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CPGA
Crisis Preparedness Gap Analysis

CRISIS PREPAREDNESS GAP ANALYSIS

NEPAL BRIEFING NOTE

February 2024

INTRODUCTION

Crises threaten to roll back development gains and undermine efforts to end extreme poverty. Not all crises can be prevented, and governments must therefore be ready to manage residual risk. Doing so requires a comprehensive approach to crisis risk management - one based on investments to reduce exposure and vulnerability. It also requires coordinated and pre-agreed contingency plans backed by effective, efficient, and transparent financial protection measures. When governments invest in preparedness, they are better equipped to deploy the necessary technical and financial resources to reduce the potential impacts of crises and enable timely and effective crisis response efforts, ultimately reducing impacts on people and economies.

IDA20 identifies crisis preparedness as a policy priority, with the goals of enhancing countries' understanding of key crisis risks, strengthening countries' capacity to manage a range of shocks, and informing IDA programming. The Crisis Preparedness Gap Analysis (CPGA) was developed by a cross-sectoral team of World Bank experts to support these efforts. The CPGA aims to (i) provide a high-level assessment of crisis preparedness for different types of shocks, (ii) identify gaps and opportunities to improve crisis preparedness at the country level, and (iii) inform policy dialogue and technical and financial support on crisis preparedness as part of country and regional programming. By identifying priority interventions, the CPGA can be a useful tool to inform Country Partnership Frameworks[1] and country programming more generally.

This briefing note presents summary findings from the CPGA in Nepal. The CPGA provides a shock-agnostic assessment of Nepal's capacity to deal with crisis events whether driven by natural hazards, food insecurity, disease outbreaks, or other threats. Following a brief description of the CPGA methodology and an overview of the risk context in Nepal, this note showcases high-level insights from the preparedness-gap assessment of the country, focusing on entry points and opportunities to strengthen crisis preparedness. This analysis comes as the World Bank is developing its next Country Partnership Framework with the Government of Nepal (GoN). A detailed report on the CPGA findings is provided in an accompanying Technical Annex.

APPLYING THE CPGA IN NEPAL

To provide a holistic assessment, the CPGA analyzes crisis preparedness across five core components, which can be seen as the essential foundations of crisis preparedness—relevant in most contexts and useful to prepare for a range of shocks. These are i) Legal and Institutional Foundations, ii) Understanding and Monitoring Risks, iii) Financial Preparedness, iv) Primary Response, and v) Social and Livelihood Support. Each component is further broken down into subcomponents and indicators, resulting in a three-tiered system with maturity levels assigned to each. Levels of maturity range from unmet (little to nothing has been done to actively promote crisis preparedness) to advanced (typically true of a regional leader in crisis preparedness that takes a comprehensive and multisectoral approach that uses significant resources and has significant capacity). The assessment focuses on identifying entry points for targeted technical and financial support to strengthen crisis preparedness across these five components.

The CPGA of Nepal builds on and complements a number of sector and crisis-specific diagnostics. These include documents produced by the World Bank, such as the *Country Climate and Development Report and the Assessment of Contingent Liabilities from Natural Disasters*

[1] *Under IDA20, all new CPFs are to be informed by appropriate crisis preparedness assessments, including the CPGA*

in Nepal, as well as Vulnerability and Risk Assessments, *Emergency Preparedness and Response Assessment* (based on the R2R framework), and the Asian Development Bank's *The Enabling Environment of Disaster Risk Finaning* in Nepal 2019. The CPGA does not replace or duplicate these in-depth assessments. Rather, it offers a holistic, high-level perspective on key country systems that contribute to crisis preparedness for different types of shocks and across sectors. Where available, these sector-specific diagnostics constitute the starting point of the CPGA. When sector-specific diagnostic tools have yet to be deployed, the CPGA points to knowledge gaps that could be filled with follow-on work and more in-depth analyses.

NEPAL COUNTRY RISK PROFILE

The following country risk profile contextualizes the CPGA. It draws on insights from national risk assessments and information from relevant multi-hazard risk repositories. Discussions on Nepal's capacity to prepare for these risks are provided in the section that follows.

Table 1: **Summary statistics related to key risks and vulnerabilities in Nepal**

NATURAL HAZARDS[2]	Extreme Heat	High risk
	Urban flood	High risk
	Landslide	High risk
	Wildfire	High risk
	Water scarcity / Drought risk	High risk
	Earthquake[3]	High risk
	Riverine flood	Medium risk
	Cyclone	Low risk
FOOD	Cereal import dependency ratio[4]	13.7%
	Prevalence of severe food insecurity	13.6%
	Proportion of children under 5 affected by stunting[5]	31.5%
	Food price inflation, average of monthly year-over-year inflation[6]	7.5%
HEALTH	Total expenditure on health, as a percentage of GDP[7]	5.17%
	Physician density (per 1,000 people)[8]	0.9
	Nursing and midwifery personnel density (per 1000 population)[9]	3.4
	Malaria incidence (per 1,000 people at risk)[10]	0.01

2 *ThinkHazard! 2020. "Nepal" https://www.thinkhazard.org/en/report/175-nepal*

3 *Nepal ranks 11th in terms of earthquake risk globally.*

4 *FAO: Suite of Food Security Indicators. https://www.fao.org/faostat/en/#data/FS*

5 *World Bank. 2019. "Proportion of children under 5 affected by stunting - Nepal". https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=NP*

6 *World Bank. 2023. Nepal Development Update. https://thedocs.worldbank.org/en/doc/7c67a4b930b6e88250b4ff109449ee0a-0310062023/nepal-development-update-april-2023*

7 *World Health Organization Global Health Expenditure database, https://apps.who.int/nha/database.*

8 *WHO. 2021. "Density of Doctors (per 1,000 people) – Nepal". https://data.who.int/indicators/i/217795A*

9 *WHO. 2021. "Nursing and midwifery personnel density (per 1000 population) - Nepal". https://data.who.int/indicators/i/5C8435F*

10 *WHO. 2021. "Malaria Cases – Nepal". https://data.who.int/indicators/i/442CEA8*

MACRO-FISCAL	GDP[11]	$36.3B
	GDP growth rate[12]	4.2%
	Total external debt stock, as a percentage of GNI[13]	24.3%
SOCIOECONOMIC VULNERABILITY	Poverty headcount ratio at $1.90/day[14]	15%
	Human Development Index Rank[15]	143/189
	Human Capital Index Score[16]	0.5
	Population covered by at least one social protection benefit (2020)[17]	16.9%
	Vulnerable persons covered by social assistance (2020)[18]	17.1%
	Primary school completion[19]	106%
	Number of refugees in country[20]	19554
FRAGILITY, CONFLICT & VIOLENCE	Fragile and Conflict-Affected Situations (FCS) Status[21]	Not on FCS list
	Conflict events (3 months)[22]	759
	Reported fatalities (3 months)	15
	Violence against civilians (3 months)	29

Note: Statistics are compiled from a range of external databases (see footnotes for citations; reference period for included data is from 2017 - 2021).

Nepal's population is approximately 30 million with an annual growth rate of 2.3 percent. It is predominantly rural[23] and around two-thirds of the population is engaged in agriculture.[24] Remittances from citizens working abroad were equivalent to nearly a quarter of the country's GDP in 2020.[25] Services are the largest sector, led by growth in the tourism, hospitality, and retail industries, followed by agriculture and then manufacturing, which is primarily small scale.[26] Nepal is highly dependent on imports of food, medicine, gasoline, and other essential goods, and its unique geopolitical position, as a country landlocked between India and China, can complicate other crisis risks as was the case during the trade disruptions with India after the 2015 Gorkha earthquake.

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11 *World Bank. 2021. "GDP (Current US$) – Nepal" https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=NP*

12 *World Bank. 2021. "GDP growth (annual %) – Nepal" https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=NP*

13 *World Bank. 2021. "External debt stocks (% of GNI) - Nepal" https://data.worldbank.org/indicator/DT.DOD.DECT.GN.ZS?locations=NP*

14 *Asian Development Bank. 2022. "Poverty Data: Nepal" https://www.adb.org/countries/nepal/poverty#:~:text=In%20Nepal%2C%20the%20proportion%20of,rate%20in%202017%20was%2010.7%25.*

15 *UNDP. 2022. "Nepal moves up one place in human development, ranks 143rd" https://www.undp.org/nepal/press-releases/nepal-moves-one-place-human-development-ranks-143rd*

16 *World Bank. 2020. "Human Capital Index (HCI) (scale 0-1) - Nepal" https://data.worldbank.org/indicator/HD.HCI.OVRL?locations=NP*

17 *ILO. 2020. "Population covered by at least one social protection benefit." https://www.ilo.org/shinyapps/bulkexplorer52/?lang=en&segment=indicator&id=SDG_0131_SEX_SOC_RT_A*

18 *ILO. 2020. "Vulnerable persons covered by social assistance." https://www.ilo.org/shinyapps/bulkexplorer52/?lang=en&segment=indicator&id=SDG_0131_SEX_SOC_RT_A*

19 *World Bank. 2017. "Primary completion rate, total (percent of relevant age group) – Nepal" https://data.worldbank.org/indicator/SE.PRM.CMPT.ZS?locations=NP*

20 *World Bank. 2021. "Refugee population by country or territory of asylum - Nepal" https://data.worldbank.org/indicator/SM.POP.REFG?locations=NP*

21 *World Bank. 2022. "Classification of Fragile and Conflict-Affected Situations." https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations*

22 *ACLED. 2021. Dashboard. https://acleddata.com/dashboard/#/dashboard*

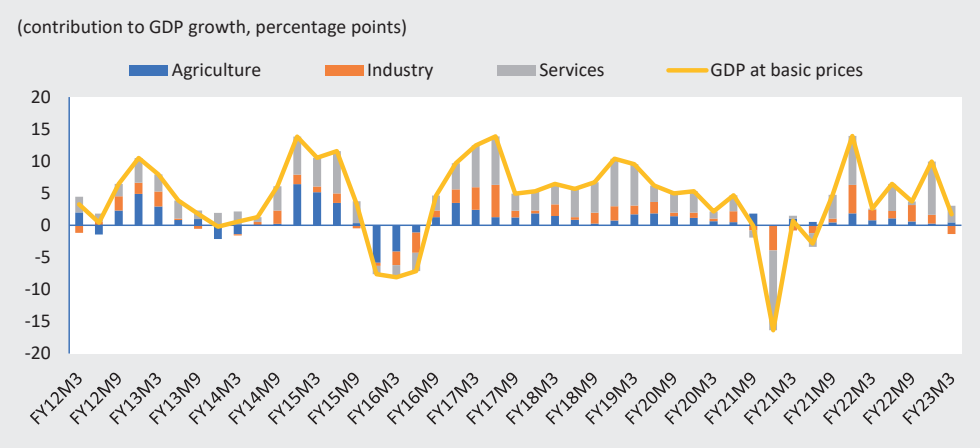
23 *GoN. 2022. National Population and Housing Census 2021. The increase in the share of urban population has more to do with reorganization of local levels post-federalization than actual urbanization.*

24 *FAO. "Nepal at a glance" https://www.fao.org/nepal/fao-in-nepal/nepal-at-a-glance/en/*

25 *Joshi, T., Mainali, R. P., Marasini, S., Acharya, K. P., & Adhikari, S. (2021). Nepal at the edge of sword with two edges: The COVID-19 pandemics and sustainable development goals. Journal of agriculture and food research, 4, 100138.*

26 *World Bank. 2023. Nepal Development Update*

Figure 1: **Gross Domestic Product by Industrial Classification**

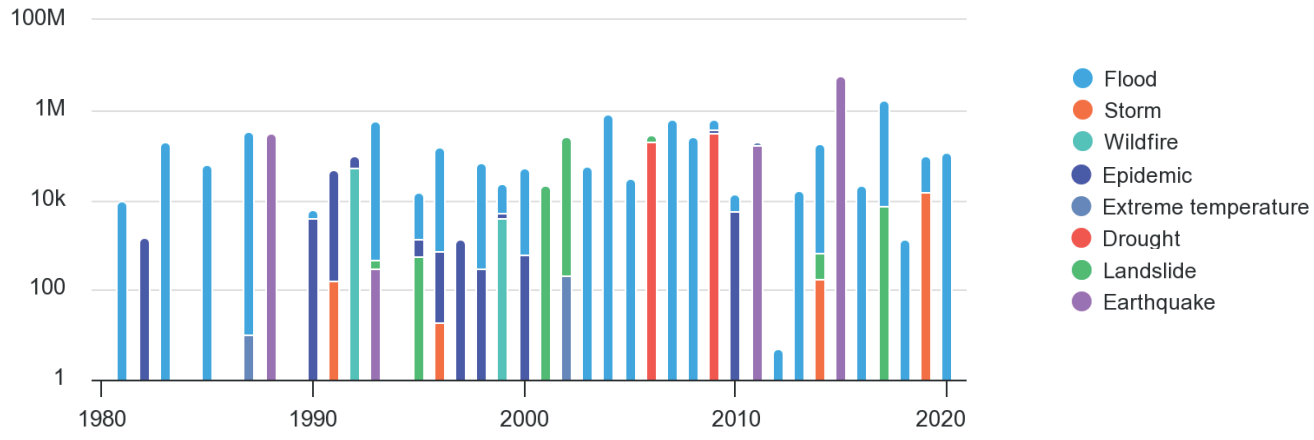


Source: Nepal Development Update 2023 (World Bank)

The major natural hazards Nepal has faced historically are earthquakes, floods, landslides, and increasingly air pollution. Nepal sits on the fault line between the Indian and Eurasian tectonic plates, and unplanned urban settlements and infrastructural gaps add to the damage earthquakes can cause. The 2015 Gorkha earthquake killed almost 9,000 people, displaced over 2.6 million,[27] and caused economic losses amounting to almost one-third of GDP.[28] Intense and more frequent extreme climate events such as floods, and landslides have also seen a sharp increase and regularly cause loss of life and significant damage to homes, crops, and infrastructure in geographically more circumscribed areas.[29]

Many of these risks are bound to intensify with climate change, and new ones are likely to emerge. A prominent example is extreme-heat events, which have immense implications for human health, agricultural production, productivity, and infrastructure. Particularly at risk are Nepal's southern Terai plains, where wet-bulb temperatures may regularly exceed survivable levels by the late 21st century.

Figure 2. **Number of people affected by key natural hazards in Nepal, 1980–2020**



Source: Climate Change Knowledge Portal, https://climateknowledgeportal.worldbank.org/country/nepal/vulnerability

[27] *Internal Displacement Monitoring Centre (IDMC)and ADB. 2022. Disaster displacement: Nepal country briefing. https://reliefweb.int/report/nepal/disaster-displacement-nepal-country-briefing-december-2022*

[28] *At FY2013-14 numbers. Post-Disaster Needs Assessment (PDNA) conducted by the National Planning Commission of Nepal*

[29] *World Bank Group. 2022. Nepal Country Climate and Development Report. CCDR Series. © World Bank, Washington, DC.*

Food insecurity risks are changing, with chronic food insecurity and malnutrition declining but structural vulnerability to production and trade shocks increasing. Although declining, malnutrition and stunting remain high, and 29 percent of urban households and 38 percent of rural households are food insecure. Nepal is a net importer of staple foods and has limited investment in agricultural productivity. Food production and supply are highly vulnerable to climatic shocks and regional and global price shocks.[30]

Pandemic risk is characterized by complex interactions between human, animal, and environmental health. A large part of the population working in agriculture and livestock sector uses farming methods vulnerable to animal-to-human transmission, making Nepal a hotspot for various zoonotic diseases with epidemic potential.[31] [32]

Many of the crisis risks Nepal faces directly affect livelihoods, but existing social-protection (SP) systems are not set up to facilitate livelihood recovery. 15 percent of the population lives on less than $1.90 a day and about 17.4 percent of Nepal's population was multidimensionally poor in 2019.[33] However, despite significant commitment and investments[34] to expanding SP, coverage is still limited, including for the poorest groups. The current SP programs are also not designed to scale up during natural disasters or other shocks to cover additional beneficiaries or provide additional benefits.

SUMMARY OF CPGA FOR NEPAL

The overarching conclusion of the analysis is that while Nepal can manage small, localized crises, it is not prepared for large, multisector crises. Crisis preparedness is not a policy priority, and institutions concerned with crisis risks have a sectoral outlook and emphasize crisis response over preparedness. There is no effective institutional arrangement that is motivated and empowered to analyze risks and coordinate preparedness across sectors.

An adequate legal and policy framework exists for crisis preparedness, but the National Disaster Risk Reduction and Management Authority (NDRRMA), the institution established in 2019 to lead cross-sectoral preparedness and response, is still in its early days of institutionalization. It is not sufficiently equipped with staff and financial resources to fulfill its substantive mandate. Overlapping roles and responsibilities between different agencies further impede the NDRRMA's ability to convene and coordinate stakeholders working on natural hazards, pandemics, and food insecurity. Its roles duplicate those of the Ministry of Home Affairs on natural hazards, and it has no presence in the fields of pandemics and food insecurity.

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30 *World Food Programme. 2022. Impact of Current Shocks on Household Food Security in Nepal: Sixth Round of mVAM Household Livelihoods, Food Security and Vulnerability Survey June. https://reliefweb.int/report/nepal/impact-current-shocks-household-food-security-nepal-sixth-round-mvam-household-livelihoods-food-security-and-vulnerability-survey-june-2022*

31 *These include taeniasis, leptospirosis, hydatidosis, brucellosis, toxoplasmosis, rabies, dengue fever, and avian influenza.*

32 *Ministry of Health and Population, Government of Nepal. Zoonotic Disease Control Programme. https://www.mohp.gov.np/program/zoonotic-disease-control-programme/en*

33 *World Bank. 2020. "Poverty and Equity Brief," Nepal, October 2020. https://databankfiles.worldbank.org/public/ddpext_download/poverty/987B9C90-CB9F-4D93-AE8C-750588BF00QA/SM2020/Global_POVEQ_NPL.pdf.*

34 *The total expenditure on social-protection programs was roughly 210 billion Nepalese rupees in 2021, which was 16.6 percent of total government expenditure. ILO. 2023. "Extending social protection for all in Nepal: An analysis of protection gaps," https://www.ilo.org/wcmsp5/groups/public/—-asia/—-ro-bangkok/—-ilo-kathmandu/documents/publication/wcms_882394.pdf; UNICEF. 2019. "Programme Guidance: Strengthening Shock Responsive Social Protection Systems" https://www.unicef.org/media/63846/file*

Local governments play a crucial role in crisis preparedness and response. However, these are also relatively new institutions that are still in the process of being set up as part of the transition to a federal structure of government, and, broadly speaking, they lack the staffing, capacity, and resources to meaningfully engage in preparedness activities.

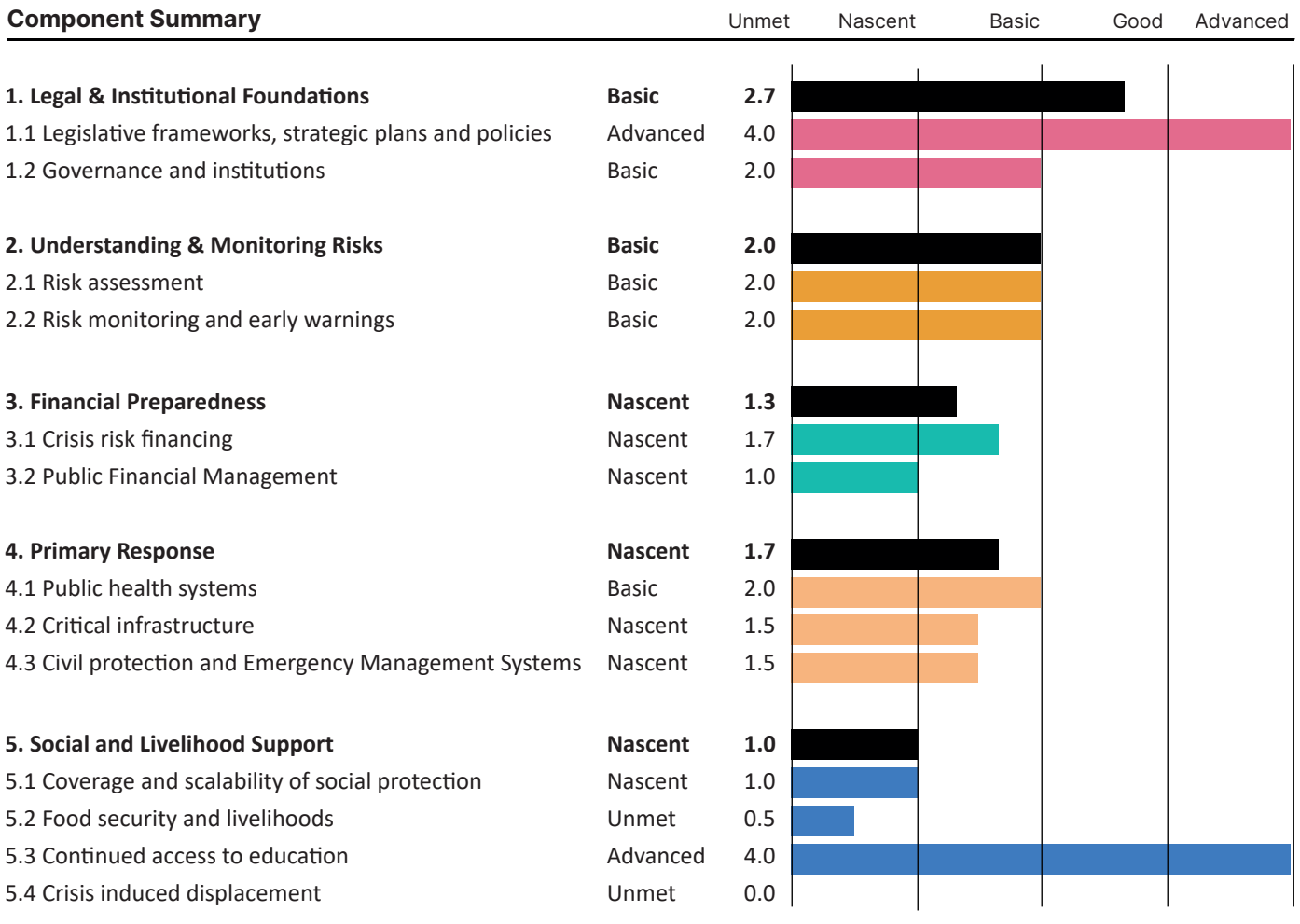
Well-targeted support for recovery of livelihoods affected by shocks is crucial to protect development gains, but there is no institutional champion for such an agenda. Existing Social Protection (SP) programs are not designed to promote household resilience or to be scalable in response to crises. Disaster relief and recovery are often slow and inefficient, particularly as they fail to mobilize existing SP programs and systems.

In addition, disaster relief and recovery do not account for impact on livelihoods, and little attention is paid to recovery of livelihoods after disasters. Significant opportunities exist for making the SP programs and systems shock-responsive and mobilizing them for delivery of relief as well as recovery of livelihoods.

Nepal struggles to put in place sufficient financing both for essential public services that are crucial for multi-hazard preparedness—especially a strong public health system—and for contingent liabilities arising from high-impact risks. Given the magnitude of Nepal's development challenges and of the high and increasing crisis risks it is facing, this is unlikely to change. Realistic and effective risk-financing strategies need to take this fact into account.

Given these fiscal constraints, a focus on building the capacity of the NDRRMA and Social Protection (SP) to effectively strengthen crisis preparedness is particularly urgent. Doing so will have direct positive impacts across the modules of monitoring and early warning, primary response, and SP and livelihood support.

Figure 3: **Maturity levels for components and subcomponents of the CPGA in Nepal**



LEGAL AND INSTITUTIONAL FOUNDATIONS

Existing laws, policies, and plans lay out the legal, regulatory, and policy foundation for crisis preparedness. The legal cornerstone of disaster risk management is the Disaster Risk Reduction and Management Act (DRRM act, 2017). Unlike earlier laws, the 2017 DRRM act's remit is not limited to natural disasters but covers all types of shocks, and it places significant emphasis on ex ante preparedness. Subsidiary policies, plans, and strategies are consistent with this approach, and so are Nepal's rapidly expanding policies on climate change, which tend to integrate disaster-risk reduction and management with broader adaptation. The DRRM act assigns a broad mandate for cross-sectoral coordination through all stages of disaster risk management - including risk reduction, preparedness, and response—to a new NDRRMA and to local governments (LGs). The main strength of the de jure framework is the establishment of the NDRRMA and provincial and local levels with the explicit mandate of analyzing risks and coordinating preparedness and response across sectors.

However, implementation is weak and crisis preparedness is not established as a policy priority. One main issue is that multiple institutions across sectors work on crisis preparedness and response but often with unclear and conflicting mandates and responsibilities. The NDRRMA is still in its early days of institutionalization and has limited capacity and autonomy to effectively claim leadership. It is also not part of many sectoral preparedness activities, especially those related to food insecurity or pandemics. Key line ministries see their role primarily as organizing ex-post responses to crises that occur in their area. For instance, MOHA continues to lead crisis response to natural disasters while Ministry of Health and Population (MOHP) and Ministry of Agriculture and Livestock Development (MOALD) have mandates on health emergencies and food insecurity, respectively. At the same time, cross-sectoral and interagency collaboration is limited. This results in a narrow sectoral approach or the establishment of ad hoc bodies such as those during the COVID-19 pandemic, primarily with a focus on response.

In contrast to response, crisis preparedness and livelihood recovery do not have clear institutional champions. In these areas, the NDRRMA can claim its mandate and is already contributing significantly, despite an insufficient budget staffing and effectively limited convening power.

LGs play a key role in implementing crisis response as well as preparedness activities. However, these are also new institutions that are still in the process of being set up as part of the transition to a federal structure of government and, broadly speaking, lack the staffing, capacity, and resources to meaningfully engage in preparedness activities. This is evident from key institutions such as the local disaster-management committees and the local emergency operation centers, few of which are established and fully functional. This affects not only local-level preparedness planning but also vertical processes such as the collection and aggregation of data for crisis risk monitoring.

A significant share of crisis preparedness in Nepal is donor driven and project based. While the resulting analytical reports, planning documents, and pilot projects form important components of Nepal's crisis-preparedness mechanisms, they could often be better integrated with long-term government strategy, planning, processes, and budgets. Frequent challenges with donor-driven initiatives include lack of coordination and interoperability of frameworks, lack of continuity, and limited consideration for scalability.

UNDERSTANDING AND MONITORING RISK

Sector-specific risk assessments jointly build a broadly comprehensive risk profile, but there are gaps in understanding emerging risks with global or regional origins and how multiple hazards may compound across sectors.[35] There is no current multi-hazard risk assessment at the national level or at subnational levels, and since most national- and provincial-level assessments are driven by development projects, they follow no standardized framework for interoperability and are not conducted at regular intervals. Most assessments are also insufficiently fine-grained to facilitate planning at the province or municipality level, and they address group-specific vulnerability by simply defining broad groups as vulnerable rather than through conducting group-specific analysis of the impacts of key threats.

The government operates early-warning systems (EWSs) for some of the key hazards, including flood- and health-risk monitoring. The Department of Hydrology and Meteorology's hazard forecasting for floods and extreme weather is in high demand, but it lacks staff and capacity to generate actionable advisories. Health-risk monitoring includes a functioning

[35] *For example, deadly heatwaves in the Tarai plains or serious disruptions of remittances or food supply chains.*

system of reporting from hospitals to a central authority. Its weak points are fledgling systems for monitoring zoonotic risks. Food-security monitoring was disrupted during federal restructuring, and the monitoring entities at the local level do not yet have people and processes in place to resume it. There are plans to expand the range of hazards monitored—for instance, to include landslides—and develop impact-based forecasting, which uses historical impact data and probabilistic models to develop timely, actionable advice. But for this to be effective, serious challenges in data analysis and the transmission of advisories to end users need to be addressed. The most urgent needs are clarifying roles (for example, the roles of Department of Hydrology and Meteorology (DHM) the NDRRMA, and LGs), strengthening relationships between data-generating and data-interpreting institutions (for example, between DHM and line ministries), and establishing functioning local emergency operations centers (EOCs).

Many of the key risks Nepal is facing are expected to increase with climate change, but there is limited long-term planning around climate change–induced risks. Nepal is among the countries most vulnerable to climate change, and rising temperatures and changing weather patterns are likely to have significant adverse effects on living conditions and food production across its different climatic zones. For instance, the southern Terai plains, where over 50 percent of the population lives and where most of Nepal's food is grown, face increasing annual risks of deadly heat waves, requiring infrastructure and settlement planning with several-decade horizons.

FINANCIAL PREPAREDNESS

GoN has limited crisis risk financing mechanisms to finance crisis response, recovery, and reconstruction. It is usually the insurer of last resort, with almost all risk retained explicitly or implicitly. This means that in severe crises, such as in the aftermath of the 2015 earthquakes or during the COVID-19 pandemic, response and recovery are beyond the government's capacity and are financed through development partners and humanitarian appeals.

Within severe fiscal constraints, the government is now trying to put into place a risk-layered approach to financial preparedness, outlined in the National Disaster Risk Financing Strategy (2020). The main components in place so far are Disaster Management (DM) funds at the national, provincial, district, and local levels some resources for engaging in basic preparedness activities and responding to less severe, localized crises. The only ex ante disaster-risk financing instrument at the sovereign level is a World Bank-financed Catastrophe Deferred Drawdown Option (Cat-DDO), which is currently being renegotiated.

There is almost no sovereign-level insurance, and private insurance coverage remains very low. Sovereign insurance is recommended for public assets at high risk, including earthquake insurance, as is more contingency financing or catastrophe bonds for humanitarian response, but the costs and benefits of such instruments should be carefully evaluated, and available donor funding used to test them. Regarding private insurance coverage, the most developed sector is agricultural insurance, but coverage remains low despite government subsidies of up to 75 percent of the premium, and the supply of more attractive products is limited by capacity constraints in the private sector.

Data gaps pose a significant challenge to implementing risk layering and expanding the use of insurance. There is currently no inventory of critical infrastructure to enable costed scenario planning and risk modeling for sovereign-level insurance. For private insurance as well, insufficient data—for instance, on crop prices in informal markets—hamper the supply of potentially more attractive products.

Chronic challenges in public financial management further contribute to gaps in financial preparedness. Most importantly, the government perennially struggles with budget execution. This has affected, for example, earthquake reconstruction and spending of DM funds. Low spending capacity ultimately also limits opportunities to increase public borrowing. The linked limitations on spending and borrowing deny Nepal important opportunities for meeting post-disaster needs more speedily and thereby reducing social and economic costs. They also further tilt expenditure away from ex ante preparedness to comparatively simpler ex post response and relief activities. Reasons for low spending capacity are complex and unlikely to change in the short term. However, there are important opportunities to enable spending by streamlining guidelines and other aspects of public financial management.

Key preparedness institutions, processes, and activities are not adequately financed, and, where funding is available, procurement and spending are often slow and incomplete. An important reason why preparedness laws and policies are

not being implemented, and preparedness institutions remain ineffectual, is the absence of technical staff and resources for, equipment maintenance, costs for recurring activities such as risk assessments and preparedness plans, and operating costs for EWSs. Overall, Nepal struggles to put in place sufficient financing both for essential public services that are also crucial for multi-hazard preparedness—especially a strong public health system—and for contingent liabilities arising from high-impact risks. Realistic and effective risk financing strategies need to take this fact into account.

PRIMARY RESPONSE

Nepal has made significant efforts to align its national public health policies, acts, and regulations with International Health Regulations and enhance emergency preparedness and response planning. However, operationalizing the policies, acts, and regulations is a challenge, and there are massive gaps in primary-response capacity across the fields of health, emergency response, critical infrastructure and services, and emergency management. The public health system faces severe inadequacies in human resource capacity, which are particularly evident during crises. Multiple health system gains were made as a result of the pandemic response, including gains in laboratory capacity and the scaling up of rapid response teams. The current challenge is to ensure continuity of achievements while working on strengthening the public health system in the medium and long term.

Contingency planning for critical infrastructure, including establishing an inventory of such infrastructure and financing strategies for their maintenance and repair, is a key gap. Plans, strategies, and initiatives to build back better have addressed resilience of critical infrastructure, especially after the 2015 earthquake. However, public resources and financial incentives to support and maintain critical infrastructure services during and after crises are not readily available. These resources are made available after disaster either through budget reallocations or donor support. A crucial next step is to consolidate ongoing efforts, including the rapid visual screening and a pilot system for managing biomedical systems, to establish an integrated inventory of critical infrastructure.

Emergency services are equipped with specialized personnel and resources but face challenges in terms of adequacy and readiness to tackle large-scale disasters, accountability for equipment use and maintenance, and resilience of communication systems. At the local level, EOCs are supposed to constitute the backbone of primary response—with capacity to coordinate with security services, respond to local emergencies such as forest fires, and feed information up the chain—but only a fraction of municipalities has established EOCs so far.

SOCIAL AND LIVELIHOODS SUPPORT

Nepal has a large portfolio of social protection (SP) programs that cover about a third of the population, but most were not designed to promote household resilience or to be scalable in response to crises. Most programs are designed to address demographic and life cycle vulnerabilities and do not explicitly target poverty; and about 45 percent of households in the poorest quintile are not covered by any SP program. While the SP systems and programs are currently not designed to scale up to deliver relief and livelihood support in the wake of crises, efforts to build such a shock-responsive system are underway. The NDRRMA is leading the drafting of shock-responsive social protection (SRSP) guidelines that will enable the mobilization of existing programs to deliver relief and recovery in a more efficient and inclusive manner. In addition, GoN has also initiated the establishment of an integrated social registry (ISR) to enable swift identification of affected and vulnerable households.

Both chronic food insecurity and risk of acute food insecurity in the wake of other crises are high. A previously established system for continuously monitoring food security, markets, and nutrition is defunct and efforts are underway to operationalize the food security information centers at the local level. Preparedness measures by different ministries and agencies, which have limited communication among themselves, focus on food stockpiling and subsidizing inputs to boost production, but none are systematically based on risk analyses. Community storage facilities, which are under discussion, could significantly strengthen preparedness.

Continuity of education has received increased attention in the wake of the COVID-19 pandemic. The focus was on distance learning, which only a fraction of students was able to access. Reasons for this include a widespread lack of access to the internet and necessary electronic devices as well as chronic underfunding of the public school system. The contingency plans require more resources to be implemented. An often-overlooked aspect concerns resilience of school buildings, which are often not constructed to offer resilience against flooding, extreme heat, earthquakes, and landslides.

Crisis-induced displacement is a critical issue and bound to become more so with climate change. Resettlement in the aftermath of the 2015 earthquake has generated significant experience, demonstrated limitations of current frameworks, and highlighted the importance of consultations with and participation of displaced people and host communities and the importance of emphasizing livelihood support. Learning from these experiences and preparing policies and processes for resettlement and displacement in advance of crises will be even more important as vulnerabilities to a range of hazards including floods, heat waves, landslides, and glacial lake outburst floods (GLOF) intensify.

Photo Credit: Narendra Shrestha/World Bank

ENTRY POINTS FOR STRENGTHENING CRISIS PREPAREDNESS

Table 2 presents a list of entry points for strengthening crisis preparedness, grouped into two categories—Priority I and II—where recommendations that emerge mainly from the cross-sectoral assessment and those that will have a systemic impact on crisis preparedness are listed in Priority I. The recommendations are aligned to the Green, Resilient and Inclusive Development (GRID) agenda that the GoN has adopted. Notably, some of the activities recommended here have already been initiated. The table also shows timeline for the recommendations: short term (S, under 12 months), medium term (M, 2-3 years) and long term (L, 4-5 years). Refer to the CPGA Technical Annex for more details.

Table 2: **Entry points for strengthening crisis preparedness in Nepal.**

PRIORITY I - ENTRY POINTS

	LEGAL AND INSTITUTIONAL FOUNDATIONS	TIMELINE
1	**Strengthen the NDRRMA's role and institutional capacity through more dialogue, resources, and autonomy** to enable it to • Coordinate preparedness across crises including natural hazards, pandemics, and food insecurity, and • Support local level capacity building for key preparedness activities.	S-M
2	**Clarify responsibilities of government agencies** working on preparedness and response at different levels of government, including by • Establishing standard operating procedures (SOPs) for communication during crises. • Consolidating the chain of command and communication between the national emergency operating center (NEOC) and EOCs at the district and local levels, and between the NEOC and Health EOC.	S-M
	UNDERSTANDING RISKS	
3	**Strengthen weather, climate and water services by** • linstitutionalizing impact-based forecasting, possibly via the hydromet policy and law. • Expanding the network of hydromet monitoring stations and ensuring adequate resources for their maintenance. • Strengthening institutional collaboration by establishing intersectoral forums to produce tailored, actionable weather advisories and by developing interoperability across existing EWSs, including those in Health.	S-M
4	**Support the development of an inclusive multi-hazard EWS,** including by • Supporting to NDRRMA to conduct a periodic MHRA. • Investing to expand the natural hazards monitoring to include landslide and lightning. • Enhancing sectoral capacities for monitoring risks in select sectors such as agriculture and hydro power. • Strengthening of monitoring of food insecurity through operationalizing food-security information centers at the local level. • Strengthening communication of early warnings to the public.	S-L

FINANCIAL PREPAREDNESS

5 **Invest further in national Disaster Risk Financing catastrophe-risk models as a core element of risk management by** M-L

- Expanding catastrophe-risk modeling to cover other hazards such as floods (this has already been initiated with World Bank support).
- Considering sovereign earthquake-risk insurance based on risk modeling and insurance for public assets at high risk.
- Developing earthquake- and flood-insurance products for households; they could be subsidized for low- and medium-income households.

6 **Promote development of domestic market for agricultural insurance by** M-L

- Developing hybrid agri-insurance products with a combination of indemnity-based and index-based coverage that account for risks more effectively.
- Expediting decentralization of administration of agri-insurance from MoALD to the local level

7 **Streamline** LG's access to federal disaster management (DM) funds by simplifying the procedures in the federal DM fund's operating guidelines. S

PRIMARY RESPONSE

8 **Strengthen the surveillance system and data sharing for effective public health decision-making, including decisions regarding health-sector preparedness and response by** S-M

- Expanding coverage of sentinel sites and ensure they are operational.
- Adding event-based surveillance and risk-based surveillance for both human and animal health to establish an integrated surveillance system.
- Conducting advanced analysis of disease surveillance and epidemiological modeling.

9 **Operationalize the One Health approach** in order to strengthen health security by M-L

- Enhancing monitoring of plant, animal, and human diseases at all 14 cross-border entry points to monitor and mitigate health crises, and
- Strengthening the One Health secretariat's ability to coordinate, and share information across, the three key ministries, and expanding its technical committee to include the NDRRMA.

10 **Establish a consolidated inventory of critical infrastructure, including digital infrastructure,** and S-M

- Ensure provisions for periodic audit and maintenance to safeguard critical infrastructure.
- Ensure provision of contingency plans (with associated risk financing strategy) to ensure business continuity in the event of a crisis.

SOCIAL AND LIVELIHOOD SUPPORT

11 **Institutionalize SRSP by approving SRSP guidelines** to enable the use of existing SP systems and programs for more efficient and inclusive delivery of relief and recovery, and S-M

- Ensure that the SRSP guidelines emphasize impact of shocks on livelihoods and the provisions to help households recover their livelihoods after disasters.
- Amend program guidelines of key SP programs—SSA and PMEP—to align with the SRSP guidelines and enable them to respond to shocks.
- Ensure sustained investment in the ISR required to implement SRSP and help achieve efficiency gains, which will enable assisting a larger share of the poor and the vulnerable.

12 **Invest in building local level communal storage facilities for seeds and grains** to promote food security. M

PRIORITY II - ENTRY POINTS

UNDERSTANDING RISKS

13	**Systematically identify vulnerable groups and assess group-specific risks and impacts of key hazards to inform preparedness and response** by establishing consistent analytical frameworks and processes. Periodic Climate Change VRA could use such a framework.	M-L

FINANCIAL PREPAREDNESS

14	**Continue to use available contingent financing instruments such as the Cat-DDO,** including the World Bank's Cat-DDO and ADB's Contingent Disaster Financing, and ensure that such financing can be mobilized to assist the most vulnerable during crises.	S-M
15	**Promote development of a domestic market for crisis-risk agricultural insurance** • Promote awareness of agri-insurance products among low-income farmers and incentivize insurance agents to expand their coverage. • Strengthen public-private partnerships to improve data collection, product development, and outreach for the insurance sector and to support capacity building.	M-L
16	**Enhance procurement and public financial management during crises** • Improve internal controls and oversight of post-disaster expenditures. • Support LGs' to detail emergency procurement provisions in their procurement laws and regulations. • Introduce dedicated budget coding for DRM expenditure for easier tracking of such expenses.	M

PRIMARY RESPONSE

17	**Enhance LG capacity for search and rescue (SAR) by** • Providing resources for additional SAR equipment which are pre-positioned at the local level. • Optimize use of available infrastructures—for example, by repurposing holding centers built during COVID-19 for other emergency responses.	M-L

SOCIAL AND LIVELIHOOD SUPPORT

18	**Revisit the risk-management framework for small farmers** • Review agricultural subsidies to target them better. • Promote farmers' access to insurance products. • Ensure that disaster relief and recovery efforts consider impacts of crises on livelihood and food security.	M
19	**Improve financing of education continuity plans to ensure continued learning during crises,** and invest in infrastructure to promote alternative learning modalities.	M
20	**Enhance government's planning and processes for resettlement** by drawing lessons from past experience to emphasize consultative, community-responsive processes and ensure that issues of livelihoods, cultural life, and social cohesion are addressed.	M-L

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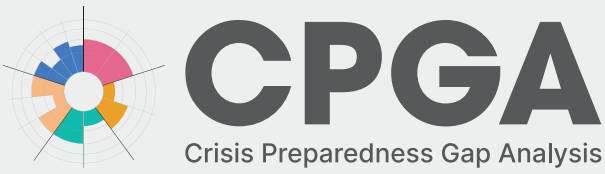
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Crisis Preparedness Gap Analysis