Avoiding a perfect storm:
COVID-19 and floods in Nepal

Findings from Community Disaster Management Committees – June 2020

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Background

Introduction

COVID-19 is a serious risk for flood vulnerable communities in Nepal as the monsoon season begins in earnest. Confirmed cases have doubled in a week to total over 1,000.[1] Although the number is yet relatively small, the country is at high risk of an outbreak due to the international movement of Nepali migrant workers. As the pandemic impacts jobs globally, up to 600,000 migrant workers are predicted to return to Nepal in the near future.[2] In March alone, close to half a million workers returned from India without any screening.[3] Asymptomatic cases are also prevalent, and only one percent of confirmed cases displayed symptoms at the time of diagnosis.[4] As cases rapidly rise, Nepal's health system is not equipped to deal with an emergency. The country ranks 111th in the Global Health Index and has only three beds per 1,000 people. [5]

COVID-19 has devastated the country's economy reliant on remittances and tourism. Remittances, which contributed to 25 percent of the GDP in FY 2018/2019, are expected to drop drastically as a result of weaker earnings and travel restrictions for Nepalis seeking jobs overseas.[6] The tourism sector has come to a complete halt, leading to significant impacts on jobs. A reduction in economic activity within the country has also severely affected workers of the informal sector who make up more than 70 percent of the total workforce. [7]

In this context, the monsoon season will start. Eighty percent of Nepal is vulnerable to multiple hazards, with flooding one of the most frequent and devastating. Severe flooding in 2017 affected 1.7 million people and caused damages amounting to 585 million USD, equivalent to three percent of Nepal's GDP.[8] Floods cause people to congregate on higher grounds and seek safety in crowded evacuation shelters. Floods and their resulting impacts, such as loss of housing, damage to critical infrastructure including health facilities, congregated sheltering, and exposure to contaminated water, can further exacerbate socio-economic conditions of communities.

Most of the devastating floods in recent years have occurred during the monsoon season, between June and September. Governments and communities must now prepare considering the additional risks from COVID-19. Mercy Corps and Practical

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[1] 1,042 confirmed cases as of May 28, 2020.
The Kathmandu Post (May 29, 2020) *COVID-19 updates*, <https://kathmandupost.com/covid19> [accessed 29 May 2020].
[2] The Kathmandu Post (May 21, 2020) *At least 500,000 migrant workers want to return home at the earliest, says report*, <https://tkpo.st/3e66VlA> [accessed 26 May 2020].
[3] Nepali Times (March 31, 2020) *Returnees may be taking coronavirus to rural Nepal*, <https://www.nepalitimes.com/here-now/returnees-may-be-taking-coronavirus-to-rural-nepal/> [accessed 26 May 2020].
[4] World Health Organization (May 20, 2020) *Situation Update #5 - Coronavirus Disease 2019,* <https://www.who.int/docs/default-source/nepal-documents/novel-coronavirus/who-nepal-sitrep/5-who-nepal--situpdate-covid-19-20052020-final.pdf?sfvrsn=7552c8ba_4> [accessed 26 May 2020].
[5] World Bank (2020) *South Asia Economic Focus, Spring 2020: The Cursed Blessing of Public Banks,* http://hdl.handle.net/10986/33478 [accessed 28 May 2020].
[6] International Monetary Fund (2020) Nepal: Request for Disbursement Under the Rapid Credit Facility-Press Release; Staff Report; and Statement by the Executive Director for Nepal, <https://www.imf.org/en/Publications/CR/Issues/2020/05/11/Nepal-Request-for-Disbursement-Under-the-Rapid-Credit-Facility-Press-Release-Staff-Report-49404> [accessed 28 May 2020].
[7] International Labour Organization (2020) *Informal economy in Nepal*, <https://www.ilo.org/kathmandu/areasofwork/informal-economy/lang--en/index.htm> [accessed 28 May 2020].
[8] National Planning Commission, Government of Nepal (2017) *Nepal Flood 2017 Post Flood Recovery Needs Assessment*, <https://www.npc.gov.np/images/category/PFRNA_Report_Final.pdf> [accessed 23 May 2019].

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Action, members of the [Zurich Flood Resilience Alliance](#), conducted an assessment of 46 Community Disaster Management Committees (CMDC) across 5 districts to understand the state of flood vulnerable populations and provide recommendations for governments, donors and communities to better prepare for the coming monsoon season and the compound risks caused by COVID-19.

Methodology

The assessment targeted 46 Community Disaster Management Committees (CMDC) in the districts of Baitadi, Bardiya, Dadeldhura, Kailai, and Kanchanpur (Annex 1). 27,676 people live in the 46 communities of the 5 districts. In Nepal, CDMCs function as the governance structure for disaster management that works closest to the population. The assessment was conducted through a structured telephone questionnaire with CDMC representatives between May 5 –15, 2020. The surveyed CDMCs are project implementation areas of Mercy Corps and Practical Action, and were chosen considering geographic and socio-economic conditions, as well as availability during this crisis.

Map of Surveyed Communities in Baitadi, Bardiya, Dadeldhura, Kailali, and Kanchanpur
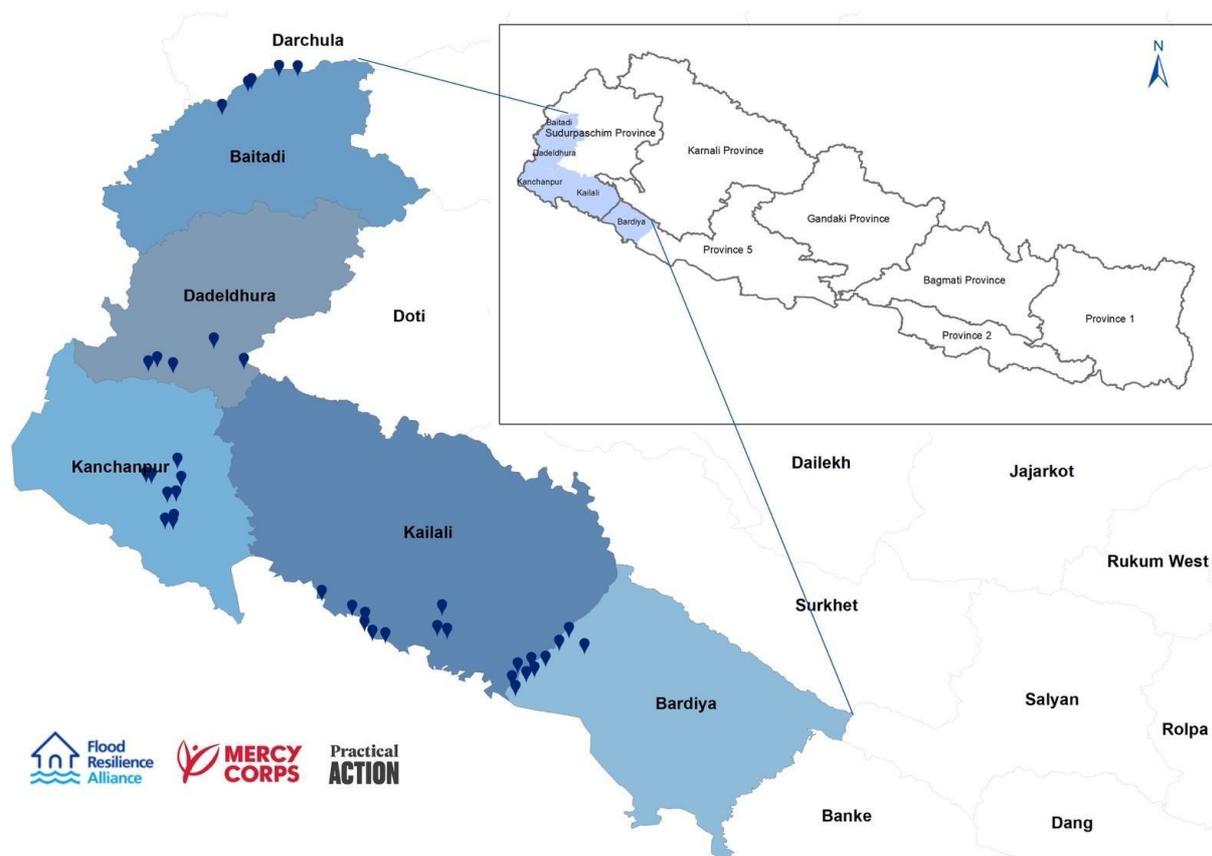
Summary of findings

- Community Disaster Management Committees (CDMC) report that flooding and landslides from the monsoon season will impact communities severely due to increased vulnerabilities from the COVID-19 crisis. COVID-19 has already exacerbated the socio-economic conditions of the communities. Lockdowns have impacted peoples' income, and limited access to essential services and resources. 60% of surveyed communities report food scarcity as a major threat, with marginalized groups, such as the Dalit population, especially facing difficulties. The communities also face challenges such as increased price of food items; scarcity of drinking water; and difficulties in selling agriculture products due to market closure.

- All communities have designated or pre-identified evacuation sites for flooding and landslides. However, distancing in such shelters is a major challenge. Maintaining good hygiene is also difficult as 43% of the evacuation sites lack handwashing facilities, and 57% do not have hand soap stock. CDMCs note their role in adapting the sites to consider COVID-19, such as separating COVID-19 patients, limiting movement and crowd gathering, promoting good hygiene practices despite limited resources, and coordinating with local governments.

- Lack of access to clean water and items for sanitation and hygiene, such as hand soap, is also apparent at the household level. Although local governments have been distributing hand soap and hygiene materials, communities report insufficiencies. Nearly 30% of the CDMCs observe competition over essential items for sanitation and hygiene due to market closure from the lockdown. Lack of access to clean water and resources for sanitation and hygiene will increase both the risk of water-borne diseases and COVID-19 transmission during the monsoon season.

- One in five communities do not have access to healthcare facilities during floods and landslides. Communities already express limitations in accessing health services due to decreased transportation from the lockdown. Vulnerable groups, such as people with chronic illnesses, may face further difficulties in addressing medical concerns during the monsoon season. Coordination with ward and municipality offices is critical for communities to seek advice on how to enable people to access health services, especially now with limitations on movement, and how to manage environments with COVID-19 risk, including evacuation sites.

- Only 17% of communities have quarantine facilities in their community, and 22% of such facilities are not safe from flooding and landslides. Most communities do not have alternative safe areas for isolation, aside from the designated evacuation sites.

- CDMCs are serving as essential governance structures for COVID-19 preparedness and response. Although the communities did not yet have active cases at the time of the survey, CDMCs are coordinating with local governments and other groups to conduct key activities, such as public hygiene and sanitation awareness raising, and distribution of face masks and hand soap. On the other hand, due to movement and gathering restrictions, CDMCs have not been able to conduct preparedness activities for the monsoon season, such as community evacuation drills.

- CDMCs possess gender disaggregated data of vulnerable groups to hazards, which largely overlap with high risk groups to COVID-19. Around 40 percent of the communities' population have been identified as belonging to such groups, including the elderly, persons with disabilities, pregnant women, lactating mothers, and children.

Findings

Awareness and action for COVID-19

- CDMCs reported zero identified cases at the time of the survey. However, aggressive polymerase chain reaction (PCR) testing is limited, and accounting for asymptomatic cases is difficult. In the seven communities we received testing status information, 0.4% of the population had been tested.
- All CDMCs are aware of COVID-19 and are proactively conducting COVID-19 resilience activities, often under the coordination of ward and municipality offices. Activities include community sanitation and public awareness campaigns, and awareness messaging through radio and SMS. CDMCs have also played a key role by distributing face masks and hand soap in coordination with ward and municipality offices.
- All CDMCs report that people are practicing transmission prevention by use of masks (provided by local government), regular handwashing and hand sanitization, movement limitation, and distancing. Some communities have also started limiting unknown individuals from outside of their community to enter their villages.
- Only 17% of communities have quarantine/isolation facilities in or nearby their community. Out of the eight communities in Bardiya (two facilities), Dadeldhura (five facilities), and Kanchapur (one facility) districts that have such facilities, two are not safe from floods and landslides. CDMCs in Baitadi and Kailali districts report lack of facilities for quarantine and isolation.
- CDMCs observe radio, SMS, and television, to be the main entrusted sources of information for communities.

Vulnerability profile for hazards and COVID-19

- CDMCs possess data on vulnerable groups in their community due to their role in risk mapping for hazards, which identify such households and populations. Such data can be utilized to consider vulnerable groups for COVID-19. Although individuals may belong to more than one category, it is clear that vulnerable groups to hazards and COVID-19 make up a significant portion of the population.
- 2095 elderly individuals comprise 8% of the population. Analysis at the community level shows that some communities have a higher percentage. Dakshinpur CDMC in Bardiya District, and Trishakti CDMC in Kanchanpur District report 14% of the population to be over 60 years old.
- In the 46 communities, there are a total of 326 pregnant women and 195 lactating mothers, which account for 2% and 1% of the female population, respectively.
- 333 persons with disabilities account for 1% of the population. However, analysis at the community level shows higher percentages in some communities; Rakasun CDMC in Dadeldhura District answered 9% of their population to be a person with disabilities.
- 8,201 children account for 30% of the population.
- 3,208 daily wage workers comprise 12% of the population. The proportion of daily workers is especially high in the surveyed communities in Bardiya District, with an average of 20%. Sonahagaun and Banghusras CDMC in Bardiya report half of their population to be daily wage workers.

Chart 1: Number of people belonging in vulnerable groups in 46 communities

Population Category	Total # in surveyed 46 communities
Elderly (60+ years) / Female	1076
Elderly (60+ years) / Male	1019
Persons with Disabilities	333
Pregnant Women	326
Lactating Mothers	195
Girls	3980
Boys	4221
Daily wage workers / Female	1232
Daily wage workers / Male	1976
Total	**14358**

*The total population of the 46 communities is 27,676 people.

Chart 2: Percentage of the population by district

	Elderly	Persons with disabilities	Children	Pregnant women (out of women)	Lactating mothers (out of women)	Daily wage workers
Baitadi	7%	1%	42%	2%	3%	11%
Bardiya	9%	1%	10%	1%	0.3%	20%
Dadeldhura	7%	2%	40%	2%	1%	1%
Kailali	7%	1%	33%	2%	1%	7%
Kanchanpur	7%	2%	38%	4%	3%	12%

* The percentage is calculated by the population of the surveyed 46 communities by district.

Impact on access to essential services

● 60% report food scarcity as a major threat. Marginalized groups, such as the Dalit population, especially face difficulty in accessing food due to limited resources. The communities also report increased price of food items; scarcity of drinking water; and difficulties in selling agriculture products due to market closure.

● 22% of communities cannot access healthcare facilities during floods and landslides. The average distance from the community to the nearest healthcare facility ranges from 0.5-7 km, at an average of 2.8 km. Moreover, the average time to reach such services is 40 minutes, and ranges between 15-90 minutes by community.

● 28% observe competition to access essential items for sanitation and hygiene due to market closures from the lockdown. Additional shocks and stresses such as the

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monsoon rains will further prevent peoples' access and limit the ability to purchase essential items that help mitigate risks of COVID-19.

- 96% have access to sufficient water to conduct necessary sanitation and hygiene practices. 35 out of the 46 communities (76%) are located in the Terai plains, and groundwater is available in most of the households. However, two communities in Dadeldhura report lack of access due to water sources being far from the community. Moreover, communities located in the mid-hills note that 20-25% of households do not have access to water at all times.

Networks of Community Disaster Management Committees

- 17% of CDMCs have coordination mechanisms with health authorities and resources, such as health centers and health posts. Moreover, most CDMCs note good relationships with ward offices that can connect them to health-related resources. CDMCs have also identified health units of the municipalities as a resource for coordination.
- CDMCs have identified the following stakeholders as groups to coordinate with when considering how to deal with COVID-19 in hazards: ward and municipality offices; Nepal Red Cross Society; I/NGOs and cooperatives; Tole development committees, mother's groups, and women's groups.

COVID-19 and disaster management planning

- 70% of CDMCs have started to consider COVID-19 in their disaster management plans.
- 87% plan to mobilize their disaster risk management (DRM) funds for COVID-19 response to conduct awareness programs; distribution of masks and sanitation/hygiene items such as hand soap; food and essential medical supply support for poor households; and support for ill patients. However, DRM fund amounts are limited and range from NRP 2,500-400,000 (USD 20-3,300); the amounts are insufficient to conduct both hazard and COVID-19 prevention activities.
- All CDMCs report non-food items such as lifejackets, ropes, sirens, and search and rescue equipment, to be in good condition. However, CDMCs lack stock of food items, sanitary items, and hygiene kits due to market closure from COVID-19.

Consideration of COVID-19 in evacuation sites

- 89% of communities have designated evacuation sites, such as schools and community safe shelters. The 11% that do not have designated locations have pre-identified structures for evacuation. The average capacity of the evacuation sites is 204 people, and range from 30-1,600, depending on the community.
- 43% of evacuation sites lack handwashing facilities, and 58% do not have stock of hand soap.
- CDMCs report difficulty in maintaining distance in evacuation sites and shelters. Actions identified to best adapt within this environment were to: create designated areas within the evacuation sites for COVID-19 patients; reduce movement and limit unnecessary crowding within the sites; manage handwashing facilities and promote good hygiene practices; ensure usage of masks; and construct temporary shelters.

Communities also note the importance of coordinating with ward and municipality offices.

- 15% of CDMCs report that there are other potential structures that can be used for evacuation, with a capacity to shelter 100-200 people.

Role of Community Disaster Management Committees

CDMCs recognize their role in helping to mitigate the risks above, and have identified the below actions to prepare and respond to the monsoon season during the COVID-19 crisis:

- Utilize existing early warning systems, to provide health information and awareness messaging.
- Coordinate with local governments to provide necessary healthcare for vulnerable groups.
- Promote awareness on good sanitation and hygiene practices.
- Manage evacuation shelters to mitigate risks of COVID-19, and identify alternative safe spaces.
- Support management of quarantine sites.
- Use disaster management funds to buy hand soap and hygiene items.
- Support removal of road blockages to allow access to essential services.

Recommendations

Recommendations for Federal Government and Donors

- The government, donors, and I/NGOs need to address the aforementioned gaps identified in communities at high risk of floods and landslides as the monsoon season approaches. For example, **donors and the national government need to assist local governments to provide support to targeted vulnerable groups** through different modalities, such as unconditional cash distributions, which will enable people to meet basic needs during both flooding and the COVID-19 crises. Specifically, the federal government should proactively support and develop guidelines and modalities for unconditional cash transfers. Donors should provide cash and vouchers to vulnerable families and also consider additional funding and programs like cash-for-work or food-for-work to build defences in areas identified as high-risk to landslides and flooding. I/NGOs should coordinate closely with local governments to address their needs and provide support to operationalize distribution.

- Surveyed CDMCs are actively working to mitigate COVID-19 risk, but require support, especially on ensuring availability and access to handwashing facilities and soap. **Donors and the government should increase funding to build and maintain handwashing facilities in evacuation sites and distribute hand soap ahead of the monsoon season.** Directly funding disaster management funds of local governments and communities should also be considered. Implementing organizations including I/NGOs should ensure that support for evacuation sites includes equipment of water and sanitation facilities.

- **The government and shelter cluster in Nepal should provide local governments and communities with user-friendly operating procedures on how to best adapt evacuation sites or build temporary shelters considering COVID-19 risk.**

Distancing in evacuation sites is a challenge and most communities do not have alternative structures.

- **The government and donors should immediately provide funding for the construction of additional quarantine and isolation sites with adequate drinking water and sanitation facilities** meeting minimum standards,[9] as up to 600,000 migrants are predicted to return from overseas in the coming months. In this context, evacuation during the monsoon season could lead to increased transmission in crowded shelters. Communities need safe facilities to quarantine positive cases, as well as people with recent travel history and people displaying symptoms. Moreover, **the minimum standards for quarantine and isolation facilities should include site selection that is safe from hazards,** including flooding and landslides.

Recommendations for Community Disaster Management Committees

- **Community Disaster Management Committees (CDMC) need to coordinate with local governments**, especially health authorities and offices, and existing networks, such as Female Community Health Volunteers, to strengthen preparedness and response to hazards during the monsoon season. CDMCs should identify existing resources and networks, and **confirm communication channels and operating procedures** to prevent COVID-19 transmission in evacuation sites before flood events occur. Strengthening coordination and support for communities that do not have access to health facilities during flooding and landslides, will be critically important.

- Existing structures of CDMCs, such as early warning systems, and risk maps that have identified vulnerable populations, should be fully utilized to also disseminate health messaging and strengthen preparedness for COVID-19.

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[9] Nepal Wash Cluster (2020) *Guidance Note on Minimum WASH Requirements in COVID19 Quarantine and Isolation Centers*, <https://dwssm.gov.np/wp-content/uploads/2020/04/Minimum-WASH-requirements-in-COVID-19-quarantine-WASH-Cluster_Final-1.pdf> [accessed 16 May 2020]

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Annex 1:

District	Name of community	Total population
Baitadi	Bagadi	601
Baitadi	Bitkam	254
Baitadi	Kuyadaha	332
Baitadi	Okhalbata	294
Baitadi	Pansera	374
Baitadi	Songaun	514
Bardiya	Banghusra	442
Bardiya	Chakkapur	643
Bardiya	Dakshinpur	792
Bardiya	Murghahawa	812
Bardiya	Nangapur	995
Bardiya	Sangharsanagar	2873
Bardiya	Sonahagaun	911
Dadeldhura	Beldangi	259
Dadeldhura	Gharelu	536
Dadeldhura	Japhati	989
Dadeldhura	Kurmulle	513
Dadeldhura	Rakasun	318
Kailali	Bangaun	428
Kailali	Bijuliya	1450
Kailali	Bishanpur	250
Kailali	Ganjahuwa	731
Kailali	Karmidanda	354
Kailali	Khonpur	561
Kailali	Lalitpur	162
Kailali	Lalpur	301
Kailali	Nimuwabojhi	180
Kailali	Nuklipur	423
Kailali	Pachalapuruwa	510
Kailali	Samaj Yekata	694

Kailali	Shivpur	176
Kailali	Shivratanpur	412
Kailali	Simreni	628
Kanchanpur	Baijnath	518
Kanchanpur	Doda	658
Kanchanpur	Itaha	462
Kanchanpur	Janajagaran	378
Kanchanpur	Janajeewan	293
Kanchanpur	Jiwanjyoti	975
Kanchanpur	Kalika	928
Kanchanpur	Kanj	716
Kanchanpur	Laljhadi	505
Kanchanpur	Shreejanshil	655
Kanchanpur	Sunwara	515
Kanchanpur	Swatantra	754
Kanchanpur	Trishakti	607

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