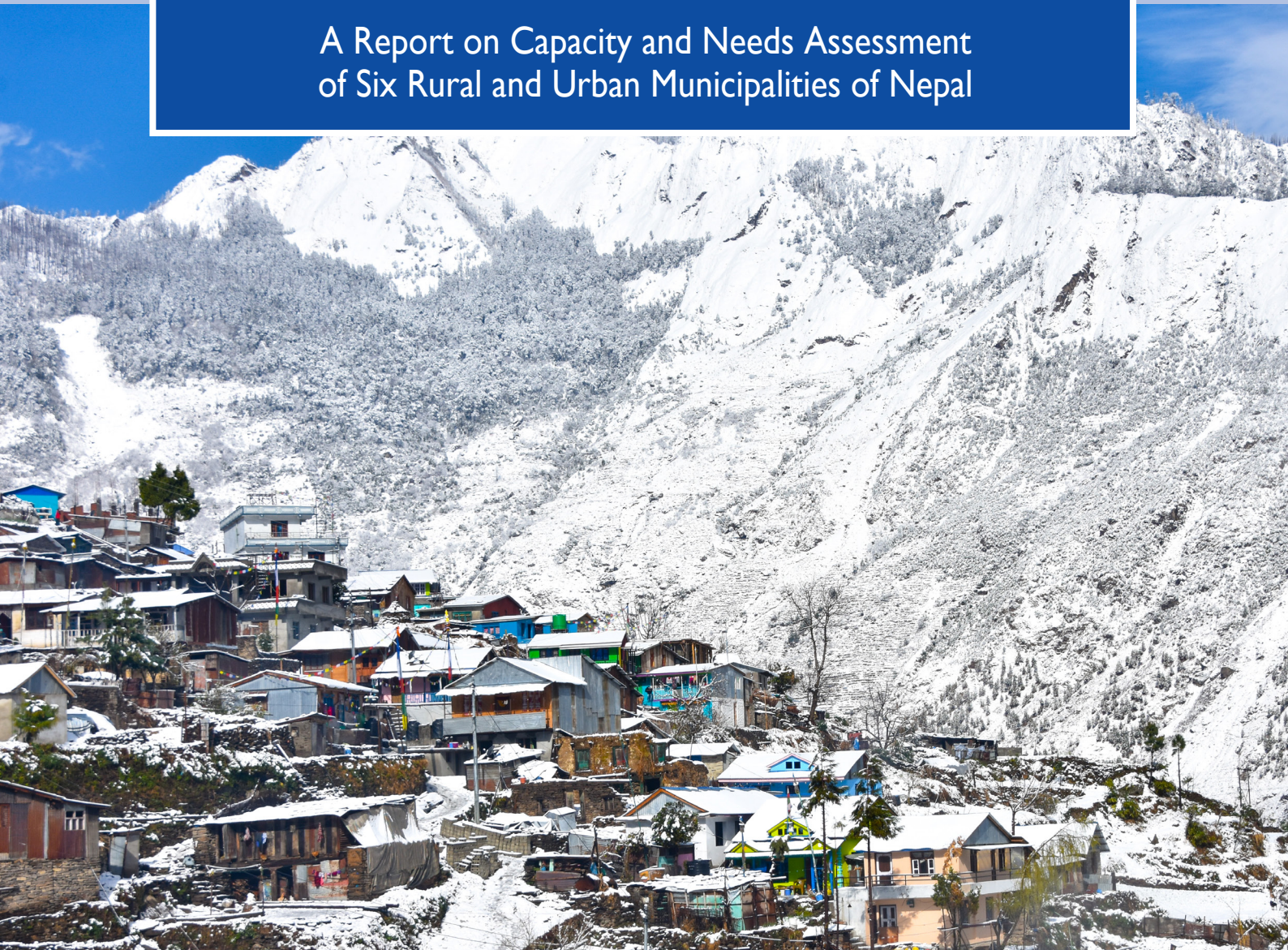


STRENGTHENING DISASTER RISK REDUCTION AND MANAGEMENT AT THE LOCAL LEVEL

A Report on Capacity and Needs Assessment
of Six Rural and Urban Municipalities of Nepal



September 2020

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Publisher:

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768/12 Thrimbam Sadak, Baluwatar – 5

P.O. Box 25503, Kathmandu, Nepal

Tel.: +977-1-4426250

Fax: +977-1-4435223

Email: iomnepal@iom.int

Website: www.iom.int

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FOREWORD

I am pleased to present this publication, *Strengthening Disaster Risk Reduction and Management at the Local Level: A Report on Capacity and Needs Assessment of Six Rural and Urban Municipalities of Nepal*, funded by the people of Thailand through the Government of Thailand. The report is the result of a series of consultations and bilateral meetings with each of the six rural and urban municipalities under study. The data collection was completed in early 2020, before the COVID-19 pandemic hit Nepal. Thus, COVID-19 related issues are not reflected in the report.

The International Organization for Migration (IOM) the United Nations Migration Agency carried out a similar assessment of 14 rural and urban municipalities and published the report in May 2019. This is the second assessment published by IOM highlighting the existing capacities, strengths, resources and understanding of the elected officials, as well as the municipal staff of six additional local levels in the implementation of the Disaster Risk Reduction and Management (DRRM) Act 2017 and the DRRM Act First Amendment (2019). The aim of the study is to provide an overview of the needs and capacities at the municipal level in the context of new legislative changes in Nepal and for the implementation of the National Strategic Action Plan for DRRM 2018–2030.

I express sincere gratitude to the Government of Nepal for providing strong leadership essential for moving forward to the project's objectives. IOM remains committed to supporting its member States in implementing the Sendai Framework for Disaster Risk Reduction 2015–2030 coherently with the Sustainable Development Goals.

With the new governance structure, there are multiple challenges in implementing DRRM Act 2017 through a rapid decentralized process. This report findings could be an avenue to provide the necessary evidence to key decision makers in order to enhance the management of disaster risks at the local levels. IOM stands ready to support all three tiers of government to address DRRM-related matters and assist vulnerable communities and migrants in building a disaster-resilient society.



Lorena Lando

Chief of Mission of Nepal

International Organization for Migration (IOM)

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The report on “Strengthening Disaster Risk Reduction and Management at the Local Level: A Report on Capacity and Needs Assessment of Six Rural and Urban Municipalities in Nepal” is produced as a part of the “People to People Support for Building Community Resilience Through Recovery and Reconstruction in Nepal” project, funded by the people of Thailand through the Government of Thailand.

First and foremost, we would like to extend our gratitude to the elected representatives and municipal officials, listed in Annex A, of six rural and urban municipalities namely Lalitpur Metropolitan City, Chautara-Sangachowkgadhi Municipality, Shankharapur Municipality, Changunarayan Municipality, Gorkha Municipality and Gosaikunda Rural Municipality, who actively participated and supported the study team in the preparation and validation of this report. In addition, we would also like to thank the Project Steering Committee (PSC) members - Surendra Mohan Shrestha, Joint Secretary, Ministry of Urban Development; Kali Prasad Parajuli, Joint Secretary, Ministry of Home Affairs and Rishi Raj Acharya, Under Secretary, Ministry of Federal Affairs and General Administration for their guidance and comments during the entire study period.

We would like to thank all the individuals from the municipalities who took time their views and experiences and municipalities' progress in relation to the Disaster Risk Reduction and Management related issues which greatly helped us in enhancing our understanding of the situation in relation to disaster related issues in each of the six municipalities.

September 2020

ACRONYMS

CCCM	Camp Coordination and Camp Management
CSAR	Community Search and Rescue
DCC	District Coordination Committee
DDMC	District Disaster Management Committee
DEOC	District Emergency Operative Centre
DPRP	Disaster Preparedness and Response Plan
DRRM	Disaster Risk Reduction and Management
DRRNSPA	Disaster Risk Reduction National Strategic Plan of Action 2018–2030
DUDBC	Department for Urban Development and Building Construction
IRA	Initial Rapid Assessment
KVDA	Kathmandu Valley Development Authority
LDMC	Local Disaster Management Committee
MoHA	Ministry of Home Affairs
MoUD	Ministry of Urban Development
NDRRMA	National Disaster Risk Reduction and Management Authority (in short NDMA)
NEOC	National Emergency Operation Centre
NRA	National Reconstruction Authority
PEOC	Provincial Emergency Operation Centre
RSLUP	Risks-sensitive Land Use Plan
SOPs	Standard Operating Procedures
WDMC	Ward Disaster Management Committee

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EXECUTIVE SUMMARY

Nepal is exposed to recurring seismic and hydrometeorological disaster risks. While earthquakes and floods in the recent past have claimed more lives, fires have caused the most damage to assets and investments in Nepal. The Nepal Disaster Report 2019 shows fire caused 94 per cent of the NPR 6.84 billion (USD 57.62 million) worth of disaster-induced damage in 2017–2018. While avalanches and snowstorms occur frequently in the northern high mountain ranges, dry landslides are common in the young mountains and hills, shaken more by recent earthquakes. The situation is aggravated further during the rainy season, when excessive precipitation cause heavy rainfall, inducing wet landslides, floods, debris flow and inundation. Such disasters are more destructive in the southern lowland Terai, where rainfall and accumulated water flows through rivers from the hills, causing massive floods and inundation. Terai, with its hot and humid summer climate, is also home to many vector-borne epidemics and biological disaster risks. Meanwhile, the impact of climate change is increasing the recurrence and intensity of extreme weather and climate conditions.

The unplanned and rapid urbanization, rural-to-urban migration, excessive exploitation of natural resources and infrastructure development efforts negligent of disaster risks and the environment are intensifying people's vulnerability all over Nepal. While women, children, persons with disabilities and senior citizens are more vulnerable, people belonging to the lowest strata of society, such as the ultra-poor, socially excluded groups, religious, ethnic and sexual minorities, as well as socially discriminated groups such as people living with HIV and AIDS, face the brunt of disasters the most.

Within the new federal structure, Nepal has intensified its efforts to build the capacity of all levels of government to reduce and mitigate disaster risks, as well as to be better prepared for and be able to respond to disasters. Institutional structures, policies and strategies are designed and are being placed at the federal, provincial and local levels for disaster risk reduction and management (DRRM). While response to mega- and wider disasters will be led by the federal and provincial governments, local governments have the role and responsibilities of first responders, as well as for the single-door mechanism to channelize post-disaster response, recovery and reconstruction mechanisms. The capacities of local levels, however, vary widely. While some metropolitan cities, sub-metropolitan cities, municipalities and rural municipalities have developed disaster risk management acts, guidelines, plans and procedures, majority of other local governments have yet to do so. It is, therefore, necessary to boost the institutional structures and mechanisms for DRRM of such local levels, so as to enhance their capacity to protect the lives and assets of people.

The Disaster Risk Reduction and Management (DRRM) Act 2017 is a milestone in Nepal for its focus on establishing institutional structures and mechanisms at the federal, provincial and

local levels for effective disaster management. The Government of Nepal has endorsed DRRM Regulations 2018, revised guidelines for formulating a Disaster Preparedness and Response Plan in 2019 and endorsed several other legislative and policy instruments. One such important policy instrument is the Disaster Risk Reduction (DRR) National Strategic Plan of Action (2018–2030), which conveys Nepal's commitments towards the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015–2030. This strategic action plan has assigned 18 priority actions and 272 strategic activities for the federal, provincial and local governments for reducing disaster risks and making Nepal a resilient State. These strategic activities are grouped as short-term interventions (2018–2020), mid-term interventions (2018–2025) and long-term interventions (2018–2030).

The local governments can immensely enhance their DRRM capacity and effectiveness in development activities if they are fully familiar with their roles and responsibilities as enshrined in these legal and policy documents. Most of the local levels connote DRRM with relief distribution management only, thereby leaving a gap in broader disaster response management activities. Both rural and urban municipalities need to do the following for effective DRRM in their areas:

- (a) Identify disaster risks prevalent and high-risk settlements.
- (b) Contextualize and implement the Local DRRM Act.
- (c) Form Disaster Management Committees at the municipal and ward levels.
- (d) Assign DRRM focal persons.
- (e) Prepare Disaster Management Fund Mobilization Guidelines.
- (f) Establish Emergency Operation Centres.
- (g) Institutionalize emergency operation procedures.

Moreover, the DRRM localization process should also entail the engagement of key stakeholders, as well as the inclusion of vulnerable groups in the different phases of disaster risk management.

It is important to know first what policies and capacities currently exist at the local level for prevention (risk reduction and mitigation), preparedness and response (search and rescue, relief, recovery, reconstruction, rehabilitation), and in minimizing the impact of disasters (mainstreaming inclusive disaster risk management processes and priorities in development activities). This needs and capacity assessment, carried out in six local levels (one metropolitan city, four municipalities¹ and one rural municipality), is expected to shed some light on this aspect. This assessment also records the DRRM initiatives carried out by these local bodies with regard to DRRM in their areas. Among these, one municipality (Gorkha) is in Gandaki Province and the rest (Lalitpur Metropolitan City, Shankharapur Municipality, Changunarayan Municipality, Chautara-Sangachowkgadhi Municipality

¹ In this report, a “municipality” refers to an urban municipality unless otherwise specified. (NOTE: We will use this spelling, based on <http://chautarasangachowkgadhimun.gov.np/en>)

and Gosaikunda Rural Municipality) are located in Bagmati Province. These local levels were purposely selected to study the situation in the 2015 earthquake-affected areas and to represent the spectrum from metropolitan city to rural municipality, representing widely varying financial, technical, information and human resource capacities.

The assessment has two objectives:

- (a) Firstly, to generate the baseline information on the strength, needs and capacity gaps of the selected local levels, namely Lalitpur Metropolitan City, Chautara-Sangachowkgadhi Municipality, Shankharapur Municipality, Changunarayan Municipality, Gorkha Municipality and Gosaikunda Rural Municipality, in DRRM. This information will be used by the “People to People Support for Building Community Resilience through Recovery and Reconstruction in Nepal” (P2P) project for designing and refining its project activities to enhance the DRRM capacity of these selected local levels.
- (b) The second and broader purpose of this assessment is to develop recommendations and contribute to the training package on enhancing the capacity of local levels for effective DRR, preparedness and response management.

In order to achieve these objectives, the assessment specifically explores how much the selected six local levels know about the following institutional structures and mechanisms for DRRM and how able they are in making these work:

- (a) DRRM governance at the national level: DRRM Act 2017, Disaster Risk Reduction (DRR) National Strategic Plan of Action (2018–2030) and institutions in Nepal;
- (b) DRRM governance at the local level: Local DRRM Act, Disaster Management Fund Mobilization Guidelines and DRRM plans;
- (c) DRRM institutional framework at the local level;
- (d) Linkages with DRRM institutions at the district, provincial and federal levels;
- (e) Preparedness capacity of local levels;
- (f) Response capacity of local levels;
- (g) Mainstreaming DRR and ensuring inclusion in DRRM;
- (h) Disaster risk-sharing, financing and transfer;
- (i) Inter-local level cooperation for effective DRRM.

Questionnaires for key informant interviews were developed from the desirable DRRM capacities identified from reviewing relevant DRRM documents such as DRRM Act 2017, DRR National Strategic Plan of Action (2018–2030), Fifteenth Five-Year Plan (2019/2020–2023/2024) (or, simply, “Fifteenth Plan”), the Local DRRM Act and so forth. IOM staff were assigned as enumerators and

were trained on DRRM and survey methods. The selected staff pre-tested the questionnaires and, with their feedback, those questionnaires were revised. The enumerators interviewed the information officer, DRR partner organization, the DRR focal person, the engineer and the Mayor or Chairperson. The information from all six local levels were consolidated, analysed and the findings of the assessment are presented under the above headings with recommendations for future capacity-building initiatives. This assessment is presented to the Ministry of Federal Affairs and General Administration (MoFAGA) for review comments and endorsement. The study, being qualitative and based on limited number of key informant interviews, presents a broad overview on capacity gaps in DRRM and should not be generalized for all local levels. Moreover, the study might have missed more recent updates on DRRM initiatives undertaken by the municipalities as the baseline survey was conducted during the third quarter of 2019.

The Constitution of Nepal has made DRRM a top priority for all three levels of government. With enforcement of the DRRM Act 2017 (amended in 2019), the Government of Nepal has established institutional set-up and accountability mechanisms for this assigned task at all levels. This Act also marks the departure from the hitherto practiced relief-centric approach to the broad-based DRRM approach where each level of government has distinct roles and responsibilities delineated for DRR, mitigation, preparedness and response.

The local governments have a major role to play in managing these tasks effectively. They are the designated single-door government institutions for the delivery of disaster relief assistance, as well as for managing DRR, preparedness and response initiatives. This assessment attempts to look at the capacities and needs of a sample of local governments – representing a rural municipality, four municipalities and a metropolitan city; findings from which are described for each municipality. This section presents a summary of those findings.

I. Understanding of national-level DRRM governance

Proximity and resources seem to have implications on the capacity of local levels to access and understand DRRM governance institutions and mechanisms. The Lalitpur Metropolitan City is well resourced and is in close proximity to the Federal Government, while Gosaikunda Rural Municipality displays lacking knowledge about DRRM governance at the national level. Also, support from external development partners seems to boost such understanding and capacity to link with DRRM institutions at the district, provincial and federal levels, as seen in the municipalities of Gorkha, Shankharapur and Changunarayan.

Knowledge of national-level DRRM acts, policies, strategies and institutions is essential for local levels to know their own responsibilities, boundaries and accountabilities. Elected representatives and municipal staffs of the local governments should be well versed in the institutional relationships between the nodal ministries and DRRM institutions at the federal, provincial and district levels and how they coordinate, cooperate and collaborate with the local levels.

2. Understanding of local-level DRRM governance

All six local levels have established their basic DRRM governance instruments. Each of them has endorsed a Local DRRM Act, created a Disaster Management Fund, and endorsed Disaster Management Fund Mobilization Guidelines. However, all of them seem to have simply adopted the sample DRRM Act sent out by MoFAGA. The local governments have their DRRM roles and responsibilities defined in two pieces of legislation – Local Government Operations Act 2017 and DRRM Act 2017 (the latter elaborates the roles and responsibilities in more detail). The municipalities have different geographic, demographic and urban/rural characteristics which make them vulnerable to different types of disaster risks. It is therefore important to carry out a detailed vulnerability and capacity assessment (VCA) of disaster risks prevalent in their areas and prioritize such risks in their Local DRRM Act. Some municipalities seem to have prepared their Local Disaster and Climate Resilience Plan (LDCRP), which means that such risk assessment had been already carried out. However, such documents seem to stand in isolation. It is important for local levels to include such disaster risks with priority in their Local DRRM Act so that priority action and budget allocation could be done to reduce and mitigate such risks, and to be better prepared to respond to such disaster events.

All six local level levels have created their respective Disaster Management Funds and endorsed the guidelines for mobilizing these funds. The revised guidelines from MoFAGA allows local bodies to transfer the unspent fund from one year to another and to spend on broader response activities. However, most of the municipalities assessed has confined utilization of this fund to relief-related support activities. Gosaikunda Rural Municipality was not aware about this new provision and still linked this fund with the Local Government Operations Act, which restricts carrying forward of unspent balance from one fiscal year to another. The rural municipality was therefore transferring the unspent balance of the Disaster Management Fund to other activities.

It is noticed that where staff members are well versed on DRRM governance instruments, local governments have made progress in setting up their own Local DRRM Act, policies and procedures. It is therefore essential to build knowledge among elected representatives (from the Mayor/Chairperson to Ward Members) and key officials (from Chief Executive/Administrative Officer to Development Subject Committee heads). It would be beneficial for all six local level levels to widen the mobilization of the Disaster Management Fund from limited relief support to broader response and risk reduction activities.

3. DRRM institutional mechanisms at the local level

All six urban and rural municipalities have established Local Disaster Management Committees at the municipal level. Ward Disaster Management Committees (WDMC) have been formed in the six municipalities, except Gosaikunda Rural Municipality. It shows that geographical remoteness has an effect on updated knowledge of DRRM governance-related legislation and institutional

requirements. In Lalitpur, a separate disaster information centre is also running. Strengthened structures and early-warning systems are two important aspects of disaster preparedness. All six municipalities are quite keenly enforcing the National Building Code to ensure safe construction. However, an early-warning system exists in only one river basin in Chautara-Sangachowkgadhi Municipality.

It is important to form disaster management committees at all ward levels and to make them inclusive, with representation ensured from gender and sexual minorities, religious and ethnic minorities, different age groups, persons with disabilities and other vulnerable and discriminated groups in the municipality.

4. Linkages with DRRM institutions at the district, provincial and federal levels

While all six municipalities seem to have close contact with the District Disaster Management Committee (DDMC), a contentious protocol issue between the Chief District Officer, who heads the DDMC, and the Mayors/Chairpersons seems to have obstructed the attendance of these municipal leaders in that committee. This issue needs some attention from the federal level. Endorsement of a new protocol will hopefully resolve this issue.

Two municipalities, with support from development partners, have each initiated a disaster information management system, but this remains non-functional in both municipalities. It appears that the municipalities have less priority for such an important initiative. The Ministry of Home Affairs (MoHA) and MoFAGA have been supporting local levels for capacity-building in DRRM issues. However, the linkages between the local levels and provincial- and federal-level DRRM institutions seem to be at a minimum.

Local governments need support from the provincial and federal levels in DRRM capacity-building. With regard to the disaster information management system, local levels' capacity can be enhanced to link up with the Building Information Platform Against Disaster (BIPAD) Disaster Information Management System (DIMS) established by the National Emergency Operation Centre (NEOC).

5. Preparedness capacity of local levels

Lalitpur Metropolitan City, Shankharapur Municipality and Changuarayan Municipality each have prepared an LDCRP. Gorkha Municipality is about to prepare its LDCRP. Chautara-Sangachowkgadhi Municipality is about to finalize and Gosaikunda Rural Municipality has not yet started drafting one. Chautara-Sangachowkgadhi Municipality has started implementing an early-warning system in the Bhotekoshi river basin. Other municipalities have no early-warning systems installed. Open spaces are identified in all six municipalities and evacuation centres are also being established in all. Earthquake and fire drills and simulations are regularly conducted in communities by Lalitpur Metropolitan City but only occasionally in other municipalities. Gosaikunda has no such practice.

All except Chautara-Sangachowkgadhi Municipality have trained task forces for search and rescue and first aid. All municipalities have stockpiled search-and-rescue and first-aid materials. Lalitpur keeps water and emergency relief materials in all wards. Ponds and water sources are revived in Shankharapur and Lalitpur.

It is encouraging to see the LDCRP document prepared as this is a very useful DRR tool. MoFAGA is encouraging the local levels to prepare their LDCRP as it will help in identifying disaster risks that the respective municipalities are facing. The LDCRP identifies activities for DRR. The disaster risks and DRR activities identified have relevance to the contextualization of the Local DRRM Act and to the development planning of the municipality. Similarly, all municipalities could establish early-warning systems for such major disaster risks, such as meteorological disaster risks, so long as they can be forecasted.

6. Response capacity of local levels

Local Emergency Operation Centres (LEOCs) have not been established in all of the assessed local levels. Even if they are established, these LEOCs are not functional due to lack of adequate equipment or trained staff, with the exception of Lalitpur Metropolitan City. There have also been problems in obtaining approval for the use of radio frequencies, as well as for the communication sets.

Only two out of six municipalities have a practice of reviewing their Disaster Preparedness and Response Plan (DPRP). The DPRP is a living document and its usefulness remains only if it is reviewed and updated regularly.

LEOCs are crucial DRRM institutions and therefore standard operating procedures (SOPs) should be established to ensure smooth functioning of these centres. Alternative communication methods through modern ICT tools can also be explored. Either way, municipalities need to allocate adequate trained staff and financial resources for the smooth operation of LEOCs. Also, DPRPs should be regularly updated. The municipality may map the DRRM-experienced organizations working in its area and select organizations to act as lead support agency (LSA) and cluster support agency (CSA) to support in this process. The Disaster Management Fund Mobilization Guidelines should also be reviewed to allow the use of the fund for response-related activities as well.

7. Mainstreaming DRR and ensuring inclusion in DRRM

None of the assessed municipalities have explicit process of mainstreaming DRR in their annual or periodic planning process. The seven-step planning process of the Government stipulates taking into account DRR while formulating priorities from the ward level itself. The LDCRP and DPRP would have lots of disaster risk reduction, preparedness and response activities which could

be integrated with the annual planning process of each development subject committee in the municipality. The Fifteenth Plan stipulates the need to ensure inclusion – access, representation and meaningful participation of vulnerable people and discriminated groups in mainstream development planning. Moreover, all government bodies are also advised to adopt a gender-responsive planning and budgeting process.

None of the six local levels have strong DRR mainstreaming processes or mechanisms that show institutional processes for ensuring gender equality and social inclusion in planning and implementing DRRM. It is highly important to make the DRRM process meaningful and beneficial to the vulnerable people and groups.

8. Disaster risk-sharing, financing and transfer

There is little understanding, and therefore limited practice, of disaster risk-sharing, financing and transfer instruments by any of six municipalities assessed. Some municipalities are, however, piloting private sector engagement in disaster response activities. Building on the contributions made by the private sector in the 2015 earthquake disaster response, all but Gosaikunda Rural Municipality have been engaging the private sector in disaster risk management discussions, but no concrete understanding has yet been reached. Changunarayan Municipality has a Disaster-Sensitive Tourism Development Plan, developed with the private sector, which has some components requesting risk-sharing types of investment from the private sector. In Gorkha, an interesting social protection measure has been practiced – providing life insurance coverage to 1,400 ultra-poor people and senior citizens, with premiums subsidized by the municipality under the Mayor Insurance Programme. This is an interesting initiative in disaster risk financing combined with social protection measure, and its impact and viability are worth an evaluation. However, this initiative has not yet materialized. In Lalitpur Metropolitan City, reconstruction work has attracted some private investment. No other initiatives are noted in other municipalities.

The private sector is an important stakeholder and it is worthwhile to persuade it to engage in risk-sharing. Moreover, large public infrastructure, such as schools, hospitals and large investments involving public money e.g. investment of municipality in hydropower or public infrastructure, should be covered under an insurance scheme so that disaster risk could be transferred to insurance companies.

9. Inter-local level cooperation for effective DRRM

The idea of cooperation between local levels has been received well, but no such practice has yet been observed in the assessed municipalities. Disasters may be localized, but most often they originate from different localities and their impact also spreads beyond the geographical territory of any particular municipality. As in the case of hydrometeorological and other mega-disasters, the scale of disasters is usually huge. Resources will always be limited and skilled human resources,

task force which any particular municipality may not have in sufficient numbers – are always immediately required in search-and-rescue, first-aid and relief operations. Cooperation between local levels will be immensely beneficial for sharing financial resources with skilled staff and task force team.

With DRRM being a substantial task, the Federal Government is designing policies and placing institutions at all levels. However, many local levels are far away from being able to assume these challenging roles and responsibilities. There are many challenges but also opportunities for local levels to assume this daunting task.

Based on the findings of the assessment and evaluating these against the prevailing challenges and opportunities, some recommendations are made for enhancing the DRR, mitigation, preparedness and response capacity of local governments.

In order to strengthen DRRM governance at the local level, elected representatives officials should be thoroughly familiar with DRRM legislation and policy and institutional mechanisms for DRRM governance in the county. They should further be supported to translate this understanding into an appropriate Local DRRM Act, policy and strategy to design their strategic actions in the short, medium and long term.

The capacity of the key staff members and elected representatives at both municipal and ward levels of the local government should be built into multi-hazard-based disaster risk-mapping, and such information should be included in their DRRM legal and policy documents. Such assessments should be carried out with the participation of women, children, persons with disabilities, sexual, ethnic and religious minorities, as well as senior citizens, in order to address the vulnerability of all.

Furthermore, the capacity of local level leadership and key officials should also be enhanced in mainstreaming DRR into their annual and periodic planning process. It is important to ensure that such mainstreaming is done through an inclusive approach, where people with lesser voice or power, such as women, children, persons with disabilities, senior citizens, marginalized and minority communities, have access, representation and meaningful participation in the development planning process of local levels.

Inputs from development partners are found effective in building the DRRM capacity of local levels, but these seem to fade away quickly as soon as their projects end. The disaster information management system is a good example of this. Development partners should therefore not only focus on project outputs, but also pay more attention to how the systems and resource allocation process of the local government can be strengthened so that such results continue beyond the duration of external project support.

It would be beneficial if a training package can be built covering the five main areas: DRRM legislation, policy and plans; DRRM institutional structures and mechanisms; Disaster Management Fund Mobilization Guidelines; human resources for DRRM; and promotion of inter-local level cooperation. There are subtopics under each of the main areas that need to be included in the training package. The training package must also emphasize the importance of mainstreaming DRR in development and of ensuring the inclusion of all vulnerable people and groups, as well as the “build back better” principle in the post-disaster reconstruction process.



I BACKGROUND

Nepal, a small, roughly trapezoid-shaped country with an east–west stretch of more than 800 km and a north–south stretch of 150–200 km, has three ecological zones steadily rising from 60 metres above sea level in the southern plains to more than 8,000 metres in the high Himalayan mountain range in the north. The active seismic zone that lies beneath its surface and recurring hydrometeorological events give rise to various disasters in Nepal. Besides these, the increasing population and the increasing trend of temperature extremes, together with excessive exploitation of natural resources, flora and fauna, are causing stress on the ecological balance, giving rise to biological and human-induced disasters. New urban centres are sprawling up in almost all local levels, 753 in total (six metropolitan cities, eleven sub-metropolitan cities, 276 municipalities and 460 rural municipalities). However, this rapid and unplanned urbanization is encroaching vital public spaces, lifeline rivers and forest areas, thereby exacerbating environmental disasters. During the beginning of this millennium, Nepal faced a decade-long armed conflict that took 17,000 lives and caused large-scale displacement. Such an armed conflict and displacement has had deep effects on the social and economic fronts. Meanwhile, the impacts of climate change are increasingly visible in the form of receding glaciers, plants migrating to higher altitudes, variation in seasonal rainfall, excessive precipitation in some places and droughts in others, extreme temperatures, and vector-borne disease outbreaks. Nepal's health-care system is less than adequate to timely detect and contain deadly contagious diseases, including swine flu, SARS and COVID-19, to which it is increasingly exposed due to increased connectivity with the world.

In the new federal structure, all three tiers (also referred to as levels) of government² in Nepal are entrusted with the responsibility of effective DRRM. Moreover, local governments particularly are assigned, under the single-door mechanism, to channelize all disaster response activities in their areas. The Federal Government has developed acts, policies and strategies for DRRM and the required institutional structures and mechanisms are gradually being put in place at the federal, provincial and local levels. It is highly pertinent therefore to build the knowledge and capacity of local levels in DRRM governance in the country, and in their own roles and responsibilities in effectively managing DRR, preparedness and response.

² There are now federal, provincial and local governments in the federal structure in Nepal. There is no district-level government, but the Chief District Officer leads a district-level disaster management committee as the representative of the Federal Government.



2 MAJOR HAZARDS AND DISASTER RISKS IN NEPAL

Nepal has been ranked as the eleventh most vulnerable country to earthquakes, the thirtieth most vulnerable to flood risks and the fourth most vulnerable to climate change-induced risks, while Kathmandu in particular has been considered to be the twenty-first most seismic vulnerable city in the world.³ More than 500 disasters recurrently occur every year, with hydrometeorological disasters, such as floods, landslides, lightning, fires, cold waves, high altitude sickness, avalanches and heavy rainfall topping the list.⁴ More than 90 per cent of the population are considered at high risk of death due to two or more types of disasters.⁵ These vulnerabilities can be attributed to the distinct ecological, climatic and population features of Nepal.

Terai, the southern lowland plains area, with the Bhabar forest range to its north, stretches from the west to the east, occupying about 23 per cent of the land area of the country. Elevating 60–305 metres, the fragile foothills of the Chure range are composed of soil, sandstone and conglomerate rock boulders. The Chure range also extends from the west to the east and reaches elevations of 1,500–2,000 metres. The fertile land of the Terai, fed by the large and small rivers flowing from the north, and ease of mobility to the region, has attracted an influx of migrants from the hill areas. It currently houses about 50.3 per cent of the country's population.⁶ While major rivers flowing from snow-capped mountains and their numerous rain-fed tributaries bring lifeline water to this region, the same rivers wreak havoc through floods and inundation during the rainy season. Average annual precipitation is 1,100–3,000 mm in the east and 1,600–1,800 mm in the west, with the rain fading slowly towards the west. The large quantities of debris deposited by floods raise riverbeds and, during rainy season, inundate vast areas of Terai and cause other multiple hazards. This is compounded by environmental disasters originating from rapid urbanization and uncontrolled exploitation of natural resources, such as sand, boulders and

³ Nepal Ministry of Home Affairs, *Nepal Disaster Report 2017: The Road to Sendai* (Kathmandu, 2017), p. xii.

⁴ Nepal Ministry of Home Affairs (MoHA), *Nepal Disaster Report 2019* (Kathmandu, 2019a).

⁵ MoHA, *Disaster Risk Reduction National Strategic Plan of Action 2018–2030* (Kathmandu, 2018). Available at <https://app.adpc.net/publications/nepal-disaster-risk-reduction-national-strategic-plan-action-2018-2030-english>.

⁶ Nepal Central Bureau of Statistics (CBS), *Population Monograph of Nepal – Volume I (Population Dynamics)* (Kathmandu, 2018).

stone aggregates, from ecologically delicate rivers and the Chure hill range. As such, dry and wet landslides are very common in this region. Terai is also the hottest region in Nepal. With a varying tropical climate, temperatures rise more than 44°C in the summer and dip to less than 40°C in the winter, which not only causes temperature extremes such as heat waves and cold waves, but also breeds vector-borne disease epidemics. During the dry and windy seasons, the region frequently experiences bush fires and other fire disasters in settlement areas. Recently, a typhoon disaster was noted in the central Terai region. Chemical and industrial waste disaster risks are also common in this region.

Adjacent to the Chure range lies the Mahabharat range in the north between elevations of 1,300–3,000 metres until it reaches the sub-alpine zone of the high mountain range. Mountains in this region have steep slopes on its southern side. There are many fertile valleys irrigated by rivers between these mountains. This mountain range also extends all the way from the west to the east and covers 42 per cent of the land area of Nepal. The warm and temperate climate in this zone ranges between subzero temperatures in the winter and 35°C in the summer. Average annual precipitation of 275 to 2,300 mm brings vital rain for cultivation in many hillsides of this region. However, rains also cause massive damage through floods and landslides. Most of the valleys are now facing rapid urbanization. Unplanned expansion of settlements, extensive exploitation of river, forest and mountain resources (e.g. stone, sand and soil), and development infrastructure negligent of environmental impacts are causing frequent physical and environmental disasters in this region. Huge urban settlements in large cities are prone to many human-induced technological, chemical and fire disasters as well.

The northern area of Nepal consists of the high mountain region (altitude: 3,000–4,800 metres) and the Himalayan mountain range (above 4,800 metres), in the farthest north. Unlike the mountain range, the Himalayas are not continuous, but are rather made up of about 20 sub-ranges with deep gorges and glacial-melt rivers. Although some cultivation takes place in valley areas, the land area is mostly dry, with little precipitation, on average 150–200 mm in a year. The alpine and arctic climate conditions make the area very cold. Most of the alpine area is therefore used for pasturage. The high mountains and the Himalaya region cover 35 per cent of the country's land area, but host only 6.7 per cent of the country's population. This region faces avalanches and snow storms frequently. With global warming, the glaciers are fast receding, forming lakes in the Himalayas, giving rise to glacial lake outburst flood risks. Heavy rainfall-induced landslides frequently block the flow of rivers and increase disaster risks of sudden outbursts of such debris-clogged rivers.

On top of this, Nepal lies in an active seismic zone. In 2017 and 2018, the Department of Mines and Geology recorded 16,219 seismic events, with 55 of those equal to or more than 4.0 on the local magnitude scale (ML).⁷ Although hydrometeorological disasters were most frequent, fires caused the most extensive damage – almost 94 per cent of the NPR 6.84 billion (USD 57.62 million) damage caused by disasters in 2017 and 2018.

⁷ Department of Mines and Geology, in: MoHA, Nepal Disaster Report 2019 (Kathmandu, 2019a).



3 PEOPLE VULNERABLE TO AND MOST AT RISK OF DISASTERS

While discussing the impact of disasters, it is also important to look at who are affected the most. Poor people living in scattered settlements on the mountain slopes, by the riverside, in slum areas, and in fire- and storm-risk prone huts and sheds in Terai, are at higher risk of disasters. Similarly, people in urban areas also are vulnerable to larger disaster risks originating from environmental, biological and physical structural risks. It is important to analyse vulnerability further.

The increasing effects of climate change exacerbate disaster risks and disproportionately affect the most vulnerable, which include women, girls, persons with disability, people living with HIV/ AIDS, gender minorities, single women, senior citizens and socially excluded groups. For instance, vulnerable sectors of society, such as poor people, women, the elderly and persons with disabilities, are more exposed to disaster risks since they have limited access to critical resources to deter these. The poor and female and elderly populations are characterized by higher economic vulnerability, as they suffer disproportionately larger losses in disasters and have limited capacity to recover.

It is therefore important to sensitize local government authorities to a gender equality and social inclusion perspective to focus attention on distinct gender-specific vulnerabilities to disasters and capacities to prepare, confront, and recover from them. Disasters affect men and women, boys and girls, the rich and the poor, the old, the young and children, and different social groups differently. In many contexts, gender and social inequalities constrain the influence and control of such groups over decisions governing their lives, as well as their access to resources. Due to existing socioeconomic conditions, cultural beliefs and traditional practices, women are more likely to be disproportionately affected by disasters, including increased loss of livelihood, gender-based violence and even loss of life during and in the aftermath of disasters.



4 DRRM GOVERNANCE IN NEPAL: INSTITUTIONS AND MECHANISMS AT ALL THREE LEVELS

The Constitution of Nepal identifies DRRM as a priority of the State. It underscores the responsibility of the State in managing disasters, with an emphasis on disaster risk reduction and mitigation; early-warning and strengthened physical structures; preparedness; and response activities during relief, recovery, reconstruction and rehabilitation after disasters. Schedule 7 of the Constitution lists the concurrent powers of the federal and provincial governments over preparedness, rescue, relief and rehabilitation activities for natural hazards and man-made disasters. Similarly, Schedule 8 lists disaster management as the sole responsibility of the local government and Schedule 9 includes it in the concurrent powers of all three tiers of government.

Endorsement of the DRRM Act 2017 is considered as a “paradigm shift from a response-centric to a risk reduction and management approach.”⁸ Besides this, the Government of Nepal has endorsed DRRM Regulations 2018; and revised the Disaster Preparedness and Response Plan Formulation Guidelines in 2019. The DRRM Act 2017, together with its amendment in 2018, prescribes institutional structures and mechanisms at the federal, provincial and local levels for effective disaster management.

- (a) The National Disaster Risk Reduction and Management Council (NDRRMC) is the highest DRRM institution in Nepal. Led by the Prime Minister, the council, as a policymaking body, approves national acts, policies and strategies for DRRM in Nepal and provides strategic leadership in case of mega-disasters or humanitarian emergencies.
- (b) The Ministry of Home Affairs (MoHA) is the nodal ministry for the coordination of disaster management activities throughout the country with a DRR mandate. It also leads the logistics cluster. It facilitates the NDRRM Executive Committee (NDRRMEC) chaired by the Home Affairs Minister. The NDRRMEC prepares DRRM acts, policies and strategies for approval by the NDRRMC and oversees disaster response actions.

⁸ MoHA, *Nepal Disaster Report 2019*.

- (c) The Ministry of Federal Affairs and General Administration (MoFAGA) is the nodal ministry designated for building the capacity of provincial and local governments. It has provided a sample Local DRRM Act and guidelines for local levels. It also leads the community-based DRRM initiatives for building resilience.
- (d) The Ministry of Urban Development (MoUD) is the nodal ministry for safer construction and is responsible for urban infrastructure planning and development. It supports policies and procedures for the identification and protection of open spaces in collaboration with other line ministries and local bodies. It leads the shelter and camp coordination and camp management (CCCM) cluster.
- (e) The National Disaster Risk Reduction and Management Authority (NDRRMA, in short, NDMA) under the NDRRMEC, provides overall leadership for implementing approved DRRM policies and interventions in Nepal. It is responsible for designing and implementing disaster preparedness and response activities throughout Nepal, through the provincial and local governments. It will have an Incident Commander in emergencies and will be responsible for regular coordination with stakeholders. With the recent appointment of the Chief Executive Officer, NDMA is expected to speed up these activities.
- (f) The National Emergency Operation Centre (NEOC) is currently managed by the MoHA and will eventually be managed by NDMA.
- (g) The Provincial DRRM Council (PDRRMC) is led by the Chief Minister and provides strategic leadership at the provincial level for DRRM legislation, strategizing and policymaking.
- (h) The Provincial DRRM Administrative Committee (PDRRMAC), headed by the Internal Affairs Minister, provides leadership for DRRM interventions at the provincial level. This committee also acts as the provincial-level disaster risk management committee. It will supervise the Provincial Emergency Operation Centre (PEOC).
- (i) The Province Disaster Risk Reduction and Management Agency (PDRRMA) will be supervised by the provincial-level Disaster Management Committee.
- (j) The DDMC is led by the Chief District Officer, representing the Federal Government, in managing disaster preparedness and response in districts.
- (k) The Local Disaster Management Committee (LDMC), led by the Mayor or Chairperson, oversees all disaster preparedness and response activities in their municipality. The municipalities are also supposed to form WDMCs. The LDMC ensures the functioning of the LEOC.

The Government of Nepal has also endorsed the DRR National Strategic Plan of Action (2018–2030) to localize its commitments towards the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015–2030. The DRR National Strategic Plan of Action has assigned 18 priority actions and 272 strategic activities for the federal, provincial and local governments for reducing disaster

risks and making Nepal a resilient State. These strategic activities are grouped as short-term (2018–2020), mid-term (2018–2025) and long-term interventions (2018–2030). It urges the Government of Nepal to:

- (a) Pursue DRRM work with the participation and cooperation of federal, provincial and local-level authorities;
- (b) Empower local authorities and local communities to reduce disaster risk, including through resources, incentives and decision-making responsibilities;
- (c) Consider the local and specific characteristics of disaster risks for the determination of measures to reduce them;
- (d) Pursue DRRM with all-of-society engagement and partnership, and encourage women's and youth leadership;
- (e) Include empowerment and inclusive, accessible and non-discriminatory participation, paying special attention to people disproportionately affected by disasters, especially the poorest;
- (f) Integrate gender, age, disability and cultural perspectives in all policies and practices;
- (g) Integrate a multi-hazard approach and inclusive risk-informed decision-making process based on open exchange and disseminated, disaggregated data (including by sex, age and disability), as well as on easily accessible, up-to-date, comprehensible, science-based, non-sensitive risk information complemented by traditional knowledge.

The Fifteenth Plan (2019/2020–2023/2024) emphasizes the following objectives:

- (a) Strengthen disaster resilience governance for DRRM;
- (b) Ensure disaster risk-informed planning and infrastructure development processes, as well as capacity-building in multi-hazard disaster risk-mapping and information-based disaster risk forecasting, preparedness, response and recovery capacity at all three tiers of government;
- (c) Strengthen resilience from the community level up through increased public, private and community investments in DRRM;
- (d) Harness wider awareness and participation in DRRM and ensure resilient post-disaster recovery, rehabilitation, reconstruction and new construction.

Provincial governments have taken charge of managing disasters as a priority task. Some of them (Province 1, Province 2 and Bagmati Province) have developed their own disaster management acts, while others are still under consultation and progressing towards finalization. The provincial governments also are coordinating, facilitating and guiding the local levels in risk reduction initiatives and mainstreaming DRRM in development planning by including mitigating and preventive measures. The DDMC also acts as the linking pin between the federal, provincial and local governments for facilitating disaster management processes.



5 DISASTER RISK GOVERNANCE AT THE LOCAL LEVEL

Text Box 1. Local Government Operations Act 2017: Roles and Responsibilities of Local Governments

1. Implementing, monitoring and regulating local disaster management acts, policies, standards and plans
2. Preparing and implementing the Local Disaster Preparedness and Response Plan, pre-information system, and search and rescue, as well as stockpiling and coordinating the distribution of relief materials
3. Protecting embankments, controlling rivers and landslides, and managing and taming river flows
4. Mapping disaster risk areas, identifying and relocating high-risk settlements
5. Coordination, cooperation and collaboration with the federal, provincial and local levels, other organizations and the private sector
6. Establishing a Disaster Management Fund and mobilizing resources
7. Preparing, implementing, monitoring and regulating local disaster risk reduction projects
8. Post-disaster rehabilitation and reconstruction at the local level
9. Management, study and research on local-level disaster-related data
10. Managing Local Emergency Operation Centres
11. Operating community-based disaster management programmes
12. Other disaster management tasks

The Local Government Operations Act 2017 is one of the key instruments to localize DRRM in Nepal. It stipulates 12 key DRRM roles and responsibilities of local governments. Under this act, the local government is given authority to even relocate settlements from high-disaster-risk areas. The Council of Ministers is the only other body with this authority. The Environment and Natural Resources Protection Act is another piece of legislation that stipulates the shared roles

and responsibilities of federal, provincial and local governments for the optimal utilization of natural resources. MoFAGA has provided a sample Local DRRM Act in 2018 and other procedures, including the Disaster Management Fund Mobilization Guidelines and guidelines for preparing the LDCRP, to support local governments in preparing and endorsing their own context-specific DRRM acts, policies, procedures and plans.

The MoHA has also provided guidelines for preparing Disaster Preparedness and Response Plan in 2019 and standard operating guidelines for Local Emergency Operation Centre (LEOC) 2018 and standard operating guidelines for National Emergency Operation Centre (NEOC) 2015. The Local DRRM Act envisages the formation of Disaster Management Committees at the municipal

and ward levels and stipulates DRRM roles and responsibilities for those committees. Besides these, the local levels are also urged to mainstream DRR in their annual and periodic development planning processes and ensure gender equality and social inclusion in all DRRM activities.

The local governments have prioritized DRRM in their respective jurisdictions. Around 83 of the 753 local levels have developed LDMCs, 77 of which have established Disaster Management Funds, 45 have endorsed their Local DRRM Acts and policies, and 19 have come up with local DRR strategic action plans. The remaining local levels are in the process of formulating similar supportive policies, guidelines, including the Disaster Management Fund Mobilization Guidelines, standards and other guidance regarding response, relief and recovery, assessment and monitoring and rehabilitation, among others.⁹

1 NEOC, 5 PEOCs and 51 DEOCs have so far have been established. Some municipalities have also formed LEOCs, but not all are equipped with the required trained human and technical resources.

Disaster risk governance primarily entails the establishment of mechanisms, institutions and processes for effective DRRM. Furthermore, it includes the ability of all levels of government to use these mechanisms and institutions for disaster preparedness, response and recovery activities. No local government in Nepal has the required or desired level of understanding or capacity yet. While some metropolitan cities, sub-metropolitan cities and municipalities have developed a Local DRRM Act, others have lagged behind. Some local levels have adopted the sample Local DRRM Act as is, without contextualization, merely adding their names to the title. This resulted in the Local DRRM Act consisting of a multitude of disaster risks that are not even prevalent in their municipalities (e.g. a municipality in Terai included glacial lake outburst floods as a disaster risk in its Local DRRM Act). Furthermore, most of local levels equate DRRM with relief distribution management only, thereby leaving a gap in broader DRRM activities. Both rural and urban municipalities need to do the following for effective DRRM in their areas:

- (a) Identify prevalent disaster risks and high-risk settlements.
- (b) Contextualize and implement the Local DRRM Act.
- (c) Form Disaster Management Committees at the municipal and ward levels.
- (d) Assign DRRM focal persons.
- (e) Design procedures for preparing the Disaster Management Fund Guidelines.
- (f) Establish a Local Emergency Operation Centre.
- (g) Institutionalize emergency operation procedures and inter-local level cooperation.

Moreover, the DRRM localization process should also entail the engagement of key stakeholders, as well as the inclusion of vulnerable groups in the different phases of disaster – from participation in preparedness to prioritization of services during response and recovery. The Nepal Disaster Report 2019 recommended similar capacity-building needs.

⁹ MoHA, *Nepal Disaster Report 2019*.



6 IOM INITIATIVES TO SUPPORT THE DRRM INITIATIVES OF THE GOVERNMENT OF NEPAL

IOM, the United Nations Migration Agency, is committed to the principle that humane and orderly migration benefits both migrants and society. IOM is equally committed to supporting its Member States in identifying and protecting people displaced during humanitarian emergencies. In Nepal, IOM co-leads the CCCM cluster with the Department of Urban Development under the MoUD. Following its commitments to the Sendai Framework for Disaster Risk Reduction (2015–2030), IOM supports the Government of Nepal in implementing its priority actions and strategic activities listed in the DRR National Strategic Plan of Action (2018–2030). The 2015 earthquakes that affected 14 districts of Nepal reminded the need for concerted efforts from different line ministries in responding to disasters and being better prepared for potential future disasters. IOM collaborates with the MoHA, MoFAGA and MoUD in contributing to the Government of Nepal's efforts to strengthen DRRM capacity at all levels.

6.1 The P2P Project

Along with other DRRM interventions, IOM, with generous funding from the people of Thailand, through the Royal Thai Government, is implementing a two-year project – People-to-People Support for Building Community Resilience through Recovery and Reconstruction in Nepal (P2P) – in selected urban and rural municipalities that were hardest hit by the 2015 earthquakes. The project aims to minimize the challenges the country faces regarding natural hazards, disasters and displacement and build resilience through sustainable recovery and reconstruction. The project has three main components:

- (a) Rebuild or reinforce existing critical infrastructure, such as community centres, to provide safe places for evacuation and recovery following a disaster.
- (b) Identify and map open spaces using a geographic information system to safeguard them for use as evacuation centres and shelter by communities and the Government.

- (c) Orient and train local government officials and community members to mainstream reconstruction in local development plans to increase effectiveness and sustainability.

Under the supervision of MoFAGA, the P2P Project commissioned this needs and capacity assessment to map the major DRRM-related activities completed in the selected six local governments covered by the project. The needs and capacity assessment is one of the component activities of the project. The process and findings of the assessment are described in the next section.



7 NEEDS AND CAPACITY ASSESSMENT

Within the new federal structure, Nepal has intensified its efforts to build the capacity of all levels of government to reduce and mitigate disaster risks, as well as to be better prepared for and able to respond in the eventuality of disasters. As such, institutional structures, policies and strategies for DRRM are being designed and placed at the federal, provincial and local levels. While response to mega- and wider disasters will be led by the federal and provincial governments, local governments have the role and responsibilities of first responders, as well as for the single-door mechanism to channelize post-disaster response, recovery and reconstruction. The capacities of local levels vary widely. While some metropolitan cities, sub-metropolitan cities, municipalities and rural municipalities have developed disaster risk management acts, guidelines, plans and procedures, majority of local governments have yet to do so. The leadership and institutional mechanisms for DRRM at such local levels need an urgent boost to institutionalize DRRM structures and mechanisms to be better able to protect the lives and assets of people.

It is important to first know what policies and capacities currently exist at the local level for prevention (risk reduction and mitigation), preparedness and response (search and rescue, relief, recovery, reconstruction and rehabilitation), and to minimize the impact of disasters (mainstreaming inclusive disaster risk management processes and priorities in development activities).

7.1 Objectives of the assessment

The purpose of the assessment is twofold:

- (a) First, to generate baseline information on the DRRM strengths, needs and capacity gaps of the selected local governments. This information will be used by the P2P Project in designing and refining its project activities to enhance the DRRM capacities of these selected local levels.
- (b) The second – and broader – purpose of this assessment is to develop recommendations and contributions to a capacity-building training package for enhancing the capacities of other local levels to effectively manage DRR, preparedness and response activities.

More specifically, this assessment explores the existing knowledge and capacities of selected local levels in the following institutional structures and mechanisms:

- (a) DRRM governance at the national level: DRRM Act 2017, Disaster Risk Reduction (DRR) National Strategic Plan of Action (2018–2030) and institutions in Nepal;
- (b) DRRM governance at the local level: Local DRRM Act, Disaster Management Fund Mobilization Guidelines and DRRM plans;
- (c) DRRM institutional mechanisms at the local level;
- (d) Linkages with DRRM institutions at the district, provincial and federal levels;
- (e) Preparedness capacity of local levels;
- (f) Response capacity of local levels;
- (g) Mainstreaming DRR and ensuring inclusion in DRRM;
- (h) Disaster risk-sharing, financing and transfer;
- (i) Inter-local level cooperation for effective DRRM.

The findings of the assessment are presented under these headings, with recommendations for future capacity-building initiatives, which are presented to MoFAGA for its review, comments and endorsement.

7.2 Municipality selection criteria

This capacity and needs assessment, carried out in six local levels (one metropolitan city, four municipalities and one rural municipality), is expected to shed some light on the aforementioned objectives. Among the six local levels, one municipality (Gorkha) is located in Gandaki Province and the rest (Lalitpur Metropolitan City, Shankharapur Municipality, Changunarayan Municipality, Chautara-Sangachowkgadhi Municipality and Gosaikunda Rural Municipality) are located in Bagmati Province. These local levels were purposely selected to study the situation in the 2015 earthquake-affected areas and to represent the spectrum from metropolitan city to rural municipality, thus covering a wide variety of financial, technical, information and human resources. This assessment also records the DRRM initiatives carried out by these local levels on in their areas.

7.3 Methodology of the needs and capacity assessment

This assessment complements a similar exercise previously conducted by IOM in 14 other urban and rural municipalities. The findings of this assessment, together with those of the earlier one, are expected to enable an in-depth analysis of the capacity gaps and needs of local levels and yield suggestions for enhancing their institutional mechanisms for disaster resilience. This assessment comprises six key steps, described below.

7.3.1 Review of documents

The following legal and policy documents were reviewed: Disaster Risk Reduction and Management (DRRM) Act 2017 (amended in 2019); DRRM Regulations 2018; the revised Disaster Preparedness and Response Plan Formulation Guidelines (2019); DRR National Strategic Plan of Action (2018–2030); the Fifteenth Plan (2019/2020–2023/2024); the Local Government Operations Act 2017; the sample Local DRRM Act (2018); guidelines for preparing the Disaster Preparedness and Response Plan (2019); standard operating guidelines for Emergency Operation Centres (2018); the Disaster Management Fund Mobilization Guidelines (2018); Guidelines for Preparing the Local Disaster and Climate Resilience Plan; and the P2P project document. Capacities required for local levels to effectively manage DRRM activities were identified for the assessment from this review.

7.3.2 Preparing and pre-testing questionnaires

Four questionnaires were developed to ask DRRM capacity questions – one each for the information officer, the DRR focal person, the engineer and the Mayor or Chairperson of the local level. These questionnaires were built to be aligned with the Priority Actions in the DRR National Strategic Plan of Action (2018–2030). References for gender equality and social inclusion in DRRM were also drawn from the Fifteenth Plan. The questionnaires were pre-tested by the field staff of the P2P Project and revised with the incorporation of the feedback gathered.

7.3.3 Identifying and training enumerators

The assessment mobilized trained field staff of the P2P Project as field enumerators. They were trained in DRRM concepts, DRRM institutional mechanisms in Nepal and, subsequently, in administering the questionnaires designed for this assessment. Since the questionnaires were designed in a key informant interview format, the enumerators were trained in basic interview techniques and qualitative assessment methods. They were also trained in identifying and collecting secondary information, such as DRRM legislation, guidelines, procedures and plans. The questionnaires are included in Annex B of this report.

7.3.4 Administering the questionnaires

Travelling to their assigned municipalities, the enumerators conducted one-on-one interviews with the four respondents – the information officer, the DRR focal person, the engineer and the Mayor or Chairperson. Where the Mayor or Chairperson was not available, the Deputy Mayor or Vice-Chairperson was interviewed. The enumerators contacted respondents back when responses to questions were incomplete or unclear. The IOM team provided backup support to the enumerators and the IOM consultant provided clarification on the questionnaires whenever needed.

7.3.5 Analyzing findings

The IOM consultant reviewed the collected responses for consistency and asked the field team (enumerators) to contact the concerned municipality to obtain more information for clarity. The IOM consultant then analysed the information on capacities and gaps collected through the questionnaires and organized it as per the specific objectives listed in Section 8.1. The consultant prepared the draft summary of the findings and shared it with the field team to check with the concerned municipalities. A draft report was prepared afterwards and shared with the IOM P2P Project team.

7.3.6 Validating findings

Findings of the report were validated with the updated information on DRRM initiatives provided by the concerned municipalities on 25–27 November and 2–4 December 2019.

7.3.7 Limitations of the assessment

The assessment was carried out by the field team of the P2P Project, who were familiar with the respective contexts and capacities of municipalities where they conducted the study. They were trained in DRRM concepts and institutional provisions, as well as qualitative survey methods. The key informant interviews were completed from September 2018 to February 2019. However, the IOM field staff had to go back to the municipalities to contact some of the respondents and ask for their clarification on some of their responses and collect relevant DRRM documents to verify their responses. This stage continued until October 2019. The qualitative study represents a broad range of perspectives on capacities and gaps in DRRM but should not be generalized for all local levels, as it is based on a limited number of key informant interviews. Moreover, the study might have missed more recent DRRM initiatives undertaken by the municipalities.

Table 1. Summary of updated DRRM capacity and gaps of the six selected local levels

<p>Gosaikunda Rural Municipality</p> <ul style="list-style-type: none"> Local DRRM Act endorsed but not yet contextualized as per the VCA Local Disaster Management Committees (LDMCs) formed at the municipal level but not at the ward level Disaster Management Fund created and has NPR 1 million (USD 8,425) Disaster Management Fund Mobilization Guidelines prepared but remain relief-centric and still aligned with the Local Government Operations Act instead of the Local DRRM Act National Building Code strictly enforced for safer construction Disaster Preparedness and Response Plan (DPRP) not yet prepared Stockpile of emergency light search-and-rescue materials and first aid materials Trained community search-and-rescue task force, first aid task force and fire control task force trained Open spaces identified in all wards Two evacuation centres established Local Emergency Operation Centre (LEOC) not yet operational One excavator on standby to clear roads from landslides Engagement of the private sector encouraged; high engagement during the post-2015 earthquake but not much now Linkages with DRRM institutions at the local, district, provincial and federal levels, mostly with the National Reconstruction Authority (NRA) and the District Disaster Management Committee (DDMC) 	<p>Chautara-Sangachowkgadhi Municipality</p> <ul style="list-style-type: none"> Local DRRM Act endorsed but not yet contextualized as per the multi-hazard-based disaster risk assessment LDMCs formed at the municipal level and in some wards located in high-disaster risk zones Disaster Management Fund created and has NPR 3 million (USD 25,274), with an additional fund allocation of NPR 50,000 (USD 421) to wards located in high-disaster-risk zones Disaster Management Fund Mobilization Guidelines prepared as per new guidelines from MoFAGA, but remains relief-centric National Building Code strictly enforced for safer construction DPRP finalized Stockpile of emergency relief materials stockpiled No trained community search-and-rescue task force or first aid task force yet Open spaces identified and protected in all wards One evacuation centre established Simulation and drills held yearly at the municipal and ward levels; LEOC yet to be operational Trained human resources in camp coordination and camp management Early-warning system established in Bhotekoshi River basin One fire engine Engagement of the private sector encouraged; high engagement during the post-2015 earthquake but not much now Linkages with DRRM institutions at the local, district, provincial and federal levels, mostly with the NRA and the DDMC
<p>Gorkha Municipality</p> <ul style="list-style-type: none"> Local DRRM Act endorsed but not contextualized as per the multi-hazard-based disaster risk assessment LDMCs formed at the municipal and ward levels Disaster Management Fund created and has NPR 7 million (USD 58,972), with an additional NPR 500,000 (USD 421) allocation to each ward Disaster Management Fund Mobilization Guidelines prepared as per the new guidelines from MoFAGA National Building Code strictly enforced for safer construction Local Disaster and Climate Resilience Plan (LDCRP) prepared; hazard and disaster risk assessment carried out at the ward level Tree-planting by mobilizing youths (one tree per person); community search-and-rescue task force and first aid task force trained. Trained community-based search-and-rescue team in each ward with five members each; one CSAR team in each ward Open spaces identified in each ward Evacuation centre under construction One fire brigade and one ambulance Stockpile of emergency search-and-rescue materials Social protection to 1,400 ultra-poor people through the Mayor Insurance Programme (100 from each of the 10 wards, with poor and senior citizens covered by this scheme) Engagement of the private sector encouraged for the social security insurance for the poor Linkages with DRRM institutions at the local, district, provincial and federal levels, mostly with the NRA and the DDMC 	<p>Changunarayan Municipality</p> <ul style="list-style-type: none"> Local DRRM Act endorsed but not contextualized as per the multi-hazard-based disaster risk assessment LDMCs formed at the municipal level and in some wards Disaster Management Fund created and has NPR 10 million (USD 84,245) Disaster Management Fund Mobilization Guidelines prepared as per the new guidelines from MoFAGA National Building Code strictly enforced for safer construction and by-laws implemented for construction in heritage settlement areas LDCRP prepared; hazard and disaster risk assessment carried out at the ward level Disaster Preparedness and Response Plan (DPRP) prepared Trained community search-and-rescue task force and first aid task force, and fire control task force LEOC established and its SOPs endorsed Stockpile of emergency relief materials Open spaces identified Multi-purpose evacuation centre under construction Ponds revived and fire hydrants installed in some wards Disaster Information Centre with but not functional DRR portal on the municipality website Engagement of the private sector highly visible, e.g. in preparing the disaster-sensitive tourism development plan; MoU with local vendors on price control during the first week after a disaster Linkages with DRRM institutions at the local, district, provincial and federal levels, mostly with the NRA and the DDMC

<p>Shankharapur Municipality</p> <ul style="list-style-type: none"> Local DRRM Act endorsed but not contextualized as per the multi-hazard-based disaster risk profile LDMC formed at the municipal level but not yet in all wards Disaster Management Fund created and has NPR 2.8 million (USD 23,589) Disaster Management Fund Mobilization Guidelines prepared as per the new guidelines from MoFAGA, with the allocated fund for relief only National Building Code strictly enforced for safer construction, with by-laws implemented with specific provisions for conserving heritage architecture LDCRP prepared; hazard and disaster risk assessment also carried out at the ward level DPRP prepared Risk-sensitive land use plan being prepared Trained community search-and-rescue task force, first aid task force, and WASH and fire control task force LEOC established and its SOPs endorsed, but not operational due to lack of radio equipment and staff Stockpile of search and rescue materials; first aid materials stockpile being planned Open spaces identified Evacuation centre under construction Two ponds revived, one deep borehole dug and two fire hydrants installed in some wards Community fire alert sirens installed in six places Existing disaster information management system but not functional; existing mobile-based application but also not functional Existing geodatabase of six wards but not accessible due to poor IT capacity DRR portal established but not functional Engagement of the private sector encouraged through 50 per cent funds contribution from the private sector and 50 per cent from the municipality for installing two fire hydrants; representation in the LDMC Linkages with DRRM institutions at the local, district, provincial and federal levels, mostly with the NRA and the DDMC 	<p>Lalitpur Metropolitan City</p> <ul style="list-style-type: none"> Local DRRM Act endorsed but not contextualized as per the multi-hazard-based disaster risk profile LDMCs formed at the municipal and ward levels Disaster Management Fund created and has NPR 8.5 million (USD 71,609); additional annual allocation of NPR 500,000 (USD 4,212) to the municipal-level Disaster Management Fund and NPR 100,000 (USD 843) to the ward-level Disaster Management Fund Disaster Management Fund Mobilization Guidelines prepared National Building Code strictly enforced for safer construction, with by-laws implemented with specific provisions for conserving heritage architecture LDCRP prepared; hazard and disaster risk assessment carried out at the ward level DPRP finalized and awaiting endorsement from the Metropolitan Council Trained search-and-rescue task force and first aid task force, with a roster maintained of all trained task force team who can be immediately deployed during emergencies LEOC established and its SOPs endorsed Stockpile of live-saving materials in all wards: emergency relief, shelter, water and search-and-rescue materials Single-door policy for the distribution of all relief materials Urban health clinic established in Ward No. 9 Open spaces identified in 19 wards IOM is supporting the Multipurpose Community Center which is in near completion at Ward No. 22 Six ponds revived, five fire extinguishers distributed to all wards every year, fire control authority devolved to ward offices; four underground water tanks with storage capacities of 30,000 litres being constructed at four strategic locations Standby fire brigade Simulations and drills held yearly at the municipal and ward level Disaster Risk Reduction Centre established DRR Portal not up-to-date and not so much used Extremely active citizen participation and private sector engagement in heritage preservation and environmental protection Linkages with DRRM institutions at the local, district, provincial and federal levels, mostly with the NRA
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7.4 Capacity and Needs: Gosaikunda Rural Municipality

Gosaikunda Rural Municipality is located in Rasuwa, a high-mountain district in the north of Bagmati Province. Established on 10 March 2017, this rural municipality was formed by merging the former Thuman, Timure, Briddhim, Langtang, Syaphru and Dhunche Village Development Committees (VDCs). Consisting of a high mountain range, the land is mostly uninhabitable and there is a very small population in this rural municipality. Avalanches, snowstorms, heavy rainfall, dry and wet landslides, floods, fires and lightning are the most common and severe disasters here. This rural municipality has a few popular tourism destinations.

7.4.1 Knowledge of national-level DRRM legislation, plans, policies and institutions

Located in a remote district, this rural municipality seems to have little contact with provincial and federal entities. The elected representatives have very little knowledge of the federal DRRM governance system and institutions. They are not aware of national-level DRRM legislation, policies and strategies.

7.4.2 Knowledge and preparation of local-level DRRM plans and policies

The rural municipality has endorsed the Local DRRM Act. However, it has simply copied the sample Local DRRM Act sent out by MoFAGA. The municipality has yet to carry out a detailed multi-hazard disaster risk assessment and prioritize response to recurrent, high-intensity disaster risks in the Local DRRM Act. Lack of such priority has led to the municipality mostly confined to post-disaster relief work. No priority has also yet been given to link DRRM with the municipality's development plans or for the municipality to develop its own strategic action plan to reduce and mitigate disaster risks.

The rural municipality has established a Disaster Management Fund of NPR 1 million (USD 8,425). Unaware of the new Disaster Management Fund Mobilization Guidelines issued by MoFAGA, it is still operating this fund in alignment with the Local Government Operations Act. This makes the municipality unable to establish a perpetual fund, as any unspent balance, per this act, cannot be carried forward into the new fiscal year. No Disaster Management Fund is provisioned at the ward level.

7.4.3 DRRM institutional mechanisms at the municipal and ward levels

In line with the Local DRRM Act, the municipality has formed its LDMC, but has not yet formed the WDMCs.

For safe post-disaster reconstruction and new construction, the municipality is strictly enforcing the National Building Code. Its technical staff verifies compliance to the National Building Code five times during the construction process to ensure that buildings meet the standards and are safe. The municipality has strengthened awareness of seismic hazards and of earthquake-resilient building construction methods.

7.4.4 Linkages with DRRM institutions at the district, provincial and federal levels

The rural municipality has been in regular sharing with the District Disaster Management Committee (DDMC) and the District Coordination Committee (DCC), but very little consultation on DRRM with the provincial and federal levels, except for the National Reconstruction Authority (NRA), has been observed. Because the NRA has been supporting the local government in post-2015 earthquake reconstruction, this rural municipality has also been in close contact with it for collecting and verifying the data of beneficiaries for the disbursement of reconstruction support and monitoring the progress of reconstruction work. The rural municipality has received local DRRM capacity-building support from MoHA and MoFAGA.

7.4.5 Preparedness capacity of the municipality

The rural municipality needs to develop a DPRP. Open spaces have been identified in all wards and two evacuation centres have also been identified. It has yet to operationalize the LEOC.

7.4.6 Response capacity of the municipality

The municipality has a stockpile of emergency relief materials (light search and rescue, and first aid) stored in Ward No. 5 at the army barracks.

There are trained community-level search-and-rescue (CSAR) and first aid teams. These consist of two firefighting teams from Langtang National Park, two District Disaster Response Teams (DDRTs), a team from the Nepal Red Cross Society, seven disaster management personnel from the Armed Police Force, 10 disaster management teams from the Nepal Army, six emergency response personnel from the NGO Mannekor Society, three search-and-rescue team members from another NGO, six trained emergency treatment staff in the district hospital and 50 trained individuals on first aid and search-and-rescue in different health posts. These skilled human resources are available for any emergency response.

The rural municipality has an excavator on standby to clear landslide debris on the highway. The private sector was engaged in disaster response during the post-2015 earthquake response, but there has not been much planned engagement lately.

7.4.7 Mainstreaming DRR and ensuring inclusion in DRRM

The rural municipality has capable staff members who understand the importance of mainstreaming DRR with development planning process, but this has not been put in practice yet.

7.4.8 Summary of capacity and needs

Gosaikunda Rural Municipality has good economic potential. It is one of the most popular tourist destinations and it is also rich in hydroelectric and drinking water potentialities. It can build its resilience if the following capacity gaps are addressed.

Contextualizing the Local DRRM Act. The rural municipality has not yet carried out a detailed multi-hazard disaster risk assessment and therefore has not included the most recurrent and high-risk disasters in the Local DRRM Act. Such an assessment will help in prioritizing major disaster risks and include these in the Local DRRM Act to contextualize it.

Developing a DRR Strategic Plan of Action. The rural municipality has much economic potential and a DRR strategic action plan will tremendously benefit it in building its resilience to disasters.

Revising the Disaster Management Fund Mobilization Guidelines. The guidelines for mobilizing a Disaster Management Fund should be revised according to the new guidelines issued by MoFAGA so that it has funds to address wider response initiatives. At the moment, the Disaster Management Fund is focused mostly on providing relief support.

DRRM training for elected representatives and key officials. The rural municipality has rightly identified the need to train more of its elected representatives and key officials, from the municipal to the ward levels, in developing effective DRR and DRRM policies, plans and procedures.

Training in disaster assessment. Municipalities are responsible for leading initial rapid assessments (IRAs) and are extensively responsible for multi-cluster initial rapid assessments (MIRAs). The mobile application makes rapid assessments quick and easily linked with the central database held at MoHA. Staff members, particularly Ward Chairpersons, DRR focal persons and cluster lead staff members would benefit from training in initial rapid assessment.

Local Emergency Operation Centre (LEOC). The rural municipality needs to establish and operationalize the LEOC.

Early-warning system. There is a need to establish and operationalize early-warning systems on forecastable multiple hazards such as floods and avalanches.

7.5 Capacity and Needs: Chautara-Sangachowkgadhi Municipality

Chautara-Sangachowkgadhi Municipality is located in Sindhupalchok District of Bagmati Province. Established on 18 March 2014, Chautara Municipality was expanded in 2017 by merging the former Sangachok, Thulo Sirubari, Kadambas, Irkhu, Batase and Syaule VDCs. Consisting of 14 wards, this municipality hosts the district headquarters of Sindhupalchok District. Sherpa, Newar, Tamang, Bramhan, Chhetri Gurung and Magar are the major groups inhabiting this municipality. Floods, landslides, lightning, windstorms, fires and road accidents are recurrent and intense disaster risks in this municipality. Located in a predominantly mountainous area, this municipality faces exacerbated disasters compounded by the unplanned expansion of settlements and rampant excessive exploitation of stone, sand and soil. Reckless driving and overloaded public transport plying narrow roads have caused several fatal accidents in the municipality.

7.5.1 Knowledge of national-level DRRM legislation, plans, policies and institutions

The elected representatives are highly enthusiastic but have little knowledge of the country's DRRM governance institutions and mechanisms. The institutions with which they have the closest familiarity are the DDMC and the DCC. For most of the elected representatives, development means infrastructure. Excavators and dozers could be found opening railroad tracks along all hill ridges, often without any environmental impact study carried out first. The workload of such infrastructure development work and other regular local governance tasks leave little time for the representatives to update themselves on national-level DRRM legislation, policies and plans. Key staff members of the municipality are, to some extent, familiar with DRRM legislation, policies, plans and institutions at the federal, provincial, district and local levels.

7.5.2 Knowledge and preparation of local-level DRRM plans and policies

The municipality has endorsed the Local DRRM Act. However, the act is an exact copy of the sample Local DRRM Act sent out by MoFAGA. The municipality has yet to carry out a detailed multi-hazard disaster risk assessment and prioritize response to recurrent high-intensity disaster risks in the Local DRRM Act. This lack of priority has made the municipality confined to mostly post-disaster relief work; thus, the municipality has yet to link DRRM with its development plans and develop its own strategic action plan for disaster risk reduction and mitigation.

The municipality has established a Disaster Management Fund, which has NPR 3 million (USD 25,274). The municipality has a good practice of allocating an additional NPR 50,000 (USD 426) annually for wards located in high-risk zones. The Disaster Management Fund Mobilization Guidelines, however, are focused mostly on providing relief support and not so much on other, broader response activities. The new guidelines issued by MoFAGA urge municipalities to mobilize the Disaster Management Fund for relief, as well as response activities. There is also the possibility of mobilizing funds for DRR activities.

The municipality has allocated funds for training in DRRM. Some elected representatives and key officials have been trained, but more of them need such training.

7.5.3 DRRM institutional mechanisms at the municipal and ward levels

In line with the Local DRRM Act, the municipality has formed the municipal-level LDMC and the WDMCs. Members of these committees and key staff members of the municipality have been trained in DRRM.

The municipality strictly enforces the National Building Code for post-disaster safer reconstruction and new construction. Its technical staff verify compliance to the National Building Code three times during the construction of a building to ensure that it meets standards and is safe. The municipality has been raising awareness of seismic hazards and earthquake-resilient construction methods. In order to make trained masons available locally, the municipality trained 300 women in earthquake-resilient construction methods.

7.5.4 Linkages with DRRM institutions at the district, provincial and federal levels

Historically, the municipality has been in regular contact with the DDMC and the DCC, but there has been very little consultation on DRRM with the provincial and federal levels, except for the NRA. Since the NRA supported the local government in the post-2015 earthquake reconstruction, the municipality has been in close contact with it for the purpose of collecting and verifying data of beneficiaries, disbursing reconstruction support and monitoring the progress of reconstruction work. MoHA and MoFAGA supported the municipality with its DRR, preparedness and response capacity.

7.5.5 Preparedness capacity of the municipality

The municipality has finalized its DPRP. Open spaces have been identified and marked out in all wards, and one evacuation centre has been identified in each ward. Football grounds in 14 wards have been identified as open spaces for humanitarian purposes and government school buildings have been identified as evacuation centres. The municipality has skilled human resources in camp coordination and camp management. Simulations and drills have been organized annually in Tundikhel and occasionally at the ward level. The municipality needs to operationalize the LEOC.

An early-warning system based on a telemetric system has been established for the Bhotekoshi River basin. Information is transmitted through radio to the municipality, which is disseminated to the local communities located by the riverbanks. If evacuation is required, the municipality coordinates with security forces, and the protection cluster is activated to ensure the rights and dignity of evacuated persons. There, however, remains a need to train members and staff of the LDMC and WDMCs in operating the early-warning system.

7.5.6 Response capacity of the municipality

The municipality has stockpiled emergency search-and-rescue, first aid materials and a small quantity of relief materials. There are no trained task forces within the municipality to undertake CSAR and first aid response during emergencies. The municipality has provisions for emergency fire services, with one fire truck providing services throughout the municipality.

Private-sector actors were among the key actors that played a significant role following the earthquakes in 2015. They were actively engaged in the relief phase, providing support through food and non-food items. However, no engagement has been noted with the private sector after the relief stage.

7.5.7 Mainstreaming DRR and ensuring inclusion in DRRM

The municipality has been cautious regarding the environmental impact of infrastructure construction work and has allocated 3 per cent of its budget for bioengineering and other environmental aspects such as drainage, bioengineering measures and tree-planting to prevent landslides. There is, however, limited understanding of the need and benefits of mainstreaming DRR in the annual and periodic development plans. Also, the municipality occasionally consults women, children, persons with disabilities, senior citizens and socially discriminated groups such as Dalits, but this is not institutionalized. Gender- and sex-disaggregated data are also rarely maintained and updated.

7.5.8 Summary of capacity and needs

Chautara-Sangachowkgadhi Municipality has made achievements in institutionalizing DRRM in its municipality. However, the following capacity gaps are noted.

Contextualizing the Local DRRM Act. The municipality has yet to carry out a detailed multi-hazard disaster risk assessment and to include the most recurrent and high-risk disasters in the Local DRRM Act. Such an assessment will help in identifying high-risk disasters and include those in the Local DRRM Act. It would help the municipality focus on the management of high-risk disaster events.

Developing a DRR Strategic Plan of Action. The municipality has yet to develop its own strategic action plan to reduce and mitigate disaster risks.

Revising the Disaster Management Fund Mobilization Guidelines. The guidelines for mobilizing a Disaster Management Fund are focused mostly on providing relief support to disaster-affected families. These could be revised in line with the guidelines issued by MoFAGA, which urge municipalities to mobilize Disaster Management Funds for relief, as well as response activities.

DRRM training of elected representatives and key officials. The municipality plans to train more of its elected representatives and key officials from the municipality to the ward levels in developing effective DRR and DRRM policies, plans and procedures.

Training in disaster assessment. Municipalities are responsible for leading IRAs and are extensively responsible in leading MIRAs. The mobile application makes rapid assessments quick and easily linked with the central database held at MoHA. Staff members, particularly Ward Chairpersons, DRR focal persons and cluster lead staff members would benefit from training in IRA.

7.6 Capacity and Needs: Gorkha Municipality

Located in Gandaki Province, Gorkha Municipality was established in 1997 and expanded on 2 December 2015 by merging the then-adjointing Nareshwar and Phinam VDCs. Two other VDCs, Taple and Deurali, were further merged into it in early 2017. This municipality is located in a predominantly mountainous area and is the district headquarters of Gorkha District, which was critically damaged by the 2015 earthquakes. Floods, landslides, lightning, windstorms, fires and road accidents are recurrent and intense disaster risks in this municipality.

7.6.1 Knowledge of national-level DRRM legislation, plans, policies and institutions

Leadership in Gorkha Municipality is very dynamic. Perhaps due to its being in close proximity to the epicentre of the 2015 earthquakes, there is a very high level of interest on DRRM governance issues among elected representatives, as well as key officials of Gorkha Municipality. The Mayor, the Chief Administrative Officer and the DRR focal person demonstrate a high level of knowledge of the DRRM governance system of Nepal. Key DRRM documents for municipal authorities, namely the Disaster Management Fund Mobilization Guidelines and the Disaster Preparedness and Response Framework Guidelines, have been revised by the municipality.

7.6.2 Knowledge and preparation of local-level DRRM plans and policies

The Mayor's enthusiasm is highly visible in DRRM activities initiated in the municipality. However, while the municipality has endorsed the Local DRRM Act, it has yet to be contextualized by including the relevant disaster risks in the municipality. As in other municipalities, the hazards listed in the sample Local DRRM Act have been adopted without a detailed multi-hazard disaster risk assessment being carried out, which would help to prioritize the recurrent high-intensity disaster risks in the Local DRRM Act. Low priority for contextualizing the Local DRRM Act to local hazards and mostly confining to the post-disaster relief work, with no urgency in linking DRRM with its development plans or developing its own strategic action plan to reduce and mitigate disaster risks.

The municipality has established a Disaster Management Fund, which currently has NPR 7 million (USD 58,972). Each ward office also maintains a Disaster Management Fund of NPR 500,000 (USD 4,212). The Disaster Management Funds are used primarily for relief support to those affected by disasters. The new guidelines from MoFAGA allow fund mobilization to go beyond relief and towards other response activities. The municipality could widen the use of the Disaster Management Fund to include disaster risk reduction activities.

7.6.3 DRRM institutional mechanisms at the municipality and ward levels

In line with the Local DRRM Act, the municipality has formed a LDMC and a WDMC. Members of these committees and key staff members of the municipality have been trained in DRRM.

The municipality also strictly monitors effective implementation of the National Building Code and has been raising awareness on construction safety standards. Its technical staff visit four times during the construction of a house to ensure that the structure meets standards prescribed by the National Building Code. If construction does not meet standards, or if the structure is in excess of or different from what is permitted, the owner needs to correct the structure before he or she can apply for utility services.

The municipality has organized a one-tree-per-youth planting programme in landslide- and flood-prone areas. Around 20,000 saplings have been planted through this initiative. The Mayor Insurance Programme provides social protection coverage to 1,400 ultra-poor and senior citizens, 100 persons from each ward. This programme associates social protection with DRRM in Nepal. The municipality has raised awareness on DRRM in communities by organizing orientations on DRR in the municipality and the wards.

7.6.4 Linkages with DRRM institutions at the district, provincial and federal levels

Gorkha Municipality is in close coordination with the provincial government and has received resources for DRRM activities. Being one of the most severely earthquake affected districts,

Gorkha received national and international attention for recovery and reconstruction following the 2015 earthquakes. Gorkha Municipality, being critically affected, received reconstruction support channelled through NRA, with which it keeps close contact for distribution of reconstruction grants and for monitoring reconstruction progress. The municipality is supported by MoHA through disaster preparedness and response activities and by MoFAGA through capacity-building in DRR.

7.6.5 Preparedness capacity of the municipality

The municipality has trained staff members for preparing a DPRP. Open spaces have been identified and are being reviewed for their suitability as evacuation centres in the event of disasters and will be marked in all wards. The municipality is planning to designate football grounds in each ward as such. A Local Disaster and Climate Resilience Plan is not yet formulated.

7.6.6 Response capacity of the municipality

There are CSAR teams in each ward, comprising of five persons each trained by the Nepal Army. There is CSAR task force formed at the municipality level for deployment during disasters. The municipality has one fire brigade and one ambulance. A stockpile of search and rescue materials is maintained for emergency situations.

The private sector was one of the key actor who played a significant role following the 2015 earthquakes. Gorkha Municipality is actively engaging the construction sector in DRRM-related discussions.

7.6.7 Mainstreaming DRR and ensuring inclusion in DRRM

The municipality has been cautious regarding environmental impact of infrastructure construction work, and has mobilized youths in tree-plantation in all wards. There is however limited efforts in mainstreaming DRR into the annual and periodic development plans. Also, the municipality occasionally consults women, children, persons with disabilities, senior citizens and socially discriminated groups such as Dalits, but this is not institutionalized. Gender- and sex-disaggregated data are rarely maintained and updated.

7.6.8 Summary of capacity and needs

Gorkha Municipality has made progress in its work in disaster risk reduction, preparedness and response. The following gaps have been found and need to be addressed.

Contextualizing the Local DRRM Act. The municipality has yet to carry out a detailed multi-hazard disaster risk assessment and include the most recurrent and high-risk disasters in the Local DRRM Act. This would help it focus on the management of high-risk disaster events.

Developing a DRR Strategic Plan of Action. The municipality has yet to develop its own strategic action plan to reduce and mitigate such disaster risks.

Revising the Disaster Management Fund Mobilization Guidelines. In line with the draft of the new Disaster Management Fund Mobilization Guidelines shared by MOFAGA, Gorkha Municipality has developed and contextualized its Disaster Management Fund Mobilization Guidelines. Disaster Management Fund mobilization should be extended from relief to include other response activities.

DRRM training of elected representatives and key officials. The municipality plans to organize DRRM capacity-building training for its elected representatives and key officials.

Training in disaster assessment. Municipalities are responsible for leading IRAs and are extensively responsible in conducting MIRAs. The mobile application makes rapid assessments quick and easily linked with the central database held at MoHA. Staff members, particularly Ward Chairpersons, DRR focal persons and cluster lead staff members, would benefit from training in IRA.

7.7 Capacity and Needs: Changunarayan Municipality

Changunarayan Municipality is located on the eastern end of Kathmandu valley. It is one of the new municipalities in Bhaktapur, formed in 2017 by merging the municipalities of Mahamanjushree and Nagarkot. Changunarayan Municipality expands from the peri-urban area of Kathmandu valley to the hilltop areas of Nagarkot in the east. Land prices have drastically risen in the large cities of Kathmandu, Lalitpur and Bhaktapur. The new in-country migrant population and the overseas Nepalese are building their homes in peri-urban municipalities like Changunarayan. The fertile land that used to provide for Kathmandu valley is now rapidly disappearing beneath houses. This rampant urbanization is not only causing excessive exploitation of natural resources, such as land, soil, sand and stone, but is equally exacerbating disasters through the encroachment of rivers and streams and the clogging of rivers and rivulets with solid waste. New urban disasters such as inundation are frequent in new urban areas. Floods, landslide, lightning and heavy rainfall are recurrent disasters in Changunarayan.

7.7.1 Knowledge of national-level DRRM legislation, plans, policies and institutions

Being close to the capital city, Changunarayan Municipality seems to be more closely linked with the provincial and federal governments and is more aware of DRRM legislation, policies, plans and institutions than other municipalities. Moreover, the urban DRR project run by DanChurchAid in this area also has contributed to building knowledge and institutional capacity regarding DRRM in the municipality. The municipality has a good understanding of the DRRM Act 2017, the national DRRM authorities, the disaster risk reduction plan, as well as the DPRP.

7.7.2 Knowledge and preparation of local-level DRRM plans and policies

The municipality has made headway in developing and implementing the Local DRRM Act and other plans and procedures. It is investing in training local-level representatives, as well as key staff members in DRRM, and the results are visible in DRR initiatives in the municipality. However, the Local DRRM Act of this municipality includes all natural hazards and man-made disasters mentioned in the sample Local DRRM Act provided by MoFAGA, rather than contextualizing with the municipality's most recurrent and high-intensity disaster risks. The municipality needs to improve the contextualization of local DRR plans in order to improve implementation.

The municipality has established a Disaster Management Fund, with NPR 10 million (USD 84,245) contributed from the regular revenue of the municipality. The fund, however, focuses mostly on post-disaster relief support. The new Disaster Management Fund Mobilization Guidelines issued by MoFAGA allows fund mobilization to go beyond relief purposes and towards DRR activities. Elected representatives from the municipal and ward levels, including municipal staffs, have been trained by the municipality on various aspects of disaster management.

7.7.3 DRRM institutional mechanisms at the municipal and ward levels

In line with the Local DRRM Act, the municipality has formed a LDMC and a WDMC. Members of these committees and key staff members of the municipality have been trained in DRRM.

The municipality intended to develop a risk-sensitive land use plan (RLSUP), but it was put on hold as the urban settlement plan for its low plain areas falls under the “Smart City” development plan of the Kathmandu Valley Development Authority (KVDA). Nevertheless, the municipality is strictly promoting the National Building Code in new construction and reconstruction.

Changunarayan Municipality is committed to making physical construction safe and is enforcing the National Building Code. It monitors compliance to the standards set forth in the code for both reconstruction and new construction. The municipality is found strongly encouraging community participation in disaster risk reduction and preparedness activities. It encourages the participation of the vulnerable population in DRRM initiatives in the wards. If any community comes forward with 50 per cent of the cost of implementing relevant DRR plans, the municipality will provide the remaining 50 per cent, besides engineering technical support. This is modelled after public–private participation.

7.7.4 Linkages with DRRM institutions at the district, provincial and federal levels

The municipality is in regular contact with the DDMC for sharing on disaster risk management issues. It coordinates with the DCC to manage licenses to excavate natural resources. It is also in regular contact with the provincial ministry on DRRM issues. At the federal level, the municipality is in contact mostly with MoFAGA and MoHA. Besides, much of its plain areas come under the new

urban development plan, the Smart City development concept, and the municipality is in regular contact with the KVDA for this purpose. The municipality is in frequent contact with NRA with regards to post-earthquake reconstruction.

7.7.5 Preparedness capacity of the municipality

Changunarayan is among the few municipalities that have prepared an LDCRP. The municipality has conducted hazard and disaster risk-mapping with support from a development partner; however, it has yet to include identified local disaster risks into its developing planning and budget prioritization process. The municipality has prepared a DPRP, which has provisions to provide training and to organize drills and simulations with local communities. Open spaces have been identified and are being reviewed for suitability for use in evacuation and will be marked in all wards. The open spaces will be marked as suitable if they meet the criteria of being safe from any additional natural, environmental, industrial or other human-induced hazards and are in close proximity to water sources and roads, if possible. A multipurpose evacuation centre has been completed. An LEOC has been established and is sharing DRRM information with the NEOC and DEOC. A Disaster Information Management System has also been established but remains non-functional due to lack of equipment and trained staff. Ponds have been revived and fire hydrants have been installed in selected wards for fire extinguishment.

7.7.6 Response capacity of the municipality

The private sector was among the key actors that played a significant role in the 2015 earthquakes. The Federation of Nepalese Chambers of Commerce and Industries, hotels and brick factories are frequently consulted. The municipality has successfully worked with tourism entrepreneurs in developing a Disaster Risk-Sensitive Tourism Development Plan, with regard to Nagarkot being one of the major tourism destinations in the valley. This plan identifies the need for business continuity plans in the tourism sector and business enterprises, and it also lists priority investment areas for the business community's attention. Also, in order to control prices during disasters, the municipality has implemented a policy for local vendors to maintain the same price until the first week following a disaster in order to prevent hikes in prices of basic commodities.

So far, 81 individuals have been trained in fire response, CSAR and first aid. There are 10 trained search-and-rescue task forces in each ward. The task forces, i.e. the fire task force, CSAR task force and first aid task force, have also been formed for deployment in the event of disasters. The municipality has provided earthquake-resistant construction training to 23 masons (of which nine were female). School authorities and teachers are also required to attend at least a two-hour class on DRRM each year.

The municipality is planning to protect people in flood-prone areas, by protecting river banks through construction of gabion retaining walls.

7.7.7 Mainstreaming DRR and ensuring inclusion in DRRM

The municipality has prepared an LDCRP, which highlights each of the wards in the municipality based on the nature of relevant hazards through the vulnerability and capacity assessment (VCA) findings. The LDCRP suggests practical preparedness measures that need to be integrated into the seven-step planning process of the municipality. Ward-level development plans need to incorporate ward-level preparedness measures in the LDCRP, which then will be endorsed by the municipal council. Achieving a resilient municipality is only possible if the DRRM-informed development plan is developed and implemented from the municipal level to the ward level.

The municipality's DPRP has provisions for evacuation of all affected community members, irrespective of caste, geographic location and religion. The plan emphasizes the rights and dignity of evacuated persons to be respected in situations of compulsory evacuation. Based on DPRP suggestions, the municipality has planned a programme for search-and-rescue teams, a Disaster Information Management System and capacity-building of DRRM institutions of the municipality. However, it has been observed that while the municipality is aware of risk information through the DPRP, preparedness and response initiatives are not yet adequately reflected in its annual and periodic planning. There is still limited understanding of the need and benefits of mainstreaming DRR into the annual and periodic development plans. The gender- and sex-disaggregated data are also rarely maintained and updated.

7.7.8 Summary of capacity and needs

The technical support of development partner DanChurchAid contributed to the DRR and DRRM capacity of Changunarayan Municipality. However, the following needs are noted.

Contextualizing the Local DRRM Act. The municipality has carried out a detailed hazard and risk assessment for preparing the LDCRP. Information from that assessment can be updated and included in the disaster risks most common in this municipality to contextualize its Local DRRM Act. As suggested earlier, this would contribute to increased priority for DRRM in development plans.

Developing a DRR Strategic Plan of Action. There is a need to develop a full and broader DRR strategic plan with short-, medium- and long-term strategic activities.

Revising the Disaster Management Fund Mobilization Guidelines. In line with the new Disaster Management Fund Mobilization Guidelines, Changunarayan Municipality needs to mobilize this fund towards wider response activities beyond only relief support.

DRRM Training of elected representatives and key officials. The plan to build the DRRM capacity of elected representatives at municipal and ward levels, as well as key municipal staffs, is highly recommended for Changunarayan Municipality.

Training in disaster assessment. Municipalities are responsible for leading IRAs and are extensively responsible in conducting MIRAs. The mobile application makes rapid assessments quick and easily linked with the central database held at MoHA. Staff members, particularly Ward Chairpersons, DRR focal persons and cluster lead staff members would benefit from training in IRA.

7.8 Capacity and Needs: Shankharapur Municipality

Shankharapur Municipality is located on the northern side of Changunarayan Municipality, sharing similar peri-urban features with it. Located in the eastern end of Kathmandu District, the municipality lags behind on the economic and social fronts. Newars and Tamang are the major groups inhabiting the municipality, followed by the Brahman and Chhetri. The municipality was formed by merging former VDCs of Bajraygini, Lapsephedi, Nanglebhare, Pukulachhi, Suntol and Indrayeni. As in other peri-urban areas, there is fast urbanization in this municipality due to new migrants, as well as the migration of people from the hillside area of the municipality itself. The fertile land is rapidly being turned into housing areas. This rampant urbanization is not only causing excessive exploitation of natural resources, such as land, soil, sand and stone, but is equally exacerbating disasters through the encroachment of rivers and streams, as well as the clogging of rivers and rivulets with solid waste. New urban disasters such as inundation may be observed in the near future. Flood, landslide, lightning and heavy rainfall are recurrent disasters.

7.8.1 Knowledge of national-level DRRM legislation, plans, policies and institutions

Being near the capital city, Shankharapur Municipality seems to be more closely linked with the provincial and Federal Governments and is comparatively more aware of DRRM legislation, policies, plans and institutions with regards to a DRRM project implemented by the Adventist Development and Relief Agency (ADRA) Nepal. The development partner has contributed to building the DRRM knowledge and capacity of the municipality. The municipality has a good understanding of the National DRRM Act of 2017, the national DRRM authorities and the DRRNSPA, as well as the disaster preparedness and response plans. The municipality has also a grasp of risk-sensitive land use planning, although implementation is on hold.

7.8.2 Knowledge and preparation of local-level DRRM plans and policies

The municipality has endorsed and implemented the Local DRRM Act, SOPs for the LEOC and other plans and procedures. It is investing in training local level representatives, as well as key staff members in DRRM, and the results are visible in the DRR initiatives in the municipality. The Local DRRM Act includes all disasters mentioned in the sample Local DRRM Act provided by MoFAGA, rather than contextualized to focus on the municipality's most recurrent and high-intensity disaster risks. Lack of this contextualization is the main factor why DRR plans, such as the LDCRP, are not implemented.

The municipality has established a Disaster Management Fund, with NPR 2.8 million (USD 23,589) contributed from the regular revenue of the municipality. The Disaster Management Fund focuses mostly on post-disaster relief support. The guidelines issued by MoFAGA allows fund mobilization to go beyond relief purposes and towards other responses activities. The municipality could therefore widen the use of the Disaster Management Fund for disaster risk reduction activities. Training for elected representatives at both municipal and ward levels and municipal staffs is emphasized by the municipality on various aspects of disaster management.

7.8.3 DRRM institutional mechanisms at the municipality and ward levels

In line with the Local DRRM Act, the municipality has formed a LDMC and WDMCs. Representatives of the private sector are included in the LDMC.

The municipality is preparing an RSLUP with its own resources. The municipality has also partially been under the Smart City development plan of the KVDA.

Shankharapur Municipality was one of the most impacted places by the 2015 earthquakes. It is therefore strictly implementing the National Building Code. The construction sites are visited three times for engineers to monitor compliance to building code standards. The municipality wants to protect the tangible and cultural heritage of the core heritage settlements and therefore has endorsed separate by-laws to preserve heritage architectural features. It has also trained 20 masons (of whom 6 are women) in earthquake-resistant construction techniques to have trained masons available locally.

Shankharapur Municipality is promoting public participation in DRR activities and provides financial support to so-called “user committees”¹⁰ for development activities through its ward offices for such initiatives. Two fire hydrants were installed through a 50 per cent contribution from a European Union-funded project, with the remaining 50 per cent provided by the municipality and the community. The municipality engaged the vulnerable population in order to sensitize and raise awareness of disaster-related issues. The LDMC formed a fire task force, which includes two persons from each ward.

7.8.4 Linkages with DRRM institutions at the district, provincial and federal levels

The municipality is in regular contact with the DDMC on sharing disaster risk management issues. It coordinates with the DCC for managing licenses to excavate natural resources. In addition, it is also in regular contact with the provincial ministry on these matters. At the federal level, the municipality is mostly in contact with MoFAGA and MoHA. Much of the plains areas, however, falls under the new urban development plan – the Smart City initiative – and the municipality is in regular contact with the KVDA for this purpose. The municipality is in frequent contact with NRA

¹⁰ A users committee is a community-level informal organization formed to build small public infrastructure work, on non-profit basis. Such committees are recognized by the Government for such work.

with regard to post-earthquake reconstruction. For risk-sensitive land use planning initiatives, the municipality is also being supported by the MoUD and its Department for Urban Development and Building Construction (DUDBC).

7.8.5 Preparedness capacity of the municipality

Shankharapur Municipality has prepared a LDCRP with support from the development partner, ADRA Nepal. The municipality has conducted hazard and risk mapping which provides useful information, however the municipality has yet to include identified disasters into its developing planning and budget prioritization process. The municipality has prepared a DPRP, under which eight clusters have been formed. It has provision to provide training and to organize drills and simulations with communities. Open spaces have been identified and are being reviewed for suitability as possible evacuation centres and will be marked in all wards. The open spaces will be considered suitable if they meet the criteria of being safe from any additional natural, environmental, industrial or other human-induced hazards and located in close proximity to water sources and roads, if possible. A multipurpose evacuation centre is nearing completion. An LEOC has been established and is sharing DRRM information with the DEOC and NEOC.

A Disaster Information Management System was established but remains non-functional due to lack of equipment and trained staff. A mobile based application was developed which also remain non-functional due to the same reason. The municipality is making use of social media to disseminate information on disaster risks, as well as information on DRRM activities being carried out. Training and refreshers on using a geographic information system were provided to municipal staffs, which helped in preparing geo-information-based data of six wards. This data captures information on schools, hospitals, open spaces, temples, water spouts, petrol pumps and gas depots in a digitized format.

A warehouse has been built where search and rescue materials along with first aid materials are stored. First aid materials are planned to be stored in each ward. WASH, CSAR, fire and first aid task force are trained. The individual are selected from each ward for all trainings.

Two traditional ponds have been revived and preserved and can hold 1.6 million litres of water that can recharge the ground water and act as a reservoir pond in case of fire outbreak. The municipality has initiated a public-private partnership model based on which the private sector has been engaged in the reviving of the two ponds. Two community fire hydrants have been installed in Ward No. 6 and No. 7 for fire preparedness measures. The deep boreholes that have been dug can be used for drinking water and in fire hydrants in case of fire outbreak. The boreholes are not currently functional. It shows that the municipality, though being capable enough to deal with any fire outbreak due to its installed infrastructure, needs the timely response to allocate financial and technical resources for the operation and maintenance of those infrastructures. The revival of ponds and the installation of fire hydrants are examples of fire preparedness as these are suitable

for congested settlements and narrow road lanes where a fire engine cannot reach. Moreover, community sirens are placed in six locations for issuing fire alerts.

7.8.6 Response capacity of the municipality

SOPs have been developed for the LEOC established in the municipality. The LEOC remains non-functional however due to lack of communication equipment and trained staff.

The private sector was among the key actors playing a significant role following the 2015 earthquakes. The Chamber of Local Traders and Industries has frequently been coordinating with the municipality in DRR activities. The municipality, together with tourism entrepreneurs, is also developing ideas for addressing disaster risks in tourism potentialities in the municipality.

7.8.7 Mainstreaming DRR and ensuring inclusion in DRRM

The municipality has prepared a LDCRP which highlighted each of the wards in the municipality based on their nature of hazards through the Vulnerability and Capacity Assessment (VCA) findings. The LDCRP suggested practical preparedness measures which need to be integrated into the seven step planning process of the municipality. Ward level development plans need to incorporate the ward level preparedness measures as suggested by the LDCRP, which then is endorsed from the municipal council. Becoming a resilient municipality is possible when the DRRM-informed development plan is developed and implemented from municipality to ward level.

The municipality is aware about the use of Environmental Impact Assessment of Initial Environment Examination, but it is found reluctant to enforce it. Much excavation of sand from hills will exacerbate environmental degradation in the fragile hill slopes, however the municipality seems to disregard the risks that follow.

Preparedness and response initiatives are not yet adequately reflected in the annual and periodic planning. Understanding remains limited regarding the need for and benefits of mainstreaming DRR into the annual and periodic development plans. The gender and sex-disaggregated data are also rarely maintained and updated. The municipality does however seem concerned about making public spaces, structures and infrastructure accessible for vulnerable populations including children, women, elderly and persons with disabilities. Such inclusion is planned to be integrated in the annual and periodic plans of the municipality.

7.8.8 Summary of capacity and needs

Shankharapur Municipality, with technical support from ADRA Nepal, has been able to institutionalize important DRRM capacities. The assessment however finds that the following issues, if addressed, can further strengthen its effectiveness in disaster risk reduction and management.

Contextualizing the Local DRRM Act. The detailed hazard and risk assessment available through its LDCRP can be used to contextualize disaster risks prioritization in the Local DRRM Act. The Act serves as the main guiding and operational document for the local government, and prioritization of disaster risks will facilitate for the risks to be addressed in annual plans and budgets.

Development of DRR Strategic Plan of Action. There is a need to develop a DRR Local Strategic Plan of Action with short-, medium- and long-term strategic activities.

Revising the Disaster Management Fund Mobilization Guidelines. In line with the new Disaster Management Fund Mobilization Guidelines, Shankharapur Municipality also needs to focus its fund mobilization to wider response activities that go beyond relief support. The municipality plans to preserve the core city's heritage features. The Disaster Management Fund Mobilization Guidelines should be revised to include provisions for tangible and intangible heritage preservation as an essential part of DRRM efforts in the municipality.

DRRM Training of elected representatives and key officials. The municipality will benefit from training elected representatives and key officials in DRRM.

Training in disaster assessment. Municipalities are responsible for leading IRAs, and are extensively responsible for conducting MIRAs. The mobile application makes rapid assessments quick and easily linked with the central database held at MoHA. Staff members, particularly Ward Chairpersons, DRR focal persons and cluster lead staff members would benefit from training in IRA.

7.9 Capacity and Needs: Lalitpur Metropolitan City

Lalitpur is the third largest metropolitan city following Kathmandu and Pokhara. It has been upgraded to metropolitan city by merging with Karyabinayak municipality in 2017. Newars are the primary inhabitants followed by Tamang, Chhetri, Brahman and Magar. The urban area has expanded to its limit, and features modern urban disaster risks, while rural areas are predominately experiencing landslides, flood, windstorm and hailstorm as the major recurrent disaster risks.

7.9.1 Knowledge of national-level DRRM legislation, plans, policies and institutions

Lalitpur is one of the most powerful local governments able to influence the policies and plans of the Federal Government. The city has a growing international network on urban planning, disaster risk management and business promotion. As such, it is frequently consulted and invited to contribute to policies, strategies and plans on these aspects.

Lalitpur Metropolitan City is staffed and equipped in DRRM and has a good understanding about the National DRRM Act of 2017, NDMA and other guidelines such as the Disaster Management Fund Mobilization Guidelines and SOPs for emergency operation centres. With regards to several

development partners, from bilateral donors to specialized organizations, this supra-municipality received much technical and material support which in turn contributes to achievements and influence in DRRM.

7.9.2 Knowledge and preparation of local-level DRRM plans and policies

Lalitpur Metropolitan City has endorsed and implemented the Local DRRM Act and several other policy and guidelines for DRRM prescribed by the government. As found in case of other municipalities, the Local DRRM Act of Lalitpur needs contextualization considering its unique location and features. The core area of Lalitpur, Patan city, is famous worldwide for its fine arts, woodcraft as well as silver and metal crafts. The metropolitan city is promoting Patan as the fine art city and has much embedded heritage and architectural preservation plans to maintain its tangible and intangible heritage intact. The disaster risk profile, if analysed properly, could provide distinct priorities to the metropolitan city with regards to the core city and the different priorities for its outer and rural areas. Identifying and including such distinct priorities for disaster risks in the Local DRRM Act will help to prioritize focused action plans and budget allocation.

It has endorsed several other policies and procedures required to operationalize disaster risk reduction and management activities, such as the standard operating procedures for LEOC. It is investing in training local level representatives as well as key staff members in DRRM and the results are visible in DRR initiatives in the metropolitan city.

The metropolitan city has established a Disaster Management Fund with NPR 8.5 million (USD 71,609) contributed from the regular revenue of the municipality. NPR 500,000 (USD 4,212) is added annually to the fund, and NPR 100,000 (USD 843) is allocated annually to each ward for DRRM activities. The Disaster Management Fund, as in other municipalities, remains focused on post-disaster relief support but occasionally mobilize funds for risk reduction and response capacity-building activities. The use of the Disaster Management Fund could be expanded to including other disaster response and disaster risk reduction activities.

7.9.3 DRRM institutional mechanisms at the municipality and ward levels

In line with the Local DRRM Act, the metropolitan city has formed a LDMC and WDMCs. The metropolitan city is preparing a Risk-sensitive Land Use Plan with its own resources.

The national building code is strictly enforced by the metropolitan city in all reconstruction and new construction. Staff from the municipality visit house construction sites at least three times to ensure building standards are properly followed. In the core city and other settlements of heritage architecture, it has promoted bylaws to protect heritage value of private and public buildings and infrastructure. The metropolitan city provides subsidies on construction materials. The metropolitan city and its development partners also frequently interact with construction contractors for safer construction of buildings. Trainings on modern and traditional earthquake resistant construction

methods have been provided to masons. Female participants recommended by mothers groups were selected for the trainings.

7.9.4 Linkage with DRRM institutions at the district, provincial and federal levels

The metropolitan city corresponds with the DDMC for sharing disaster risk information. It is also in regular contact with the provincial ministry. At the federal level, the metropolitan city is primarily in contact with MoFAGA, MoHA, MoUD and the Ministry of Culture, Tourism and Civil Aviation (MoCTCA). Moreover, Lalitpur Metropolitan City is in frequent contact with NRA concerning post-earthquake reconstruction. For risk-sensitive land use planning initiatives, the metropolitan city is supported by MoUD DUDBC.

7.9.5 Preparedness Capacity of the municipality

In cooperation with Japan International Cooperation Agency (JICA), the metropolitan city has conducted an earthquake disaster scenario assessment. Moreover, it has prepared a LDCRP at ward level with the support from the Safer City project. While it contains most useful information, the municipality has yet to include the community identified preparedness and response measures into its developing planning and budget prioritization process.

The DPRP has been prepared and is ready for endorsement by the Municipal Council. Drills and simulations are conducted regularly together with communities at ward level. Open spaces have been identified and under review for suitability and will upon clearance be marked in all wards.

An LEOC has been established and shares DRRM information with the DEOC and NEOC.

Open spaces have been identified in 19 wards. IOM is supporting the construction of a multipurpose community centre which is in near completion in Ward No. 22. An emergency health clinic has been established in Ward No. 9. A school located in the city centre is designated as an evacuation centre, and is equipped with search and rescue materials.

Trainings and refreshers on DRRM are regularly provided to elected representatives, officials and community representatives. Lalitpur Metropolitan City has actively developed community level for search and rescue, first aid and for preventing fire hazards. Six individuals from each ward are trained in CSAR. A roster of trained task force team members is maintained so that they can be called for emergency response in case of disasters. The Los Angeles Fire Department has supported the municipality in training 101 individuals in skills related fire, earthquake and flood disasters. The metropolitan city has a fire brigade with two fire engines, and in order to enable the fire brigade to firefight in the congested inner city, the fire brigade has also received smaller fire trucks and long hose pipes. Also, five fire extinguishers are distributed each year to each ward office to place those in fire hazard risk areas.

The metropolitan city has prioritized evacuation of vulnerable groups (women, persons with disabilities, children, senior citizens, lactating mothers and pregnant women) to be evacuated first, and 40 people have been trained so far in such evacuation tasks. They keep regular contact with their respective ward offices. The metropolitan city is also planning to conduct community based disaster management trainings in six communities.

Four underground water tanks with 30,000 litre water capacity per tank have also been built in four strategic locations for firefighting purposes. Ward offices have been given authority to take decisions regarding response to fire disasters. Earthquake simulation drills are regularly conducted at the ward levels.

Water and emergency relief materials are provisioned in all 29 wards. Stockpiles of search and rescue materials and first aid materials are placed in each ward office and SOPs have already been endorsed for search and rescue work.

7.9.6 Response capacity of the municipality

SOPs have been developed for the LEOC established in the metropolitan city. The communication connection and equipment are about to be installed in the LEOC. It will support the local level in the overall process of disaster preparedness, collection and analysis of early warning as well as keeping necessary equipment and fire engines in good condition. Lalitpur Metropolitan City has adequate financial resources of its own and good coordination with the provincial government, the Federal Government and partner organizations for any required additional resources.

The metropolitan city is planning to sign a memorandum of understanding with large departmental stores in its area to support with lifesaving food and non-food materials during disasters. The metropolitan city appreciates participation and cooperation from the private sector.

7.9.7 Mainstreaming DRR and ensuring inclusion in DRRM

The municipality has prepared a LDCRP which has highlighted each of the wards in the municipality based on their nature of hazards through the VCA findings. However, the document stands in isolation and the preparedness actions are not yet linked or integrated in the annual planning process of the metropolitan city. There is still a limited understanding of the needs and benefits of mainstreaming DRR into the annual and periodic development plans.

Inclusion remains a distant process. The Safer Cities Project, initiated by a consortium of development partners, has sensitized women's participation in the DRR process. Hopefully, lessons learned from such initiatives will be included in the development planning process of the metropolitan city. Gender and sex-disaggregated data are rarely maintained and updated.

7.9.8 Summary of capacity and needs

Lalitpur Metropolitan City enjoys financial, technical and human resources support from an array of development partners. The leadership of the city is enthusiastic in enhancing safety and security of people from disaster risks. Unlike smaller municipalities and rural municipalities, Lalitpur Metropolitan City has its own financial and human resources. Besides, the communities themselves are well informed and active in enhancing disaster preparedness and response. Some gaps observed in their operating environment and capacities are listed below.

Contextualizing the Local DRRM Act. The sample Local DRRM Act provided by MoFAGA does not address the different disaster risks prevalent in this metropolitan city. Lalitpur has a core compact settlement in the middle and large outer peri-urban settlements. While heritage preservation is the main issue in the core and similar peri-urban settlements, haphazard expansion of settlements is a problem everywhere. A contextualized perspective and prioritization of disaster risks in the Local DRRM Act would make it a guiding legal document for the municipality to set its DRRM strategies, plans and budget allocation process all guided towards minimizing disaster risks.

Development of DRR Strategic Plan of Action. The metropolitan city constitutes a densely populated core city and rapidly urbanizing peri-urban city. Both have distinct disaster risk profiles. In order to save lives and assets of its inhabitants, the metropolitan city needs to develop its own vision on how it will address the disaster risks in the short-, medium- and in the long-term.

Revising the Disaster Management Fund Mobilization Guidelines. Relief support is central to disaster response, however local bodies can address several risk reduction and response activities to reduce the need of relief support. The metropolitan city can plan the mobilization of a Disaster Management Fund for wider response activities beyond relief support. The metropolitan city has plans to preserve the core city's heritage features. The Disaster Management Fund Mobilization Guidelines should be revised to include provisions for tangible and intangible heritage preservation as an essential part of DRRM efforts.

DRRM Training to elected representatives and key officials. Continuous awareness raising and trainings would result in better informed elected representatives and municipal staffs whose capacity is crucial for effective DRRM in the metropolitan city.

Training in disaster assessment. The staff members of the metropolitan city were found to lack familiarity with their role regarding conducting disaster assessments. In the federal structure, the municipalities have the primary responsibility to manage disaster response. Their capacity to collect and analyse information on disaster affected population is crucial for decisions on planning response. The disaster assessment responsibilities should be clearly built in the capacity enhancement efforts aimed at the metropolitan city.

7.10 Findings: Summary of capacity gaps and needs

The Constitution of Nepal has made disaster risk reduction and management a top priority for all three tiers of government. With the enforcement of the DRRM Act 2017 (amended 2019) the Government of Nepal has established an institutional set-up and accountability mechanism for this assigned task at all levels. The Act also marks the departure from the hitherto practiced relief-centric approach to the broad-based disaster risk management approach where each level of government has distinct role and responsibilities delineated for disaster risk reduction, mitigation, preparedness and response.

The local governments have a major role to play for managing these tasks effectively. They are the designated single-door government institution for delivery of disaster relief assistance as well as for managing disaster risk reduction, preparedness and response initiatives. This assessment attempts to look at capacities and gaps of a representative sample of local governments comprising of one rural municipality, four municipalities and one metropolitan city, findings of which are described above. The following section presents a collated summary of the findings.

7.10.1 Understanding of national-level DRRM governance

Proximity and resources seem to have a large effect on the capacity of local governments to access and understand DRRM governance institutions and mechanisms. Whereas Lalitpur Metropolitan City is well resourced and in close proximity to the federal and provincial governments, the Gosaikunda Rural Municipality displays lacking knowledge about the DRRM governance at the national level. Support from external development partners seems to have boosted the understanding and capacity to link with DRRM institutions at the district, provincial and federal level, as observed in Gorkha, Shankharapur and Changunarayan municipalities.

Knowledge of the national-level DRRM acts, policies, strategy, and institutions is essential for local governments to comprehend their own responsibilities, boundaries and accountabilities. Leaders and key officials of the local governments should be well versed with institutional relationships between the nodal ministries and the DRRM institutions at the federal, provincial and district levels, and how they coordinate, cooperate and collaborate with the local governments.

7.10.2 Understanding of local-level DRRM governance

All six local levels have established their basic DRRM governance instruments. All of them have endorsed the Local DRRM Act, created their Disaster Management Fund and endorsed the Disaster Management Fund Mobilization Guidelines. However, all of them seem to have adopted the sample Local DRRM Act sent out by MoFAGA without contextualizing it to local conditions. The local governments have their DRRM roles and

This will contribute to the Priority Action I of DRR National Strategic Plan of Action (2018–2030): Hazard-wise Assessment of Risk

responsibilities defined in two legislations, namely the Local Government Operations Act 2017 and the Local DRRM Act. The Local DRRM Act elaborates the roles and responsibilities in detail. The municipalities have different geographic, demographic and urban/rural characteristics which makes them vulnerable to different types of disaster risks. It is therefore important to carry out a detailed vulnerability assessment to disaster risks prevalent in their areas and prioritize such risks in their Local DRRM Act. Some municipalities seem to have prepared their LDCRP, implying that such a risk assessment has been already carried out. However, such documents have not been mainstreamed in municipal planning processes. It is important for local governments to prioritize the inclusion of contextualized disaster risk in their Local DRRM Acts in order to include adequate actions and allocated budgets to reduce and mitigate risks and to be better prepared to respond to disaster events.

All six local governments have created their Disaster Management Fund and endorsed the Disaster Management Fund Mobilization Guidelines. The revised guidelines from MoFAGA allows local bodies to transfer the unspent fund from one year to another to spend on broader response activities. However, most of the assessed municipalities have confined the utilization of this fund to relief-related support activities. Gosaikunda Rural Municipality was not aware about this new provision and still linked this fund with the Local Government Operations Act which restricts the accumulation of unspent balance from one fiscal year to the next. Therefore, Gosaikunda was transferring the unspent balance of Disaster Management Fund to other activities, which is not allowed under the new Disaster Management Fund Mobilization Guidelines.

It is noticed that where staff members are well versed on the DRRM governance instruments, the local governments have made progress in setting up their own DRRM Act, policies and procedures. It is therefore essential to build knowledge among the elected representatives (from the Mayor/Chairperson to Ward members) and key officials (from Chief Executive Officer/ Chief Administrative Officer to Development committee heads). With regards to the Disaster Management Fund, it would be beneficial if all six local governments widened the mobilization of Disaster Management Fund from limited relief support to broader response and risk reduction actions.

7.10.3 DRRM institutional mechanisms at the local level

All six rural and urban municipalities have established Local Disaster Management Committees. The Local DRRM Act also stipulates the formation of such committees at the ward level, however it has not been done in Gosaikunda Rural Municipality. This indicates that geographical remoteness has an effect on updated knowledge of DRRM governance related legislation and

This will contribute to the Priority Action 4 of DRRNSPA 2018–2030: Capacity-building for Understanding Disaster Risk; the Priority Action 5: Establishing and Strengthening Organizational Structures; and Priority Action 8: Ensuring Inclusiveness in Disaster Risk Reduction

institutional requirements. In Lalitpur, a separate disaster information centre is running. Strengthened structures and early-warning systems are two important aspects of disaster preparedness. All six municipalities are enforcing national building codes to ensure safe construction. However, the early-warning system exists in only one river basin in Chautara-Sangachowkgadhi Municipality.

It is crucial to form disaster management committees at all ward levels. Moreover, the committees must be inclusive with representation ensured from gender and sexual minorities, religious and ethnic minorities, age and disability related representatives and other vulnerable and discriminated groups in the municipality.

7.10.4 Linkages with DRRM institutions at district, provincial and federal levels

While all six municipalities seem to be in close contact with District Disaster Management Committee, a protocol issue between the Chief District Officer who heads the DDMC and the Mayors/Chairpersons have been a contentious issue that seems to have obstructed attendance of municipality leaders in the committee. This issue needs some attention from the federal level.

Two municipalities, with support from development partners, initiated a disaster information management system but this remains non-functional in both municipalities, seemingly due to low prioritization. MoHA and MoFAGA have been supporting local levels for capacity-building in DRRM issues but linkage of local levels with other provincial and federal level DRRM institutions seem to be at a minimum level.

This will contribute to the Priority Action 3 of DRRNSPA 2018–2030: Development of Effective Disaster Management Information System and Information Dissemination. And Priority Action 5: Establishing and Strengthening Organizational Structures

Local governments need support from the province and federal level in building their capacity to manage disaster risk reduction and management. With regard to the disaster information system, local levels capacity can be enhanced to link up with BIPAD, the disaster information management system established by NEOC.

7.10.5 Preparedness capacity of local levels

Lalitpur Metropolitan City, Shankharapur and Changuarayan Municipalities have prepared their Local Disaster and Resilience Plans. Gorkha Municipality is underway to prepare the LDCRP. Chautara-Sangachowkgadhi Municipality is in the finalization stage, and Gosainkunda Rural Municipality has not yet initiated its LDCRP. Chautara-Sangachowkgadhi Municipality has established an early-warning system in Bhotekoshi river basin, while the other municipalities have no early-warning systems installed. Open spaces are identified and evacuation centres are being established in all six municipalities. Earthquake and fire drills and simulations are regularly conducted in communities by Lalitpur, however only occasionally in other municipalities. Gosainkunda Rural Municipality has

not conducted any drills or simulations. All except Chautara-Sangachowkgadhi Municipality have trained task forces for search and rescue and first aid. All municipalities have stockpiled search and rescue materials and first aid materials. Lalitpur have kept water and emergency relief materials in all wards. Ponds and water sources are revived in Shankharapur and Lalitpur Municipalities.

MoFAGA is encouraging the local governments to prepare the LDCRP as it will support the process of identifying disaster risks prone to the respective municipalities. The LDCRP also identifies several activities for disaster risk reduction. The disaster risks identified and disaster risk reduction activities are

highly relevant to the contextualization of the Local DRRM Act as well as to the development planning of the municipality. Similarly, all municipalities could establish an early-warning system on major disaster risks so long as they can be forecasted, such as hydro meteorological disaster risks.

This will contribute to the following Priority Actions of DRRNSPA 2018–2030:

Priority Action 2: Inter-Agency Coordination for Multi-Hazard Risk Assessment

Priority Action 13: Strengthening Disaster Preparedness for Effective Disaster Response; and Priority Action 14: Development of Multi-Hazard Early-Warning System for Disaster Preparedness.

Priority Action 15: Promoting Community-based Disaster Risk Reduction

7.10.6 Response capacity of local levels

Local Emergency Operation Centres are also not established in all of the assessed municipalities. Even where they are established, except in Lalitpur Metropolitan City, the LEOCs are not functional due to lack of adequate equipment or trained staff. There have been problems in obtaining approvals for radio frequency as well for the communication set.

Only two out of six municipalities have a practice of reviewing the DPRP, which is a living document and is useful only when reviewed regularly.

This will contribute to the Priority Action 13: Strengthening Disaster Preparedness for Effective Disaster Response; and Priority Action 16: Strengthening Communication and Dissemination System for Disaster Preparedness; of DRRNSPA 2018–2030.

LEOCs are crucial DRRM institutions and therefore SOPs should be established to ensure smooth functioning of the centres. Alternative communication methods on the modern ICT tools can also be explored. Municipalities need to allocate adequately trained staff and financial resources for the smooth operation of LEOCs. DPRPs should be regularly updated. The

municipality may map organizations with DRRM projects working in their area and select some organizations as the LSA and CSA to support in this process. The Disaster Management Fund Mobilization Guidelines should also be reviewed to allow using that fund for response related activities as well.

7.10.7 Mainstreaming DRR and ensuring inclusion in DRRM

None of the assessed municipalities have an explicit process of mainstreaming disaster risk reduction in their annual or periodic planning process. The seven-step planning process of the

This will contribute to the Priority Action 8: Ensuring Inclusiveness in Disaster Risk Reduction of DRRNSPA 2016–2030.

government stipulates to take DRR into account while formulating priorities at the ward level itself. The LDCRP and DPRP would contain disaster risk reduction, preparedness and response activities which could be integrated with the annual planning process of each development subject committee in the municipality. The Fifteenth Plan stipulates the need to ensure inclusion through access, representation and meaningful participation of vulnerable people and discriminated groups in the mainstream development planning. Moreover, all government bodies are also advised to adopt gender responsive planning and budgeting processes.

None of the assessed local governments demonstrate strong DRR mainstreaming process or mechanisms that show institutional processes for ensuring gender equality and social inclusion in planning and implementing disaster risk reduction and management. It is highly important to make DRR and DRRM processes meaningful and beneficial to vulnerable people and groups.

7.10.8 Disaster risk-sharing, financing and transfer

This will contribute of DRRNSPA 2018–2030 Priority Action 11: Promoting Private Investment in Disaster Risk Reduction; and Priority Action 12: Increasing Disaster Resilience through Risk Transfer, Insurance and Social.

There is little understanding, and therefore limited practice, of disaster risk -sharing, financing and transfer instruments in the assessed municipalities. All municipalities are to some extent engaging the private sector to encourage the undertaking of disaster response activities. Building on the contribution made by the private sector in 2015 earthquake disaster response, all but Gosaikunda

Rural Municipality have been engaging the private sector in the disaster risk management discussions, however no concrete understanding has yet been reached. Changuarayan Municipality has a Disaster Sensitive Tourism Development Plan developed together with the private sector that contains some components requesting risk-sharing types of investment from the private sector, though it has yet to materialize. In Gorkha, a social protection measure has been practiced which provides life insurance cover to 1,400 ultra-poor people and senior citizens, with premium supported by the municipality under the Mayor Insurance Programme. This initiative of disaster risk financing includes social protection measures, however the impact and viability needs to be evaluated. In Lalitpur, the reconstruction work has attracted some private investment. Lessons learned from this partnership will be valuable for reviewing purposes. Such initiatives have not been observed in other municipalities.

The private sector is a crucial stakeholder, especially when engaging in disaster risk-sharing, financing and risk transfer. Moreover large public infrastructure such as schools, hospitals, and large investments involving public money such as investment of municipality in hydropower or public infrastructure should be covered with insurance schemes so that disaster risk could be transferred to insurance companies.

7.10.9 Inter-local level cooperation for effective DRRM

The idea of cooperation between local levels has been received well but no such practice has been found happening yet in the municipalities assessed. Disasters may be localized, but most often they originate from different localities and the impact goes beyond geographical territories

of any particular municipality. In the case of hydrometeorological and mega disasters, the impact is normally extensive. Resources will always be limited and skilled human resources, individuals are always immediately required in search and rescue, first aid and relief operations which any particular municipality may not have in sufficient numbers. Cooperation between local levels will be immensely beneficial for sharing financial resources with skilled staffs and task force team.

This will contribute to the Priority Action 7 of DRRNSPA 2018–2030: Capacity-building, Collaboration and Partnership for Disaster Risk Governance.



8

CONCLUSION

Disaster risk reduction and management is a huge task. The Federal Government is designing policies and placing institutions at all levels, yet the local levels are far from being able to assume this challenging role and the responsibilities that come with it.

8.1 Challenges in building DRRM capacity at the local level

From the assessment, the following issues can be drawn as challenges hindering the capacity of local levels in successfully leading DRRM actions:

- (a) Lack of adequate knowledge and information on disaster risks
- (b) Lack of harmony between DRR and development activities
- (c) No mapping and identification of disaster risk in all development sectors
- (d) Little mainstreaming of disaster risk reduction and management in development processes
weak adoption of disaster resilient development process
- (e) Excessive and unmanaged exploitation of natural resources
- (f) Lack of planning and adequate financing for DRRM in all subject clusters
- (g) Lack of coordination between concerned stakeholders
- (h) Lack of disaster information system based on DRR and management indicators
- (i) Lack of adequate relief materials, logistics, and equipment and trained skilled human resources for emergency situations
- (j) Lack of interest among municipality leaders on roles and responsibilities related to DRRM
- (k) Disaster and environment negligent infrastructure development
- (l) Low mainstreaming of DRRM in infrastructure development

- (m) Lack of adequate logistic and relief materials and adequate skilled human resources
- (n) Difficulty in relocating communities living in high-disaster-risk zones.

8.2 Opportunities for building DRRM capacity at the local level

However, there are several policy measures and commitments as well endorsed at the federal, provincial and local levels, which provide a conducive environment for local levels to enhance their DRRM capacities:

- (a) Commitment at the highest level – DRRM enshrined in the Constitution of Nepal,
- (b) International commitments such as the Sendai Framework for Disaster Risk Reduction 2015–2030,
- (c) National Legislation, Policy and Strategy being rolled out from the federal level – the DRRM Act 2017, DRR National Policy 2018, DRR National Strategic Plan of Action 2018–2030,
- (d) Establishment of and NDMA and further expansion of its offices in provinces,
- (e) Increased involvement of academic and research interest, involvement of NGOs in DRRM,
- (f) Increased financial and technical support from donors for building DRRM capacity of local level,
- (g) Increased awareness and alertness in communities,
- (h) Increased interest and involvement of the private sector; and
- (i) Access to modern Information and communication technology for social protection and DRRM.

8.3 Recommendations

Based on the findings of the assessment and evaluating these against the prevailing challenges and opportunities, some recommendations are included here to enhance the disaster risk reduction, mitigation, preparedness and response capacities of local governments.

In order to strengthen DRRM governance at the local level, the elected representatives and the officials of the local level should be thoroughly familiar with national legislation, policies and institutional mechanisms of DRRM governance system. They should further be supported to translate this understanding into appropriate Local DRRM Act, policy and strategic plan of action to design their strategic actions during the short-, medium- and long-term plan.

Capacity of the key staff members and elected representatives at both at municipal and ward levels of the local government should be built in multi-hazard based disaster risk mapping and including such information in their DRRM legal and policy documents. Such an assessment should

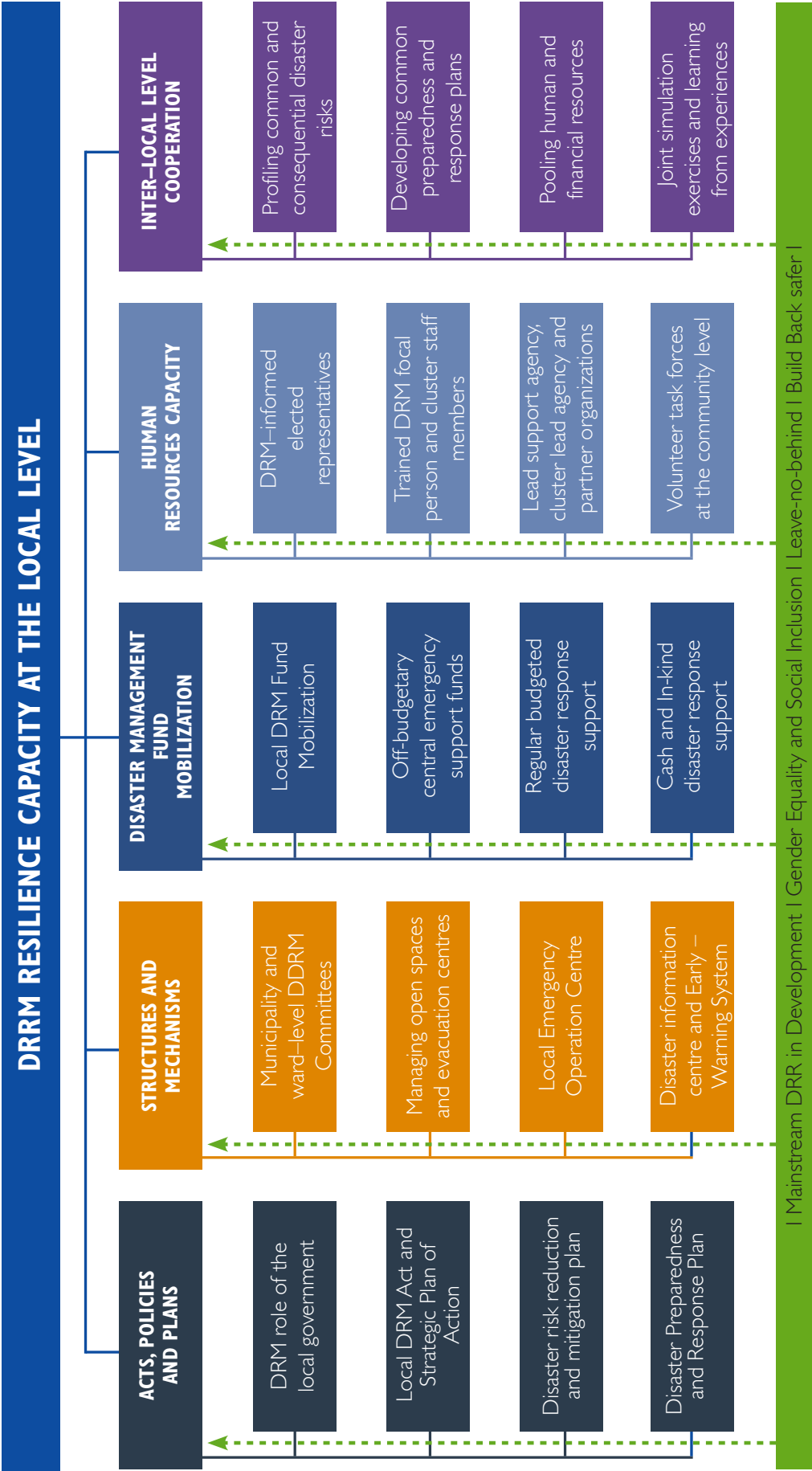
be carried out in participation with women, children, persons with disabilities, sexual, ethnic and religious minorities and senior citizens to ensure that vulnerability is addressed.

Furthermore, the capacity of municipal leadership and key officials should also be enhanced in mainstreaming DRRM into the annual and periodic planning process. Additionally, it is important to ensure that mainstreaming DRRM is done through an inclusive approach where vulnerable populations such as women, children, persons with disabilities, senior citizens, marginalized and minority communities have access, representation and meaningful participation in the development planning process of local governments.

Inputs from development partners are found effective in building the DRRM capacity of local levels, however sustainability is rarely observed once the projects end. This is well demonstrated by the disaster information management system. Development partners should therefore not only focus on project outputs but also pay more attention on how can the systems and resource allocation process of the local government can be strengthened so that such results continue beyond the external project support.

It would be beneficial if a training package cover the following five main areas: DRRM legislation, policies and plans; DRRM structures and mechanisms; Disaster Management Fund Mobilization Guidelines; human resources for DRRM; and promoting inter-local level cooperation. There are subtopics under each of these main areas that need to be included in the training package (illustrated in Figure 1). The training package must also emphasize the importance of mainstreaming DRR in development, ensuring inclusion of all vulnerable people and groups and ensure that the “Build Back Better” principle is observed in the post-disaster reconstruction process.

Figure. Core contents for the suggested DRRM capacity-building training package for local levels



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National Planning Commission

- 2019 The Fifteenth Plan Approach Paper 2019/20 -2023/24. Kathmandu.

ANNEX A

LIST OF KEY INFORMANT INTERVIEW (KII) PARTICIPANTS

Changunarayan Municipality

- (1) Ms Bina Bastola, Deputy Mayor, Changunarayan Municipality
- (2) Mr Rupesh Gelal, Engineer, Changunarayan Municipality
- (3) Mr Siddhant Neupane, DRR Focal Person, Changunarayan Municipality

Lalitpur Metropolitan City

- (4) Er. Harish Chandra Lamichhane, Information Officer and DRR focal person, Lalitpur Metropolitan City
- (5) Mr Lalit Khatiwada, Program Coordinator, NRCS Lalitpur Chapter
- (6) Mr Biplav Pradhan, Coordinator, Safer Cities Project, ISET

Shankarapur Municipality

- (7) Ms Sukra Laxmi Shrestha, Deputy Mayor, Shankarapur Municipality
- (8) Mr Santosh Acharya, DRR Focal Person, Shankarapur Municipality
- (9) Mr Balkrishna Manadhar, Engineer, Shankarapur Municipality

Chautara Saangachwokgadhi Municipality

- (10) Mr Aman Singh Tamang, Mayor, Chautara-Sangachowkgadhi Municipality
- (11) Ms Januka Parajuli, Deputy Mayor, Chautara-Sangachowkgadhi Municipality
- (12) Mr Sher Bahadur Shrestha, DRR Focal Person, Chautara-Sangachowkgadhi Municipality
- (13) Er. Badri Bhujel, Chief Engineer, Chautara-Sangachowkgadhi Municipality

Gosaikunda Rural Municipality

- (14) Mr Kaisang Nurpu Tamang, Chairperson, Gosaikunda Rural Municipality
- (15) Er. Mukesh Kumar Swarnakaar, Engineer, Gosaikunda Rural Municipality
- (16) Er. Sajan Ghimire, Engineer, Gosaikunda Rural Municipality
- (17) Mr Babulal Tamang, President, Nepal Red Cross Society District Chapter, Rasuwa District
- (18) Mr Dinesh Tamang, Treasurer, Nepal Red Cross Society District Chapter, Rasuwa District
- (19) Mr Purushottam Sapkota, Chief Administrative Officer, Gosaikunda Rural Municipality

Gorkha Municipality

- (20) Mr Rajan Raj Pant, Mayor, Gorkha Municipality
- (21) Er. Prakash Dhakal, Chief, Infrastructure Development and Environment Management Section, Gorkha Municipality
- (22) Mr Dhurba Ghimire, Environment, Monitoring and Evaluation Department, Gorkha Municipality

ANNEX B QUESTIONNAIRES

QUESTIONNAIRE I

Part A: Questions for Municipal Engineers

- (1) Has your municipality prepared a risk-sensitive land use plan (RSLUP)? If “Yes”, please share your experience.
- (2) If “No”, then what is the plan?
- (3) Has your municipality conducted the risk assessment for disaster risk or climate change?
If “Yes”, when was the last risk assessment done?
If “No”, proceed to part B.
- (4) What type of assessment has been done (e.g. vulnerability and capacity assessment (VCA) or a semi-quantitative or a detailed quantitative)?
- (5) What has been the experience in conducting these assessment(s)? (Focus on how it has been of help in decision-making.)
- (6) How is risk information shared? Through data? Through websites?
- (7) Does your municipality have an online map accessible to its residents and the wider public?
- (8) Is risk information available in open-source formats?
- (9) How does risk information guide development planning, budget allocation and construction?

Sectoral risk assessment

- (1) Has your municipality done sectoral risk assessment in the past? e.g. for drinking-water supply, sanitation, irrigation system, electricity or communication (or any other system)? List the sectors that have done risk assessments. Who helped conduct the assessment? When was the assessment done?

Sector	Risk assessment	Date of assessment	Supporting organization(s)	Publication date of results/report

Disaster risk screening system

- (2) Is there a risk screening system for development projects (e.g. water supply, roads, irrigation systems, schools and health-related)?
- (3) Are there any DRR projects and/or projects that address climate change risk that have been initiated/budgeted? If “Yes”, please specify the project interventions.
- (4) Has your municipality enforced/implemented a building code and a Risk Sensitive Land Use Plan? Is implementation monitored?
- (5) Who monitors implementation of the building code and land use plan? How are these monitored? How frequently are these monitored?
- (6) Are there municipal-level incentives for safe building construction? Are there established legal sanctions at the municipal level, where appropriate, in cases of non-compliance that leads to unsafe buildings or developments?

(Only applicable for Dhading and Dolakha)

- (7) What is the state of reconstruction and recovery of private shelters and other public infrastructure?
- (8) What percentage of public buildings are accessible to persons with disabilities?
- (9) Have there been efforts to link DRR with climate change adaptation and livelihoods in disaster recovery programmes?
- (10) Are there experiences of retrofitting schools or other public infrastructure?
- (11) Are there any disaster risk insurance programmes being implemented in the municipality?
- (12) Are there procedures in place at the municipal level for handling legal disputes with regard to ownership of land and other property?

Part B: Documents to be Collected and Screened

If any of these documents are not available, identify their preparation status, and provide the name and contact details of consultants/consulting firm assigned to prepare them. Obtain digital copies if hard copies are not available. Provide drafts if any can be shared.

- (1) Municipality profile
- (2) District profile of the respective district
- (3) Urban integrated development plan (or Smart City development plan, if applicable)
- (4) Current fiscal year's budget and annual workplan of the municipality

- (5) LDCRP of the chosen municipality (along with LDCRPs of former municipalities and/or Village Development Committees (VDCs) merged with it, if applicable)
- (6) Latest district disaster preparedness and response plan (DPRP) (This can be obtained through the district administration office)
- (7) Policies, by-laws and similar documents relating to DRRM prepared by the municipality
- (8) Hazard and risk maps, if prepared or available
- (9) Sectoral risk assessments, if possible or available
- (10) Municipal government ("local level") organizational structure
- (11) Identify filled and vacant positions in the municipal government's organization structure.

QUESTIONNAIRE 2

Part A: Questions for the Mayor, Deputy Mayor and Chief Administration Officer

- (1) Does your municipality engaged vulnerable populations in relation to DRRM issues? If "No", please proceed to Question 11 in part B.
- (2) If "Yes", please explain how the municipalities engage vulnerable populations in relation to DRRM issues. Are there any networks, organizations or associations that represent vulnerable groups?
- (3) Are these networks or organizations supported using municipal funds?
- (4) If not, what would approach(es) would the municipality take to engage these vulnerable population or groups? Please suggest 3–4 possible approaches.
- (5) What role(s) can the private sector play in DRRM in the municipality? Name any private-sector actors that are active in DRRM.
- (6) Have you ever coordinated response with DAO? If "Yes", please explain what was the process?
- (7) How is DRRM engagement and coordination done with federal ministries, including the National Emergency Operations Centre (NEOC), Ministry of Home Affairs (MoHA), Ministry of Federal Affairs and General Administration (MoFAGA), Ministry of Urban Development (MoUD), Ministry of Education and Ministry of Health?
- (8) How is DRRM engagement and coordination done with provincial-level ministries, including the Provincial Emergency Operations Centre (PEOC), MoFAGA, Ministry of Infrastructure Development, Ministry of Internal Affairs and Law, Ministry of Education, Ministry of Health and others?
- (9) Have you ever coordinated with the district coordination committee on DRRM-related concerns? If "Yes", please explain the process.

Part B: Disaster Risk Reduction and Management Interventions: What is Happening? What is Missing?

Policy and strategy of the municipality

- (1) Identify any DRRM-related laws, policies and regulations, especially those passed by the current municipal government.
- (2) Are the municipal DRRM-related laws, policies and regulations tailored well to your municipality's hazard risk profile and governance capacity?
- (3) Are the DRRM roles and responsibilities of municipal authorities clearly established in municipal laws and policies?
- (4) Are there any decisions or legal guarantees for the provision of shelter in case of displacement due to disasters?
- (5) Are there preparedness arrangements to prevent legal issues with regard to housing, land and property irregularities and disputes?
- (6) How do the municipal authorities, laws and policies deal with issues relating to persons who are registered elsewhere (e.g. renters)?
- (7) How were the above (Questions 1 to 6) developed or established? (e.g. with technical support from other agencies, solely by the municipal authorities, or by following existing models or templates)
- (8) Do gender-specific needs or considerations exist in the municipal DRRM laws and policies (including in needs assessments, standards for planning and construction of post-disaster accommodations and other arrangements for displaced communities)?
- (9) Has your municipality formed local disaster and climate-resilient committees at the municipal and ward levels? If "Yes", how were they formed? Briefly explain the process.
- (10) Has the municipal government set up Disaster Management Funds at the municipal and/or ward levels? What are the amounts? Are there clear guidelines for the use of such funds?
- (11) What is the makeup of the funding sources for DRRM at the municipal level? Has the municipality received resources from the provincial and federal governments?
- (12) Is there a provision for higher resource allocations for high-risk wards?
- (13) If it is an urban municipality, indicate if it is on the list of municipalities where an urban improvement development plan is being prepared or if it is on the "12 Smart Cities" list.

- (14) Is there a disaster preparedness response plan (DPRP) for the municipality?
- (15) Is training being promoted for public officials and relevant professionals in integrating (a) DRR and (b) response and preparedness in the municipal development plan?
- (16) Does the municipality's laws and policies provide for training, drills and simulations for people likely to be involved in responding to disasters?
- (17) What has the municipality learned from past DRRM efforts?
- (18) What are the priority training and capacity building needs identified by the municipality?
- (19) Identify the municipality's ongoing or planned programmes for building capacity of municipal staff for DRRM, if any.

Risk reduction strategies

- (20) How is the municipality implementing and enforcing building codes?
- (21) Who monitors the enforcement and how is it monitored? How frequently is monitoring conducted?
- (22) Who ensures compliance with building codes?
- (23) Are there incentives for compliance to the building code? Are there established legal sanctions at the municipal level, where appropriate, in cases of non-compliance that leads to unsafe buildings or developments?
- (24) Are there any disaster insurance and/or risk-sharing, transfer and finance mechanisms available or being implemented? If "Yes", how were these established?
- (25) What does the municipality intend to do for better preparedness and community resilience for the next four years?
- (26) What aspects of policy and operational support from the provincial, federal and international levels can better support the municipality in DRRM and longer-term development?

QUESTIONNAIRE 3

Questions for the Nepal Red Cross Focal Person, NGO Workers and International NGOs

Part A: Information on Past Disasters (since 1988)

- (1) List key disaster events that have occurred in the past. Include major casualties, damage and losses.

Year	Description of disaster event	Number of deaths	Damage and loss of property and agriculture (qualitative information, if numeric data is not available)

- (2) Has your municipality (including new wards and former village development committees (VDCs)) prepared hazard maps for floods, fires, earthquake, landslides, etc.? If “No”, proceed to question 4.
- (3) Provide the information in the table below with the names of organizations that helped prepare hazard maps and date of preparation.

Wards	Map(s) prepared	Supporting organization(s)	Date of preparation	Remarks

- (4) Which key non-governmental organizations (NGOs) are currently working in DRRM in the municipality?
- (5) Which key international NGOs (INGOs) are currently working in DRRM in the municipality?
- (6) Which agency serves as the district-level support agency (DLSA) for the district?
- (7) What role(s) can the private sector play in DRRM in the municipality? Name any private-sector actors that are active.

Part B: Coordination Mechanism with Government

- (8) Have you ever coordinated a disaster response with the district administration office (DAO)? If “Yes”, please explain the process.
- (9) Have you ever coordinated with the district coordination committee (DCC) for DRRM-related concerns? If “Yes”, please explain the process.
- (10) Please share your municipality’s good DRRM practices.
- (11) What were the lessons learned and the major issues and challenges as regards DRRM?
- (12) What has the municipality learned from past DRRM efforts?
- (13) Do you have provisions for emergency fire services in the municipality? What are they?
- (14) Does your municipality have open space and evacuation centres identified or established? How are they protected?
- (15) Are there trained task forces in the municipality to undertake emergency response? Please specify the task forces present in your municipality.

No.	Name of office	Name/type of training	Available/allotted human resources
1			
2			

- (16) Do you have a stockpile of light search-and-rescue/first aid items in your municipality?
- (17) Do you have trained human resources in camp coordination and camp management?
- (18) Are there any safe shelter/evacuation building in your municipality?
- (19) Is there an established early-warning system in the municipality?
- (20) Does your municipality have a stockpile of emergency relief materials? If "Yes", please mention the ward(s) where they are stockpiled.
- (21) Has the municipality established a Municipal Emergency Operation Centre or in the process of establishing one?
- (22) Are there procedures for evacuation, assigning roles and responsibilities?
- (23) Does it require that the rights and dignity of evacuated persons be respected in situations of compulsory evacuation? How has it been doing?

Municipal DRRM capacity

Are there procedures in place at the municipal level to take into account legal disputes with regard to land titles and property?

Questions		Tick	
		Yes	No
(1)	Has training in DRRM been conducted for ward- or community-level DRRM committees?		
(2)	Has a plan/strategy for "increasing the Disaster Management Fund" at the ward and municipal levels been designed and planned?		
(3)	Has a Local Emergency Operations Centre been established?		
(4)	Among the filled positions, identify if they have taken any training in DRRM and climate change adaptation.		
(5)	Are there staff who have undergone training in DRRM acts (and other legislation), policies, strategies?		
(6)	Are there staff who have undergone training in disaster risk assessment?		

(7)	Are there staff who have undergone training in disaster risk reduction?		
(8)	Are there staff who have undergone training in post-disaster needs assessment?		
(9)	Are there any other relevant training in DRR for municipal staff?		
(10)	Please specify the training:		

Part C: Documents to be Searched and Collected

If these documents are not available, identify their preparation status, name and contact of consultants/consulting firm assigned to prepare. Obtain digital copies if hard copies are not available. Request for draft if it can be shared.

- (a) Profile of the municipality/district
- (b) Urban Integrated Development Plan (or Smart City Development Plan, if applicable in the case of an urban municipality)
- (c) Current fiscal year's budget and annual work plan of the municipality
- (d) LDCRP of the chosen municipality (along with LDCRPs of municipalities or VDCs that were merged)
- (e) Latest DPRP (This can be obtained through the District Administration Office (DAO).)
- (f) Copies of policies, by-laws or documents relating to DRRM prepared by the municipality
- (g) Copies of hazard and risks maps, if prepared or available
- (h) Copies of sectoral risk assessments, if possible
- (i) If it is an urban municipality, check if it is on the list of municipalities where an Urban Improvement Development Plan is being prepared or if it is one of the "12 Smart Cities".
- (j) Copy of the municipality's organizational structure
- (k) Identify filled positions in the municipality's organizational structure. Which positions are vacant?

QUESTIONNAIRE 4

Questions for Information Officers

Part A: Questions to be Answered using Background Research and Validated During the Municipality Visit

Date of municipal visit	
Venue of meeting	
Name of municipality	
Name of interviewer	

Section I: Background: Demographics and geographic boundaries

(Identify the latest source of information. Mention the information and date when those surveys were carried out. Use secondary information, if available, with sources/citations. For disaggregated population data, refer to the MOFAGA portal: www.mofaga.gov.np)

I.1 Please specify the former wards/VDCs merged to form the present rural/urban municipality.

No.	Former VDC	Current ward in rural/urban municipality
1		
2		

I.2 Please list the adjoining rural/urban municipalities.

Directions	Rural/urban municipalities

I.3 Please provide ward-wise population data in the table below:

Ward No.	Male	Female	Total	LGBTQI (lesbian gay, bisexual, transgender, intersex and questioning)	Number of Households
1					
2					

I.4. Municipal population growth rate and trends

(Obtain this information through secondary sources such as the CBS 2011 survey. Enumerators should explore during the key informant interview if there are areas/wards that are having rapid population growth. Please try to find the reasons why there has been a spurt on the growth or sudden explosion.)

I.5. Literacy rate (%):**I.6. Percentage of households with water supply and sanitation:****I.7. Percentage of households with electricity:****I.8. Percentage of households with telecommunication service:****I.9. Percentage of households with access to financial services (bank account, savings and credit, etc.):****Section 2: The risk landscape: Hazards, vulnerability and exposure****2.1. Hazard information**

2.1.1 Has your municipality (including new wards or previous VDCs) prepared hazard maps for floods fires, earthquakes, landslides, etc.? If “No”, proceed to section 2.3.

2.1.2 If “Yes”, please provide the information in the table below with name of the organization that helped prepare it and the date of preparation.

Ward No.	Map(s) prepared	Supporting organization(s)	Date of preparation	Remarks
1				
2				

2.3.2 Child and elderly population

Ward no.	Category	Age group																
		0–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75+	Total

2.3.3 Single women (**madhesi* or *pahadi dalit*)

Ward No.	Number of single women	Number of single women (widow)	Number of aged

2.3.4 Internally displaced persons (IDPs)

(Obtain details of each settlement along with the number of households.)

Name of settlement	Tole, ward number	Number of households	Details on the reason of IDPs (e.g. families displaced by floods, displacement due to unsuitable land, landslides or after earthquakes)	Male	Female	Remarks (Please mention the tentative idea on cast and ethnicity of the population residing as IDPs)

Mention the challenges in getting these data sets. Indicate whether they are not recognized in any of the government/municipal records. Note down any sensitivities while documenting these households. Also, make sure that there are no false expectations that neither IOM nor the municipality will provide any subsequent support to these settlements.

2.3.5 Extremely poor and food-insecure people from remote areas

Please mention the number of families with food insecurity using the following criteria (information to be obtained from secondary data).

- (a) Number of families with sufficient food for more than 6 months but less than 12 months ("Poor"):

- (b) Number of families with sufficient food for less than 6 months of the year from their land, business or occupations (“Extremely poor”):

2.3.6 Social protection programme details (monthly)

Ward No.	Senior citizen		Single women		Profound disability			Severe disability			Child protection			Dalit		
	Number	Amount (NPR)	F	Amount (NPR)	F	M	Amount (NPR)	F	M	Amount (NPR)	F	M	Amount (NPR)	F	M	Amount (NPR)

2.3.7 Squatters and slums

Name of squatter settlement	Tole and ward number	Number of households	Details about the squatter settlement (e.g. Located on Government-owned land along the floodplains of _____ River)

Mention the challenges in getting these data sets. Particularly identify if they are not recognized in any of the government/municipal records. Any sensitivities that needs to be noted while documenting these households. Also make sure that there are no false expectations that IOM or municipality will provide any subsequent support to these settlements.

Section 3: Information on past disasters (at least for last 30 years, i.e. since 1988)

List out key disaster events that have occurred in the past. Include major casualties, damage and loss

Year	Description of disaster event	Deaths	Damage and loss figures in property and agriculture (or qualitative information, if data is not available)

- 3.1 Is there any system or means for recording, updated and disseminating historical and current disaster-related data in rural/urban municipalities? If “No”, proceed to 3.1.3.
- 3.2 If “Yes”, please explain how disaster-related data is recorded, managed, updated and dissemination at the municipal level?
- 3.3 How do you think can disaster-related data be recorded, managed and updated at the municipal level in a better way?

Section 4: Preparedness for emergency response

- 4.1 Do you have provisions for emergency fire services in the municipality? What are they?
- 4.2 Has your municipality identified/established open space and evacuation centres?
- 4.3 Are there trained task forces within the municipality to undertake emergency response? Please specify the taskforce(s) present.
- 4.4 Are there procedures for evacuation, assigning roles and responsibilities? If “No”, proceed to the next section.
- 4.5 Do you have a stockpile of light search-and-rescue/first aid items in your municipality?
- 4.6 Do you have human resources trained in camp coordination and camp management?
- 4.7 Are there any safe shelters/evacuation buildings in your municipality?
- 4.8 Is there an established early-warning system in the Municipality?
- 4.9 Has the municipality established a municipal emergency management centre or is the municipality in the process of establishing one?
- 4.10 Does your municipality have a stockpile of emergency relief materials? If “Yes”, please mention the ward no. where they are stockpiled?
- 4.11 Does it require that all endangered people be evacuated without discrimination? How has it been doing?
- 4.12 Does it require that the rights and dignity of evacuated persons be respected in situations of compulsory evacuation? How has it been doing?

Section 5: Municipal capacity to manage DRRM

Are there procedures in place to take into account legal disputes with regard to land titles and property at the municipal level?

Questions		Tick	
		Yes	No
1	Has training on DRRM been conducted for ward- or community-level DRRM committees?		
2	Has a plan/strategy for “increasing the Disaster Management Fund” at the ward and municipal levels been designed and planned?		
3	Has a Local Emergency Operations Centre been established?		
4	Among the filled positions, identify if they have taken any training in DRRM and climate change adaptation.		

5	Are there staff who have undergone training in DRRM acts (and other legislation), policies, strategies?		
6	Are there staff who have undergone training in disaster risk assessment?		
7	Are there staff who have undergone training in disaster risk reduction?		
8	Are there staff who have undergone training in post-disaster needs assessment?		
9	Are there any other relevant training in DRR for municipal staff?		
10	Please specify the training:		

Part B: Documents to be Searched and Collected

If these documents are not available, identify their status and the name and contact information of the consultants/consulting firm assigned to prepare them. Obtain digital copies if hard copies are not available. Request for draft if it can be shared.

- (a) Profile of the municipality
- (b) District profile
- (c) Urban Integrated Development Plan (or Smart City Development Plan, if applicable in the case of urban municipality)
- (d) Current fiscal year's budget and annual work plan of the municipality
- (e) LDCRP of the chosen municipality (along with LDCRPs of municipalities or VDCs that were merged)
- (f) Latest District Disaster Preparedness and Response Plan (This can be obtained through the District Administration Office (DAO).)
- (g) Copies of policies, by laws or documents prepared by municipalities related to DRRM
- (h) Copies of hazard and/or risks maps if prepared or available
- (i) Copies of the sectoral risk assessments, if possible
- (j) If it is an urban municipality, check if it is on the list of municipalities where Urban Improvement Development Plan is being prepared or if it is one of the "12 Smart Cities"?
- (k) Municipality's organizational structure
- (l) Within the municipal organizational structure, identify the filled positions. Which positions are vacant?



INTERNATIONAL ORGANIZATION FOR MIGRATION

768/12 , Thirbam Sadak, Baluwatar-5, Kathmandu, Nepal

Tel : +977 | 4426250, Fax: +977 | 4434223

Email: iomnepal@iom.int, Website: www.iom.int