dashboard	Alerts	N/A	N/A
Incident	Incidents	The municipality has no record of incidents, however, Bipad Portal has a historical incident database in disaggregated form.	Need to ensure incidents are reported with details of magnitude of the incident, frequency, spatial and temporal data, and in disaggregated format by Nepal police. Complete information on inventory and stockpiles in standard format/template is needed.
Damage and loss		The municipality has no record of damage and loss, however, Bipad Portal has a historical database in disaggregated form.	There is a need to ensure the collection of damage and loss data by using a standardized collection method at the local level that includes all the historical data and current incidents in a disaggregated format.
Profile	Summary	The municipality has the demographic data. Information on resources and loss is available but scatter within different departments of municipality.	Updated information on demographic, resources, and losses from the municipality in standard format needs to upload in Bipad Portal.
	Projects	Information on Project is not available.	Need to contact local bodies and organizations working in the municipality and collect and update information ongoing projects at the municipality.
	Contacts	Information on LDMC is available but has not been updated in Bipad Portal.	Need to update contact information of DRRM of municipal and ward level in BIPAD Portal.
	Documents	The published documents are not uploaded in Bipad Portal.	Documents are available in the municipality that is not uploaded to the Bipad Portal. Need to identify the documents and upload them to the Bipad Portal and website. Link to documents available at municipality: https://bit.ly/46AGLUe .
Risk info	Capacity and resources:	There is a limited database on capacity and resources which is scattered and not in a standard format.	The existing capacities and resources are available at the municipal level to respond to disasters need to be identified and mapped to all those resources in a standard format to integrate into Bipad Portal.
	Exposure, Vulnerability, Risk, and Hazard	Localized hazard information for the municipality is not available.	Need to check with the municipality if data are available in the required format to incorporate into Bipad Portal.
	Relief	The budget is allocated for relief activity and documented at the municipality but not updated in Bipad Portal	Information on flow and release is available. Need to cross-check with the municipality and update information in the Bipad Portal.

The data on capacity, resources, past disaster incidents, stakeholder analysis and hazard-prone area is unavailable in the municipality. There is a need to conduct a Vulnerability and Capacity Assessment in each ward of the municipality to prepare LDCRP.

KHANDACHAKRA MUNICIPALITY

Khandachakra Municipality, one of the nine municipalities situated in Kalikot district, spans an area of 133.29 square kilometers and is organized into 11 wards. It is bordered by Tilagupha Municipality to the east, Naraharinath Rural Municipality and Sanni Tribeni Rural Municipality to the west, Pachaljharana Rural Municipality to the north, and Subha Kalika Rural Municipality and Mahawai Rural Municipality to the south. The prominent rivers within this municipality include Humla River, Karnali River, and Tila River. Functioning as a gateway to Rara Lake and other northern districts of Karnali Province, the region boasts significant tourism hubs such as Kot Durbar, Dhunge Bagaicha, Chuli Malika, War Tourist area-Pili, and Panchadevel Temple.



Source: <https://bipadportal.gov.np/>

The municipality enacted its DRRM act in 2077 BS, alongside the publication of the Disaster Management Fund (Operation) Procedure in 2077 and DPRP in 2079. For the current fiscal year, the municipality's total budget is NPR 606 million with NPR 500 thousand earmarked for Disaster Management. Disaster-related datasets are stored within the municipality, excluding relief distribution data, while information regarding incidents, damage, loss, and recovery and reconstruction efforts remains absent. Incident records are lacking at the municipality, although the Bipad Portal maintains a historical incident database. Analyzing Bipad Portal data from January 2015 to June 2023, a total of 20 incidents are documented, leading to the unfortunate loss of 2 lives and an estimated financial impact of 2 million NPR.

Data Assessment of Khandachakra Municipality

This section examines the data available in Bipad Portal for Khandachakra Municipality and at the municipality. From the municipality, municipal profile, municipal website, and red book were

studied to assess the available data. The table below illustrates what data are available in Bipad Portal and what are available at the municipality.

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts	Three alerts were recorded in the last six months	N/A
Incident	Incidents (including inventory/stockpile)	The added incident data in the Bipad Portal are detailed and in disaggregated format. The detailed data includes frequency, magnitude, spatial and temporal data. Incident data from 2018 onwards are available.	Data on previous and current incidents are not available. Similarly, data on inventory and stockpiles are also unavailable at the municipality levels.
Damage and loss		The data on Damage and loss in the Bipad Portal is available in the disaggregated format up to the ward level categorized by the incident, people's death, estimated loss, infrastructure destroyed, and livestock destroyed. Since 2018, 20 incidents have been reported causing the death of 2 people, the loss of 3 infrastructure, and an estimated loss of 2million.	The data on the damage and loss is not recorded on the Municipality website.
Real-Time		One Real-time station for Rain Watch	N/A
Profile	Demographics	An overview of the population, literacy rate with gender breakdown, household count, and age distribution of total population demographic data for the municipality from the 2011 Census is available	The municipality's website consists of the municipal digital profile with details of population area, introduction, etc.
	Projects	Information on Project is not available.	Information not available
	Contacts	Contacts Information of the Disaster Management Committee has not been added.	The website contains the contact information of elected officials, Members of Municipal council, CAO and IT officer, emergency contacts and contacts of other municipal staffs.
	Documents	Documents has not been added.	The office of the municipal executive has published various acts, laws, directives, digital municipal profile, audit reports, and progress reports available on the municipal website.

Risk info	Capacity and resources:	2 education, 8 health facilities, 10 banking and finance, 1 governance, 2 culture, 3 helipads and 1 warehouse are mapped in the Bipad Portal.	N/A
	Exposure	Visualization of building exposure map	Information not available
	Vulnerability	The national level of vulnerability data is also available up to the municipal level. Data for HDI, life expectancy, HPI, Per Capita Income, and household data such as communication, water, toilet, and education are available for the municipality	Information not available
	Hazard	Has flood hazard and Earthquake information from METEOR Project simulation done at the national level, and Landslide information from Durham University that is available up to ward level.	Information not available
	Risk	Earthquake and landslide risk score are from Durham University. Earthquake risk score is available up to district level and Landslide risk score is available up to ward level.	Information not available
	Relief	Information not available	Information not available

Components	Data needed as per the guideline	Data available in the municipality
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage and loss and affected population.	Data is not available.
Hazard Ranking	Identify major recurring hazards and ranking on the basis of its impact.	Data is not available.
Risk Map	Map showing the social aspects of the municipality including the risk and hazard prone areas, and Critical Infrastructures.	Data is not available.
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts and their role in DRRM.	Data is not available.
Calendars	Hazard Calendar, Climate Calendar and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather and crops, respectively.	Data is not available.

Data Gaps and Needs of Khandachakra Municipality

The data that are currently available in Bipad Portal for Khandachakra municipality are not recent data. From the above analysis, it is found that data and information on different modules for the municipality are mostly unavailable and when available are

outdated and incomplete.

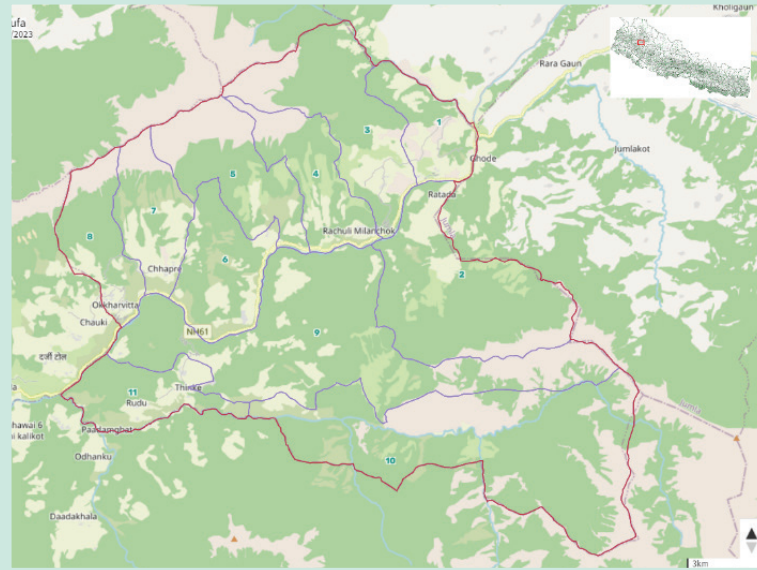
Looking at the data needs, there is a need for updated, complete, and standardized data. A complete analysis of data gaps and needs for each module is presented in Table below.

Modules		Data Gaps	Data Needs
Dashboard	Alerts	N/A	N/A
Incident	Incidents	The municipality has no record of incidents, however, Bipad Portal has a historical incident database in disaggregated form.	Need to ensure incidents are reported with details of magnitude of the incident, frequency, spatial and temporal data, and in disaggregated format by Nepal police. Complete information on inventory and stockpiles in standard format/template is needed.
Damage and loss		The municipality has no record of damage and loss, however, Bipad Portal has a historical database in disaggregated form.	There is a need to ensure the collection of damage and loss data by using a standardized collection method at the local level that includes all the historical data and current incidents in a disaggregated format.
Profile	Summary	The municipality has the demographic data. Information on resources and loss is available but scatter within different departments of municipality.	Updated information on demographic, resources, and losses from the municipality in standard format needs to be uploaded in Bipad Portal.
	Projects	Information on Project is not available.	Need to contact local bodies and organizations working in the municipality and collect and update information on ongoing projects at the municipality.
	Contacts	Information on LDMC is available but has not been updated in Bipad Portal.	Need to update contact information of DRRM of municipal and ward level in BIPAD Portal.
	Documents	The published documents are not uploaded in Bipad Portal.	Documents are available in the municipality that are not uploaded to the Bipad Portal. Need to identify the documents and upload them to the Bipad Portal and website. Link to documents available at municipality: https://bit.ly/3NKDsky .
Risk info	Capacity and resources:	There is a limited database on capacity and resources which is scattered and not in a standard format.	The existing capacities and resources are available at the municipal level to respond to disasters need to be identified and mapped to all those resources in a standard format to integrate into Bipad Portal.
	Exposure, Vulnerability, Risk, and Hazard	Localized hazard information for the municipality is not available.	Need to check with the municipality if data are available in the required format to incorporate into Bipad Portal.
	Relief	The budget is allocated for relief activity and documented at the municipality but not updated in Bipad Portal	Information on flow and release is available. Need to cross-check with the municipality and update information in the Bipad Portal.

The data on capacity, resources, past disaster incidents, stakeholder analysis and hazard-prone area is unavailable in the municipality. There is a need to conduct a Vulnerability and Capacity Assessment in each ward of the municipality to prepare LDCRP.

TILAGUFA MUNICIPALITY

Tilagufa Municipality in Kalikot district, encompasses a total expanse of 262.56 square kilometers, divided into 11 wards. To the east, it shares boundaries with Jumla district, including specific segments of Mahawai Rural Municipality. On its western side, it adjoins Khandachakra Municipality and Pachaljharana Rural Municipality. In the north, it is contiguous with Palata Rural Municipality, which also extends into Jumla district, while its southern borders converge with Mahawai Rural Municipality. The name of the municipality is derived from the renowned cave situated along the banks of the flowing Tila River.



Source: <https://bipadportal.gov.np/>

Formed by the amalgamation of former Foimahadeva, Ranchuli, Chhapre, Juwitha, and Chilkhaya VDCs, the primary river within this municipality is the Tila River. Noteworthy caves found here include Tila Cave and Khamale Cave, while the religious landscape features Pugamalika Temple and Satyawati Temple.

The DRRM act of the municipality was promulgated in 2075 BS. Additionally, the DPRP was published in 2079 and the Tilagufa Municipality Profile. The municipality's current fiscal year budget amounts to NPR 543 million with NPR 5 million designated for Disaster Management. Disaster-related datasets are housed within the municipality's minute register, excluding relief distribution data. Unfortunately, there is an absence of information concerning incidents, damage, loss, recovery, and reconstruction within the municipality. While the municipality maintains incident records in paper-based form, the Bipad Portal retains a historical incident database. Analyzing Bipad Portal data from January 2015 to June 2023, a total of 20 incidents are documented, leading to the unfortunate loss of 16 lives and an estimated financial impact of 3 million NPR.

Data Assessment of Tilagufa Municipality

This section examines the data available in Bipad Portal for Tilagufa Municipality and at the municipality. From the municipality, municipal profile, municipal website, and red book were

studied to assess the available data. The table below illustrates what data are available in Bipad Portal and what are available at the municipality.

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts	No alerts were recorded in the last six months.	N/A
Incident	Incidents (including inventory/stockpile)	The added incident data in the Bipad Portal are detailed and in disaggregated format. The detailed data includes frequency, magnitude, spatial and temporal data. Incident data from 2018 onwards are available.	Data on previous and current incidents are not available. Similarly, data on inventory and stockpiles are also unavailable at the municipality levels.
Damage and loss		The data on Damage and loss in the Bipad Portal is available in the disaggregated format up to the ward level categorized by the incident, people's death, estimated loss, infrastructure destroyed, and livestock destroyed. Since 2018, 20 incidents have been reported causing death of 16 people, loss of 23 infrastructure and an estimated loss of 3 million.	The data on the damage and loss is not recorded on the Municipality website.
Real-Time		One Real-time station for River Watch	N/A
Profile	Demographics	An overview of population, literacy rate with gender breakdown, household count, and age distribution of total population demographic data for the municipality from the 2011 Census is available.	The municipality's website consists of the municipal digital profile introduction about municipality, map of municipality, and population distribution according to gender.
	Projects	Information on two projects: Youth Empowerment Bulgari Project and SAHAYATRA II are available.	Information not available
	Contacts	Contacts Information of the Disaster Management Committee has not been added.	The website contains the contact information of elected officials, Members of Municipal council, CAO and IT officer, emergency contacts and contacts of other municipal staffs.
	Documents	No documents has been added.	The office of the municipal executive has published various acts, laws, directives, digital municipal profile, publications, and budget available on the municipal website.

Risk info	Capacity and resources:	10 health facilities, 2 banking and fiancé, 1 governance and 7 helipads are mapped in the Bipad Portal.	N/A
	Exposure	Visualization of building exposure map	Information not available
	Vulnerability	The national level of vulnerability data is also available up to the municipal level. Data for HDI, life expectancy, HPI, Per Capita Income, and household data such as communication, water, toilet, and education are available for the municipality	Information not available
	Hazard	Has flood hazard and Earthquake information from METEOR Project simulation done at the national level, and Landslide information from Durham University that is available up to ward level.	Information not available
	Risk	Earthquake and landslide risk score are from Durham University. Earthquake risk score is available up to district level and Landslide risk score is available up to ward level.	Information not available
	Relief	Information not available	Information not available

Components	Data needed as per the guideline	Data available in the municipality
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage and loss and affected population.	Data is not available.
Hazard Ranking	Identify major recurring hazards and ranking on the basis of its impact.	Data is not available.
Risk Map	Map showing the social aspects of the municipality including the risk and hazard prone areas, and Critical Infrastructures.	Data is not available.
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts and their role in DRRM.	Data is not available.
Calendars	Hazard Calendar, Climate Calendar and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather and crops, respectively.	Data is not available.

Data Gaps and Needs of Tilagufa municipality

The data that are currently available in Bipad Portal for Tilagufa municipality is added from the federal level. From the above analysis, it is found that data and information on different modules for the municipality are mostly unavailable and when

available are outdated and incomplete.

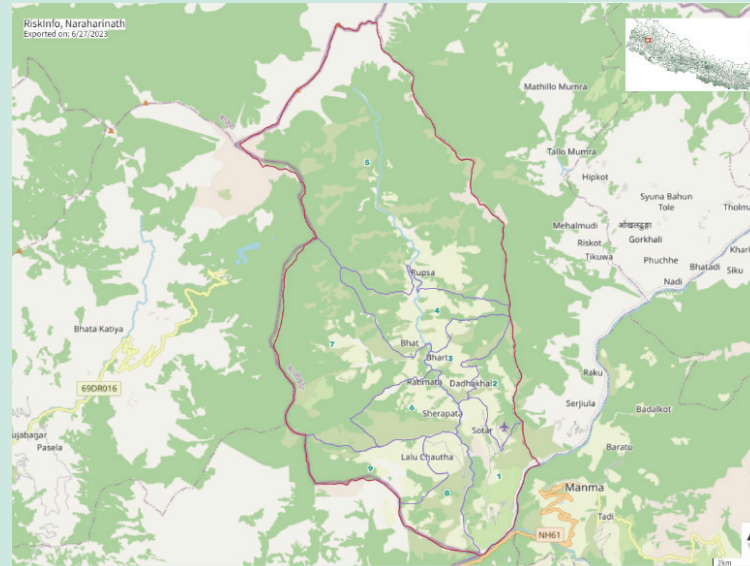
Looking at the data needs, there is a need for updated, complete, and standardized data. A complete analysis of data gaps and needs for each module is presented in the table below.

Modules		Data Gaps	Data Needs
Dashboard	Alerts	N/A	N/A
Incident	Incidents	The municipality has no record of incidents, however, Bipad Portal has a historical incident database in disaggregated form.	Need to ensure incidents are reported with details of magnitude of the incident, frequency, spatial and temporal data, and in disaggregated format by Nepal police. Complete information on inventory and stockpiles in standard format/template is needed.
Damage and loss		The municipality has no record of damage and loss, however, Bipad Portal has a historical database in disaggregated form.	There is a need to ensure the collection of damage and loss data by using a standardized collection method at the local level that includes all the historical data and current incidents in a disaggregated format.
Profile	Summary	The municipality has the demographic data. Information on resources and loss is available but scattered within different departments of the municipality.	Updated information on demographic, resources, and losses from the municipality in standard format needs to be uploaded in Bipad Portal.
	Projects	Information on Project is not available.	Need to contact local bodies and organizations working in the municipality and collect and update information on ongoing projects at the municipality.
	Contacts	Information on LDMC is available but has not been updated in Bipad Portal.	Need to update contact information of DRRM of municipal and ward level in BIPAD Portal.
	Documents	The published documents are not uploaded to Bipad Portal.	Documents are available in the municipality that is not uploaded to the Bipad Portal. Need to identify the documents and upload them to the Bipad Portal and website. Link to documents available at municipality: https://bit.ly/3NQHQyS .
Risk info	Capacity and resources:	There is a limited database on capacity and resources which is scattered and not in a standard format.	The existing capacities and resources are available at the municipal level to respond to disasters need to be identified and mapped to all those resources in a standard format to integrate into Bipad Portal.
	Exposure, Vulnerability, Risk, and Hazard	Localized hazard information for the municipality is not available.	Need to check with the municipality if data are available in the required format to incorporate into Bipad Portal.
	Relief	The budget is allocated for relief activity and documented at the municipality but not updated in Bipad Portal	Information on flow and release is available. Need to cross-check with the municipality and update information in the Bipad Portal.

The data on capacity, resources, past disaster incidents, stakeholder analysis, and hazard-prone area is unavailable in the municipality. There is a need to conduct a Vulnerability and Capacity Assessment in each ward of the municipality to prepare LDCRP.

NARAHARINATH RURAL MUNICIPALITY

Naraharinath Rural Municipality is one of the nine rural municipalities located in the Kalikot district. It encompasses a total area of 143.86 square kilometers and is divided into nine wards. To the east, it shares borders with Achham district, while Sanni Tribeni Rural Municipality is situated to the west. In the north, it is adjacent to the Bajura district, and in the south, it borders Khandachakra Municipality, including parts of Dailekh district. Naraharinath Rural Municipality was formed by the amalgamation of Kumalgaon, Kotwada, Rupsa, Malkot and Lalu VDCs of Kalikot District as Naraharinath Rural Municipality.



Source: <https://bipadportal.gov.np/>

The rural municipality is named after the renowned saint Yogi Naraharinath, who was born in that region.

In 2075 BS, Naraharinath Rural Municipality enacted the DRRM Operating Procedure, along with the guidelines for rebuilding private homes after potential disasters, the operational procedure for managing the Disaster Management Fund, and the DPRP in 2079. The municipality's current fiscal budget amounts to NPR 550 million with NPR 3 million designated for disaster management. Although disaster-related data is primarily paper-based in the rural municipality, excluding relief distribution data, there is a lack of information within the municipality regarding incidents, damages, losses, and recovery efforts. While the municipality itself lacks incident records, the Bipad Portal holds a historical incident database, revealing 18 incidents between January 2015 and June 2023 that resulted in 16 fatalities and approximately 8 million in estimated losses.

Data Assessment of Naraharinath Rural Municipality

This section examines the data available in Bipad Portal for Naraharinath Rural Municipality and at the municipality. From the municipality, municipal profile, municipal website, and red book were

studied to assess the available data. The table below illustrates what data are available in Bipad Portal and what are available at the municipality.

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts	No alerts were recorded in the last six months.	N/A
Incident	Incidents (including inventory/stockpile)	The added incident data in the Bipad Portal are detailed and in disaggregated format. The detailed data includes frequency, magnitude, spatial and temporal data. Incident data from 2019 onwards are available.	Data on previous and current incidents are not available. Similarly, data on inventory and stockpiles are also unavailable at the municipality levels.
Damage and loss		The data on Damage and loss in the Bipad Portal is available in the disaggregated format up to the ward level categorized by the incident, people's death, estimated loss, infrastructure destroyed, and livestock destroyed. Since 2019, 18 incidents have been reported causing the death of 16 people, the loss of 5 infrastructure, and an estimated loss of 8 million.	The data on the damage and loss is not recorded on the Municipality website.
Real-Time		One Real-time station for River Watch	N/A
Profile	Demographics	An overview of the population, literacy rate with gender breakdown, household count, and age distribution of total population demographic data for the municipality from the 2011 Census is available	The municipality's website consists of the health profile containing data regarding disaggregated population distribution and information on health facilities available in the municipality are also integrated.
	Projects	Information on Project is not available.	Information not available
	Contacts	Contacts Information of the Disaster Management Committee has not been added.	The website contains the contact information of elected officials, Members of Municipal council, CAO and IT officer, emergency contacts and contacts of other municipal staffs.
	Documents	Documents have not been added.	The office of the municipal executive has published various acts, laws, notices and news, directives, laws and acts available on the municipal website.

Risk info	Capacity and resources:	11 health facilities, 2 banking and finance, and 1 helipad are mapped in the Bipad Portal.	N/A
	Exposure	Visualization of building exposure map	Information not available
	Vulnerability	The national level of vulnerability data is also available up to the municipal level. Data for HDI, life expectancy, HPI, Per Capita Income, and household data such as communication, water, toilet, and education are available for the municipality	Information not available
	Hazard	Has flood hazard and Earthquake information from METEOR Project simulation done at the national level, and Landslide information from Durham University that is available up to ward level.	Information not available
	Risk	Earthquake and landslide risk score are from Durham University. Earthquake risk score is available up to district level and Landslide risk score is available up to ward level.	Information not available
	Relief	Information not available	Information not available

Components	Data needed as per the guideline	Data available in the municipality
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage and loss and affected population.	Data is not available.
Hazard Ranking	Identify major recurring hazards and ranking on the basis of its impact.	Data is not available.
Risk Map	Map showing the social aspects of the municipality including the risk and hazard prone areas, and Critical Infrastructures.	Data is not available.
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts and their role in DRRM.	Data is not available.
Calendars	Hazard Calendar, Climate Calendar and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather and crops, respectively.	Data is not available.

Data Gaps and Needs of Naraharinath Rural municipality

The data that are currently available in Bipad Portal for Naraharinath rural municipality is added from the federal level. From the above analysis, it is found that data and information on different modules for the municipality are mostly unavailable and when

available are outdated and incomplete.

Looking at the data needs, there is a need for updated, complete, and standardized data. A complete analysis of data gaps and needs for each module is presented in the table below.

Modules		Data Gaps	Data Needs
Dashboard	Alerts	N/A	N/A
Incident	Incidents	The municipality has no record of incidents, however, Bipad Portal has a historical incident database in disaggregated form.	Need to ensure incidents are reported with details of magnitude of the incident, frequency, spatial and temporal data, and in disaggregated format by Nepal police. Complete information on inventory and stockpiles in standard format/template is needed.
Damage and loss		The municipality has no record of damage and loss, however, Bipad Portal has a historical database in disaggregated form.	There is a need to ensure the collection of damage and loss data by using a standardized collection method at the local level that includes all the historical data and current incidents in a disaggregated format.
Profile	Summary	The municipality has the demographic data. Information on resources and loss is available but scatter within different departments of municipality.	Updated information on demographic, resources, and losses from the municipality in standard format needs to upload in Bipad Portal.
	Projects	Information on Project is not available.	Need to contact local bodies and organizations working in the municipality and collect and update information ongoing projects at the municipality.
	Contacts	Information on LDMC is available but has not been updated in Bipad Portal.	Need to update contact information of DRRM of municipal and ward level in BIPAD Portal.
	Documents	The published documents are not uploaded in Bipad Portal.	Documents are available in the municipality that is not uploaded to the Bipad Portal. Need to identify the documents and upload them to the Bipad Portal and website. Link to documents available at municipality: https://shorturl.at/chinN .
Risk info	Capacity and resources:	There is a limited database on capacity and resources which is scattered and not in a standard format.	The existing capacities and resources are available at the municipal level to respond to disasters need to be identified and mapped to all those resources in a standard format to integrate into Bipad Portal.
	Exposure, Vulnerability, Risk, and Hazard	Localized hazard information for the municipality is not available.	Need to check with the municipality if data are available in the required format to incorporate into Bipad Portal.
	Relief	The budget is allocated for relief activity and documented at the municipality but not updated in Bipad Portal.	Information on flow and release is available. Need to cross-check with the municipality and update information in the Bipad Portal.

The data on capacity, resources, past disaster incidents, stakeholder analysis and hazard-prone area is unavailable in the municipality. There is a need to conduct a Vulnerability and Capacity Assessment in each ward of the municipality to prepare LDCRP.

MAHAWAI RURAL MUNICIPALITY

Mahawai Rural Municipality, situated within Kalikot district, spans 322.07 square kilometers comprising seven wards. It shares its eastern borders with Jajarkot and Jumla districts, while its western side neighbors Subhakalika Rural Municipality. To the north lies Tilagufa Municipality, and to the south, it borders Dailekh and Jajarkot districts.

Despite possessing diverse attractions like Mahavu Lake, apple farms, rivers, mountains, forests, and the rare Red Panda, the area's tourism potential remains underdeveloped due to a lack of motor roads, making foot trails the only alternative for transportation.

The municipality published Emergency Operating Center Procedure and Municipal Disaster management Fund (operation) procedure in 2078, endorsed DRRM act and DPRP in 2079. The current fiscal year's total budget amounts to NPR 294 million with NPR 2 million specifically allocated for Disaster Management. Except for relief distribution data, the municipality lacks disaster-related information storage, encompassing incident records, damage assessments, loss data, and recovery and reconstruction details. Although the municipality itself does not maintain incident records, the Bipad Portal maintains a historical incident database. According to Bipad Portal data spanning January 2015 to June 2023, eight incidents resulted in nine fatalities, with no estimated losses recorded.



Source: <https://bipadportal.gov.np/>

Data Assessment of Mahawai Rural Municipality

This section examines the data available in Bipad Portal for Mahawai Rural Municipality and at the municipality. From the municipality, municipal profile, municipal website, and red book were

studied to assess the available data. The table below illustrates what data are available in Bipad Portal and what are available at the municipality.

MODULES		DATA AVAILABLE IN BIPAD	DATA AVAILABLE IN MUNICIPALITY
Dashboard	Alerts	No alerts were recorded in the last six months.	N/A
Incident	Incidents (including inventory/stockpile)	The added incident data in the Bipad Portal are detailed and in disaggregated format. The detailed data includes frequency, magnitude, spatial and temporal data. Incident data from 2018 onwards are available.	Data on previous and current incidents are not available. Similarly, data on inventory and stockpiles are also unavailable at the municipality levels.
Damage and loss		The data on Damage and loss in the Bipad Portal is available in the disaggregated format up to the ward level categorized by the incident, people's death, estimated loss, infrastructure destroyed, and livestock destroyed. Since 2018, 8 incidents have been reported causing death of 9 people, loss of 7 infrastructure and an estimated loss of 0 NPR.	The data on the damage and loss is not recorded on the Municipality website.
Real-Time		No Real-time station for Rain Watch	N/A
Profile	Demographics	An overview of population, literacy rate with gender breakdown, household count, and age distribution of total population demographic data for the municipality from the 2011 Census is available	The municipality's website consists of the municipal digital profile with a data of population distribution and resources.
	Projects	Information on Project is not available.	Information not available
	Contacts	Contacts Information of the Disaster Management Committee has not been added.	The website contains the contact information of elected officials, Members of Municipal council, CAO and IT officer, emergency contacts and contacts of other municipal staffs.
	Documents	Documents have not been added.	The office of the municipal executive has published various acts, laws, directives, digital municipal profile, plans and policies available on the municipal website.

Risk info	Capacity and resources:	4 health facilities and 1 helipad are mapped in the Bipad Portal.	N/A
	Exposure	Visualization of building exposure map	Information not available
	Vulnerability	The national level of vulnerability data is also available up to the municipal level. Data for HDI, life expectancy, HPI, Per Capita Income, and household data such as communication, water, toilet, and education are available for the municipality	Information not available
	Hazard	Has flood hazard and Earthquake information from METEOR Project simulation done at the national level, and Landslide information from Durham University that is available up to ward level.	Information not available
	Risk	Earthquake and landslide risk score are from Durham University. Earthquake risk score is available up to district level and Landslide risk score is available up to ward level.	Information not available
	Relief	Information not available	Information not available

Components	Data needed as per the guideline	Data available in the municipality
Historical records of the disaster events	Past disaster incidents of 30 years data including the location, date of occurrence, damage and loss and affected population.	Data is not available.
Hazard Ranking	Identify major recurring hazards and ranking on the basis of its impact.	Data is not available.
Risk Map	Map showing the social aspects of the municipality including the risk and hazard prone areas, and Critical Infrastructures.	Data is not available.
Stakeholder Analysis	The stakeholders of the municipality working in the field of Disaster and Climate Change, their location, distance from the municipality, Contacts and their role in DRRM.	Data is not available.
Calendars	Hazard Calendar, Climate Calendar and Crop Calendar to identify the changes in the occurrence of hazards, changes in the weather and crops, respectively.	Data is not available.

Data Gaps and Needs of Mahawai Rural municipality

The data that are currently available in Bipad Portal for Mahawai rural municipality are not recent data. From the above analysis, it is found that data and information on different modules for the municipality are mostly unavailable and when available are

outdated and incomplete.

Looking at the data needs, there is a need for updated, complete, and standardized data. A complete analysis of data gaps and needs for each module is presented in Table below.

Modules		Data Gaps	Data Needs
Dashboard	Alerts	N/A	N/A
Incident	Incidents	The municipality has no record of incidents, however, Bipad Portal has a historical incident database in disaggregated form.	Need to ensure incidents are reported with details of magnitude of the incident, frequency, spatial and temporal data, and in disaggregated format by Nepal police. Complete information on inventory and stockpiles in standard format/template is needed.
Damage and loss		The municipality has no record of damage and loss, however, Bipad Portal has a historical database in disaggregated form.	There is a need to ensure the collection of damage and loss data by using a standardized collection method at the local level that includes all the historical data and current incidents in a disaggregated format.
Profile	Summary	The municipality has the demographic data. Information on resources and loss is available but scatter within different departments of municipality.	Updated information on demographic, resources, and losses from the municipality in standard format needs to upload in Bipad Portal.
	Projects	Information on Project is not available.	Need to contact local bodies and organizations working in the municipality and collect and update information ongoing projects at the municipality.
	Contacts	Information on LDMC is available but has not been updated in Bipad Portal.	Need to update contact information of DRRM of municipal and ward level in BIPAD Portal.
	Documents	The published documents are not uploaded in Bipad Portal.	Documents are available in the municipality that is not uploaded to the Bipad Portal. Need to identify the documents and upload them to the Bipad Portal and website. Link to documents available at municipality: https://shorturl.at/gG059 .
Risk info	Capacity and resources:	There is a limited database on capacity and resources which is scattered and not in a standard format.	The existing capacities and resources are available at the municipal level to respond to disasters need to be identified and mapped to all those resources in a standard format to integrate into Bipad Portal.
	Exposure, Vulnerability, Risk, and Hazard	Localized hazard information for the municipality is not available.	Need to check with the municipality if data are available in the required format to incorporate into Bipad Portal.
	Relief	The budget is allocated for relief activity and documented at the municipality but not updated in Bipad Portal.	Information on flow and release is available. Need to cross-check with the municipality and update information in the Bipad Portal.

The data on capacity, resources, past disaster incidents, stakeholder analysis and hazard-prone area is unavailable in the municipality. There is a need to conduct a Vulnerability and Capacity Assessment in each ward of the municipality to prepare LDCRP.

KARNALI PROVINCE

Established on 20 September 2015, Karnali Province is one of Nepal's seven federal provinces. Encompassing 27,984 square kilometer (10,805 sq mi), it constitutes 18.97% of the nation's territory, rendering it Nepal's largest province. Despite its vast expanse, the province's population recorded in the 2011 Nepal census was 1,570,418, marking it as the least populous province in the country. The province shares its borders with the Tibet Autonomous Region of China to the north, Gandaki Province to the east, Sudurpashchim Province to the west, and Lumbini Province to the south. Notably, both the capital and largest city of the province is Birendranagar, accommodating a population of 154,886.



Source: <https://bipadportal.gov.np/>

Karnali Province is comprised of 10 districts and 79 local administrative units, encompassing 25 municipalities and 54 rural municipalities. The province's efforts toward disaster risk reduction and management were codified through the publication of the province's disaster risk reduction and management act in 2076 BS. Additionally, various plans and procedures relating to disaster preparedness, risk mitigation, insurance, and response were introduced at the province level, focusing on monsoon preparedness, risk reduction policies, and collective accident insurance programs.

Data Assessment of Karnali Province

The section examines the type of data that is available in the Bipad Portal (as of June 2023) for Karnali province and what is available on the website of the province and the assessment done by Climate Fellow stationed at the Ministry of Internal Affairs and Law. This gives a picture of what data is already available and what the Bipad

Incidents: The Ministry of Internal Affairs and Law oversees the documentation of incident data from all districts in the province, sourced through reports submitted by the respective District Administrative Offices. The Provincial Emergency Operations Center (PEOC) was established in 2075 B.S. To facilitate accessibility, the ministry's web portal features details about incidents categorized by

Portal can provide to make it more relevant to the province to support evidence-based decisions for DRRM. For now, Province does not have access to upload any data and information to the Bipad portal. A total of 1798 incidents have been recorded in the Bipad portal from 2011 to June 2023.

district, month, and type. Additionally, the website serves as a platform for uploading notices, acts/ rules, and official gazette notifications.

The Bipad Portal has visualization of district-wise incident trends, showing that Surkhet district witnessed the highest number of incidents in the past six months.

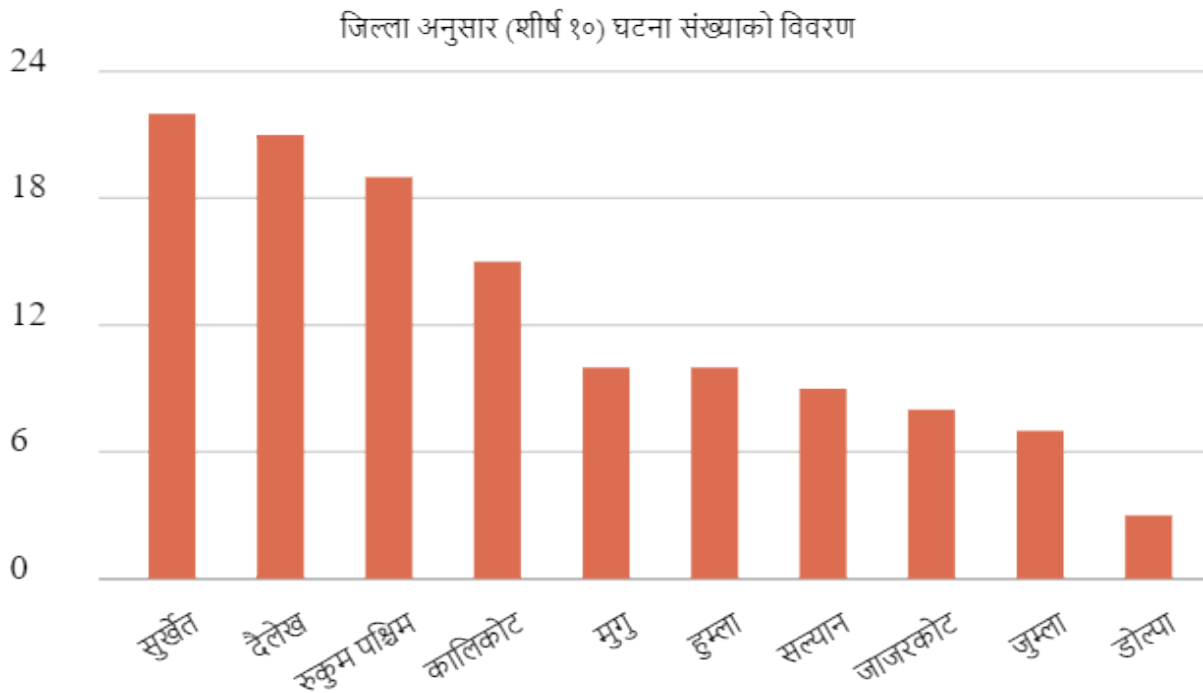


Figure 1 District-Wise Incidents Data (Source: Bipad Portal)

Alert System: The flood-related alerts are disseminated via stations located in the respective areas. Specific regions receive early warnings through various mediums such as mobile SMS, Facebook, radio broadcasts, and television broadcasts. These early warnings concerning floods are sourced from the National Emergency Operation Center (NEOC) and the Department of Hydrology and Meteorology (DHM). However, the Ministry of Internal Affairs and Law (MoIAL) lacks datasets regarding the stations present within the province.

Demographics: Based on the most recent census report from 2021, the total population of Karnali Province is documented as 1,688,412. The tabulated data displays the population distribution across the districts within Karnali province. However, detailed population figures at the ward level have not yet been made available.

Documents: The Monsoon Preparedness and Response Plan for the year 2079 has been officially released, while the plan for 2080 is currently in the drafting stage. Furthermore, the Disaster Preparedness and Response Plan specific to Karnali Province for the year 2079 has been published. Link to documents available at province: <https://shorturl.at/otEX1>.

Table 1 District-Wise Population (Source: National Population and Housing Census 2021)

Districts	Population
Dolpa	42,774
Mugu	64,549
Humla	55,394
Jumla	118,349
Kalikot	145,292
Dailekh	252,313
Jajarkot	189,360
Rukum (West)	166,740
Salyan	238,515
Surkhet	415,126

Projects: The ministry lacks comprehensive data on all projects throughout the province. Only significant projects pertaining to disaster management that are either initiated by the ministry or coordinated with it are documented. To address this gap, Karnali Province has established a web portal to maintain records of ongoing projects in various districts. Link: <https://projects.karnali.gov.np/?fbclid=IwAR2KKZE1mnex9GyrBZROaGPdAH5hRv5fBXWZP7QJ2716mTR3HRhfott6Nw>

Data Gaps and Needs of Karnali Province

The existing information within the Bipad portal encompasses data ranging from the Municipal to the ward level of Karnali Province. This data has been contributed by the federal and local level. Upon examination, it becomes apparent that data and information concerning various aspects pertaining to the municipalities of Karnali Province

are largely absent, and when accessible, they tend to be outdated and incomplete. Considering the requirements for data, it is evident that there is a necessity for up-to-date, comprehensive, and standardized information at the local level to ensure the data quality within the province itself.

SUMMARY OF THE FINDING

Table 2: Summary of DRRM Governance at the Municipal and Provincial Level

S.N.	Name of Municipality/ Province	Status of Local DRRM Act	DRRM Committee at the Municipal/ Province level	DRRM Committee at the Ward level	Status of LEOC/ PEOC
1	Barahatal Rural Municipality	Endorsed	Yes	No	Yes
2	Bhairabi Rural Municipality	Not Endorsed	Yes	No	No
3	Chaukune Rural Municipality	Endorsed	Yes	No	Yes
4	Khandachakra Municipality	Endorsed	Yes	No	Yes
5	Mahawai Rural Municipality	Endorsed	Yes	No	No
6	Naraharinath Rural Municipality	SOP Endorsed	Yes	Yes	No
7	Panchapuri Municipality	Endorsed	Yes	No	No
8	Thatikandh Rural Municipality	Endorsed	Yes	No	No
9	Tilagufa Municipality	Endorsed	Yes	No	No
10	Karnali Province	Endorsed	Yes	NA	Yes

Table 3: Summary of Human Resources and Capacity for DRRM at the Municipality and Province

S. N	Name of Municipality/Province	Environment and Disaster Management unit	IT Department	Assigned DRR Focal person	Assigned IT Officer
1	Barahatal Rural Municipality	No	Yes	Yes	Yes
2	Bhairabi Rural Municipality	Yes	Yes	Yes	No
3	Chaukune Rural Municipality	Yes	Yes	Yes	Yes
4	Khandachakra Municipality	Yes	Yes	Yes	Yes
5	Mahawai Rural Municipality	Yes	Yes	Yes	Yes
6	Naraharinath Rural Municipality	Yes	Yes	Yes	Yes
7	Panchapuri Municipality	Yes	Yes	Yes	Yes
8	Thatikandh Rural Municipality	Yes	Yes	Yes	Yes
9	Tilagufa Municipality	Yes	Yes	Yes	Yes
10	Karnali Province	Yes	Yes	Yes	Yes

Table 4: Summary of Damage and Loss from 2017 to June 2023 (Source: Bipad Portal)

S.N.	Name of Municipality/ Province	Number of Incidents	Total Number of Human losses	Total Estimated Loss	Number of Infrastructure destroyed	Number of Livestock destroyed
1	Barahatal Rural Municipality	37	9	52 million	21	30
2	Bhairabi Rural Municipality	8	1	790 thousand	2	3
3	Chaukune Rural Municipality	11	2	4 million	5	21
4	Khandachakra Municipality	20	2	2 million	3	0
5	Mahawai Rural Municipality	8	9	0	7	2
6	Naraharinath Rural Municipality	18	16	8 million	5	0
7	Panchapuri Municipality	21	3	10 million	16	73
8	Thatikandh Rural Municipality	7	4	50 thousand	1	12
9	Tilagufa Municipality	20	16	3 million	23	26
10	Karnali Province	1238	318	614 million	1268	2774

CONCLUSION

DRRM Act of 2017 mandates local governments to engage in disaster management and establish a disaster management committee. It also requires local governments to establish a disaster management system at the local level, with the aim of improving their preparedness, mitigation, response, and recovery efforts. Under the current governance structure, municipalities possess the authority to autonomously make decisions regarding development and service delivery within their respective regions. Considering this context, the Bipad Portal has been developed to consolidate reliable digital and spatial data from various government bodies, non-governmental organizations, academic institutions, and research organizations onto a unified platform. Presently, the data for municipalities primarily comes from the federal level. However, the Bipad Portal suffers from a lack of available data and information on different modules, and when such data is accessible, it tends to be outdated and incomplete.

The adverse impacts of climate change are intensifying the risks associated with disasters, and these impacts disproportionately affect vulnerable groups such as women, girls, persons with disabilities, gender minorities, single women, senior citizens, and socially marginalized communities. Despite the separate treatment of climate change and disaster risk reduction and management as distinct themes in international and national policies and practices, the Ministry of Federal Affairs and General Administration (MoFAGA) has recognized the need to integrate these two areas, as climate change serves as one of the drivers of hazards. In light of this, an assessment was undertaken to identify the existing data and information concerning disasters, climate change, and the capacities of municipalities. The aim of this assessment was to gather comprehensive information to inform the planning and decision-making processes in relation to disaster and climate change management.

The municipalities have demonstrated a favorable response to the government's mandate by undertaking various initiatives related to DRRM at the local level. All nine project municipalities have endorsed the DRRM Act and have established municipal-level Disaster Management Committees. As per the assessment, each of the nine municipalities has DRR Focal persons, and eight out of nine municipalities have IT officers in place. At the provincial level, the Karnali Province has endorsed the Karnali Province DRRM Act and has established its own DRRM committee. The province has appointed a DRR Focal person and an IT officer, and they have established a Provincial Emergency Operation Center to enhance their disaster response capabilities.

From this assessment, several data gaps and requirements have been identified to support the localization of the Bipad Portal and the use of its data for planning and budgeting. The evaluation of available data from primary and secondary sources within the municipalities revealed that data available at the municipalities could be uploaded in the document and profile section of the Bipad Portal. Among the municipalities that had developed municipal profiles and emergency preparedness and response plans, some data regarding capacity, resources, and incidents were available. However, this data was limited to resource names, and their specific details, including geo-tagged locations, were unavailable. It is necessary to confirm with the municipalities whether they possess data in a format compatible with the portal. Furthermore, all the project municipalities had scattered information on capacity and resources dispersed across different sections and departments within the municipalities. This indicates a need for consolidation and organization of this data for effective utilization within the Bipad Portal.

The province possesses records of incidents and data on damage and loss within the districts, which

have been provided to the province by the DCO. However, the municipalities face limitations in terms of resources for recording and maintaining datasets to document disaster incident data. Their access to data is primarily limited to the demographic information from the recently published Census of 2021, and disaggregated data on demographics has not been finalized yet. Updated information is rarely included on the official websites and social media platforms of the municipalities. Additionally, the municipalities have a scarcity of documents pertaining to disasters, further highlighting the need for improved data management and dissemination practices in this domain.

The assessment clearly indicates the necessity for up-to-date and detailed disaggregated data. Although some municipalities show signs of

having available data, it is crucial to collaborate with them to compile and consolidate the existing data, facilitate comprehensive and inclusive data collection, and integrate it into the Bipad Portal. Therefore, this fellowship project will play a significant role in localizing the Bipad Portal, as it will work closely with the project municipalities to incorporate the available data in disaggregated form and ensure the integration of validated data into the portal. Moreover, there is a notable absence of disaster and climate change plans within the municipalities. To address this gap, the Climate Fellowship will provide support to the municipalities in developing Local Disaster and Climate Resilience Plans (LDCRPs). This initiative aims to enhance the municipalities' preparedness and resilience in the face of disasters and climate change impacts.



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