

# Assessing the Ground Crossing Points of Nepal and Their Compliance with the International Health Regulations (2005) to Prepare and Inform the Public Health Response to **COVID-19**



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**Disclaimer:** The interviews and data collected for this report was done between 11<sup>th</sup> December to 14<sup>th</sup> December 2020. The context, findings and reflections hence refer to this period. Any interventions or changes in the IHR (2005) after this period were not dealt with in this report.

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## Executive Summary

Since early 2020, the novel coronavirus (COVID-19) has had enormous repercussions on global health and safety. Its impact on the socioeconomic and political landscape has been unprecedented. Nepal declared its first nationwide lockdown in March 2020 when the second case of COVID-19 was confirmed. Although the lockdown managed to suppress the spread of the virus, its implementation—which consisted of a range of public health and social measures—in many cases also exacerbated underlying socioeconomic challenges, and impacted people's mental health, education, and livelihoods.

Under these circumstances, this study revolves around 20 ground crossing points (GCPs; used interchangeably with “Points of Entry” or “PoE”) identified by the Government of Nepal to facilitate cross-border movement, and their compliance with International Health Regulation (IHR) 2005 components. Nepal has a porous border with India, which puts travelers at higher risk of contagious diseases and also endangers the population from cross-border communities. Considering the importance of global health safety and security, the IHR (2005) developed an interim guidance that provides advice to countries on the measures to reduce the spread of COVID-19 that result from the connections that they share beyond the economic realm.

This study aimed to assess the status of IHR (2005) core capacity requirements at the designated ground crossings in Nepal in the context of the COVID-19 pandemic. Quantitative assessment was carried out at PoEs after preliminary assessment of 11 GCPs conducted by IOM jointly with the Epidemiology and Disease Control Division (EDCD), Ministry of Health and Population, Government of Nepal. A total of 17 field researchers were mobilized for data collection at these GCPs from 11-14 December 2020. A theme-based structured questionnaire and observation checklist was designed based on the core capacities of the IHR (2005). The researchers were trained virtually on the tools and were acquainted on the study's purpose and objective. Verbal and written consent were taken prior to the interviews as well as for site observation. Next, the collected data was entered into the SPSS software, and was followed by a data cleaning process and analysis to generate the descriptive statistics on study variables.

This report is largely based on face-to-face interviews and captures the views of 75 government authorities from various departments holding different positions in 20 GCPs. The following key findings were identified through the interviews and GCP visits.

# Key Findings

## 1. Status of Ground Crossing Points (GCPs)

None of the 20 GCPs assessed in this study were IHR (2005) designated. Two of the GCPs, Gauriphanta PoE of Kailali and Rani PoE of Morang, were open borders whereas Jhulaghat PoE of Biatadi and Gaur PoE of Rautahat were closed. Both open borders had functional health desks for the screening of travelers. Likewise, out of 16 partially open borders, only nine (Rani PoE, Morang; Kakadbhitta PoE, Jhapa; Pashupatinagar PoE, Ilam; Maadar PoE, Siraha; Birgunj PoE, Parsa, Belahiya PoE, Rupandehi; Jamunaha PoE, Banke; Gaddachauki PoE, Kanchanpur; and Gauriphanta PoE, Kailali) had functional health desks. Additionally, 56% (Pashupatinagar PoE, Maadar PoE, Thadi PoE, Kunauli PoE, Bhattamod PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE) of the assessed GCPs were for traveler movement, and only 62% (Kakadbhitta PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE) were open for the transfer of cargo and goods. Four of the partially open borders (Maadar PoE, Thadi PoE, Krishnanagar PoE and Gulariya PoE) served both purposes.

All the GCPs had security departments. Customs departments were present in 19 GCPs, and health departments (apart from Birgunj PoE, Parsa) were in nine of the GCPs. Local governments were usually responsible for deploying medical/health officials for ground crossings with functional health desks. Most of the health staff were deployed to their duty stations from 6 am to 4 pm.

## 2. Capacity development

Of the 234 personnel in the open GCPs, 45% worked in the security department and 42% were at the customs department. Only around three percent were health officials. Similarly, in the partially open GCPs, around seven percent were health officials and 55% comprised of security personnel. The most commonly deployed health officials were auxiliary health workers. Health agencies were assigned in only two of the open borders and in seven partially open borders for the detection, notification, management, and referral of COVID-19 cases. However, it should be noted that while the health department led the assigned function, all other agencies also worked in tandem with the health authorities.

The Standard Operating Procedure (SOP) on detection, notification, management, and referral of suspected COVID-19 cases were in place at only nine of the partially open borders (Kakadbhitta PoE, Jhapa; Maadar PoE, Siraha; Kunauli PoE, Saptari, Birgunj PoE, Parsa; Belhiya PoE, Rupandehi; Taulihawa PoE, Kapilvastu; Jamunaha PoE, Banke; Gaddachauki PoE, Kanchanpur; Darchula PoE, Darchula) and SOP training had been imparted in only eight GCPs (Rani PoE, Kakadbhitta PoE, Maadar PoE, Kunauli PoE, Birgunj PoE, Belahiya PoE, Taulihawa PoE, Gaddachauki PoE, Darchula PoE and Jhulaghat PoE). However, training had also been provided in one closed and one open border where the aforementioned SOP existed. Likewise, the SOP on infection prevention and control (IPC) measures existed in Kakadbhitta PoE, Maadar PoE, Kunauli PoE, Belahiya PoE, and Gaddachauki PoE. Similarly, the SOP on traveler processing adapted to the Public Health Emergency of International Concern (PHEIC) context was available in Maadar PoE, Malangwa PoE, Kunauli PoE, Jamunaha PoE, and Gaddachauki PoE. However, related training had not been provided in one partially open PoE (Jamunaha PoE). In addition, only eight of the partially open borders (Kakadbhitta PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Gulariya PoE, Jamunaha PoE,

Gaddachauki PoE, and Darchula PoE) had SOPs on coordination with health field and/or national authorities. But related training had been provided to the staff of only five GCPs (with the exception of Jamunaha PoE, Darchula PoE, and Malangwa PoE).

Similarly, SOPs for COVID-19 screening and referral, isolation of confirmed cases, and ambulance disinfection were in place at only eight of the GCPs with functional health desks (except for Pashupatinagar PoE, Ilam). Likewise, the SOP for IPC measures was endorsed in only five of the GCPs (Maadar PoE, Kunauli PoE, Gulariya PoE, Gaddachauki PoE and Gauriphanta PoE).

Training on screening activities was one of the core components of the IHR (2005). It included training on the use of Personnel Protective Equipment (PPE), handling of ill travelers, IPC measures, screening of staff before deployment, and training to screeners after posting. Despite its importance, only seven of the GCPs with functional health desks (except Pashupatinagar PoE and Gauriphanta PoE) and four GCPs without health desks (Thadi PoE, Malangwa PoE, Kunauli PoE and Bhattamode PoE) had trained their staff on the use of PPEs. Likewise, six GCPs with functional health desks (Rani PoE, Kakadbhitta PoE, Maadar PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE) and two without functional health desks (Malangwa PoE and Darchula PoE) had provided training to GCP screeners after posting.

### **3. Contingency planning**

Health and security were the leading departments for coordinating with health authorities in most GCPs. Even in GCPs with health departments, coordination with health authorities took place jointly between security and health personnel. In total, only nine of the assessed GCPs (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Malangwa PoE, Jamunaha PoE, Gaddachauki PoE, Darchula PoE and Jhulaghat PoE) had coordination mechanisms in place prior to the COVID-19 outbreak, and two of the partially open borders (Maadar PoE, Siraha and Belahiya PoE, Rupandehi) did not have any coordination mechanism in place. Only Kakadbhitta PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Belahiya PoE, Gulariya PoE, and Darchula PoE had trained their staff on the SOP on emergency, contingency planning, and responses. Regarding contingency planning, 15 of the ground crossings (except Rani PoE, Pashupatinagar PoE, Thadi PoE, Malangwa PoE, and Gaur PoE) had the contact details of designated hospitals to inform and guide responses to public health hazards, and only eight of the GCPs (Kakadbhitta PoE, Kunauli PoE, Bhattamode PoE, Maheshpur PoE, Belhaiya PoE, Jamunaha PoE, Gaddachauki PoE and Jhulaghat PoE) had focal points available. Likewise, supervisors in only five GCPs (Rani PoE, Kakadbhitta PoE, Kunauli PoE, Belahiya PoE and Gaddachauki PoE) had contacts of relevant authorities in the adjacent GCPs. Only two GCPs (Kakadbhitta PoE and Gaddachauki PoE) with immigration departments had emergency operational plans integrated into coordination with public health emergency contingency plans.

### **4. Cross-border coordination**

The IHR (2005) states that health and border authorities, as well as other border agencies at both sides of the GCPs, should communicate regularly. All nine GCPs with functional health desks had mobile phones and two (Kakadbhitta PoE and Gaddachauki PoE) had both mobiles and landline telephones. Only six of the GCPs had electricity and, among them, just two (Jamunaha PoE, Banke PoE, and Maadar PoE) had Internet connections.

Personnel in only 10 GCPs on the Nepal side (Rani PoE, Pashupatinagar PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Birgunj PoE, Maheshpur PoE, Taulihawa PoE, Gaddachauki PoE and Gauriphanta PoE) met regularly at the border for coordination and information sharing. Likewise, 12 GCPs had regular coordination meetings with their cross-border counterparts, and health coordinators of five GCPs (Gaddachauki PoE, Kanchanpur; Kunauli PoE, Saptari; Malangwa PoE, Saptari; Kakadbhitta PoE, Jhapa, Rani PoE, Morang) met their cross-border counterparts when the need arose. Health coordinators of only four of the 20 GCPs (Rani PoE, Malangwa PoE, Kunauli PoE, and Belhaiya PoE) received updates of suspected Nepali COVID-19 cases from the Indian side. On the Nepal side, the contact lists of suspected Indian COVID-19 cases was usually shared through municipality offices. Various departments had been leading the overall coordination efforts, with the health and the security departments taking the responsibility in most of the GCPs. The health departments at seven GCPs (Kakadbhitta PoE, Kunauli PoE, Bhattamode PoE, Birgunj PoE, Jamunaha PoE, Gaddachauki PoE and Gauriphanta PoE) were responsible for reporting to IHR focal persons. Among them, Birgunj PoE, Jamunaha PoE, Gaddachauki PoE, and Gauriphanta PoE had been providing daily reports; this was mostly performed via telephone.

## 5. Disease surveillance

The porous border that exists between India and Nepal heightens the risk of disease transmission—to travelers as well as to the communities that live on both sides of the border. Seventeen GCPs (with the exception of Gaur PoE, Darchula PoE, and Jhulaghat) were reported to be open seven days a week, with most travelers crossing the border on foot. Motor vehicles were also used frequently. The most common reasons for cross-border movement were to purchase daily essentials and to seek health services.

The highest inflow of travelers was reported in October whereas the outflow was highest in November. The methods of registering travelers varied. Almost half (44%) of the GCPs (Kakadbhitta PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Maheshpur PoE, Gulariya PoE, Jamunaha PoE, and Gaddachauki PoE) used headcounts. On the other hand, about 28% (Kakadbhitta PoE, Birgunj PoE, Belahiya PoE, Gauriphanta PoE and Darchula PoE) reported using computer-based electronic devices. Those registered included cross-border communities in around 22% of the ground crossings (Taulihawa PoE, Kapilvastu; Gulariya PoE, Bardiya; Gaddachauki PoE, Kanchanpur and Gauriphanta PoE, Kailali).

The availability of general health facilities, especially medical logistics for disease surveillance, is a necessity at GCPs. Around 89% of the GCPs (with the exception of Jamunaha PoE, Banke) with health desks had adequate supplies of surgical masks, disposable gloves, and hand sanitizers. Similarly, around 67% (Rani PoE, Maadar PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE and Gauriphanta PoE) had hand-washing stations, and almost 56% (Rani PoE, Kakadbhitta PoE, Belahiya PoE, Jamunaha PoE, and Darchula PoE) had patient examination spaces. None of the ground crossings had all the general health facilities stipulated by the IHR (2005). Verbal screening, temperature measurement, awareness raising, and sensitization were available at only 83% of the GCPs. Most of the screening was performed on returnees and people traversing the border in general, with the task usually carried out by the health departments.

## 6. Equipment and supplies

None of the assessed GCPs were fully equipped to meet the criteria stipulated by the IHR (2005). Only 19 of the GCPs had functional communication facilities; among them only seven (Rani PoE,

Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE) with health departments had functioning communication facilities. The presence of basic IT equipment—such as desktops, printers, fax machines, and laptops—varied according to the departments. The customs departments were the most equipped, with the health departments the most lacking in IT devices. Only 14 of the GCPs (with the exception of Jamunaha PoE, Maheshpur PoE, Thadi PoE, Pashupatinagar PoE, Gaur PoE, and Kunauli PoE) had information collection systems. Among them, only Gaddachauki PoE had a Border Management Information System (BMIS). However, it was unconnected. Therefore, information was collected manually in 57% of the GCPs (Rani PoE, Maadar PoE, Bhattamode PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE and Gauriphanta PoE). Personnel either used notebooks, or maintained official ledgers, online forms, and paper-based forms, as in the case of Kakadbhitta PoE and Gaddachauki PoE.

A majority of the GCPs in Province 1, Province 2, Lumbini Province, and Sudurpashchim Province had sufficient stock of screening forms, passenger locator forms, reporting forms, surgical masks, gloves, and goggles. However, those at Province 1, Lumbini Province, and Sudurpashchim Province did not have pulse oximeters, nebulizers, oxygen cylinders, thermal scanners, and PPE suit sets. PPE equipment was mostly provided by local governments, followed by NGOs/INGOs and government agencies at the GCPs.

## **7. Immigration/consular/visa processes**

Only eight of the GCPs (Pashupatinagar PoE, Ilam; Birgunj PoE, Parsa; Belahiya PoE, Rupandehi; Jamunaha PoE, Banke; Gaddachauki PoE, Kanchanpur; Gauriphanta PoE, Kailali; Rani PoE, Morang; Kakadbhitta PoE, Jhapa) had immigration departments providing on-arrival visas, work permits, and Non-Resident Nepalese (NRN) visas. Among them, five (Kakadbhitta PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE and Gauriphanta PoE) provided guidance on the management of entry requirements, and four (Kakadbhitta PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE) on exemptions related to quarantine and management of visas. Only three of the GCPs with immigration departments (Kakadbhitta PoE, Belahiya PoE, and Gaddachauki PoE) provided guidance on visa processes. Only half of the immigration departments (Rani POE, Pashupatinagar POE, Birgunj POE and Gaurifanta POE) that were assessed were found sharing the guidelines for management of visa/permits overstay with stakeholders.

Almost all of the ground crossings had functional customs offices. Of the 20 GCPs, traders were allowed to cross the entry points in 14 partially open GCPs, two open GCPs (Gauriphanta PoE and Rani PoE), and one closed GCP (Gaur PoE, Rautahat). Measures for screening/testing were undertaken in only six of the GCPs (Rani PoE, Kakadbhitta PoE, Thadi PoE, Taulihawa PoE, Gaddachauki PoE and Gauriphanta PoE), and traders were subjected to trade/immigration restrictions in only five: Kakadbhitta PoE, Malangwa PoE, Gulariya PoE, Jamunaha PoE, and Darchula PoE. But only four of the five GCPs (with the exception of Jamunaha PoE) informed the traders on COVID-19 immigration restrictions. Likewise, among the 12 GCPs that had trade/immigration formalities in place, information was shared with traders in only nine GCPs (Gauriphanta PoE, Kakadbhitta PoE, Thadi PoE, Malangwa PoE, Kunauli PoE, Birgunj PoE, Gaddachauki PoE and Darchula PoE). Furthermore, only six of the GCPs (Kunauli PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE and Gaddachauki PoE) with immigration departments reported having restricted travel for cross-border truck drivers. However, it was found that only nine of the GCPs shared information with traders through different means of

communication, including verbally, and through notice boards and official websites, among others.

## **8. Infection Prevention and Control (IPC), including Water and Sanitation (WASH) services**

GCPs need to have functional and accessible WASH services that support the implementation of effective IPC measures to guarantee the safety of PoE frontline workers, both health and non-health related. Among nine of the GCPs with health desks, all four parameters (supply of water, availability of drinking water, water for travelers, water quality test) for water facilities were available in only two (Belahiya PoE and Birgunj PoE). Six GCPs (Belahiya PoE, Gauriphanta PoE, Jamunaha PoE, Kakadbhitta PoE, Maadar PoE, and Rani PoE) had toilets close to the health desks and, among them, only four (Belahiya PoE, Gauriphanta PoE, Maadar PoE, and Rani PoE) had separate toilets for men and women. Sewage systems were observed in only four of the assessed GCPs (Gaddachauki PoE, Jamunaha PoE, Kakadbhitta PoE and Maadar PoE). Apart from this, none of the GCPs with health desks had waste management facilities that complied with the IHR (2005). One GCP (Pashupatinagar PoE) did not even have a supply of water at the health desk. In fact, personnel had to fetch water from a tap at the Indian border.

The water supply at the GCPs were inadequate. Moreover, the hygiene materials at the GCPs with health desks were mostly limited to soap and water, and only Gaddachauki PoE had installed a wash basin. Likewise, among the 20 GCPs, just 12 (Rani PoE, Kakadbhitta PoE, Maadar PoE, Thadi PoE, Kunauli PoE, Bhattamod PoE, Belahiya PoE, Taulihawa PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE, and Jhulaghat PoE) had proper handwashing materials and sanitizers, and only nine (Rani PoE, Maadar PoE, Thadi PoE, Kunauli PoE, Bhattamod MOE, Belahiya PoE, Gaddachauki PoE, Gauriphanta PoE and Darchula PORE) had wash basins. In addition, only four of the ground crossings (Kunauli PoE, Bhattamod PoE, Belahiya PoE and Gaddachauki PoE) had decontamination facilities, and six had biohazard bins. Six of the GCPs (Pashupatinagar PoE, Malangwa PoE, Gaur PoE, Birgunj PoE, Maheshpur PoE and Krishnanagar PoE) had none of the IPC measures in place.

## **9. Infrastructure**

The border agencies at the various GCPs had different types of infrastructure in place, and none of the assessed GCPs had integrated facilities. More than half of the health desks at the GCPs were in temporary structures (mainly tents), while 44% were in permanent buildings. Similarly, a majority of the infrastructure that housed the various departments were public properties that had been arranged by different levels of government.

None of the GCPs had laboratories of their own for specimen collection and analysis. As a result, the majority of the GCPs (Kakadbhitta PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Bhattamod PoE, Birgunj PoE, Belahiya PoE, Krishnanagar PoE, Jamunaha PoE, Gaddachauki PoE and Gauriphanta PoE) sent travelers to their respective holding sites where it was managed accordingly. Eighteen of the open and partially open GCPs were assessed for laboratory capacity, among which almost 56% (Rani PoE, Pashupatinagar PoE, Malangwa PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gauriphanta PoE, and Darchula PoE) transported specimens to designated points, while RT-PCR tests were managed for travelers by around 27% of the GCPs (Kakadbhitta PoE, Pashupatinagar PoE, Taulihawa PoE, Gauriphanta PoE and Darchula PoE). Only around 78% of the GCPs (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Birgunj PoE, Belahiya PoE, Gaddachauki PoE and Jamunaha PoE) with health desks had health

screening infrastructure, which was made functional mostly in tents, and a few had the provision of referrals to primary health care centers.

When it came to the modes of transport at the GCPs, motorcycles, cars, and bicycles were the most popular options. The highest number of motorcycles were used by the customs and security departments (12 GCPs), and the greatest number of cars were used by the customs departments (12 GCPs), followed by the security departments.

Most open and partially open GCPs had referral links for ill travelers and provided vehicles for symptomatic, asymptomatic, and suspected travelers. Thirteen GCPs (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Kunauli PoE, Bhattamod PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE, and Gauriphanta PoE) had ambulances for the transfer of suspected cases to designated health facilities. However, only 12 GCPs (Rani PoE, Kakadbhitta PoE, Kunauli PoE, Maheshpur PoE, Belahiya PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and Darchula PoE) were found to practice vehicle decontamination with detergent or 0.5% NaHCL solution. All of the ambulances in use for the referral of ill travelers had oxygen cylinders. Ill travelers from GCPs were referred to nearby health care facilities, most of which had emergency bed services. Only a few of the referral points (Kakadbhitta PoE, Maheshpur PoE, Belahiya PoE, Krishnanagar PoE and Gauriphanta PoE) had laboratory facilities for COVID testing.

## 10. Protection

Among the 20 GCPs, 16 (with the exception of Maadar PoE, Thadi PoE, Darchula PoE, and Jhulaghat PoE) had separate desks for safer migration to assist and protect vulnerable migrants and their families. Civil society organizations (CSOs) and local police were the leading authorities for managing and operating the information desks at most GCPs. Only 15 of the assessed GCPs, with one closed (Gaur PoE, Rautahat) and two open GCPs, had trained responsible personnel to screen vulnerable migrants. Apart from Malangwa PoE, the rest of the GCPs had referral mechanisms for identified risks/vulnerabilities. Mechanisms for screening vulnerable groups were in place in only 14 of the GCPs (both open and closed GCPs and Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Kunauli PoE, Birgunj PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE, and Gaddachauki PoE). The protection measures undertaken at the GCPs took place with the joint efforts of officials at the respective PoEs and organizations such as Maiti Nepal, 3 Angels' Nepal, Child Workers in Nepal (CWIN), and Women's Rehabilitation Centre (WOREC) Nepal.

Smuggled migrants with protection concerns, followed by separated and unaccompanied children, were reported to be high in most GCPs (Rani PoE, Kakadbhitta PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Gaur PoE, Bhattamod PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Taulihawa PoE, Jamunaha PoE, Gaddachauki PoE, Darchula PoE and Jhulaghat PoE). Victims of trafficking and trafficked children with protection concerns were also reported to be high in more than half of the GCPs. Migrants who needed assistance and referral to protection actors were reported monthly by Rani PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Kunauli PoE, Bhattamod PoE, Taulihawa PoE, Gulariya PoE, and Jhulaghat PoE. Rescuing migrants and assisting in their return was the most common immediate assistance provided at the GCPs, followed by referral to local authorities, psychosocial counselling, and provision of legal remedies.

## 11. Risk communication and community engagement (RCCE)

RCCE, as one of the primary components of the IHR (2005), comprises of displays of appropriate messaging in the form of information, education, and communication (IEC) posters and leaflets targeted towards both travelers and border communities. Of the 20 assessed GCPs, 60% (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Birgunj PoE, Maheshpur PoE, Bealhiya PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE, and Jhulaghat PoE) reported that the list of COVID-19 signs and symptoms were clearly and visibly posted, followed by 55% (Rani PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Gaur PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Jamunaha PoE, Gauriphanta PoE and Jhulaghat PoE) for handwashing techniques, 45% (Rani PoE, Maadar PoE, Thadi PoE, Birgunj PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and Jhulaghat PoE) for preventive measures, 20% (Maadar PoE, Thadi PoE, Belahiya PoE, Jamunaha PoE) for mask-wearing techniques, 10% (Maadar PoE and Jamunaha PoE) for stigma-related materials and hotline numbers for psychological counselling, and six percent for other IEC materials. However, no evidence was sought for the traces of community engagement at the GCPs through this assessment.

## Recommendations

### Capacity development

- Strengthen GCPs through multi-sector engagement
- Increase numbers and widen the range of health personnel at GCPs
- Develop and disseminate SOPs on various aspects to frontline officials
- Prioritize capacity enhancement and training of staff at GCPs for better preparedness and emergency responses
- Investigate the endorsement and operations of SOPs
- Provide training to health desk staff at GCPs

### Contingency planning

- Develop integrated coordination mechanisms with the active involvement of all border agencies at GCPs
- Share information, guidelines, and contact details of focal points
- Ensure systematic operations that are aligned with the IHR (2005)

### Cross-border coordination

- Establish inter- and intra-national cross-border and coordination protocols and share information on public health events within and across the border
- Initiate periodic update systems between cross-border agencies
- Set up systematic coordination mechanisms and daily information sharing among cross-border agencies

- Establish and determine the key elements for cross-border information sharing and coordination
- Start specific communication channels and coordination guidelines at GCPs

### **Disease surveillance**

- Integrate disease surveillance systems at GCPs in the national surveillance system and Early Warning and Reporting System of the government
- Train designated staff at GCPs to perform primary screenings of travelers
- Harmonize available resources and establish a proper registration system through cross-border collaboration
- Establish clear SOPs and specific guidelines for screening travelers
- Enhance joint efforts at the GCPs through collaborations with other health organizations

### **Infrastructure, equipment, and supplies (including ICT)**

- Improve infrastructure of GCPs including that of health units
- Establish laboratory facilities at potential GCPs
- Provide screening infrastructure at functional health desks
- Ensure adequate stock of PPE equipment at all GCPs
- Frequently decontaminate all transferring vehicles for confirmed or suspected cases
- Strengthen capacity of staff at designated COVID-19 health facilities
- Ensure accurate information collection and consistent analysis of the health statuses of travelers following the IHR (2005)

### **Immigration and visa consular process**

- Establish guidelines for online and remote visa processing with the support of local and provincial level governments
- Provide guidance and share available guidelines with neighboring countries to strengthen the immigration and visa consular process
- Update travel and trade restrictions, exemptions, and formalities for truck drivers and traders between India and Nepal
- Share new developments and agreements between countries with travelers and cross-border traders

### **IPC including WASH services**

- Ensure adequate IPC measures at all GCPs
- Provide separate toilets for ill travelers at the GCPs

- Improve toilets and facilities at the GCPs
- Provide clean drinking water supply at all GCPs
- Improve drainage systems for safe environments
- Set up proper waste management systems
- Provide training on disinfection, management of waste, and use of PPEs to cleaning personnel at GCPs

### **Protection**

- Establish proper collaboration and coordination procedures among human rights protection agencies and concerned organizations within the country and across the border
- Develop an inbuilt system for human rights protection measures linked to the border management information system
- Establish referral mechanisms for vulnerable migrants

### **Risk communication**

- Appoint communication focal points to enhance risk communication and community engagement at the GCPs
- Develop linguistically and culturally appropriate IEC materials on COVID-19 for GCPs, keeping in mind migrant-friendly content and literacy levels
- Map out partner organizations and potential stakeholders working on COVID-19 at the borders to reach out to communities at the border
- Establish hotlines and/or complaint and feedback mechanisms to improve risk communication at the border areas

## Acronyms

<b>AHW</b>	: Auxiliary Health Worker
<b>ANM</b>	: Auxiliary Nurse Midwife
<b>BP</b>	: Blood Pressure
<b>CCTV</b>	: Closed-circuit Television
<b>CCU</b>	: Critical Care Unit
<b>CEBS</b>	: Community Event-based Surveillance
<b>CSO</b>	: Civil Society Organization
<b>CWIN</b>	: Child Workers in Nepal Concerned Center
<b>e-BMIS</b>	: Electronic Border Management Information System
<b>ECG</b>	: Electrocardiogram
<b>EWARS</b>	: Early Warning Reporting System
<b>GCP</b>	: Ground Crossing Point
<b>GoN</b>	: Government of Nepal
<b>HA</b>	: Health Assistant
<b>HF</b>	: Health Facility
<b>ICT</b>	: Information and Communication Technology
<b>ICU</b>	: Intensive Care Unit
<b>IEC</b>	: Information, Education and Communication
<b>IFHV</b>	: Institute for International Law of Peace and Armed Conflict
<b>IHR</b>	: International Health Regulations
<b>INGO</b>	: International Non-government Organization
<b>IOM</b>	: International Organization for Migration
<b>IPC</b>	: Infection Prevention and Control
<b>IT</b>	: Information Technology
<b>MoHP</b>	: Ministry of Health and Population
<b>NaHCL</b>	: Sodium Hypochlorite
<b>NHRC</b>	: Nepal Health Research Council
<b>NGO</b>	: Non-governmental Organization
<b>NRN</b>	: Non-Resident Nepalese
<b>PCR</b>	: Polymerase Chain Reaction
<b>PH</b>	: Public Health
<b>PHO</b>	: Public Health Officer
<b>PHEIC</b>	: Public Health Emergency of International Concern
<b>PoE</b>	: Point of Entry
<b>PPE</b>	: Personal Protective Equipment
<b>PRC</b>	: Peace Rehabilitation Center
<b>RCCE</b>	: Risk Communication and Community Engagement
<b>RDT</b>	: Rapid Diagnostic Test
<b>RMNCH</b>	: Reproductive, Maternal, Neonatal, and Child Health
<b>SPSS</b>	: Statistical Package for the Social Sciences
<b>SOP</b>	: Standard Operating Procedure
<b>UN</b>	: United Nations
<b>UNHCR</b>	: United Nations High Commissioner for Refugees
<b>VHF</b>	: Very High Frequency
<b>WASH</b>	: Water, Sanitation and Hygiene

**WHO**  
**WOREC**

: World Health Organization  
: Women's Rehabilitation Centre

## Operational Definitions

Terms	Definition
1. Ground crossing point (GCP)	A place authorized for border crossing (for persons or goods), or a place designated by the legal framework of the state as an official entry to/exit from the state
2. Other ground crossing point	A ground crossing point that is not designated by the GoN for crossing during the COVID-19 pandemic
3. Status of ground crossing point	<b>Open:</b> Open for all purposes <b>Closed:</b> Closed for all purposes <b>Partially open:</b> Open for only travelers or for transportation of essential goods
4. Border agencies and authorities	Agencies assigned in accordance with the national law to carry out tasks related to border management at GCPs
5. Medical officer	Government or private health/medical personnel with MBBS as a minimum qualification
6. Integrated facility	Facilities at GCPs with all available border agencies/authorities housed in the same building or in the same area
7. Permanent building	<b>Permanent building:</b> Non-movable building or infrastructure with a solid foundation <b>Semi-permanent building:</b> Building without solid foundation, or a prefabricated house
8. Semi-permanent building	
9. Area of space of the ground crossing point	Total area covered by the GCP (Total area covered by the official gate at the point of entry)
10. Functional communication facility	Availability of functional communication mechanisms, such as phones, Internet, fax, among others
11. Electronic Border Management Information System (e-BMIS)	Computer-based system or software for collecting, recording, and reporting information related to the mobility of travelers and vehicles
12. Health desk	A desk established at the GCPs to evaluate the physical and mental health statuses of migrants or travelers prior to their departure or on upon arrival
13. Health screeners	Health personnel deputed at the GCPs for the evaluation or assessment of the physical and mental health statuses of migrants or travelers prior to their departure or on upon arrival
14. Adequate ventilation	Ventilation by natural or mechanical methods that allow the free flow of air in a room in proportion to its size and capacity, or that removes fumes, vapors, or dust to prevent hazardous conditions
15. PPE	Protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection
16. Sewage system	A network of pipes or pumping stations that convey sewage from its points of origin to a point of treatment and disposal.
17. Infectious waste	Waste contaminated with blood and other bodily fluids and infectious agents from a laboratory or waste from a patient with infection

18. Flow of travelers	Number of individuals entering or leaving the GCP during a given period of time
19. Health reasons	Reason for health check-up, buying medicine, treatment, or surgery procedure
20. Seasonal migrants	A migrant worker whose work depends on seasonal conditions
21. Inflow/outflow	<b>Inflow:</b> Number of travelers entering through the GCP <b>Outflow:</b> Number of travelers leaving from the GCP
22. Business visa	Visa issued to Nepali or foreigners entering or leaving the country for business or investment purposes
23. Completely shared	Sharing of all guidelines and protocols issued by the immigration department
24. Partially shared	Sharing of only a few guidelines and protocols issued by the immigration department
25. Cross-border trade	The buying and selling of goods and services between businesses (medicines and other basic commodities) in neighboring countries, with the seller being in one country and the buyer in the other country
26. Dedicated screening area	Separate space or room allocated for the purpose of assessment or evaluation of the signs and symptoms of COVID-19 or other infectious diseases
27. Dedicated isolation/observation area	Separate space or room allocated for symptomatic or suspected travelers before referral to designated health facilities
28. Quarantine area	Area or room allocated for travelers who have or may have been exposed to the disease or infection
29. Washing station	A station or unit equipped with regular supply of water and soap
30. Returnees	Migrant workers returning to their country of citizenship
31. Triaging	The process of sorting people into groups (suspected/probable/high risk) based on their risk or likelihood of being infected with disease or infection
32. Visual observation of signs and symptoms	Visually observing the body surface of travelers to check for signs and symptoms (lethargy, sneezing, coughing, etc.) of illness or infection
33. Standard Operating Procedure (SOP)	A set of step-by-step instructions to help workers carry out routine activities or operations
34. Emergency Operation Plan	A plan that describes the response of individual GCPs when they are faced with hazards including public health emergencies, along with ways to recover. It details the system that is present and its optimum use during the crisis
35. Public Health Emergency Contingency Plan	A detailed plan based on the IHR (2005) that is meant to respond to events that may constitute a public health emergency of international concern
36. Very high frequency (VHF) radio	A worldwide system of two-way radio transceivers used for bidirectional voice communication
37. Satellite phone	A type of mobile phone that connects to other phones or the telephone network by radio through orbiting satellites
38. Information sharing	Formal sharing of information related to the planning and response of the management of border activities and pandemic disease

39. Informal exchanges	Informal exchange of information or conversation regarding the management of border activities
40. Vulnerable migrants	Migrants who are unable to effectively enjoy their human rights, are at increased risk of violations and abuse and who, accordingly, are entitled to call on a duty bearer’s heightened duty of care
41. Unaccompanied children	Children, as defined in Article 1 of the Convention on the Right of the Child, who have been separated from both parents and other relatives and are not being cared for by an adult who, by law or custom, is responsible for doing so
42. Trafficked children with protection concern	Recruitment, transportation, transfer, harboring and/or receipt and kidnapping of children for the purpose of slavery, forced labor, and exploitation (UN)
43. Intercepted in transit	Restrictions on travel at transit or GCPs for persons who do not have required documentation or valid permission to enter
44. Asymptomatic travelers	A visibly healthy person without signs and symptoms of disease or infection.
45. RMNCH services	Reproductive, Maternal, Neonatal, and Child Health (RMNCH) Services related to family planning, safe abortion, safe delivery, antenatal care, postnatal care, newborn care, and immunization of children provided by GoN health facilities
46. Risk communication material	Information, Education and Communication materials (e.g., posters, pamphlets, leaflets) aimed to provide information and raise awareness on COVID-19 and other health issues among travelers and community inhabitants
47. Focal point	The center—designated by the local, provincial or federal level—which shall be accessible at all times for communication on issues related to COVID-19 and GCPs
48. Suspected cases	A patient with fever or sign/symptoms of respiratory distress (cough or shortness of breath), AND a history of travel to or residence or close contact with a traveler from a location reporting community transmission of COVID-19 during 14 days prior to symptom onset; OR a patient with fever or sign/symptoms of respiratory distress (cough or shortness of breath), AND having been in contact with a confirmed or probable COVID-19 case in the last 14 days prior to symptom onset

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# 1. INTRODUCTION

## 1.1 Background

Nepal is a landlocked country surrounded by India on three sides—the south, east, and west—and China in the north. The border with India is long and porous, and is one of the reasons why the two countries have a unique relationship that goes back centuries. This open border is the outcome of the Peace and Friendship Treaty of 1950 that was signed to provide Nepali and Indian nationals ease of travel and work in both countries. People cross over from either side to seek health services, employment, business, education, and so on, making the border and migration between the two countries incredibly unique (Baral & Pyakurel, 2015).

However, during the first wave of COVID-19, this open border was a topic of major concern. As soon as COVID-19 was declared to be a pandemic on 11 March 2020, nations across the world applied partial or full lockdowns within and between countries to contain the spread of the virus. Nepal also declared its first nation-wide lockdown on 24 March 2020 when its second case of COVID-19 was confirmed. The lockdown, which was initially supposed to last for two weeks was extended for four months and, in the early days, was strictly imposed. The national borders were sealed and movement between districts and municipalities were stopped.

Amidst the unfolding chaos, thousands of Nepali migrant workers started coming back home from India, which was one of the world's biggest coronavirus disease hotspots. The porous border between the countries made it easier for migrant workers to enter Nepal by avoiding security forces and safety measures, such as quarantine and screening, that were applied at major ground crossing points.

As a result, COVID-19 cases increased tenfold in the country. Soon after, with cases continually rising, the Government of Nepal (GoN) was forced to shut down most border points. Thus, the GoN allocated only 20 GCPs from 3 June 2020 to 10 August 2020, when the country was still under lockdown, to ease the flow of Nepali migrants returning from India. The ground crossing points of entry were: Kakabhitta (Jhapa), Rani (Morang), Maadar (Siraha), Gaur (Rautahat), Birgunj (Parsa), Belahiya (Rupandehi), Krishnanagar (Kapilvastu), Jamunaha (Banke), Gauriphanta (Kailali), Gaddachauki (Kanchanpur), Pashupatinagar (Ilam), Kunauli (Saptari), Thadi (Siraha), Bhattamode (Mahottari), Malangawa (Sarlaha), Maheshpur (Nawalparasi West), Taulihawa (Kapilvastu), Gulariya (Bardiya), Darchula (Darchula), Jhulaghat (Baitadi), and Surajpur (Bardiya).

The sealing of the porous border at most points and the nation-wide lockdown provided time for the GoN to prepare and strengthen its health system. After about six months of full and partial lockdowns, the government decided to gradually allow the movement of people, both

nationally as well as internationally. International and domestic flights resumed, and the government allowed ground crossing points to open up.

Land borders or ground crossings, whether open or partial, are called ground crossing points (GCPs) or points of entry (PoE). According to the WHO, “A point of entry refers to a passage for international entry or exit for travelers, baggage, cargo, containers, conveyances, goods, and postal parcels as well as the agencies and areas providing services to them” (WHO, 2020).

The International Health Regulations (IHR [2005]), which came into operation in 2007, has developed an interim guideline that advises countries on how to reduce the spread of COVID-19 resulting from travel, transportation, and trade in and around ground crossings (WHO, 2020). It stresses upon the importance of taking measures at GCPs in order to strengthen national capacities to prevent, prepare, detect, and respond to health emergencies (WHO, 2020).

However, the risk of disease transmission has steadily risen once again. With the movement of people reaching almost pre-COVID levels, the risk of disease too has increased.

In this scenario, it was essential to understand the status of GCPs and their compliance to the IHR (2005) mainly to effectively screen, test, track, treat and isolate COVID-19 patients.

## 1.2 International Health Regulations (IHR [2005])

The IHR (2005) was first adopted in 1969 by the 22nd World Health Assembly (WHA) with the purpose of ensuring extensive security against the international spread of diseases in a way that would have minimal effect on world traffic. At this point, epidemiological surveillance was given more emphasis in terms of disease recognition and control through the strengthened use of epidemiological principles applied internationally (WHO, 1983). Later, in May 2005, a new IHR was adopted by WHO after a series of revisions and substantive change procedures upon its classical version. However, it came into force only in 2007, legally binding all Member States of WHO (WHO, 2013).

The purpose and scope of the new IHR (2005) is “to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks and which avoid unnecessary interference with international traffic and trade” (Fidler, 2005). While the scope of IHR (2005) in its classical form was limited to a narrow disease range, which only included infectious diseases like cholera, plague, and yellow fever, the IHR (2005) has an increased scope in terms of disease application. It has not only expanded the range of diseases, but also takes into account Public Health Emergencies of International Concern (PHEIC) events as well as public health risks. These terms are specifically defined as well. For instance, *disease* has a broader definition; it denotes an illness or medical condition, irrespective of origin or source that poses potential or significant harm to humans. Similarly, *event* has been defined as a manifestation of disease or an occurrence that creates a potential for disease. Likewise, *public health risk* has been defined as “a likelihood of an event that may adversely affect the health of the human population, with an emphasis on one which may spread internationally or may present a serious

and direct danger.” Finally, *public health emergency of international concern (PHEIC)* has been defined as an extraordinary event that is determined by the following two conditions:

- to constitute a public health risk to other States through international spread of disease
- to potentially require a coordinated international response (Fidler, 2005)

The IHR (2005) is the only international legal framework for points of entry (PoE) (IOM, 2020). It is an agreement between 196 countries to work together to enhance global health security through a multi-sectorial approach and consists of a broad range of stakeholders centered on public health and border management.

Part IV of the IHR includes certain issues and tasks that are to be undertaken by the authorities of the designated GCPs. Those relevant to this study are:

- To determine control measures to prevent local and international spread
- To conduct laboratory analysis and logistical assistance, such as equipment, supplies, and transport
- To provide direct links with other key players
- To establish, operate, and maintain a national multidisciplinary and multisectoral public health emergency response on public health events of international concern (PHEIC).
- To provide uninterrupted (24/7) health services at each PoE (Muhammad, 2018).

Furthermore, the Health Sector Emergency Response Plan for the COVID-19 Pandemic has put forward certain multisectoral guidelines, which are to be complied by PoEs (MoHP, 2020). According to the recommendations, all PoEs are to be strengthened with dedicated standard health desks that are equipped with adequate human resources and necessary commodities. For the borders to be well-managed and for the screening to be systematic, personnel for the health desks are to be recruited from multisectoral bodies, mainly health and security. The staff are to be trained and oriented on screening standard operating procedures (SOPs) to deal with symptomatic travelers for infection prevention and control (IPC). Furthermore, the infrastructure at PoE ground crossings are to be improved; a priority among this is the construction of transit rooms, along with hygienic toilets, handwashing stations, and treated drinking water. This should be carried out for the management of symptomatic travelers. Additionally, the health desks must have the necessary screening equipment and supplies, such as check forms, thermal cameras, infrared thermometers, surgical masks, disposable gloves, face shields, and hand sanitizers. The desks should also be prepared to manage severe COVID-19 cases, and so have to be equipped with stethoscopes, blood pressure (BP) machines, portable ECGs, pulse oximeters, nebulizers, and oxygen cylinders. There should also be a systematic referral system to refer patients to their respective health facilities depending upon their conditions.

### 1.3 Problem statement

Ground crossings often constitute informal passages between two countries without a physical structure or borders, which correspond with the geography between Nepal and India (WHO, 2020). It is in and around such locations that disease transmission may be more widespread (WHO, 2020). The re-opening of ground crossings leading to increased human, commodity and vehicle cross-border mobility forms a critical point to address disease prevention and control measures, including COVID-19.

## 1.4 Rationale of the study

As a party to the IHR (2005), Nepal has to apply and implement its policies and guidelines. Moreover, in the light of the COVID-19 pandemic, WHO has developed an interim guidance titled 'Controlling the spread of COVID-19 at ground crossings'. So far, no assessment has been performed to identify whether the IHR (2005) guidelines have been followed at the GCPs, whether during the current PHEIC or prior to it.

Furthermore, a comprehensive study on GCPs and its compliance to the IHR (2005) will also provide evidence for any further policy decisions aimed at strengthening these units.

## 2. OBJECTIVES

### General objective

To assess the designated GCPs in Nepal and their alignment with the International Health Regulations (2005) in the context of COVID-19 preparedness and response.

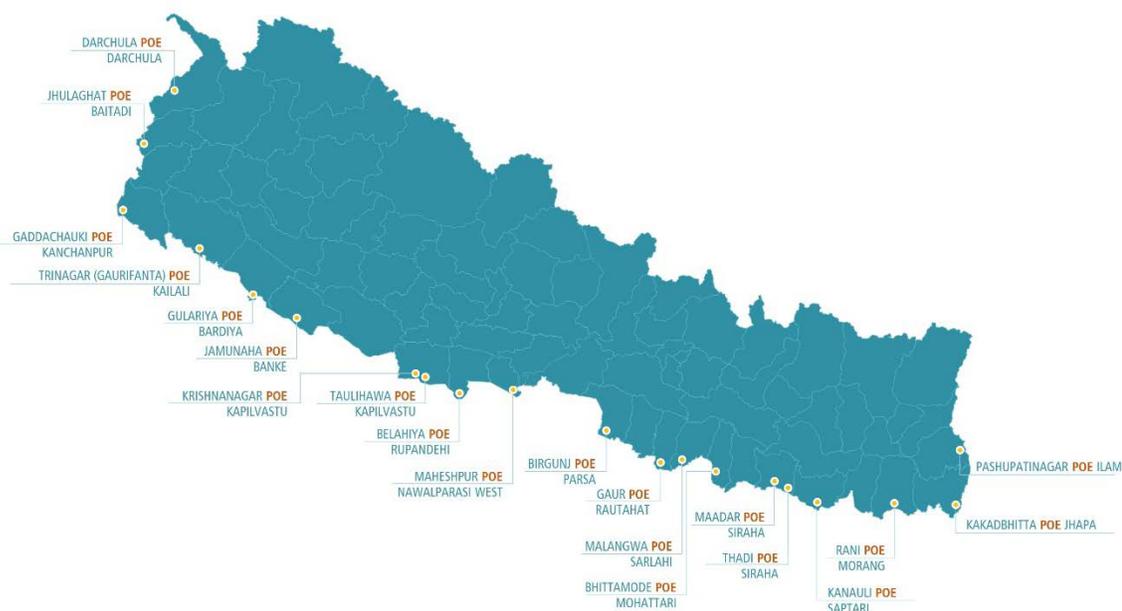
### Specific objectives

1. To assess the capacity development related activities of PoEs and their compliance with the IHR (2005) in the context of the COVID-19 pandemic
2. To explore the contingency plans in place at ground crossings in relation to disease and response, reporting and coordination in alignment with the IHR (2005)
3. To assess the cross-border coordination status and mechanisms of communication at ground crossings
4. To assess the status of disease surveillance systems at GCPs along with their process and means of reporting to the IHR (2005) focal point
5. To assess the infrastructural status and availability of equipment and supplies at ground crossings to inform and respond to COVID-19
6. To assess infection prevention and control measures at the designated ground crossings, such as the availability of water, sanitation and hygiene (WASH) services

## 3. METHODOLOGY

### 3.1 Research design

To prepare and inform the public health responses to COVID-19, a quantitative approach was used to assess Nepal's GCPs and their compliance with the IHR (2005). The approach was chosen mainly to quantify the existing statuses of the GCPs so that valid evidence could be provided for further action. Additionally, the research team agreed to conduct a qualitative study only after the completion of the quantitative part so that it would help finalize the probing themes for the former survey.



### 3.2 Sample size

Out of the 21 enlisted GCPs designated by the Government of Nepal, two were functioning as one at Bardiya PoE and have been counted as such. Therefore, all 20 designated GCPs were part of this assessment. In total, 75 government officials deployed at the 20 GCPs were interviewed for the study. The authorities were from various departments and held different designations.

Name of PoE	Province
Rani PoE, Morang	Province No. 1
Kakadbhitta PoE, Jhapa	Province No. 1
Pashupatinagar PoE, Ilam	Province No. 1
Maadar PoE, Siraha	Province No. 2
Thadi PoE, Siraha	Province No. 2
Malangwa PoE, Sarlahi	Province No. 2
Kunauli PoE, Saptari	Province No. 2
Gaur PoE, Rautahat	Province No. 2
Bhittamode PoE, Mohattari	Province No. 2

Birgunj PoE, Parsa	Province No. 2
Maheshpur PoE, Nawalparasi West	Lumbini Province
Belahiya PoE, Rupandehi	Lumbini Province
Taulihawa PoE, Kapilvastu	Lumbini Province
Krishnanagar PoE, Kapilvastu	Lumbini Province
Gulariya PoE, Bardiya	Lumbini Province
Jamunaha PoE, Banke	Lumbini Province
Gaddachauki PoE, Kanchanpur	Sudurpashchim Province
Gauriphanta PoE, Kailali	Sudurpashchim Province
Darchula PoE, Darchula	Sudurpashchim Province
Jhulaghat PoE, Baitadi	Sudurpashchim Province

### 3.3 Identification and recruitment of respondents

As per the needs of the study, different delegates from the 20 GCPs were chosen for the survey. Officials at the GCPs were consulted and respondents were selected according to their recommendations. Certain criteria were followed for sample selection. They have been listed below:

- i) Only GCPs that were registered and enlisted by the Embassy of Nepal to India were selected as samples for the study
- ii) Only government staff designated to work at GCPs were selected as study respondents
- iii) Depending on requirements, more than one individual from a single department were interviewed for the study

### 3.4 Research tools and instruments

The research tool comprised of a structured set of questionnaires that had different themes for the potential departments. It included close-ended spontaneous or prompt responses, and multiple as well as single response questions, along with an observation checklist. The assessment tool provided the instructions to be followed during the interview process so that consistency between interviews could be maintained and reliability of the findings could be increased. In addition, the observation checklist included several variables with clear notions about the process and items to be observed.

The tool was developed in close coordination between IOM and the Anweshan research team. It was finalized after multiple discussions and follow-up virtual meetings. The pretesting was carried out in three PoEs: Gaddachauki, Gauriphanta, and Maadar. Then, the tool was translated and back translated into Nepali for validity and reliability. The designed questionnaire was based on the following core components:

1. Capacity development
2. Contingency planning
3. Cross-border coordination
4. Disease surveillance
5. Equipment and supplies (including ICT)
6. Immigration/consular/visa process
7. Infection, prevention, and control (IPC) including WASH
8. Infrastructure
9. Protection
10. Risk communication and community engagement

### 3.5 Data collection

The data collection began from 11 to 14 December 2020. All GCPs were assessed simultaneously.

After a two-day virtual training, the researchers were delegated to the field to conduct face-to-face structured interviews and to fill in the observation checklists. Verbal and written consent was taken prior to the interviews and observation. Before that, formal letters from IOM were sent to the respective GCPs for coordination and support. The participants were informed about the anonymity and confidentiality of information that the study would provide. Similarly, the expected time duration required for an interview was explained to the respondents. They were also informed about the possible limitations of the study and were assured that their queries would be responded to before the interview proceeded.

Additionally, the consent of the participants was taken prior to capturing the photographs of the observed entities, including WASH facilities. Data was collected on paper and scanned copies were sent to Anweshan for manual entry into SPSS. Researchers were given sets of the printed questionnaire, which were then filled after face-to-face interviews with the delegated authorities at the respective PoEs. The GCPs were observed to record whether the status of WASH and IPC measures were adopted as per observation checklists. Written consent for interviews was taken from all participants selected for the study.

### 3.6 Data validation

In order to ensure the collection of high-quality data, 17 skilled researchers with sound knowledge on quantitative study were selected from the areas where the GCPs are located. They were chosen according to their knowledge of the local dialects and language, norms followed by the local people, and their active engagement in the community. This was done to bolster communication and interaction between GCP delegates and researchers. The enumerators were trained on 8 and 9 December 2020, before the study commenced. The training schedule was designed to better acquaint them with the purpose of the study and the technicalities to be followed during the survey. The training covered the following aspects:

- Rapport building with participants.
- Creating a comfortable environment for the respondents in terms of time, place, and convenience
- Avoiding use of technical terms and jargon
- Avoiding ambiguous, multiple, and leading questions
- Operational definitions for the study
- Summarizing information provided by participants for the assurance of common understanding in the research tool
- Discussion on observation variables related to WASH and IPC measures adopted in GCPs, along with ways to record data as per the observation checklist

During the research period, a detailed workplan and monitoring strategy set prior to the survey was strictly adhered to throughout the study. The enumerators were regularly followed up for updates on the study data collection.

A monitoring team was formed at the central level with a supervisor from Anweshan and IOM. The supervisor provided regular guidance, support, and feedback during the entire process of fieldwork, respondent selection, and coordination.

### 3.7 Data management and analysis

Carefully collecting, entering, cleaning, and preparing data sets was important for keeping non-sampling errors to a minimum.

The questionnaires were filled by the enumerators in the respective fields and scanned copies were sent to the central office. The transported data was completely reviewed and skimmed before being uploaded onto SPSS. Any ambiguous data was cross-checked by following-up with the interviewed participants. This process was then followed by data cleaning and analysis. Descriptive statistics were analyzed, and findings were presented in crosstabulations and frequency tables. Multiple variables that were compared with each other were presented in customized tables.

### 3.8 Ethical considerations

The enumerators introduced themselves and provided a brief overview of the study project and its objectives. Verbal as well as written consent was taken and obtained before the interview. The respondents were informed about the duration of the survey. If a respondent rescheduled the interview, a follow-up interview was conducted on the appointed time.

The ethical norms of obtaining informed consent verbally; anonymizing respondents; maintaining the confidentiality of collected data; and the methods of storing, assessing, and reporting as outlined in IOMs data protection manual were adhered to during this study (IOM, 2010). Moreover, data from the field was organized following IOM's strict safety management plan. Anonymity of the data was maintained and was transferred in sealed envelopes.

### 3.9 Limitations

- Only the GCPs enlisted by the Embassy of Nepal to India were selected as samples for the study, thus leaving out other GCPs
- The research tool was designed with the assumption that each GCP had different departments, which was not the case in many scenarios
- The research tool was designed according to the COVID-19 pandemic scenario, therefore, a return to normalcy and upcoming rules on returnee migrants might affect the study variables, if future inferences are to be drawn
- Most health desks at the GCPs had stopped providing services by the time this study was undertaken
- Most of the observation-related questions in the research tool were focused on WASH services and other supplies available at and around health desks. Therefore, findings related to these variables were limited to GCPs with health desks.

## 4. FINDINGS

This study assessed 20 GCPs designated by the Government of Nepal, and included interviews with 75 government officials deployed at the GCPs. A quantitative approach was undertaken, where the structured thematic questionnaire and observation checklists guided the researchers. The interviewed participants held different designations within the departments that were functional at the PoEs during the time of the study. The respondents ranged from paramedics, health professionals, security personnel, custom department authorities, immigration department authorities, and few from the agriculture and animal health departments.

### 4.1 Status of surveyed GCPs

#### 4.1.1 GCPs and IHR (2005) status

None of the 20 GCPs that were assessed for this study were designated as IHR (2005)-recognized GCPs. The only entry point in Nepal that the IHR (2005) recognizes is Tribhuvan International Airport.

#### 4.1.2 Status of GCPs

**Table 1:** Availability of functional health desks by GCP status, December 2020 (N=20)

Status of GCPs	Functional health desk	No health desk at present	Total
Open	2 [100.0%]	0	2
Closed	0	2 [100%]	2
Partially open	7 [43.8%]	9 [56.3%]	16
Total	9 [45.0%]	11 [55.0%]	20

Among the 20 GCPs that were assessed in the study, around 10% were open, 10% were closed, and the remaining 80% were partially open. With regards to health desks, both open GCPs (Gauriphanta PoE, Kanchanpur and Rani PoE, Morang) had functioning health desks, while none were functioning in the closed GCPs (Jhulagat PoE, Baitadi and Gaur PoE, Rautahat). In the partially open GCPs, almost 44% (Maadar PoE, Siraha; Belahiya PoE, Rupandehi; Birgunj PoE, Parsa; Gaddachauki PoE, Kanchanpur, Kakadbhitta PoE, Jhapa; Pashupatinagar PoE, Ilam and Jamunaha PoE, Banke) had functioning health desks, but those in the remaining GCPs (Siraha: Thadi, Sarlahi, Saptari, Nawalparasi, Mahottari, Kapilvastu: Taulihawa, Krishnanagar, Darchula, Bardiya) were not functioning.

Health desks are mandated to screen people with COVID-19. They coordinate with local governments to refer people for further tests, or to be sent to quarantine or isolation centres.

**Table 2:** Purpose of movement for partially open GCPs, December 2020 (N=16)

	Cargo and Goods			Total
	Yes	No		
Traveler movement	Yes	4 [25.0%]	5 [31.3%]	9 [56.3%]
	No	6 [37.5%]	1 [6.30%]	7 [43.8%]
	Total	10 [62.5%]	6 [37.5%]	16 [100%]

The GCPs were partially open for two purposes: traveler movement and transfer of cargo and goods. Nine GCPs (56.3%)—Pashupatinagar PoE, Maadar PoE, Thadi PoE, Kunauli PoE,

Bhittamod PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE—were open for the movement of travelers whereas 10 GCPs (62.5%)—Kakadbhitta PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE—were open for the transfer of cargo and goods. One PoE at Darchula was open partially only during special occasions, such as marriages, funerals, and emergency situations.

#### 4.1.3 Border agencies and authorities in action at GCPs

**Table 3:** Border agencies and authorities placed at GCPs, December 2020 (N=20)

Border Agencies	Presence/ Availability at GCPs	
	N	%
Security	20	100
Customs	19	95
Health	9	45
Agriculture and animal health	9	45
Immigration	8	40

a. Percentage may exceed 100 due to multiple responses

All the assessed GCPs had security departments. Customs departments were present in 19 of the 20 GCPs, the exception being Birgunj PoE, Parsa. Health (9), immigration (8), and agriculture (9) were present in a little under half of the GCPs. GCPs with health departments included Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Birgunj PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE, and Gauriphanta PoE.

#### 4.1.4 Medical officials deployed at health desks

**Table 4:** Deployment timing of medical/health officials at GCPs with functional health desks, December 2020

Ways of deployment	Functional health desk (N=9)
Daytime (6 am to 4 pm)	7
24 hours	1
Replaced periodically	1

In the nine GCPs with functioning health desks, medical staff were mostly deployed during the daytime on all days of the week. More precisely, almost 78% of the GCPs with functioning health desks deployed medical staff during the daytime i.e. 6 am to 4 pm. One (Maadar PoE) deployed medical staff 24 hours a day, while in another GCP (Birgunj PoE), medical staff were replaced periodically (every 6 hours).

#### 4.1.5 Deploying agencies at GCPs

Among the GCPs with functional health desks, local governments were responsible for the deployment of medical/health officials in eight out of nine GCPs, with Kakadbhitta PoE being the exception. While the federal government was responsible for the deployment at one GCP (Kakadbhitta PoE), the provincial government was in charge at one entry point (Gauriphanta PoE, Kailali).

## 4.2 Capacity development

This portion deals with the agencies working at the GCPs, the status of human resources at the health desks, and the availability and use of SOPs regarding multiple areas, including IPC and coordination mechanisms.

### 4.2.1 Health and other related agencies at GCPs

**Table 5:** Distribution of authorities present by GCP status\*, December 2020

Status of the GCP (N=20 GCPs, n=967)	Health authorities	Customs authorities	Immigration authorities	Agriculture and animal health authorities	Security authorities	Holding site authorities	Total
Open	6 [2.6%]	98 [41.9%]	11 [4.7%]	14 [6%]	105 [44.9%]	0 [0%]	<b>234 [100%]</b>
Closed	0 [0%]	30 [25.6%]	0 [0%]	0 [0%]	87 [74.4%]	0 [0%]	<b>117 [100%]</b>
Partially open	41 [6.7%]	176 [28.6%]	23 [3.7%]	21 [3.4%]	341 [55.4%]	14 [2.3%]	<b>616 [100%]</b>
<b>Total</b>	<b>47 [4.9%]</b>	<b>304 [31.4%]</b>	<b>34 [3.5%]</b>	<b>35 [3.6%]</b>	<b>533 [55.1%]</b>	<b>14 [1.4%]</b>	<b>967 [100%]</b>

Of the 234 persons working in open GCPs (N=2), a majority (44.9%, n=105) were security and customs officials; only around three percent were in the health section. Similarly, in partially open GCPs, most personnel belonged to the security department (55.4%, n=341) and around seven percent (n=41) were health officials.

### 4.2.2 Health professionals working at health desks

**Table 6:** Number of health professionals by GCP status, December 2020

Health professionals	Open	Partially open	Total
Auxiliary health workers	3	7	10
Auxiliary nurse midwives	2	7	9
Health assistants	0	7	7
Senior auxiliary nurse midwives	0	3	3
Lab technicians	1	1	2
Public health officials	0	1	1
Lab assistants	0	1	1
Staff nurses	0	1	1

Nine GCPs had functional health desks during the survey period (11-14 December 2020). Authorities from different medical backgrounds were delegated as per PoE needs, performing specific activities related to health screening, case identification, specimen collection, and management. Auxiliary health workers (AHWs) were mostly deployed at the GCPs, followed by auxiliary nurse midwives (ANMs), and health assistants (HAs). Staff nurses, lab assistants, lab technicians, and public health officials (PHOs) had the lowest numbers of deployment.

#### 4.2.3 Detection and notification by GCP status

**Table 7:** Agencies assigned for detection and notification of COVID-19 by GCP status, December 2020

Agency	Status of the GCP assessed			Total
	Open (N=2)	Closed (N=2)	Partially open (N=16)	
Health	2	1	12	15
Security	1	0	5	6
None	0	1	5	6
Immigration	0	0	1	1

Among the 20 GCPs, only two open borders had assigned health agencies for the detection, notification, management, and referral of COVID-19 cases. One of the two open borders (Rani PoE) had also assigned security agencies for this task. In the partially open borders, 12 GCPs (Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Birgunj PoE, Mahespur PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Jamunaha PoE, Gaddachauki PoE) had assigned responsibility to the health agencies, followed by the immigration department at Kakadbhitta PoE and security department at Kakadbhitta PoE, Pashupatinagar PoE, Bhittamod PoE, Gulariya PoE, and Jamunaha PoE. However, it should be noted that while health led the assigned function, all other agencies worked in tandem with the health authorities. Likewise, one closed PoE (Rautahat PoE) and five partially open PoEs (Thadi PoE, Kunauli PoE, Mahespur PoE, Krishnanagar PoE and Darchula PoE) had none of the agencies assigned for the detection and notification of COVID-19.

#### 4.2.4 SOPs in place at GCPs

**Table 8:** Availability of SOPs by GCP status, December 2020

SOPs in place	Open (N=2)	Closed (N=2)	Partially open (N=16)
SOPs on detection and notification of COVID-19 cases	1	1	9
SOPs on IPC measures	0	0	5
SOPs on traveler processing adapted to the PHEIC context	0	0	5
SOPs on coordination with health field and/or national authorities	1	1	8

Among the 16 partially open borders, over half (Kakadbhitta PoE, Maadar PoE, Kunauli PoE, Birgunj PoE, Belahiya PoE, Taulihawa PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE, Darchula PoE and Jhulaghat PoE) had SOPs on the detection, notification, management, and referral of suspected COVID-19 cases. Half of the open and closed borders claimed that SOPs were in place. Regarding IPC measures, five partially open borders (Kakadbhitta PoE, Maadar PoE, Kunauli PoE, Belahiya PoE and Gaddachauki PoE) had SOPs, whereas they were non-existent at open and closed borders. Likewise, five partially open borders (Maadar PoE, Malangwa PoE, Kunauli PoE, Jamunaha PoE and Gaddachauki PoE) had SOPs on traveler processing adapted to the PHEIC context; open and closed borders had no SOPs for traveler processing. Half of the partially open (Kakadbhitta PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE, Darchula PoE), open (Gauriphanta PoE), and closed borders (Jhulaghat PoE) had SOPs regarding coordination with health field and national authorities.

#### 4.2.5 Training of staff on SOPs at GCPs

**Table 9:** Training of staff by GCP status, December 2020

	Open (N=2)	Closed (N=2)	Partially open (N=16)
Staff trained on detection and notification	1	1	6
Staff trained on IPC measures	1	0	5
Staff trained on coordination with health field and/or national authorities	0	0	5
Staff trained on traveler processing adapted to the PHEIC context	0	0	4

The study found that one open (Rani PoE) and one closed border (Jhulaghat PoE) had provided their staff with training on detection and notification of COVID-19. The same was performed at six partially open borders (Kakadbhitta PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Gaddachauki PoE, and Darchula PoE). None of the closed borders had trained the staff on IPC measures, while one out of two open borders (Rani PoE) had provisions for such training. Among the partially open borders, five GCPs (Kakadbhitta PoE, Maadar PoE, Malangwa PoE, Kunauli PoE and Jamunaha PoE) had such provisions in place. Neither of the open or closed borders had provided training on traveler processing adapted to the PHEIC context or on coordination with health field or national authorities. Additionally, only four GCPs (Maadar PoE, Malangwa PoE, Kunauli PoE, Gaddachauki PoE) had carried out PHEIC training in partially open GCPs, and only five partially open GCPs (Kakadbhitta PoE, Maadar PoE, Kunauli PoE, Gulariya PoE and Gaddachauki PoE) had provided training on coordination with health field or national authorities.

#### 4.2.6 Training on screening activities at GCPs with health desks

**Table 10:** GCPs with availability of health desks that performed multiple trainings, December 2020

	Functional health desk (N=9)	No health desk (N=11)
Training on screening before deployment	6	4
Training on the use of PPEs	7	4
Training provided to GCP screeners after posting	6	2
Training for staff (within a year) on handling ill travelers	3	2
Training for staff (within a year) on IPC	2	1

The study found that only six GCPs (Rani PoE, Kakadbhitta PoE, Maadar PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE) with functional health desks had run training on screening before deployment, whereas the same had taken place at four GCPs (Thadi PoE, Malangwa PoE, Kunauli PoE and Bhittamod PoE) with no health desks. Seven out of nine health desks (Pashupatinagar PoE and Gauriphanta PoE being the exceptions) had trained staff on PPE use. Only two GCPs with no health desks (Malangwa PoE and Darchula PoE) had provided training to GCP screeners after posting, and six GCPs with health desks (Rani PoE, Kakadbhitta PoE, Maadar PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE) had provided the same training. Training on the handling of ill travelers, at GCPs with and without health desks, was mentioned in Rani PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, and Gaddachauki PoE, while IPC training had taken place at Maadar PoE, Malangwa PoE, and Gaddachauki PoE.

#### 4.2.7 SOPs on different IHR (2005) components at GCPs with health desks

**Table 11:** Availability of SOPs on different components by availability of health desks, December 2020

	Functional health desk (N=9)	No health desk at present (N=11)
Up-to-date health emergency contingency plans at GCPs	6	2
SOP for COVID-19 screening and referral	8	6
Endorsed SOP for quarantine of a suspected case	7	5
Endorsed SOP for isolation of a confirmed case	8	5
Endorsed SOP for disinfecting ambulances	8	4
Endorsed SOP for IPC	3	2

Only six of the GCPs with functional health desks (Kakadbhatta PoE, Maadar PoE, Birgunj PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE) had up-to-date health emergency contingency plans. These plans were also available at Kunauli PoE and Krishnanagar PoE, both of which did not have functional health desks. The study found that eight out of nine functional health desks (except for Pashupatinagar PoE) followed SOPs for COVID-19 screening, while more than half of the GCPs (Kunauli PoE, Bhattamod PoE, Krishnanagar PoE, Gulariya PoE, Darchula PoE, and Jhulaghat PoE) without health desks also followed the protocol.

Three GCPs with health desks (Maadar PoE, Gaddachauki PoE, and Gauriphanta PoE) had endorsed SOPs for IPC. At GCPs without health desks, only Kunauli PoE and Gulariya PoE endorsed SOPs for IPC.

Furthermore, seven functional health desks (except Rani PoE and Pashupatinagar PoE) endorsed SOPs for quarantine of suspected cases. Correspondingly, eight GCPs with functional health desks (Pashupatinagar PoE being the exception) had endorsed SOPs for isolation of confirmed cases. The number was similar for SOPs endorsed for disinfecting ambulances.

### 4.3 Contingency planning

All designated GCPs need to have a public health emergency contingency plan aligned with the IHR (2005). The plan, which has to be updated regularly, should include the nomination of a coordinator and contact points for GCPs from public health and other relevant agencies so that they can help inform and guide responses to public health hazards.

#### 4.3.1 Authority mandated to lead coordination with health authorities

**Table 12:** Status of the GCPs and authorities mandated for coordination with health units, December 2020

Authorities mandated for coordination	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
Health	1	1	12	14
Security	0	1	7	8
Customs	1	0	2	3
Immigration	0	0	1	1

*Numbers are based on respondents*

Health and security were the leading departments for coordinating with health authorities in most GCPs. In Maheshpur PoE and Belhaiya PoE, both of which had health departments, the security authorities jointly led coordination efforts with health personnel. In Kakadbhitta PoE, all four major departments (health, customs, immigration, and security) worked in tandem. In Rani PoE, the customs department led coordination efforts even though it had a functional health desk. In Thadi PoE, the customs department and the security department were responsible for coordination as it did not have a functional health desk.

To sum up, out of 16 partially open GCPs, the health department was responsible for coordinating with health authorities in 14 GCPs (Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Kunauli PoE, Bhittamod PoE, Birgunj PoE, Mahespur PoE, Taulihawa PoE, Krishnanagar PoE, Belahiya PoE, Gaddachauki PoE, Gauriphanta PoE, Darchula PoE and Jhulaghat PoE), followed by security at seven GCPs (Kakadbhitta PoE, Thadi PoE, Malangwa PoE, Maheshpur PoE, Belahiya PoE, Gulariya PoE and Jamunaha PoE). In two partially open GCPs (Kakadbhitta PoE and Thadi PoE), the customs department was the leading authority, while the immigration department was responsible in only one GCP (Kakadbhitta PoE).

In the two open GCPs, the health and customs departments shared equal coordination responsibilities with one each. Similarly, in the two closed GCPs, coordination was shared equally between the health authorities and security departments.

#### 4.3.2 Existence of coordination mechanisms at GCPs

**Table 13:** Status of the GCPs and coordination mechanisms for GCPs, December 2020

Coordination mechanism in place	Open	Closed	Partially open	Total
Yes, prior to COVID-19	1	1	7	9
Yes, in an ad-hoc basis during COVID-19	1	1	7	9
No	0	0	2	2
Total	2	2	16	20

In the two open GCPs, Rani PoE had the coordination mechanism in place prior to the COVID-19 outbreak, while Gauriphanta PoE established the mechanism during the pandemic. The situation was similar in the two closed GCPs; only Jhulaghat PoE had the coordination mechanism prior to COVID-19. In the case of the 16 partially open GCPs, two GCPs (Thadi PoE, Siraha and Belahiya PoE, Rupandehi) did not have coordination mechanisms. Seven GCPs (Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Malangwa PoE, Jamunaha PoE, Gaddachauki PoE and Darchula PoE) had the mechanism prior to the COVID outbreak, while the other seven (Kunauli PoE, Bhittamod PoE, Birgunj PoE, Maheshpur PoE, Taukihawa PoE, Krishnanagar PoE, Gulariya PoE) established it in an ad hoc manner after the pandemic was declared.

#### 4.3.3 Standard operating procedures (SOPs) on emergency, contingency planning, and response at GCPs

**Table 14:** Status of the SOP and training on emergency and contingency planning at the GCPs, December 2020

SOP	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
SOP in place	1	0	10	11
Trained staff	0	0	8	8

Among the 20 GCPs, 11 had SOPs for emergency, contingency planning, and response. In the two open GCPs, only Rani PoE in Morang had an SOP; Gauriphanta PoE in Kailali did not have one. Both closed GCPs—Gaur PoE in Rautahat and Jhulaghat PoE in Baitadi—did not have SOPs. With regards to the 16 partially open GCPs, 10 had existing SOPs while six (Bhittamod PoE, Mahottari; Malangwa PoE, Sarlahi; Birgunj PoE, Parsa; Thadi PoE, Siraha; Pashupatinagar PoE, Ilam and Maheshpur PoE, Nawalparasi) did not. However, only eight of the 11 GCPs (Kakadbhitta PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Belahiya PoE, Gulariya PoE and Darchula PoE) that had SOPs in place (except for Manalgwa PoE) had staff that had been trained accordingly.

#### 4.3.4 Informing and guiding responses to public health hazards

**Table 15:** Status of the GCPs and contact details of designated hospitals by GCPs, December 2020

Contact details of designated hospitals	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
Yes	1	1	13	15
No	1	1	3	5

The study found that 15 out of 20 GCPs had the contact details of the designated COVID-19 hospitals. Among the two open GCPs, only Gauriphanta PoE had the contact details; the other, Rani PoE in Morang, did not. The situation was similar in the two closed GCPs. Gaur PoE did not have contact details. Among the 16 partially open GCPs, 13 had the contact details of the designated COVID-19 hospitals, while three GCPs (Thadi PoE, Siraha; Pashupatinagar PoE, Ilam; Malangwa PoE, Sarlahi) did not have such records.

**Table 16:** Status of the GCPs and availability of focal points, December 2020

Availability of focal points	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
Yes	0	1	7	8
No	2	1	9	12

The study defines a focal point as the center—designated by the local, provincial or federal level—which shall be accessible at all times for communication on issues related to COVID-19 and GCPs. In this context, only eight out of the 20 GCPs had the contact details of focal points, such as hospitals and health offices, which were either clearly displayed or were available. These details were not displayed in both of the open GCPs (Gauriphanta PoE in Kailali; Rani PoE in Morang). In the case of the two closed GCPs, only Jhulaghat in Baitadi had the details on display. Among the 16 partially open GCPs, seven GCPs had displayed the contact details; the remaining nine GCPs (Maadar PoE, Siraha; Thadi PoE, Siraha; Malangwa PoE, Sarlahi; Parsa PoE, Birgunj; Sunauli PoE, Kapilvastu; Krishnanagar PoE, Kapilvastu; Pashupatinagar PoE, Ilam; Khalanga Bajar PoE, Darchula; Surajpur PoE, Bardiya) did not.

#### 4.3.5 Health supervisors and contacts from neighboring countries

**Table 17:** Status of the GCPs and availability of contacts of relevant authorities from neighboring countries, December 2020

Contact with supervisor in neighboring country	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
Yes	1	0	4	5
No	1	2	12	15

Supervisors in only five GCPs had contacts of relevant authorities in the abutting GCPs. In the two open GCPs, only the supervisors in Rani PoE, Morang, had such contacts, while none of the supervisors of the closed GCPs had contacts across the border. Furthermore, among the 16 partially open GCPs, supervisors in only four crossing points had contacts of a corresponding authority in the neighboring country; the rest (Pashupatinagar PoE, Ilam; Maadar PoE, Siraha; Thadi PoE, Siraha; Malangwa PoE, Sarlahi; Maheshpur PoE, Nawalparasi; Balahiya PoE, Rupandehi; Sunauli PoE, Kapilvastu; Krishnanagar PoE, Kapilvastu; Surajpur PoE, Bardiya; Khalanga Bazar PoE, Darchula; Gaddachauki PoE, Kanchanpur; Nepalgunj PoE, Banke) did not.

#### 4.3.6 Emergency operational plan integrated in coordination with the public health (PH) emergency contingency plan

**Table 18:** Status of the GCPs and availability of coordinated public health emergency contingency plans, December 2020

Availability of integrated PH contingency plan (N=8)	Open	Partially open	Total
Yes	0	2	2
No	2	4	6
Total	2	6	8

The immigration, border, and/or custom authorities' emergency operational plans were integrated into the coordinated public health emergency plans of only two GCPs that had immigration departments on the ground. To be more specific, this integration of plans was present only in the partially open GCPs of Kakadbhitta PoE, Jhapa, and Gaddachauki PoE, Kanchanpur, and the roles and functions were clearly defined only in Kakadbhitta.

### 4.4 Cross-border coordination (Intra/Inter/International)

A key component of the IHR (2005) is cross-border coordination, which states that health and border authorities, as well as other agencies at both sides of the GCPs, should communicate regularly.

#### 4.4.1 Means of communication to notify designated health facilities

Only GCPs with health desks were surveyed to learn their means of communication for notifying their respective health facilities. All nine PoEs with health desks had mobile phones as their means of communication, and two (22.2%) (Kakadbhitta PoE and Gaddachauki PoE) out of nine had both means of communication i.e., telephone and mobile phones.

A majority of the GCPs (67%) had reliable sources of electricity for charging electronic devices, but this was lacking in 33% (Kakadbhitta PoE, Birgunj PoE, Gaddachauki PoE) of the sites. Most (78%) did not have Internet connections. Personnel in only two (Jamunaha PoE and Maadar PoE) of the nine GCPs were able to use the Internet.

#### 4.4.2 Coordination among ground crossing border agencies in the Nepal side

Of the 20 GCPs in the Nepal side, half met on a regular basis to communicate and coordinate. Eight of these 10 GCPs were partially open and two were open borders. Both the GCPs came together regularly to share information, and only one (Rani PoE) met frequently to coordinate, as well as for informal exchanges. Among the eight partially open GCPs, only four (Maadar PoE, Kunauli PoE, Birgunj PoE and Gaddachauki PoE) met periodically. On the other hand, five partially open GCPs (Maadar PoE, Birgunj PoE, Maheshpur PoE, Taulihawa PoE and Gaddachauki PoE) coordinated regularly. One (Gaddachauki PoE, Kanchanpur) convened for informal

exchanges, while Pashupatinagar PoE and Malangwa PoE held meetings with internal staff only when necessary.

#### 4.4.3 Coordination with cross-border counterparts

More than half of the GCPs had regular coordination meetings with their cross-border counterparts—12 of the 20 GCPs convened regularly. Among the 12 GCPs, one closed border at Jhulaghat PoE, Baitadi, met their counterparts only when necessary; the situation was similar in five of the partially open GCPs. However, three partially open GCPs and one open GCP (Gauriphanta PoE, Kanchanpur) met their counterparts regularly, either to share information or for informal exchanges. Only two (Jamunaha PoE, Banke, and Taulihawa PoE, Kapilvastu) of the partially open GCPs, and both open GCPs, regularly coordinated with their cross-border counterparts.

#### 4.4.4 Coordination between cross-border health coordinators

Only five of the 20 GCP health coordinators met with their Indian counterparts. This five consisted of one open (Rani PoE, Morang) and four partially open borders (Gaddachauki PoE, Kanchanpur; Kunauli PoE, Saptari; Malangwa PoE, Saptari; Kakadbhitta PoE, Jhapa). The Rani PoE health coordinator convened with the Indian counterpart for regular coordination, information sharing, and informal exchanges. Likewise, three partially open GCPs (Gaddachauki PoE, Kanchanpur, Malangwa PoE, Saptari; Kakadbhitta PoE, Jhapa) met only when necessary, two GCPs (Kunauli PoE and Gaddachauki PoE) for informal exchanges, and one (Gaddachauki PoE) for information sharing.

#### 4.4.5 Updates of suspected Nepali COVID-19 cases from the Indian side

Health coordinators of only four of the 20 GCPs (Rani PoE, Malangwa PoE, Kunauli PoE and Belhaiya PoE) received updates from the Indian side regarding the contact lists of suspected COVID-19 patients that were Nepalese. Among the four GCPs, Malangwa PoE received updates only when necessary. Belhaiya PoE received monthly updates, Kunauli PoE received weekly updates, while Rani PoE received daily updates.

#### 4.4.6 Updates of suspected Indian COVID-19 cases from the Nepal side

The health coordinators received regular updates about Indian nationals suspected to be COVID-19 positive from six of the 20 GCPs (Rani PoE, Malangwa PoE, Kunauli PoE, Birgunj PoE, Gulariya PoE and Darchula PoE) in Nepal. Among the six GCPs, Malangwa PoE and Darchula PoE received updates only when necessary, while Rani PoE and Birgunj PoE received daily updates and Kunauli PoE received weekly updates.

#### 4.4.7 Institutions providing information on contact lists of suspected Indian COVID-19 cases

**Table 19:** Status of the GCPs and institutions providing information of suspected Indian COVID-19 cases, December 2020

Institutions providing information of Indian cases	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
Municipality office	0	1	3	4
Designated health team at GCP	1	0	2	3
MoHP	0	0	1	1
Provincial health directorate	0	0	1	1
Quarantine facility	0	0	1	1
Other	1	1	9	11

Percentages and totals are based on respondents

a. Dichotomy group tabulated at value 1.

All 20 GCPs had been receiving information from various institutions regarding COVID-19 cases in the Indian side. Designated health teams at GCPs had been circulating contact lists of suspected COVID-19 cases from the Indian side to one open (Rani PoE, Morang) and two partially open GCPs. One partially open GCP (Belahiya PoE, Rupandehi) received information from the MoHP whereas another (Jamunaha PoE, Banke) was notified by the provincial health directorate. The municipality office provided contact lists of suspected COVID-19 cases from the Indian side to one closed (Jhulaghat PoE, Baitadi) and three partially open GCPs (Gulariya PoE, Bardiya; Birgunj PoE, Parsa; Kakadbhitta PoE, Jhapa). One partially open GCP received information from the quarantine facility. The remaining nine partially open GCPs were given information by other sources, such as the West Bengal Police (on the Indian side) and border security personnel; some did not receive any information.

#### 4.4.8 Updated IHR information at GCPs

One open GCP (Gauriphanta PoE, Kanchanpur), one closed GCP (Jhulaghar PoE, Baitadi), and seven partially open GCPs had updated IHR focal points and contact details; in total, nine of the total GCPs had updated information. On the other hand, Jhulaghat PoE, Baitadi and Gauriphanta PoE, Kanchanpur, and almost nine partially open GCPs did not have updated details.

The security and health departments were mainly responsible for reporting to the IHR focal person. At the nine GCPs with updated IHR information, the health department was responsible at the open GCPs, while in the closed GCPs, the responsible agency was the security department. The security department was the responsible agency at the partially open GCP of Malangwa PoE, Sarlahi, whereas the remaining six partially open GCPs (Kakadbhitta PoE, Kunauli PoE, Bhittamod PoE, Birgunj PoE, Jamunaha PoE, and Gaddachauki PoE) depended on the health department. Daily reports made up 44%, and 33% was on a weekly basis. Around 11% performed annual and monthly reports.

#### 4.4.9 Mode of communication used while reporting to IHR focal person

The nine GCPs (Kakadbhitta PoE, Malangwa PoE, Kunauli PoE, Bhittamod PoE, Birgunj PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and Jhulaghat PoE) that reported to the IHR focal person mostly did so through telephone or e-mail. Telephones were used by almost 78% and e-mail by only 22% (Kakadbhitta PoE and Birgunj PoE) of the GCPs.

#### 4.4.10 Overall coordination of operations at the GCPs

**Table 20:** Status of the GCPs and responsible agencies for leading coordination efforts, December 2020

Responsible agency for leading coordination	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
Health	0	0	6	6
Customs	1	0	3	4
Agriculture and animal health	0	0	1	1
Immigration	0	0	1	1
Security	1	1	7	9
Other	0	1	5	6

Various departments had been leading the overall coordination efforts at the 20 GCPs. The health department was responsible for coordination at six of the partially open borders

(Kakabhitta PoE, Maadar PoE, Kunauli PoE, Birgunj PoE, Jamunaha PoE and Gaddachauki PoE), while the customs department oversaw coordination at one open GCP (Rani PoE, Morang) and at three of the partially open GCPs (Kakabhitta PoE, Thadi PoE and Malangwa PoE). The agriculture, health, and immigration departments were responsible for coordination at one partially open GCP (Kakabhitta PoE, Jhapa). The security department led the coordination at one open GCP (Gauriphanta PoE), one closed GCP (Jhulaghat PoE), and seven partially open GCPs (Kakabhitta PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Belahiya PoE and Gulariya PoE). Among all the assessed GCPs, Kakabhitta POE was the only one where all five departments were working jointly for overall coordination of operations at GCPs.

## 4.5 Disease surveillance

Migration and mobility are increasingly recognized as determinants of health and risk exposure. Hence, the IHR (2005) stresses on the strengthening of surveillance systems at GCPs and border communities. Existing national surveillance and reporting mechanisms should be integrated into the systems as well. The Government of Nepal has the Early Warning and Reporting System (EWARS), a hospital-based sentinel surveillance system that is operational in over 40 hospitals across the country. It mainly detects selected vector-, water-, and food-borne diseases that have outbreak potential. The EWARS, however, has not been considered for the surveillance of GCPs so far.

Disease surveillance at GCPs include activities such as PoE entry/exit screening, non-invasive health screening (e.g., temperature checking), review of travel history documents, proof of medical examinations, requirement of medical examinations, and proof of vaccination or other prophylaxis. Community event-based surveillance (CEBS) is also a part of disease surveillance.

### 4.5.1 PoE entry/exit screening

Two of the 20 GCPs were closed, and the 17 open and partially open GCPs were open all seven days of the week. A partially open GCP, Darchula PoE, opened only on Wednesdays and Saturdays. Most travelers crossed the borders on foot. Motor vehicles were also majorly used while bicycles and motorbikes were the least popular modes of transport.

**Table 21:** Purpose of movement, December 2020

Purpose of movement (N=18)	N	%
Buying daily essentials	9	50.0
Seeking medical care	8	44.4
Return due to COVID-19	8	44.4
Trade	6	33.3
Casual visits by cross-border population	5	27.8
Tourism	3	16.7
Seasonal migration for labor work	1	5.6
To support in agricultural work	1	5.6
Others	2	11.1

a. The total percentage exceeds 100 due to multiple responses.

A majority of the cross-border movement in nine of the 18 GCPs (50%) was for buying daily essentials, followed by seeking of medical care, and return due to COVID-19, which made up 44% each. Trade was the third major reason for cross-border movement, followed by casual visits by the cross-border population. Seasonal migration for labor work and other purposes were the lowest at six percent and 11% respectively.

#### 4.5.2 Volume of flows

**Table 22:** Peak month with highest inflow of travelers in 2020, December 2020

Month with highest inflow (N=18)	N	%
October	8	44.4
September	3	16.7
December	3	16.7
February	1	5.6
May	1	5.6
August	1	5.6
November	1	5.6

The month with the highest inflow of travelers in 2020 was October at 44%, followed by September and December. All the other months had almost six percent each. It should be noted that the data here does not include the two closed borders.

**Table 23:** Peak month with highest outflow of travelers in 2020, December 2020

Months with highest outflow (N=18)	N	%
November	5	27.8
December	4	22.2
February	2	11.1
March	2	11.1
September	2	11.1
October	2	11.1
January	1	5.6

In 2020, November recorded the highest number of outflow of travelers at almost 28%, followed by a major outflow of 22% in December. Apart from January, the rest of the months had an outflow of 11%. Once again, it should be noted that the data here does not include the two closed borders.

#### 4.5.3 Agency in charge of flow monitoring

Among the various agencies that were put in charge of flow monitoring, the most engaged was security at almost 89%. This was followed by the immigration departments (11 percent) at Birgunj PoE and Belahiya PoE. Health and other agencies monitored at Gaddachauki PoE and Taulihawa PoE respectively respectively accounted to 6 % each.

#### 4.5.4 Modality of traveler registration at PoE entry/exit screening

**Table 24:** Modality of registration, December 2020 (N=18)

Registration modality	N	%
Screening headcount	8	44.4
Table/computer-based electronic device	5	27.8
No system available	5	27.8
Immigration ledger	2	11.1
Visual estimation	2	11.1
Other	4	22.2

a. The total percentage exceeds 100 due to multiple responses

Among the partially open and open GCPs, most (Kakadbhitta PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Maheshpur PoE, Gulariya PoE, Jamunaha PoE and Gaddachauki PoE) followed screening headcounts (44%), while Rani PoE, Malangwa PoE, Kunauli PoE, Bhattamod PoE, and Krishnanagar PoE did not have registration systems. Kakadbhitta PoE, Birgunj PoE, Belahiya PoE,

Gauriphanta PoE, and Darchula PoE used table/computer-based electronic devices as well. Other means of registration, such as record books and registers, were utilized in Pashupatinagar PoE, Taulihawa PoE, Krishnanagar PoE, and Gaddachauki PoE. Immigration ledgers and visual estimations were used as registration modalities at Thadi PoE, Birgunj PoE, Rani PoE, and Gulariya PoE. However, since all PoEs did not have registration modalities for cross-border communities, their registration at the assessed GCPs were not accounted in the presented table (Table 24). Only four GCPs (Taulihawa PoE, Kapilvastu; Gulariya PoE, Bardiya; Gaddachauki PoE, Kanchanpur and Gauriphanta PoE, Kailali) reported having registration details of cross-border communities.

#### 4.5.5 General health facilities at GCPs

**Table 25:** General health facilities at GCPs, December 2020

General health facilities at GCPs (N=9) *	Present [ N (%) ]
Dedicated isolation/observation area	1 (11.1)
Quarantine area	2 (22.2)
Isolation facility with adequate ventilation	3 (33.3)
Dedicated screening area	4 (44.4)
Thermal camera	4 (44.4)
Patient examination space	5 (55.6)
Transportation to facilities outside PoEs	5 (55.6)
Face shields	7 (77.8)
Handheld infrared thermometer	8 (88.9)
Surgical mask	8 (88.9)
Disposable gloves	8 (88.9)
Hand sanitizer	8 (88.9)
Washing stations	6 (66.7)
Additional health facility (N=20)	<b>Present</b>
Business continuity plan	9 (45.0)
Health referral system	14 (70.0)

\*GCPs with functional health desk.

Only five GCPs (Rani PoE, Kakadbhitta PoE, Belahiya PoE, Jamunaha PoE and Gaurifanta PoE) with health desks had patient examination spaces. Handheld infrared thermometers, surgical masks, disposable gloves, and hand sanitizers were found at around 89% of the health desks (Jamunaha PoE, Banke being the exception), and face shields were also widely available. Transportation to facilities outside PoEs was provided in Kakadbhitta PoE, Maadar PoE, Birgunj PoE, Belahiya PoE, and Gaddachauki PoE, all of which had health desks. Washing stations were available at Rani PoE, Maadar PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE, and Gauriphanta PoE. Isolation facilities with adequate ventilation were found in less than half of the GCPs (Kakadbhitta PoE, Belahiya PoE, Gaddachauki PoE). Dedicated isolation/observation areas were rare and present only at Gaddachauki PoE. Similarly, dedicated screening areas were available only at Rani PoE, Maadar PoE, Belahiya PoE, and Gauriphanta PoE. In the same vein, quarantine areas were reported to be present at Belahiya PoE and Gaddachauki PoE only. Likewise, thermal cameras were available only at Rani PoE, Kakadbhitta PoE, Birgunj PoE, and Jamunaha PoE. Business continuity plans existed in nine GCPs (Kunauli PoE, Maheshpur PoE, Birgunj PoE, Belahiya PoE, Krishnanagar PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE, and Darchula PoE) whereas health referral systems were available at all but six of the GCPs (Thadi PoE, Malangwa PoE, Gaur PoE, Bhattamod PoE, Krishnanagar PoE and Darchula PoE).

#### 4.5.6 Screening services available at GCPs

**Table 26:** Health services at GCPs, December 2020 (N=18)

Screening services at GCPs	Present [N (%)]
Verbal screening	15 (83.3)
Temperature measurement	15 (83.3)
Awareness raising and sensitization	15 (83.3)
Visual observation of symptoms	13 (72.2)
Triaging	8 (44.4)
Health certificate check	5 (27.8)
Screening of signs and symptoms	4 (22.2)

Among the open and partially open GCPs, around 83% provided verbal screening; Malangwa PoE, Taulihawa PoE, and Krishnanagar PoE were the exceptions. Likewise, temperature measurements were performed at all GCPs other than Thadi PoE, Krishnanagar PoE, and Darchula PoE. Awareness raising and sensitization activities were carried out at 15 GCPs (Pashupatinagar PoE, Thadi PoE, and Malangwa PoE being the exceptions). However, a large percentage (72%) did not perform health certificate checks. This was reported to be performed only at Kakadbhitta PoE, Kunauli PoE, Birgunj PoE, Maheshpur PoE, and Gaddachauki PoE. On the other hand, visual observations of COVID-19 symptoms was undertaken at 13 GCPs, with the exception of Thadi PoE, Malangwa PoE, Bhattamod PoE, Krishnanagar PoE, and Darchula PoE. Triaging was done at eight GCPs (Rani PoE, Kakadbhitta PoE, Kunauli PoE, Bhattamod PoE, Maheshpur PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE). The least provided health service was screening of signs and symptoms, which was catered at Rani PoE, Bhattamod PoE, Belahiya PoE, and Gaddachauki PoE.

#### 4.5.7 GCPs and services provided according to types of travelers

**Table 27:** Status of the GCPs and services provided according to traveler types, December 2020

Services provided	Traveler types	Open	Partially open
Awareness and sensitization (N=15)	Lorry drivers/truck drivers	1	4
	Returnees	1	6
	All people passing through the GCPs	1	9
	Others	0	1
Health certificate check (N=5)	Lorry drivers/truck drivers	0	2
	Returnees	0	4
	All people passing through the GCPs	0	0
	Others	0	0
Screening of signs and symptoms (N=4)	Lorry drivers/truck drivers	1	1
	Returnees	1	2
	All people passing through the GCPs	0	2
	Others	0	0
Temperature measurement (N=15)	Lorry drivers/ truck drivers	1	6
	Returnees	2	8
	All people passing through the GCPs	0	6
	Others	0	1
Triaging (N=8)	Lorry drivers/truck drivers	1	2
	Returnees	1	7
	All people passing through the GCPs	0	2
	Others	0	0
Verbal screening (N=15)	Lorry drivers/truck drivers	1	4
	Returnees	1	9
	All people passing through the GCPs	1	5
	Others	0	1
Visual observation (N=13)	Lorry drivers/truck drivers	1	4
	Returnees	2	6
	All people passing through the GCPs	0	5

Among 18 GCPs that were open or partially open, around 83% (Table 27) gave awareness and sensitization services to travelers. Of those partially open, nine provided the service to all people passing through the GCPs, six to returnees, and four to truck drivers. In the open GCPs, the service was available to truck drivers and returnees at Rani PoE, and to all people passing through the border at Gauriphanta PoE.

Health certificate checks were available at only 28% of the GCPs (from Table 42). It should be noted that this service was available only at partially open borders, and was carried out among returnees and truck drivers.

Similarly, only 22% of the GCPs screened signs and symptoms of travelers. Usually, all people passing through the partially open borders were screened, whereas in the open border of Rani PoE, only returnees and truck drivers were screened for signs and symptoms.

Temperature measurement as a means of screening ill travelers was common among returnees at open borders. Six of the partially open GCPs (Kakadbhitta PoE, Malangwa PoE, Belahiya PoE, Taulihawa PoE, Jamunaha PoE and Gaddachauki PoE) measured the temperatures of truck drivers, and eight of the partially open borders measured returnees' temperatures.

Triaging was provided at only 44% of the GCPs (from Table 27). This service was practiced among truck drivers at Jamuhana PoE and Kakadbhitta PoE (partially open borders), and also at Rani PoE (open border). However, triaging was carried out among all people passing through the border at two partially open GCPs (Bhittamod PoE and Jamunaha PoE).

Verbal screening was mostly provided to returnee migrants at nine partially open GCPs. On the other hand, the service was practiced more commonly among truck driver at one open border (Rani PoE). Similarly, visual observation was reported as a common means of screening truck drivers at four of the partially open borders. And, in both open borders, returnees were visually observed for screening.

#### **4.5.8 Available staff and agencies conducting COVID-19 screening at GCP health desks.**

Among the nine GCPs with health desks, all those that were open had staff and agencies to conduct COVID-19 screening. Among seven partially open GCPs, only six (Kakadbhitta PoE, Maadar PoE, Birgunj PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE) had staff and agencies for this purpose.

A majority (almost 88%) of the screening at GCPs was performed by health agencies. The other agencies were far behind at 12% each.

## 4.6 Equipment and supplies (including ICT)

Under this component, equipment and supplies must be planned and appropriately budgeted, with procurement carried out according to relevant technical guidelines. The items include communication devices and ICT equipment. Supply chain management, including distribution, storage, and security of the items, should also be ensured.

### 4.6.1 Functional communication facilities at GCPs

**Table 28:** Functional communication facilities at GCPs, December 2020 (N=20)

Departments with functional communication facilities	Open	Closed	Partially Open
Customs	2	2	15
Security	1	2	15
Agriculture and veterinary	2	0	7
Immigration	2	0	6
Health	1	0	6

A majority of functioning communication facilities in the partially open GCPs were in the customs and security departments. This was followed by agriculture and veterinary, and health and immigration. Health departments of only seven GCPs (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE) reported the availability of functional communication facilities. Customs and security were the only two departments with functioning communication facilities in closed GCPs, while all departments—except for security and health—had functioning communication facilities at open GCPs.

### 4.6.2 IT equipment at GCPs

**Table 29:** Availability of IT equipment by department at GCPs, December 2020 (N=20)

IT equipment at GCPs	Departments in PoE				
	Health	Customs	Immigration	Agriculture and animal health	Security
Laptop/tablet	1	88	18	7	10
Desktop	0	127	30	22	17
Printer	1	95	15	15	10
Fax	0	4	3	1	3
<b>Total</b>	<b>2</b>	<b>314</b>	<b>66</b>	<b>45</b>	<b>40</b>

With regards to IT equipment, customs had the maximum number (314) of devices: 88 laptops, 127 desktop computers, 95 printers, and four faxes. This was followed by the immigration department, which had 18 laptops, 30 desktop computers, 15 printers, and three faxes. Some GCPs also mentioned the availability of other equipment—telephones, scanners, mobiles, weighing machines, and smart interactive help desks.

### 4.6.3 Information collection systems at GCPs

**Table 30:** Availability of traveler information collecting systems at GCPs, December 2020

PoEs and Districts	Availability*
Jhulaghat PoE, Baitadi	1
Darchula PoE, Darchula	1
Gauriphanta PoE, Kanchanpur	1
Gaddachauki PoE, Kanchanpur	1
Jamunaha PoE, Banke	0
Gulariya PoE, Bardiya	1
Krishnanagar PoE, Kapilvastu	1
Taulihawa PoE, Kapilvastu	1
Belahiya PoE, Rupandehi	1
Maheshpur PoE, Nawalparasi West	0
Birgunj PoE, Parsa	1
Bhittamode PoE, Mohattari	1
Gaur PoE, Rautahat	0
Kunauli PoE, Saptari	0
Malangwa PoE, Sarlahi	1
Thadi PoE, Siraha	0
Maadar PoE, Siraha	1
Pashupatinagar PoE, Ilam	0
Kakadbhitta PoE, Jhapa	1
Rani PoE, Morang	1
<b>Total</b>	<b>14</b>

\*1= means that a traveler information system is available, 0 = means no traveler information system

Among the 20 GCPs, 14 had a system for collecting traveler information. The ones that were not equipped with such a system were Kunauli PoE of Sapatari, Thadi PoE of Siraha, Nepalgunj PoE of Banke, Pashupatinagar PoE of Ilam, Gaur of Rautahat, and Maheshpur PoE of Nawalparasi West.

Similarly, only 14 GCPs had a system for collecting traveler information. Among them, only one had e-BMIS (Gaddachauki PoE, Kanchanpur), but it was not connected. The rest did not have the system at all. The e-BMIS is a web-based platform for recording passenger movement and visa issuance, among others activities.

Additionally, various methods were employed for collecting information without utilizing e-BMIS. Among these, 57% used notebooks, followed by official ledgers, online forms, and paper-based forms at around 14%. About 21% used other methods, such as registers, for information collection.

In terms of methods used to collect information on the health statuses of travelers, a majority relied on manual means. Among the 14 GCPs that had systems in place to collect information, 57% reported (Rani PoE, Maadar PoE, Bhittamod PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE, Jamuanaha PoE and Gauriphanta PoE) recording information manually. This was followed by paper-based health declaration forms at Kakadbhitta PoE and

Gaddachauki PoE, and automated systems at Jhulaghat PoE. On the other hand, Thadi PoE, Birgunj PoE, and Darchula PoE did not collect any information.

#### 4.6.4 Screening equipment/logistics and PPE equipment availability

**Table 31:** Number of screening equipment/logistics at GCPs (according to the provinces), December 2020

Screening equipment/ logistics	Province No. 1	Province No. 2	Lumbini Province	Sudurpashchim Province
Screening forms and files	1200	100	1	100
Stethoscopes	9	15	2	2
BP machines	8	23	3	2
Thermal scanners	4	0	1	0
Handheld non-contact thermometers with batteries	4	34	5	7
Portable ECGs	0	6	0	0
Pulse oximeter	0	2	0	0
Nebulizers	0	3	0	0
Oxygen cylinders	0	4	0	0

The above table depicts the total items available at the GCPs during the time of the survey. It should be noted that at this time, 11 GCPs did not have functional health desks. However, logistics and equipment stock were still available at some GCPs that were closed or did not have functional health desks. The equipment/logistics were counted as zero according to the present context although supplies did exist earlier.

The survey found that Province 1 (Morang, Jhapa, Ilam) had the highest number of screening forms and files, along with the availability of thermal scanners, handheld non-contact thermometers with batteries, stethoscopes, and BP machines.

The GCPs in Province 2 (Siraha, Sarlahi, Saptari, Rauthahat, Mahottari) were the only ones with a number of oxygen cylinders, nebulizers, pulse oximeters, and portable ECGs. GCPs in Lumbini Province (Nawalaparasi West, Rupandehi, Kapilvastu, Bardiya and Banke) had only a few screening equipment and other logistics available at the time of study. Similarly, GCPs in Sudurpashchim Province (Kanchanpur, Darchula and Bardiya) had very few handheld non-contact thermometers and screening forms during the study period.

**Table 32:** Number of screening forms available at GCPs, December 2020

Screening forms	Province No. 1	Province No. 2	Lumbini Province	Sudurpashchim Province
Passenger locator forms	0	5500	0	50
Health declaration forms	0	200	18	40
Health cards	0	105	0	0
Passenger register	6	104	7	55

During the survey, the highest number of screening forms available was recorded in Province 2 (Siraha, Sarlahi, Saptari, Rauthahat, Mahottari), although none were available in Birgunj (also in Province 2). Only passenger registers were available in Province 1 (Morang, Jhapa, Ilam). Likewise, only health declaration forms and passenger registers were available in Lumbini Province (Rupandehi, Kapilvastu, Bardiya and Banke). Similarly, apart from health cards, all

other screening forms numbered less than 100 in Sudurpashchim Province (Kanchanpur, Darchula, and Baitadi).

**Table 33:** Number of PPE equipment at GCPs, December 2020

PPE equipment	Province No. 1	Province No. 2	Lumbini Province	Sudurpaschim Province
Surgical masks	250	11000	700	300
Gloves	250	10010	0	300
N95 masks	3	6160	0	140
Goggles	4	5010	16	220
Hand sanitizers	7	510	130	220
Face shields	8	110	15	50
Aprons	10	62	2	42
PPE suits	6	52	16	50
Gumboots/boot covers	7	51	15	17

Province 2 (Siraha, Sarlahi, Saptari, Rauthahat, Mahottari) had the maximum number of PPE supplies—including suits, gloves, aprons, surgical masks, N95 masks, goggles, face shields, gumboots, and hand sanitizers. This was followed by Sudurpashchim (Kanchanpur, Darchula and Baitadi) and Lumbini Province (Rupandehi, Kapilvastu, Bardiya and Banke).

**Table 34:** Partners and agencies providing PPEs to GCPs, December 2020

		PPE suits	Gloves	Surgical masks	N95 masks	Goggles	Aprons	Face shields	Gumboots/boots covers	Hand sanitizers
Partners providing PPE (N=20)	Local government	14	13	13	9	12	8	10	10	14
	NGO	7	6	6	7	5	2	4	3	6
	Government agency	0	3	3	3	1	0	0	0	2
	INGO	2	2	1	1	1	0	1	0	2
	Others	0	0	0	0	0	0	0	0	0

Local governments were the leading authority in providing PPE supplies, followed by NGOs/INGOs and government agencies. Local governments supplied PPE suits and hand sanitizers to 14 GCPs, and gloves and surgical masks to 13 GCPs. They also contributed a number of N95 masks, goggles, aprons, face shields, and boot covers. Government agencies provided gloves, surgical masks, and N95 masks to three GCPs, goggles to one PoE, and hand sanitizers to two GCPs. INGOs—Save the Children and Caritas Nepal—supplied two GCPs with PPE suits, gloves, and hand sanitizers. They also provided one PoE with surgical masks, N95 masks, goggles, and face shields.

## 4.7 Immigration/consular/visa processes

Immigration and visa regimes are greatly affected by pandemics. In such situations, migrants are either stranded or are unable to meet legal, migratory, or visa requirements. Interim guidelines and consular assistance procedures are therefore put in place to alleviate such issues.

### 4.7.1 Presence of immigration departments at GCPs

Out of the total 20 GCPs, immigration departments were present in only eight (Pashupatinagar PoE, Ilam; Birgunj PoE, Parsa; Belahiya PoE, Rupandehi; Jamunaha PoE, Banke; Gaddachauki PoE, Kanchanpur; Gauriphanta PoE, Kailali; Rani PoE, Morang; Kakadbhitta PoE, Jhapa).

### 4.7.2 Services available at immigration departments at GCPs

**Table 35:** Services available at GCPs with immigration departments, December 2020 (N=8)

Services available	Open (N=2)	Partially open (N=6)	Total
Visa on arrival	2	4	6
Work permit	0	2	2
Non-Residential Nepalese visa	0	2	2
Other	1	2	3
Total	2	6	8

Percentages and totals are based on respondents.

Of the eight GCPs with immigration departments, two were open borders while the remaining six were partially open. Four of the partially open GCPs (Kakadbhitta PoE, Birgunj PoE, Belahiya PoE and Gaddachauki PoE) had visa on arrival facilities. The rest of the services, including other—tourist visa and immigration services as per guidelines—were available at Pashupatinagar PoE and Gaddachauki PoE (partially open GCPs). Both open GCPs had on arrival facilities, and only one GCP (Gauriphanta PoE, Kailali) had other services available.

### 4.7.3 Guidance provided by immigration departments

**Table 36:** Guidance provided by immigration departments for various services, December 2020 (N=8)

Guidance provided	N	%
Management of entry requirements	5	62.5
Exemptions related to quarantine	4	50.0
Visa process	3	37.5
Management of visa	4	50.0

Of the eight GCPs with immigration facilities, only five (Kakadbhitta PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE and Gauriphanta PoE) provided guidance regarding the management of entry requirements, and four (Kakadbhitta PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE) provided guidance for exemptions related to quarantine. Assistance regarding the visa process was available at only three GCPs (Kakadbhitta PoE, Belahiya PoE, and Gaddachauki PoE), and four (Kakadbhitta PoE, Belahiya PoE, Jamunaha PoE, and Gaddachauki PoE) provided guidance on the management of visas.

#### 4.7.4 Sharing of guidance with stakeholders

**Table 37:** Status of the GCPs and guidance shared with stakeholders, December 2020

		Open	Closed	Partially open
Guidance on management of entry requirements (N=5)	Completely shared	0	0	3
	Partially shared	0	0	1
	Not shared	1	0	0
	<b>Subtotal</b>	<b>1</b>	<b>0</b>	<b>4</b>
Guidance on exemption (N=4)	Completely shared	0	0	4
	Partially shared	0	0	0
	Not shared	0	0	0
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>4</b>
Guidance on visa process (N=3)	Completely shared	0	0	2
	Partially shared	0	0	1
	Not shared	0	0	0
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>3</b>
Guidance on management of visa (N=4)	Completely shared	0	0	1
	Partially shared	0	0	0
	Not shared	0	0	3
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>4</b>

In the eight GCPs with immigration departments, five had guidance on management of entry requirements (Table 58). Among these, three (Kakadbhitta PoE, Jamunaha PoE, and Gaddachauki PoE) shared the guidance with stakeholders completely, while one (Belahiya PoE) shared it partially. On the other hand, one (Gauriphanta PoE) did not share the guidance at all.

Guidance on exemption was available in only 50% of the GCPs with immigration departments, and was shared completely. Similarly, guidance on the visa process was available in only 38% (Table 58), among which two (Kakadbhitta PoE and Gaddachauki PoE) shared the guidance completely, whereas Belahiya PoE shared it partially. Among the four GCPs with guidance on management of visas, only Belahiya PoE shared it completely.

It should be noted that the guidance on exemption, visa process, and management of visa was not available in any of the open and closed borders.

#### 4.7.5 Presence of custom offices

Among the 20 GCPs, 16 had a main custom office, and four GCPs (Maadar PoE, Malangwa PoE, Gulariya PoE, and Jhulaghat PoE) had sub-custom offices.

#### 4.7.6 Restrictions, information, and average flow of trucks at GCPs

**Table 38:** Status of the GCPs and various information on trade/immigration restrictions, December 2020

	Open	Closed	Partially open	Total
<b>Legally cross entry point to trade (N=20)</b>	2 [10%]	1 [5%]	14 [70%]	17 [85%]
<b>Measures for screen/test (N=20)</b>	2 [10%]	0	4 [20%]	6 [30%]
<b>Trade/immigration restrictions (N=20)</b>	0	0	5 [25%]	5 [25%]
<b>Trade/immigration formalities (N=20)</b>	1 [5%]	1 [5%]	10 [50%]	12 [60%]
<b>Travel restrictions for truck drivers (N=17)</b>	0	0	6 [35.29%]	6 [36%]
<b>Delays/backlogs in truck movement (N=17)</b>	0	0	5 [29.41%]	5 [30%]

Traders were able to cross entry points legally for business purposes in 85% of the GCPs. Of these, 14 were partially open, one closed (Gaur PoE, Rautahat), and two open (Gauriphanta PoE and Rani PoE). However, measures for screening/tests were undertaken in only 30% of the GCPs (Rani PoE, Kakadbhitta PoE, Thadi PoE, Taulihawa PoE, Gaddachauki PoE and Gauriphanta PoE). These measures were carried out at both open GCPs. Furthermore, traders were subjected to trade/immigration restrictions in five partially open GCPs (Kakadbhitta PoE, Malangwa PoE, Gulariya PoE, Jamunaha PoE and Darchula PoE). Regarding trade/immigration formalities, 60% of the GCPs provided information about rule changes. Among these GCPs, 10 were partially open, one open (Gauriphanta PoE), and one closed (Gaur PoE).

A point to note is that two of the GCPs were closed and, hence, restricted vehicle movement. But, in the case of Darchula PoE, even if there were no restrictions in place, vehicles could not pass through due to the condition of the road. In six GCPs (Kunauli PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE and Gaddachauki PoE), all of which were partially open, truck drivers were subjected to travel restrictions. Nevertheless, delays/backlogs in truck movement were manifested in only 30% of the partially open GCPs (Gaddachauki PoE, Belahiya PoE, Jamunaha PoE, Gulariya PoE and Malangwa PoE).

**Table 39:** Status of the GCPs and various information on trade/immigration restrictions due to COVID-19, December 2020

		Open	Closed	Partially open	Total
COVID-19 trade/immigration restrictions (N=5)	Yes	0	0	4	4
	No	0	0	1	1
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>
Traders being informed on changes in trade formalities due to COVID-19 (N=12)	Yes	1	0	8	9
	No	0	1	2	3
	<b>Subtotal</b>	<b>1</b>	<b>1</b>	<b>10</b>	<b>12</b>
Truck drivers subjected to travel restrictions due to COVID-19 (N=5)	Yes	0	0	4	4
	No	0	0	1	1
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>

Among the five partially open GCPs that reported having trade/immigration restrictions, four (Kakadbhitta PoE, Malangwa PoE, Gulariya PoE, and Darchula PoE) responded that it was due to COVID-19 travel regulations. In total, nine GCPs reported informing traders about changes in trade formalities due to COVID-19. Of them, one was open (Gauriphanta PoE, Kailali) and the remaining eight (Kakadbhitta PoE, Thadi PoE, Malangwa PoE, Kunauli PoE, Birgunj PoE, Gaddachauki PoE and Darchula PoE) were partially open. Similarly, four GCPs (Gulariya PoE, Taulihawa PoE, Belahiya PoE and Kunauli PoE), all of which were partially open, reported that truck drivers were subjected to COVID-19 travel restrictions.

#### 4.7.7 Means of information

**Table 40:** Means of information sharing on travel restrictions, December 2020

Means of information sharing on travel restrictions (N=9)	N
Verbally informing service seekers	2
Traders personally demanding open border trade	1
Through officials	1
Through notice boards and posters	1
Through media communication	1
Raising awareness, notice boards, posters	1
Official website	1
Direct face-to-face meetings, through posters	1

The GCPs that had informed traders about the changed formalities (Kakadbhitta PoE, Thadi PoE, Malangwa PoE, Kunauli PoE, Birgunj PoE, Gaddachauki PoE, Gauriphanta PoE and Darchula PoE) used both verbal as well as illustrative methods, apart from disseminating information online. Information was delivered in person, by officials, or via meetings. Other means of information delivery were through posters and broadcast media. Verbal communication was the most popular method.

#### 4.8 Infection Prevention and Control (IPC) including Water, Sanitation and Hygiene (WASH)

In order to ensure sound public health measures, GCPs need to have the provision of functional and accessible WASH services that support the implementation of effective IPC measures, which in turn guarantee the safety of PoE frontline workers. Such measures include:

- Improvement of WASH equipment and facilities comprising adequate provision and maintenance of water supply systems, drinking water points, handwashing stations, toilets/latrines, and waste management facilities
- Enhancement of barriers to direct contact
- Enhancement of cleaning and disinfection efforts at GCPs, either through direct assistance or through provision of materials, as well as equipment and contextualized training and protocols for cleaning staff
- Enhancement of waste management plans, as well as water quantity and quality surveillance plans, to assure reliability of WASH service provisions.

##### 4.8.1 Available WASH services at health desks

**Table 41:** Available WASH services at health desks, December 2020 (N=9)

Indicators		Belahiya	Birgunj	Gaddachauki	Gauriphanta	Jamunaha	Kakadbhitta	Maadar	Pashupatinagar	Rani	TOTAL
Water availability	Supply of water	1	1	0	0	0	1	1	0	0	4
	Drinking water	1	1	0	0	0	1	1	0	0	4
	Water for travelers	1	1	0	0	0	0	1	0	0	3
	Water quality tests	1	1	0	0	1	1	0	0	0	4
Toilet availability	Toilets near health desks	1	0	0	1	1	1	1	0	1	6
	Toilets accessible to travelers	1	0	0	0	0	0	0	0	0	1
	Toilets for health screeners	0	0	0	0	0	1	1	0	0	2
	For presumptive cases	0	0	0	0	0	0	0	0	0	0
	For travelers	0	0	0	0	0	0	1	0	0	1
	Separate toilets for men/women	1	0	0	1	0	0	1	0	1	4
	Ventilation	1	0	0	1	0	0	0	0	1	3
Staff for cleaning	1	0	0	0	1	0	1	0	0	3	
Sewage system	Sewage available	0	0	1	0	1	1	1	0	0	4
	Type of sewage	0	0	U	0	T*	U	U*	0	0	4
Electricity at health desks	Availability of electricity	1	1	0	1	1	1	1	1	1	8
	Source of electricity	1	1	0	1	1	1	1	1	1	9
	Availability of bins	1	0	1	1	0	0	0	1	0	4

Waste management	Fenced area	0	0	0	0	0	0	0	0	0	0
	Treatment of infectious waste	0	0	1	1	0	0	1	0	0	3
<b>TOTAL</b>		<b>12</b>	<b>6</b>	<b>5</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>13</b>	<b>3</b>	<b>5</b>	

\*Treated and untreated

Out of the total 20 GCPs, only nine with health desks were assessed for WASH service indicators and their compliance with the IHR (2005). Among them, all four parameters for water facilities were available in only two of the PoEs: Belahiya and Birgunj. Three PoEs (Gauriphanta, Pashupatinagar, and Rani) did not have water supply sources whereas in Maadar PoE, every other parameter was available apart from water quality tests.

Additionally, only six of the GCPs had toilets near the health desks and two (Jamunaha and Kakadbhitta PoE) did not have separate toilets for men and women. Similarly, only Maadar PoE had separate toilets for travelers and health screeners. The study also observed that none of the GCPs had separate toilets for presumptive cases, and six of the GCPs did not have well-ventilated toilets. Only one of the PoEs (Belahiya) had toilets for travelers, and only three of the GCPs had dedicated toilet cleaning staff. Meanwhile, Birgunj, Gaddachauki, and Pashupatinagar PoE had none of the parameters available for toilet services.

Sewage systems were observed in only four of the assessed PoEs: Gaddachauki, Jamunaha, Kakadbhitta, and Maadar. Among them, only Jamunaha PoE had treated sewage. Additionally, Gaddachauki PoE did not have a supply of electricity.

Apart from this, none of the GCPs with health desks had waste management facilities that complied with the IHR (2005). Only two PoEs (Gaddachauki and Gauriphanta) had waste segregating bins and onsite facilities to treat infectious waste. None of GCPs assessed had clearly marked areas and fenced-off facilities for the temporary storage of infectious waste.

#### 4.8.2 Types of water supply present at GCPs

**Table 42:** Type of water supply in each GCP, December 2020

	Tap	Hand pump	Bottled water	Water tank	River/ rivulet	Well	Fetching water
Belahiya PoE, Rupandehi	0	1	0	0	0	0	0
Birgunj PoE, Parsa	0	0	1	0	0	0	0
Gaddachauki PoE, Kanchanpur	0	0	1	0	0	0	0
Gauriphanta PoE, Kanchanpur	0	1	1	0	0	0	0
Jamunaha PoE, Banke	1	0	1	0	0	0	0
Kakadbhitta PoE, Jhapa	0	0	0	1	0	0	0
Maadar PoE, Siraha	0	1	1	0	0	0	0
Pashupatinagar PoE, Ilam	0	0	0	0	0	0	1
Rani PoE, Morang	0	0	1	1	0	0	0
<b>Total</b>	<b>1</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>

Bottled water was the main water source at six of the nine health desks. This was followed by hand pumps, which were used in three health desks. Taps and water tanks were the least utilized sources of water; the former was used only at Jamunaha PoE and the latter at Kakadbhitta PoE. Rivers and wells were not used by any of the health desks. At the health desk in Pashupatinagar PoE, personnel had to fetch water from a tap at the Indian border.

#### 4.8.3 Availability of hygiene materials at GCPs

**Table 43:** Availability of hygiene materials at GCPs

Availability of hygiene materials								
	Liquid soap	Soap	Water	Wash basin	Disposable paper	Toilet paper	None	
Belahiya PoE, Rupandehi	0	1	1	0	0	0	0	0
Birgunj PoE, Parsa	0	0	0	0	0	0	0	1
Gaddachauki PoE, Kanchanpur	0	1	1	1	0	0	0	0
Gauriphanta PoE, Kanchanpur	0	0	0	0	0	0	0	1
Jamunaha PoE, Banke	0	0	0	0	0	0	0	1
Kakabhitta PoE, Jhapa	0	0	0	0	0	0	0	1
Maadar PoE, Siraha	0	1	1	0	0	0	0	0
Pashupatinagar PoE, Ilam	0	0	0	0	0	0	0	1
Rani PoE, Morang	0	0	0	0	0	0	0	1
<b>Total</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>

The survey also observed the availability of hygiene materials for health personnel and travelers. Soap and water were the predominant hygiene materials and were present at three health desks: Maadar PoE, Gaddachauki PoE, and Belahiya PoE. Gaddachauki PoE had a majority of the hygiene materials, such as bar soap, water, and wash basins. Liquid soap, disposable paper, and toilet paper were not found at any of the health desks. The health desks at Birgunj PoE, Gauriphanta PoE, Jamunaha PoE, Kakabhitta PoE, Pashupatinagar PoE, and Rani PoE lacked hygiene materials of all kinds.

#### 4.8.4 Cleaning staff and training

Out of the nine health desks present at GCPs, only three (Maadar PoE, Sarlahi; Belahiya PoE, Rupandehi; Jamunaha PoE, Banke) had cleaning staff. Additionally, only one PoE (Maadar PoE, Siraha) had cleaning staff who had received training on disinfecting procedures, handling disinfectants, management of waste, and use of PPEs.

#### 4.8.5 IPC measures followed in GCPs

**Table 44:** Cross tabulation between GCPs with IPC measures

	Handwashing materials	Hand sanitizers	Water with storage	Chlorine	Wash basins	Decontamination	Bio-hazard box/waste bin	None	Total
Rani PoE, Morang	1	1	1	0	1	0	0	0	1
Kakabhitta PoE, Jhapa	1	1	0	1	0	0	0	0	1
Pashupatinagar PoE, Ilam	0	0	0	0	0	0	0	1	1
Maadar PoE, Siraha	1	1	1	1	1	0	1	0	1
Thadi PoE, Siraha	1	0	0	0	1	0	0	0	1
Malangwa PoE, Sarlahi	0	0	0	0	0	0	0	1	1
Kunauli PoE, Saptari	1	1	1	1	1	1	1	0	1
Gaur PoE, Rautahat	0	0	0	0	0	0	0	1	1
Bhittamode PoE, Mohattari	1	1	0	1	1	1	0	0	1

Birgunj PoE, Parsa	0	0	0	0	0	0	0	1	1
Maheshpur PoE, Nawalparasi West	0	0	0	0	0	0	0	1	1
Belahiya PoE, Rupandehi	1	1	1	0	1	1	1	0	1
Taulihawa PoE, Kapilvastu	1	1	1	1	0	0	1	0	1
Krishnanagar PoE, Kapilvastu	0	0	0	0	0	0	0	1	1
Gulariya PoE, Bardiya	1	1	0	0	0	0	0	0	1
Jamunaha PoE, Banke	1	1	1	0	0	0	0	0	1
Gaddachauki PoE, Kanchanpur	1	1	1	1	1	1	1	0	1
Gauriphanta PoE, Kanchanpur	0	1	0	0	1	0	1	0	1
Darchula PoE, Darchula	0	0	1	0	1	0	0	0	1
Jhulaghat PoE, Baitadi	1	1	0	0	0	0	0	0	1
<b>Total</b>	<b>12</b>	<b>12</b>	<b>8</b>	<b>6</b>	<b>9</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>20</b>

a. Dichotomy group tabulated at value 1.

Twelve of the GCPs used handwashing materials and hand sanitizers, making them the most followed IPC measure. Eight GCPs used biohazard boxes and chlorine, while six GCPs (Pashupatinagar PoE, Ilam; Malangwa PoE, Sarlahi; Gaur PoE, Rautahat; Birgunj PoE, Parsa; Maheshpur PoE, Nawalparasi west; and Krishnanagar PoE, Kapilvastu) did not follow any of the IPC measures. Decontamination facilities, used by only four GCPs (Kunauli PoE, Bhattamod PoE, Belahiya PoE and Gaddachauki PoE), were the least followed IPC measure.

## 4.9 Infrastructure

It is important for GCPs to have adequate infrastructure so as to prevent cross-border disease transmission and to appropriately manage borders. At their most basic, GCPs need isolation spaces for ill travelers, sufficient number of toilets, and handwashing facilities.

### 4.9.1 Office infrastructure at GCPs

**Table 45:** General report of the infrastructure at GCPs and districts, December 2020

PoEs and districts	Health infrastructure	Custom infrastructure	Immigration infrastructure	Agriculture and veterinary infrastructure	Security infrastructure
Rani PoE, Morang	Tent	Permanent building	Permanent building	Permanent building	Tent
Kakadbhitta PoE, Jhapa	Tent	Permanent building	Permanent building	Permanent building	Permanent building
Pashupatinagar PoE, Ilam	Semipermanent building	Permanent building	Permanent building		Permanent building
Maadar PoE, Siraha	Permanent building	Permanent building			Permanent building
Thadi PoE, Siraha		Semipermanent building			Permanent building
Malangwa PoE, Sarlahi		Permanent building			Permanent building
Kunauli PoE, Saptari		Permanent building			Permanent building

PoEs and districts	Health infrastructure	Custom infrastructure	Immigration infrastructure	Agriculture and veterinary infrastructure	Security infrastructure
Gaur PoE, Rautahat		Permanent building			Semipermanent building
Bhittamode PoE, Mohattari	Permanent building	Semipermanent building			
Birgunj PoE, Parsa	Tent	Permanent building	Permanent building		Permanent building
Maheshpur PoE, Nawalparasi West		Permanent building		Permanent building	Permanent building
Belahiya PoE, Rupandehi	Permanent building	Permanent building	Semipermanent building	Permanent building	Semipermanent building
Taulihawa PoE, Kapilvastu		Permanent building			Permanent building
Krishnanagar PoE, Kapilvastu		Permanent building			Permanent building
Gulariya PoE, Bardiya		Permanent building		Permanent building	Permanent building
Jamunaha PoE, Banke	Permanent building	Permanent building	Permanent building	Permanent building	Permanent building
Gaddachauki PoE, Kanchanpur	Tent	Permanent building	Permanent building	Permanent building	Permanent building
Gauriphanta PoE, Kanchanpur	Tent	Permanent building	Permanent building	Permanent building	Tent
Darchula PoE, Darchula		Permanent building		Permanent building	Semipermanent building
Jhulaghat PoE, Baitadi		Permanent building			Permanent building

The border agencies at the various GCPs had different types of infrastructures in place, and none of the assessed GCPs had integrated facilities. More than half of the health infrastructure at the GCPs were made up of tents, while 44% of GCPs with health desks had permanent buildings. Similarly, 87% of the immigration infrastructure at the GCPs were permanent buildings; however, the structure at Belahiya PoE in Rupandehi was only semi-permanent. All of the agriculture and veterinary infrastructure comprised of permanent buildings.

All 20 GCPs had customs and security departments. Almost all (90%) of the customs infrastructure and 70% of the security infrastructure were permanent, while 10% of the customs infrastructure and 15% of the security infrastructure were semi-permanent buildings.

#### 4.9.2 Ownership of infrastructure at GCPs

**Table 46:** General report of infrastructure ownership at GCPs and districts

PoEs and districts	Ownership of the health office	Ownership of the customs office	Ownership of the immigration office	Ownership of the agriculture and veterinary office	Ownership of the security office
Rani PoE, Morang	Public property arranged by local government	Public property arranged by federal government	Rented or on lease	Public property arranged by federal government	Public property arranged by federal government
Kakadbhitta PoE, Jhapa	Public property arranged by federal government	Public property arranged by federal government	Public property arranged by federal government	Public property arranged by federal government	Public property arranged by federal government
Pashupatnagar PoE, Ilam	Public property arranged by federal government	Public property arranged by federal government	Public property arranged by federal government		Public property arranged by federal government
Maadar PoE, Siraha	Public property arranged by federal government	Public property arranged by federal government			Public property arranged by federal government
Thadi PoE, Siraha		Public property arranged by federal government			Public property arranged by local government
Malangwa PoE, Sarlahi		Public property arranged by provincial government			Public property arranged by provincial government
Kunauli PoE, Saptari		Public property arranged by federal government			Rented or on lease
Gaur PoE, Rautahat		Public property arranged by federal government			Public property arranged by local government
Bhittamode PoE, Mohattari		Public property arranged by provincial government			
Birgunj PoE, Parsa	Public property arranged by local government	Public property arranged by federal government	Public property arranged by federal government		Public property arranged by federal government
Maheshpur PoE, Nawalparasi West		Public property arranged by federal government		Rented or on lease	Public property arranged by federal government
Belahiya PoE, Rupandehi	Public property arranged by provincial government	Public property arranged by local government	Public property arranged by federal government	Public property arranged by federal government	Public property arranged by federal government
Taulihawa PoE, Kapilvastu		Private property available for free			Private property available for free

PoEs and districts	Ownership of the health office	Ownership of the customs office	Ownership of the immigration office	Ownership of the agriculture and veterinary office	Ownership of the security office
Krishnanagar PoE, Kapilvastu		Public property arranged by provincial government			Public property arranged by provincial government
Gulariya PoE, Bardiya		Public property arranged by federal government		Public property arranged by federal government	Public property arranged by federal government
Jamunaha PoE, Banke	Rented or on lease	Public property arranged by local government	Rented or on lease	Rented or on lease	Public property arranged by provincial government
Gaddachauki PoE, Kanchanpur	Public property arranged by federal government	Public property arranged by federal government	Rented or on lease	Rented or on lease	Public property arranged by federal government
Gauriphanta PoE, Kanchanpur	Public property arranged by provincial government	Public property arranged by federal government	Rented or on lease	Rented or on lease	Public property arranged by federal government
Darchula PoE, Darchula		Private property available for free		Rented or on lease	Public property arranged by provincial government
Jhulaghat PoE, Baitadi		Public property arranged by provincial government	Public property arranged by provincial government		Public property arranged by provincial government

A majority of the infrastructure that housed the various departments were public properties that had been arranged by the different levels of government. A few were rented or leased, and some were being used for free. Almost half (44%) of the infrastructure used by the health departments were public properties arranged by the federal government, followed by 22% arranged by the provincial and local governments each. One PoE at Banke, however, had been running its health office in a rented or leased property.

Similarly, most of the customs departments—around 60%—had been using public property arranged by the federal government, while around 20% had been using public property arranged by the provincial governments. Two GCPs were utilizing public property arranged by the local governments, and a similar number of GCPs had been housed in private properties that had been made available for free.

Less than half (44%) of the immigration offices were housed in public properties arranged by the federal government, while the exact same percentage had been using rented or leased spaces. For the agriculture and veterinary departments, 56% were rented or leased, and 44% were public properties arranged by the federal government. As for the security offices, 35% and 25% had been using public properties arranged by the federal and provincial governments respectively, while 10% was arranged by the local governments.

### 4.9.3 Modes of transport at GCPs

**Table 47:** Modes of transport at GCPs, December 2020

POEs and District	Health department	Immigration department			Agriculture and animal department			Security			Customs		
	Motorcycle	Motorcycle	Car	Bicycle	Motorcycle	Car	Bicycle	Motorcycle	Car	Bicycle	Motorcycle	Car	Bicycle
Rani POE, Morang		1			2								
Kakabhitta POE, Jhapa		1	1		4	1	3	3	2	11	1	3	
Pashupatinagar POE, Ilam								2	1		1		
Maadar POE, Siraha											1	3	
Thadi POE, Siraha											2	1	
Malangwa POE, Sarlahi								2	1	2	1	1	1
Kunauli POE, Saptari								2			3	1	
Gaur POE, Rautahat								1	1		1	2	1
Bhittamode POE, Mohattari								2			4	1	
Birgunj POE, Parsa		1											
Maheshpur POE, Nawalparasi West								1	1			1	
Belahiya POE, Rupandehi	3	1	1		1	1		1				1	
Taulihawa POE, Kapilvastu								1					
Gulariya POE, Bardiya								1			1	1	
Jamunaha POE, Banke	1	1									3		
Gaddachauki POE, Kanchanpur		1		1	2		3	2	1		4	2	
Gauriphanta POE, Kanchanpur	1	1		3	1						1	2	
Jhulaghat POE, Baitadi								1					
<b>Total</b>	<b>5</b>	<b>7</b>	<b>2</b>	<b>4</b>	<b>10</b>	<b>2</b>	<b>6</b>	<b>19</b>	<b>7</b>	<b>13</b>	<b>23</b>	<b>19</b>	<b>2</b>

Motorcycles, cars, and bicycles were the chief modes of transport at the various GCPs. Motorcycles were the only mode of transport in the health departments, with a total of five being used by three health officials working in PoEs. The highest number of motorcycles were used by the customs and security departments (12 GCPs), and the highest number of cars were used by the customs departments (12 GCPs), followed by the security departments. The security departments of two GCPs used bicycles as their main mode of transport.

### 4.9.4 Laboratory capacity and services

No laboratory services for collecting specimens/samples existed at the GCPs, so different collection methods were employed. Among the 18 GCPs, 11 (Kakabhitta PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Bhittamod PoE, Birgunj PoE, Belahiya PoE, Krishnanagar PoE, Jamunaha PoE, Gaddachauki PoE, and Gauriphanta PoE) sent travelers to holding centers for specimen collection, and six (33% i.e., Rani PoE, Pashupatinagar PoE, Malangwa PoE, Bhittamod PoE, Taulihawa PoE, Gulariya PoE) sent travelers to the nearest health facilities; four GCPs (Kakabhitta, Thadi, Pashupatinagar, Maheshpur) left travelers on their own. One PoE (Darchula PoE, Darchula) had been collaborating with the district hospital for specimen collection.

Similarly, out of the 18 open and partially open GCPs, almost 56% (Rani PoE, Pashupatinagar PoE, Malangwa PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gauriphanta PoE and Darchula PoE) transported specimens to designated points. Also, 28% of the GCPs (Kakabhitta PoE, Pashupatinagar PoE, Taulihawa PoE, Gauriphanta PoE and Darchula PoE) had assigned designated points for RT-PCR tests. On-site RDT and quarantine facility referrals was done at Kunauli PoE, Bhittamod PoE and Gaddachauki PoE, whereas Taulihawa PoE, Jamunaha PoE, and Gaddachauki PoE referred travelers to the nearest hospitals. The other option—referring specimens to the municipality—was performed by one PoE: Taulihawa, Kapilvastu.

#### 4.9.5 Screening infrastructure and functions

**Table 48:** Types of screening infrastructure at the GCPs, December 2020

Health screening infrastructure at GCP	Responses (N=9)	Per cent of cases
Yes	7	77.8%
No	2	22.2%
Type of COVID-19 screening at GCPs	Responses (N=7)	Per cent of cases
Triage	2	28.6%
Isolation/observation	2	28.6%
Other	3	42.9%
Total	7	100%

- Dichotomy group tabulated at value 1.
- Total percentage exceeds 100 per cent due to multiple responses.

Seven out of nine GCPs (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Birgunj PoE, Belahiya PoE, Gaddachauki PoE and Jamunaha PoE) with health desks had health screening infrastructure. Around 29% had triage (in Birgunj PoE and Belahiya PoE) and isolation/observation facilities (Jamunaha PoE and Gaddachauki PoE), while almost 43% (Rani PoE, Kakadbhitta PoE and Pashupatinagar PoE) had other types of COVID-19 screening systems, such as tents and referrals to primary health care centers.

#### 4.9.6 Health services and referral of travelers at GCPs

**Table 49:** Status of the GCPs and availability of referral facilities, December 2020 (N=18)

Referral links for travelers		Open	Closed	Partially open
Refer ill travelers	Yes	1	0	12
Vehicle for symptomatic travelers	Yes	2	0	13
Vehicle for asymptomatic travelers	Yes	1	0	9
Vehicle sent by nearby HF for COVID-19 suspected travelers	Yes	1	0	11
	Not needed yet	0	0	1
Have respiratory equipment in vehicle sent by HF	Yes	2	0	11
	Don't know	0	0	1
Have contact details of quarantine facility	Yes	2	1	13
	Don't know	0	1	0
Procedure in place to verify alerts	Yes	2	1	11
	Don't know	0	0	2

Mostly open and partially open GCPs had referral links for ill travelers and provided vehicles for symptomatic, asymptomatic, and suspected travelers, whereas one partially open PoE (Gaddachauki PoE) had not required vehicles for suspected COVID-19 cases till the survey date. Additionally, although closed borders did not have travelers, they still had referral links to quarantine facilities, and one closed PoE (Gaur PoE, Rautahat) even had procedures in place to verify alerts raised at GCPs.

**Table 50:** Frequency of designated vehicles, December 2020

	Ambulance	Private car	Auto rickshaw/ three-wheelers	Rented vehicle	Other
Transfer of symptomatic travelers to health facilities (N=15)	13 [86.6%]	0	0	1 [6.6%]	1 [6.6%]
Service from nearby health facilities to transport suspected or sick travelers (N=12)	11 [91.6%]	0	0	1 [5%]	0 [0%]
Transfer of asymptomatic travelers with other disease conditions to quarantine facility (N=10)	6 [60%]	0	0	2 [20%]	2 [20%]

Among the assessed GCPs, 13 (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Kunauli PoE, Bhattamod PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE, and Gauriphanta PoE) had ambulances, one (Thadi PoE, Siraha) had a rented vehicle, and one (Taulihawa PoE, Kapilvastu) had a police vehicle. These vehicles were used for the transfer of symptomatic travelers to health facilities. For the transfer of asymptomatic travelers with other communicable disease conditions, six GCPs (Jamunaha PoE, Maheshpur PoE, Bhattamode PoE, Kunauli PoE, Kakadbhitta PoE and Rani PoE) had ambulances, whereas two (Gulariya PoE and Gaddachauki PoE) used rented as well as police and municipal vehicles. Ambulances were used for the transport of suspected or sick travelers by 11 GCPs, while one (Thadi PoE) used a rented vehicle. Private cars and three-wheelers were not used at any GCP.

#### 4.9.7 Decontamination of vehicles used by GCPs

**Table 51:** Information related to vehicle decontamination practices, December 2020

	N	%
Practice of decontaminating vehicles (N=18)	Yes	12 66.7
	No	2 11.1
	Don't Know	4 22.2
Vehicle decontaminated with detergent or 0.5% NaHCL (N=12)	Yes	12 100

A majority (around 67%) of the GCPs (Rani PoE, Kakadbhitta PoE, Kunauli PoE, Maheshpur PoE, Belahiya PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and Darchula PoE) decontaminated their vehicles, while over 20% could not provide an answer (Malagwa PoE, Thadi PoE, Pashupatinagar PoE and Taulihawa PoE). All of the GCPs that followed the practice reported that they decontaminated their vehicles with detergent or 0.5 per cent NaHCL after transferring travelers to quarantine or health facilities.

#### 4.9.8 Respiratory supporting equipment in vehicles

All vehicles arranged by nearby health facilities had oxygen cylinders, while less than one fourth (23%) had nebulizers (Kunauli PoE, Bhattamod PoE, and Darchula PoE). The PoE at Darchula used other respiratory supporting equipment as well, such as oxygen monitors.

#### 4.9.9 Capacity of healthcare facilities

Regarding the capacity of referral health care facilities at GCPs, almost 77% had emergency beds available, and 46% (Kakadbhitta PoE, Krishnanagar PoE, Gaddachauki PoE, Gauriphanta PoE and Darchula PoE) had referral linkages to health facilities with ICU/CCUs. In addition, laboratories for virus testing were available at the referral health facilities of Kakadbhitta PoE, Maheshpur PoE, Belahiya PoE, Krishnanagar PoE, and Gauriphanta PoE. Likewise, RMNCH services was reported to be available at the referral points of Rani PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gauriphanta PoE, and Darchula PoE. Only around eight percent had pediatric ICUs.

Pashupatinagar PoE and Jhulaghat PoE lacked information on the total number of beds and the capacity of their health facilities. Likewise, three GCPs (Belahiya PoE, Taulihawa PoE and Krishnanagar PoE) did not have information on the capacity of their referral health facilities.

#### 4.10 Protection

GCPs should assist and protect vulnerable migrants and their families. In order to do so, there are certain activities that need to be undertaken. First is the specification of vulnerable migrant groups of concern, such as trafficking victims, separated and unaccompanied migrant children, and smuggled migrants. Second is screening and identification, followed by referrals to protection actors.

##### 4.10.1 Screening and identification

**Table 52:** Status of the GCPs and availability of separate desks for safer migration, December 2020 (N=20)

Availability of separate desks for safe migration	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
Yes	2	1	13	16
No	0	1	3	4

Among the 20 GCPs, 16 had separate desks for safer migration (Maadar PoE, Thadi PoE, Darchula PoE and Jhulaghat PoE were the exceptions). Safe migration desks are dedicated desks for migrants where they are shared information about the risks of migration, mitigation measures, and organizations to reach out to if problems arise. Both of the open GCPs (Rani PoE and Gauriphanta PoE) and one closed GCP (Gaur PoE, Rautahat) had safer migration desks. In the case of 16 partially open GCPs, only 13 had contact details of designated COVID-19 hospitals, while three (Thadi PoE, Maadar PoE and Darchula PoE) did not.

**Table 53:** Status of the GCPs and authorities responsible for managing and operating information desks, December 2020 (N=16)

Authorities responsible for managing and operating information desks	Open	Closed	Partially open	Total
Local police	1 [50%]	0 [0%]	8 [61.54%]	9 [56.25%]
CSO	2 [100%]	1 [100%]	3 [23.08%]	6 [37.5%]
Border officers	0 [0%]	0 [0%]	1 [7.69%]	1 [6.25%]
Other	0 [0%]	0 [0%]	6 [46.15%]	6 [37.5%]
Total	2	1	13	16

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Civil society organizations (CSOs) and local police were the leading authorities for managing and operating the information desks at most GCPs. At the 16 partially open GCPs (13 responded), local police—in coordination with health authorities—were present at eight GCPs, CSOs at three GCPs (Pashupatinagar PoE, Belahiya PoE and Gulariya PoE), and border officers at only one GCP (Gaddachauki PoE). Other agencies such as Sana Haat Haru, PRC, Aafanta Nepal, Maiti Nepal, Birgunj Metropolitan City, and other community-based organizations were also involved in managing and operating information desks.

At the two open GCPs, CSOs were the most responsible authority, followed by local police. The sole information desk at a closed PoE was managed by CSOs.

**Table 54:** Status of the GCPs and necessary protection mechanisms, December 2020 (N=20)

Necessary protection mechanism	Open	Closed	Partially open	Total
Coordination with other organizations	2	1	16	19
Referral mechanism	2	2	15	19
Assistance desk in place	2	2	15	19
Staff trained on screening	2	1	12	15
Mechanism in place to screen vulnerable groups	2	2	10	14

In 15 of the assessed GCPs, the responsible authorities and officials were trained on screening, victim identification, and care of vulnerable migrant groups. To be specific, among these 12 GCPs were partially open, one closed (Gaur PoE, Rautahat), and two open. Referral mechanisms for the identified risks/vulnerabilities was presented in 19 GCPs. In this regard, only one partially open PoE (Malangwa PoE of Sarlahi) did not have such mechanisms. Likewise, need for assistance and protection of vulnerable migrant was marked as needed in almost all the GCPs, except for one partially open PoE (Krishnanagar PoE of Kapilvastu).

Furthermore, mechanisms for screening vulnerable groups (such as victims of trafficking, separated and unaccompanied children, smuggled migrants with protection concern, trafficked children with protection concern, intercepted people in transit) were present in only 14 of the GCPs assessed. This mechanism was present in all open and closed GCPs, but around six of the partially open GCPs did not have such mechanisms in place (Pashupatinagar PoE of Ilam, Birgunj PoE of Parsa, Maheshpur PoE of Nawalparasi, Gulariya PoE of Bardiya, Jamunaha PoE of Banke, and Darchula PoE of Darchula). Nevertheless, almost all GCPs worked in coordination with other organizations with regards to the issue of protection of vulnerable groups. All partially open and open GCPs performed such activities, with the exception of only one closed GCP (Jhulaghat PoE at Baitadi).

#### 4.10.2 Specification of vulnerable migrant groups of concern

**Table 55:** Status of the GCPs and types of vulnerable migrants, December 2020 (N=19)

Vulnerable migrants	Open	Closed	Partially open	Total
Smuggled migrants with protection concern	1	2	12	15
Separated and unaccompanied children	2	0	11	13
Victims of trafficking	2	1	8	11
Trafficked children with protection concern	1	0	10	11
Intercepted in transit	1	0	7	8
Stranded	1	1	4	6
Total	2	2	15	19

- Dichotomy group tabulated at value 1.
- Total percentage may exceed 100 due to multiple responses

Among the GCPs, Krishnanagar PoE of Kapilvastu (partially open) had not reported the need for assistance in the protection of vulnerable migrants. In the rest of the partially open GCPs, smuggled migrants with protection concern were observed in 12 (Rani PoE, Kakadbhitta PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Gaur PoE, Bhittamode PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Taulihawa PoE, Jamunaha PoE, Gaddachauki PoE, Darchula PoE and Jhulaghat PoE), followed by separated and unaccompanied children at 11 GCPs.

At the two open GCPs (Rani PoE and Gauriphanta PoE), victims of trafficking and separated and unaccompanied children were the most reported vulnerable groups. Stranded migrants and victims of trafficking were presented at the closed GCPs of Jhulaghat PoE and Gaur PoE, both of which also reported smuggled migrants with protection concern.

#### 4.10.3 Referral to protection actors

**Table 56:** Status of the GCPs and frequency of assistance and protection cases, December 2020 (N=20)

Frequency of assistance received for protection	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
Monthly	1	1	8	10
Weekly	1	0	4	5
Daily	0	0	1	1
Other	0	1	3	4

Eight of the partially open GCPs reported the need for assistance and protection every month, while four GCPs (Gaddachauki PoE, Jamunaha PoE, Maheshpur PoE and Birgunj PoE) reported weekly assistance; three GCPs (Belahiya PoE, Krishnanagar PoE and Darchula PoE) required biannual assistance. Kakadbhitta PoE in Jhapa, a partially open border, was the only one reporting daily assistance.

Among two of the open GCPs, Rani PoE in Morang needed assistance every month and Gauriphanta PoE on a weekly basis. Assistance was needed every month at the closed GCPs. In the 'other' category, some reported to have biannual cases and others had not had a fixed number of occurrences lately.

**Table 57:** Status of the GCPs and immediate assistance for vulnerable groups, December 2020 (N=20)

Immediate assistance provided	Open (N=2)	Closed (N=2)	Partially open (N=16)	Total
Rescue and return assistance	2	2	13	17
Referral to local authorities	2	2	12	16
Legal remedy	2	1	8	11
Psychosocial counselling	1	0	10	11
Basic medical assistance	1	1	4	6
Other	0	0	1	1

Percentages and totals are based on respondents.

Total percentage may exceed 100 due to multiple responses

Vulnerable migrants were provided with immediate assistance at most GCPs. Rescue and return assistance and referral of vulnerable migrants to local authorities were the most practiced immediate assistance measures. At 16 partially open GCPs, rescue and return assistance was reported at 13 GCPs, followed by referral to local authorities at 12 partially open GCPs, and psychological counselling at 10 partially open GCPs.

Rescue and return assistance, legal remedies, and referral to local authorities were available at both open GCPs, although the rest of the services were available at only one GCP (Rani PoE, Morang). Similarly, basic medical assistance and legal remedies were present in only Gaur PoE (closed GCPs), though both closed PoEs had rescue and return assistance and referral to local authority services. Psychological counselling services did not exist at all in closed GCPs.

In the 'other' category, guardian tracing and training shelters were reported in one partially open PoE (Krishnanagar PoE, Kapilvastu).

**Table 58:** Status of the GCPs and organizations working for protection, December 2020 (N=19)

Organization working for protection	Open	Closed	Partially opened	Total
Maiti Nepal	2	0	9	11
3 Angels Nepal	1	0	3	4
WOREC Nepal	1	1	1	3
CWIN	1	0	0	1
Others	1	0	10	11

Percentages and totals are based on respondents.

- Dichotomy group tabulated at value 1.
- Total percentage may exceed 100 due to multiple responses

One closed GCP reported having no coordination with any of the organizations. The other 19 GCPs had various organizations performing identification, protection, and rescue-related activities for vulnerable migrants. The major organizations in action at the GCPs were Maiti Nepal, 3 Angels Nepal, WOREC Nepal, and CWIN. Maiti Nepal had been operating in nine partially open PoEs, 3 Angels Nepal in three partially open PoEs (Belahiya PoE, Jamunaha PoE and Gaddachauki PoE), and WOREC Nepal in only one partially open PoE (Bhittamode PoE). All of the aforementioned organizations were functional in the open GCPs, with only Maiti Nepal working in GCPs that were open as well as partially open. WOREC Nepal was the only organization operating in the closed GCPs.

Other organizations (local police, Sana Haat Haru Nepal, Aafanta Nepal, Mahuri Home, and PRC) had been operating in 10 partially open and one open GCP (Gauriphanta PoE).

**Table 59:** Segregated data of reported cases for FY 2076/77 [July 2019-July 2020]

	Open	Closed	Partially open	Total	
Reported cases this FY (N=11)	Victims of trafficking	8 [8.08%]	23 [23.23%]	68 [68.69%]	99 [100%]
	Trafficked children with protection concern	100 [97.09%]	0	3 [2.91%]	103 [100%]
	Separated and unaccompanied individuals	0	25 [69.44%]	11 [30.56%]	36 [100%]
	Smuggled migrants with protection concern	0	4 [14.29%]	24 [85.71%]	28 [100%]
	Stranded	0	0	5 [100%]	5 [100%]
	Intercepted in transit	0	0	0	0

The table depicts the segregated data of reported cases for the fiscal year 2076/77 for 11 out of 20 surveyed GCPs. Four of the GCPs (two from Siraha, one from Banke and Kanachanpur each) refused to provide information due to the sensitivity of the data. Two of the entry points (Birgunj and Krishnanagar PoE) did not have records, and three of the GCPs (Rani, Pashupatinagar and Belahiya-Rupandehi) had no information collected.

Among 11 GCPs, 97% of trafficked children with protection concerns were reported at the open borders, followed by eight percent of trafficked victims. In the closed borders, 69% of the reported cases was for separated and unaccompanied children, followed by trafficked victims at 23%. Among the partially open GCPs, 86% were reported to be smuggled migrants with protection concerns, followed by trafficked victims (69%).

#### 4.11 Risk Communication and Community Engagement (RCCE)

RCCE comprises of the display of appropriate messaging in the form of information, education, and communication (IEC) posters and leaflets targeted towards both travelers and border communities.

##### 4.11.1 Ground crossing points and their compliance with the IHR (2005) regarding information dissemination

**Table 60:** Status of GCPs and information dissemination of COVID-related indicators, December 2020

	Partially open	Closed	Open	Total
COVID-related indicators (N=20)				
Signs and symptoms	9 [45%]	1 [5%]	2 [10%]	12 [60%]
Handwashing techniques	7 [35%]	2 [10%]	2 [10%]	11 [55%]
Preventive measures	6 [30%]	1 [5%]	2 [10%]	9 [45%]
Other IEC materials	4 [20%]	1 [5%]	1 [5%]	6 [30%]
Mask-wearing techniques	4 [20%]	0 [0%]	0 [0%]	4 [20%]
Stigma-related materials	2 [10%]	0 [0%]	0 [0%]	2 [10%]
Hotline numbers for psychological counselling	2 [10%]	0 [0%]	0 [0%]	2 [10%]

Of the total 20 GCPs assessed, 60% (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Birgunj PoE, Maheshpur PoE, Bealhiya PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and JHulaghat PoE) reported that the list of COVID-19 signs and symptoms were clearly and visibly posted, followed by 55% (Rani PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Gaur PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Jamunaha PoE, Gauriphanta PoE and Jhulaghat PoE) for handwashing techniques, 45% (Rani PoE, Maadar PoE, Thadi PoE, Birgunj PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and Jhulaghat PoE) for preventive measures, 20% (Maadar PoE, Thadi PoE, Belahiya PoE, Jamunaha PoE) for mask-wearing techniques, 10% (Maadar PoE and Jamunaha PoE) for stigma-related materials and hotline numbers for psychological counselling, and six percent for other IEC materials. With regards to the 16 partially open GCPs, 45% reported clearly visible IEC materials for signs and symptoms, and 35% for handwashing techniques. Mask-wearing techniques, stigma-related materials, and hotline numbers for psychological counseling were not clear and visible in the closed (Gaur PoE, Jhulaghat PoE) and open borders (Rani PoE, Gauriphanta PoE). Among the two closed borders, both had clear and visible IEC material for handwashing techniques, whereas signs and symptoms, preventive measures, and other IEC materials were available only in Jhulaghat POE. Both open borders had clear and visible IEC materials regarding signs and symptoms, preventive measures, handwashing techniques, while one had other IEC materials.

## 4.12 Urgent need of support at GCPs

**Table 61:** Urgent support mechanisms needed at GCPs, December 2020

Urgent support mechanisms (N=20)	N	%
Infrastructure for health desk assessment	18	90
Training/orientation for border officials and health staff for COVID19-related issues/screening/management, etc.	16	80
Plans, procedures, or SOPs	12	60
Infrastructure for holding returnees	12	60
Provision of adequate infection prevention and control	12	60
Personal protective equipment	11	55
Risk communication materials	10	50
Better WASH arrangement	6	30
Others	4	20

a. The total percentage exceeds 100 per cent due to multiple responses

Almost all (90%) of the GCPs, except for Malangwa PoE and Jhulaghat PoE, stated that urgent support was required for health desk assessment infrastructure, along with 80% (except for Malangwa PoE, Rani PoE, Darchula PoE and Jhulaghat PoE) needing urgent support for training/orientation of border officials and health staff, and 60% (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Thadi PoE, Malangwa PoE, Kunauli PoE, Gaur PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Taulihawa PoE and Gauriphanta PoE) requiring support for plans, procedures, or SOPs; infrastructure for holding returnees; and provisions for adequate IPC. Additionally, 55% of the GCPs (Kakadbhitta PoE, Maadar PoE, Thadi PoE, Kunauli PoE, Malangwa PoE, Gaur PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Jamunaha PoE and Jhulaghat PoE) needed support for PPEs, and 30% (Rani PoE, Pashupatinagar PoE, Kunauli PoE, Gaur PoE, Maheshpur PoE and Gaddachauki PoE) for better WASH arrangements.

Other urgent support was also reported at different GCPs. For instance, Gaddachauki reported needing support for additional health workers, Pashupatinagar for proper sanitation and toilets, Krishnanagar for mobility monitoring SOPs, and Darchula PoE for CCTVs, digital entry systems, and public toilets.

## 5. DISCUSSION

This study on GCPs was carried out with the objective of assessing whether designated GCPs around the country have been operating according to IHR (2005) recommendations during the COVID-19 pandemic. The IHR (2005) covers issues and tasks that need to be undertaken by the authorities of designated PoEs. They majorly focus on control and prevention measures, laboratory analysis and logistical assistance, linkages with various key players, and responses to PHEIC through national multidisciplinary and multisectoral approaches.

The study included 20 GCPs in different districts. Various aspects of the GCPs were observed and assessed, such as capacity development, contingency planning, infrastructure and equipment /supplies, cross border coordination, disease surveillance, immigration and cross border trade, IPC, protection, and risk communication. Out of the 20 GCPs assessed, two (Rani PoE, Morang, and Gauriphanta PoE, Kailali) were open, two were closed (Gaur PoE, Rautahat, and Jhulaghat PoE, Baitadi), and 16 were partially open (Kakadbhitta PoE, Jhapa; Pashupatinagar PoE, Ilam; Maadar PoE and Thadi PoE, Siraha; Malangwa PoE, Sarlahi; Kunauli PoE, Saptari; Bhattamod PoE, Mahottari; Birgunj PoE, Parsa; Maheshpur PoE, Nawalparasi West; Belahiya PoE, Rupandehi; Taulihawa PoE and Krishnanagar PoE, Kapilvastu; Gulariya PoE, Bardiya; Jamunaha PoE, Banke; Gaddachauki PoE, Kanchanpur; Darchula PoE). The health desks of only nine GCPs (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Birgunj PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE and Gauriphanta PoE ) were functioning during the study, of which two were in open (Rani PoE and Gauriphanta PoE) and the rest in partially open GCPs. Health desks had been functioning in other partially open GCPs too prior to the study.

### 5.1 Capacity development

The study was conducted at the beginning of December 2020 when COVID-19 cases had gradually gone down. Hence, during the survey period, the previously functioning health desks at most assessed PoE were no more in operation. The 20 GCPs assessed in this study had deployed staff to all departments, such as health, customs, immigration, agriculture, animal health, and security. However, all GCPs did not necessarily have all of the aforementioned departments. Some had sub-custom offices and, therefore, had not established departments like immigration, agriculture, and animal health, while GCPs with main custom offices did have such branches. It has to be noted that a majority of the personnel were in the security and customs departments. While the customs office had 304 staff, the security department had 533 workers, including members of the Armed Police Force, the army, and local police.

On the other hand, the 20 GCPs had only 47 health personnel in total. Of them, most were auxiliary health workers (AHWs) and auxiliary mid-wives (ANM), followed by health assistants (HA). Public health officials and staff nurses were the lowest in number. Even though none of the GCPs had laboratories, lab technicians and lab assistants had been deployed to a few entry points. Additionally, some GCPs, specifically those that were partially open, had holding sites that were handled by army personnel and not health workers.

Looking at the situation from IHR (2005) lenses, health personnel should be available at ground crossings especially during pandemic situations to perform non-invasive medical examination and screening activities. However, the numbers of health delegates at the GCPs was much lower than those from other departments. To add to the affairs, public health officials were absent at most GCPs, which raised questions about the health capacity of GCPs. Similarly, the health department was responsible at more than half of the GCPs for detection, notification, management, and referral of COVID-19 cases at both

open GCPs. The other GCPs had the security and other departments responsible for this purpose. While a multi-sectoral approach had been used for detection, notification, management, and referral, the engagement of the health department was still insufficient and should be increased as per the IHR (2005).

Furthermore, the IHR (2005) stresses upon the establishment of SOPs in several areas, along with the training of human resources on the respective SOPs. Nonetheless, the findings show a different picture. Most of the GCPs did not have enough SOPs in place. For instance, none of the open or closed GCPs had developed SOPs on infection, prevention, and control (IPC) measures or SOPs on traveler processing adapted to the PHEIC context; only a few partially open GCPs had established these SOPs. On the other hand, SOPs on detection, notification, management, and referral of suspected COVID-19 cases were mostly present in all partially open borders along with one open and one closed border, followed by SOPs on coordination with health field and/or national authorities in eight partially open borders (Kakadbhitta PoE, Jhapa; Maadar PoE, Siraha; Malangwa PoE, Sarlahi; Kunauli PoE, Saptari; Gulariya PoE, Bardiya; Jamunaha PoE, Banke and Gaddachauki PoE, Kanchanpur) and one closed (Jhulaghat PoE, Baitadi) and open border (Gauriphata PoE, Kailali). With regards to training, not all GCPs that had the respective SOPs had provided relevant instructions to their staff. The staff that had been trained included those from departments other than health.

Regarding training on screening activities, in GCPs with health desks, training had been provided to screeners, as well as on conducting screenings before deployment and on the use of PPEs. Some GCPs that currently did not have functioning health desks had also carried out training on these aspects.

The IHR (2005) components that were stressed upon at the GCPs were SOPs on emergency contingency plans, IPC, quarantine of suspected cases, isolation of confirmed cases, and disinfection of ambulances. Among these, SOPs for isolation of confirmed cases and disinfection of ambulances, as well as screening and referral, were widely endorsed. This was followed, although to a lesser degree, by SOPs for quarantine of suspected cases and emergency contingency plans. Only a few GCPs—with both functioning and previously functioning health desks—had endorsed SOPs for IPC.

## 5.2 Contingency planning

Under the IHR (2005), public health authorities at ground crossings are required to establish effective contingency plans and arrangements for responding to PHEICs, and also to update and inform the national IHR focal point on relevant public health measures (WHO, 2020).

The findings denote that health and security were the leading departments responsible for coordinating with health authorities in most GCPs. Other departments, such as customs, immigration, and municipality offices, also played leading roles in a few GCPs. This again depicts the engagement of a multisectoral approach for management at GCPs. However, the fact that the IHR regards health as the pivotal department for responding to PHEICs cannot be denied.

Furthermore, some of the GCPs (Maadar PoE, Siraha and Belahiya PoE, Rupandehi) did not have any type of coordination mechanism for the identification and management of infectious diseases, while about half had established such mechanisms in ad-hoc ways only after the pandemic had struck. In addition, five of the GCPs (Rani PoE, Morang; Pashupatinagar PoE, Ilam, Thadi PoE, Siraha, Malangwa PoE, Sarlahi and Gaur PoE, Rautahat) did not even have the contact details of the designated COVID-19 hospitals. Most of the GCPs lacked contact details of their counterparts across the border. The IHR

(2005) considers cross-border collaboration as a valuable aspect that reinforces the existing capacity at GCPs (WHO, 2020). However, this was lacking at the surveyed GCPs. Such absences in collaboration can have a significant negative impact on border health capacities.

In relation to SOPs on emergency, contingency planning, and response at the GCPs, a little over half had them in place, and were missing at the rest (Rani PoE, Morang; Pashupatinagar PoE, Ilam; Thadi PoE, Siraha; Malangwa PoE, Sarlahi; Gaur PoE, Rautahat; Bhattamod PoE, Mahottari, Birgunj PoE, Parsa; Maheshpur PoE, Nawalparasi West). However, not all of the GCPs that had the SOPs had provided related training to their staff. Furthermore, the immigration and/or custom authorities' emergency operational plans was present in only some of the GCPs. Of those few, only two (Kakabhitta PoE, Jhapa and Gaddachauki PoE, Kanchanpur) had integrated them in coordination with the public health emergency contingency plan. With regards to GCPs, contingency plans are an intrinsic component of the IHR (2005), and hence should not be neglected. Without proper coordination mechanisms and adequate contingency plans in place, most GCPs seemed to be ill managed, putting entire communities across borders at risk.

### 5.3 Infrastructure, equipment, and supplies (including ICT)

Health infrastructure is the major focus of this study. According to the findings, the health offices of most GCPs (with functioning health desks) were housed in tents or semi-permanent buildings, such as prefab structures. This indicates a lack of adequate health infrastructure, which in turn causes difficulties in the management of ill or suspected ill travelers at border points. The absence of proper infrastructure also hedges other facilities, such as the provision of toilets, hand washing stations, drainage systems, electricity, and Internet services. And, especially during COVID times, it limits physical distancing between travelers.

The findings also show that communication facilities like telephones and mobiles were present in the health departments of only seven PoEs (Rani PoE, Kakabhitta PoE, Pashupatinagar PoE, Maadar PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE). This too can be attributed to the lack of proper infrastructure. Nevertheless, communication facilities were functioning well in most security and customs departments, which, apart from being the nature of their work, can also be accredited to their infrastructure, as they were housed in permanent structures.

Since the assessed GCPs did not have laboratories, services were managed in different ways. Most GCPs sent travelers to the holding sites for specimen collection, and some (Rani PoE, Morang; Pashupatinagar PoE, Ilam; Malaganwa PoE, Sarlahi; Bhattamod PoE, Mahottari; Taulihawa PoE, Kapilvastu and Gulariya PoE, Bardiya) directed them to the nearest health facilities. A few GCPs even let the travelers themselves carry out specimen collection. Additionally, not all GCPs with functioning health desks had infrastructure for health screening, such as triage, isolation/observation, and referral, among others. In this regard, Province 1 was well-equipped in terms of possessing thermal scanners, handheld non-contact thermometers with batteries, stethoscopes, BP machines, and screening forms and files. They, however, did not have portable ECGs, pulse oximeters, nebulizers, and oxygen cylinders. Province 2 was comparatively less equipped since they did not have thermal scanners, although they had a decent number of handheld non-contact thermometers with batteries, as well as portable ECGs, pulse oximeters, nebulizers, and oxygen cylinders. In fact, it was the only province where the latter mentioned equipment were available. The availability, or unavailability, of medical equipment can be put down to geographical location and development, in terms of access.

Nevertheless, most of the assessed GCPs did have referral links for ill-travelers and also provided vehicles for symptomatic, asymptomatic, and suspected travelers. Ambulances were mostly used to transfer travelers to their respective referral points. Oxygen cylinders were present in all the ambulances whereas only a few had nebulizers. However, none of the GCPs that provided such vehicle services practiced vehicle decontamination. Those who did used either detergent or 0.5% NaHCL.

On the subject of the capacity of the COVID-19 designated health facilities, emergency bed services were present in only half of the establishments (Rani PoE, Kakrbhitta PoE, Maadar PoE, Gaur PoE, Maheshpur PoE, Belahiya PoE, Krishnanagar PoE, Gaddachauki PoE, Gauriphanta PoE, Darchula PoE). A few had services like ICU/CCU, RMNCH, and laboratory facilities for virus testing, and only one had pediatric ICU services.

Although structural infrastructure was inadequate in the assessed GCPs, a few had managed to organize screening and PPE equipment, referral links, and vehicles with medical equipment. In most GCPs, the responsibility of overseeing these services lay with the municipality or local government. However, the decontamination of vehicles carrying confirmed or suspected cases was not being carried out. Ignoring vehicle decontamination can lead to disease transmission, especially to frontline workers and other travelers. The designated health facilities for COVID-19 were lacking in terms of infrastructure, facilities, and overall capacity. Unless improvements are made, the situation will be dire if cases surge.

When it came to information collection regarding the flow of migrants, the assessed GCPs did have a system. Although one (Gaddachauki PoE, Kanchanpur) was connected to e-BMIS, it remained unused. Most GCPs (Rani PoE, Maadar PoE, Bhattamod PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE and Gauriphanta PoE) used manual paper-based methods, such as notebooks, forms, registers, and official ledgers. The health statuses of travelers were also collected manually, while some did not collect such information at all. A few had automated systems or paper-based health declaration forms for this purpose. As per the IHR (2005), such information should be collected and analyzed in order to inform the local response teams at destination points on potential risks (WHO, 2020). However, most GCPs did not seem to have followed such procedures since, in most cases, the information was only collected but not analyzed while in many, the health statuses of the travelers were not even tracked.

#### **5.4 Cross-border coordination and disease surveillance**

GCPs, unlike airports and seaports, are characterized by more complex and varied environmental settings, especially in Nepal where it predominately represents larger cross-border communities with strong familial and commercial ties. Depending on the population density and services at the GCPs, the volume of traffic fluctuated from 2,000 to fewer than 10 travelers a day. On an average, GCPs served 447 travelers daily, with the highest inflow in October and outflow in November and December, 2020. It has to be noted that for many people living in these communities, cross-border movement is a daily occurrence, whether for buying essentials, for health-care services, seasonal migration, family visits, or commercial business. The security department was the agency in charge for flow monitoring in 16 of the GCPs, except in Belahiya PoE, Rupandehi and Gaddachauki PoE, Kanchanpur. Travelers used a variety of transportation methods—such as trucks, cars, motorcycles, and bicycles—but most GCPs reported people crossing the borders on foot. This is the current scenario since most GCPs have restricted vehicular movement. To track the large flow of daily travelers, eight GCPs (Kakadbhitta PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Maheshpur PoE, Gulariya PoE, Jamunaha PoE, and Gaddachauki PoE) used headcounts, while Kakadbhitta PoE, Birgunj PoE, Belahiya PoE, Gauriphanta PoE, and

Darchula PoE had computer-based electronic devices for traveler registration. However, travelers from cross-border communities were registered only in four open and partially open GCPs (Taulihawa PoE, Kapilvastu; Gulariya PoE, Bardiya; Gaddachauki PoE, Kanchanpur and Gauriphanta PoE, Kailali).

The IHR (2005) encourages cross border coordination and communication to cooperate on infectious disease prevention and control, and by jointly designating IHR points of entry with core capabilities for taking routine prevention and control measures. These measures include screening, reporting, and responding to events such as PHEIC. The porous border between Nepal and India not only puts travelers at higher risk of contagious disease but also risks the population from cross-border communities as a result of travel, transportation, and trade connections. Therefore, effective coordination and communication for exchange of health information is particularly important in border areas. The IHR (2005) stipulates that timely exchanges of information should be strengthened at local levels through multisectoral collaborations between different agencies of the neighboring countries and within the country itself. For this purpose, 50% of the assessed GCPs reported holding meetings at the Nepal side for information sharing and informal exchanges on health and travel updates. When it came to coordinating with the neighboring country, 50% of the GCPs held meetings only when the need arose. It is mandatory for health coordinators on both sides of the border to be active in reporting and updating on health statuses and emergency responses, but only five of the GCPs (Rani PoE, Morang; Gaddachauki PoE, Kanchanpur; Kunauli PoE, Saptari; Malangwa PoE, Saptari; Kakabhitta PoE, Jhapa) had been doing so, and mostly only when needed.

Regarding alert systems at GCPs, authorities should assist surveillance teams in completing investigations and applying response measures, as per the IHR (2005). Only four GCPs (Rani PoE, Morang, Malangwa PoE, Sarlahi; Kunauli PoE, Saptari; Belahiya PoE, Rupandehi) received regular updates of suspected Nepalese COVID-19 cases from the Indian border side, and only Rani PoE was found to be reporting on a daily basis. Likewise, updates regarding suspected Indian COVID-19 cases at the Nepal border side were sent by Rani PoE, Morang; Malangwa PoE, Sarlahi; Kunauli PoE, Saptari; Birgunj PoE, Parsa; Gulariya PoE, Bardiya; Darchula PoE, Darchula, with only two (Rani PoE and Birgunj PoE) reporting on a daily basis. Security personnel from across the border had mostly been providing contact lists of suspected COVID-19 cases. This was evident in one open border (Gaddachauki PoE, Kanchanpur), one closed border (Gaur PoE, Rautahat) and nine partially open borders (Pashupatinagar PoE, Ilam; Maadar PoE, Siraha; Thadi PoE, Siraha; Malangwa PoE, Sarlahi; Maheshpur PoE, Nawalparasi West; Taulihawa PoE and Krishnanagar PoE; Kapilvastu; Gaddachauki PoE, Kanchanpur, Darchula PoE, Darchula).

The IHR (2005) stipulates the establishment of cross-border communication protocols at ground crossings for sharing information on public health events with IHR focal points as a disease surveillance mechanism, and also to inform preparedness and response efforts. Despite the need for updated IHR information across borders, only nine of the GCPs (Kakabhitta PoE, Malangwa PoE, Kunauli PoE, Bhattamod PoE, Birgunj PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and Darchula PoE) reported such notifications; this was mostly handled by the PoE health departments through telephone calls when the need arose. However, the overall coordination of operations was reported to be managed majorly by security departments at nine of the ground crossings (Kakabhitta PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Belahiya PoE, Gulariya PoE, Gauriphanta PoE and Darchula PoE).

The WHO recommends entry screening at GCPs if there is suboptimal exit screening from affected areas, or where there is limited accessibility or limited internal surveillance capacity (WHO, 2020). However,

in an emergency or pandemic situation, enhanced health screenings (exit screening, including temperature screening, health declarations, and focused medical examination) and measures to report directly to the national health surveillance system is recommended. Exit screening is considered necessary to prevent the exportation of a communicable disease. Therefore, ensuring sustainable resources to conduct screening is a primary need at ground crossings. Among nine of the GCPs with health desks, only four PoEs had (Rani PoE, Morang; Maadar PoE, Siraha; Belahiya PoE, Rupandehi and Gauriphanta PoE, Kailali) dedicated screening areas for travelers, and three GCPs (Kakadbhitta PoE, Jhapa; Belahiya PoE; Rupandehi and Gaddachauki PoE, Kanchanpur) had isolation facilities with adequate ventilation. Only Gaddachauki PoE had dedicated isolation or observation areas, and 14 of the GCPs with health desks (Rani PoE, Morang; Kakrbhitta PoE, Jhapa; Pashupatinagar PoE, Ilam; Maadar PoE, Siraha; Kunauli PoE, Saptari; Birgunj PoE, Parsa; Maheshpur PoE, Nawalparasi West; Belahiya PoE, Rupandehi; Taulihawa PoE, Kapilvastu; Gulariya PoE, Bardiya; Jamunaha PoE, Banke, Gaddachauki PoE, Kanchanpur; Gauriphanta PoE, Kailali and Jhulaghat PoE, Baitadi) had health referral systems for ill travelers. In addition, quarantine areas at GCPs restrict the movement of travelers with exposure history, and control COVID-19 community transmission. Yet, at the time of the study, only two GCPs (Belahiya PoE and Gaddachauki PoE) that permitted travelers had secluded quarantine areas for isolation.

As per WHO recommendations, primary screenings at ground crossings have to be carried out by designated health staff using established procedures and appropriate PPEs to screen travelers. But less than half (eight GCPs) had staff delegated for conducting screening activities. Among them, 88% were health authorities, with 13% of the health staff from Nepal Red Cross Society working voluntarily. Verbal screening for symptoms and history, temperature measurements, triaging, health certificate checks, and visual observation of signs and symptoms of COVID-19 were the major activities performed by the screening staff. Returnee migrants were verbally screened at most (nine) partially open GCPs and one open PoE (Rani PoE, Morang), and health certificates were checked at five of the entry points (Kakadbhitta PoE, Jhapa; Kunauli PoE, Saptari; Birgunj PoE, Parsa; Maheshpur PoE, Nawalparasi West; and Gaddachauki PoE, Kanchanpur). Considering the community transmission risks associated with returnee migrants, seven partially open PoEs and one open PoE (Rani PoE, Morang) even triaged the travelers. Visual observation of COVID-19 symptoms and temperature measurement were more frequently practiced on truck drivers at Rani PoE, Morang; Kakrbhitta PoE, Jhapa; Belhaiya PoE, Rupandehi; Jamunaha PoE, Banke and Gaddachauki PoE, Kanchanpur. In addition, screening of signs and symptoms verbally and awareness about COVID-19 was provided to all people passing through the ground crossings at Maadar PoE, Siraha; Kunauli PoE, Saptari; Bhattamod PoE, Mahottari; Maheshpur PoE, Nawalparasi West; Belahiya PoE, Rupandehi; Krishnanagar PoE, Kapilvastu; Gulariya PoE, Bardiya; Jamunaha PoE, Banke; Gauriphanta PoE, Kailali and Darchula PoE, Darchula.

## 5.5 Immigration and cross-border trade

The IHR (2005) Article 22.1.(a), (c) and (g) stipulates that the competent authorities at designated entry points are responsible for the monitoring, inspection, and supervision of baggage, cargo, containers, conveyances, goods, postal parcels, and human remains departing and arriving from affected areas (WHO, 2005). The activities are maintained with the intent of keeping free from sources of infection and contamination and shall provide (where available) written information concerning the methods to be employed. It is mandatory to share and communicate guidance and procedures with focal points as well as travelers.

Some countries do apply strict systematic inspection and measures to travelers, conveyances, and cargo passing through formal ground crossings. In the case of Nepal, relatively free movement across the porous border is allowed in most GCPs, as regulated by the bilateral agreement with the neighboring country i.e., India. The flow of travelers is monitored and addressed mostly through the immigration and customs departments. Among the assessed GCPs, 40% had immigration departments and all the ground crossings had customs departments; however, of these, four GCPs (Maadar PoE, Siraha; Malangwa PoE, Sarlahi; Gulariya PoE, Bardiya; Jhulaghat PoE, Baitadi) were sub-customs offices. On-arrival visas were provided by the immigration departments at Rani PoE, Morang; Kakrbhitta PoE, Jhapa; Birgunj PoE, Parsa; Belahiya PoE, Rupandehi; Gaddachauki PoE, Kanchanpur PoE; and Gauriphanta PoE, Kailali, while Birgunj PoE and Jamunaha PoE provided work permit visas; NRN visas were provided by Kakadbhitta PoE and Jamunaha PoE.

As per IHR (2005) Article 24 (1), all formal GCPs designated by the IHR shall take all practicable measures consistent with IHR regulations in order to ensure that conveyance operators comply with all the health and protection measures recommended by WHO and adopted by the state party (WHO, 2005). In this regard, only around 63% of the GCPs had the guidance to immigration officials on the management of entry requirements provided by the Department of Immigration available, while only 60% shared it as per the IHR recommendation. Likewise, guidance on exemptions, visa processes, and management of visas were available in only 50% of the GCPs, and even less had applied it. To add to it, these guidances were not shared at all in Gauriphanta PoE, Kailai; Kakrbhitta PoE, Jhapa; Jamunaha PoE, Banke; and Gaddachauki PoE, Kanchanpur.

The overall orientation of the revised IHR (2005) is firmly against the imposition of border restrictions, which is, in general, a shift away from the previous framework's focus on national self-protection through border control. WHO has advised consistently against travel and trade restrictions throughout the COVID-19 pandemic (Ferhani & Rushton, 2020). Cross-border trade and restrictions were not put into action for a long duration during the pandemic. Among Nepal's ground crossings, apart from three GCPs (Malangwa PoE, Sarlahi; Jamunaha PoE, Banke and Jhulaghat PoE, Baitadi), all others allowed traders to cross the borders following legal procedures. Among these, only six GCPs (Rani PoE, Kakadbhitta PoE, Thadi PoE, Taulihawa PoE, Gaddachauki PoE and Gauriphanta PoE) facilitated traders with screening and testing measures. However, four of the GCPs (Kakadbhitta PoE, Thadi PoE, Taulihawa PoE and Darchula PoE) had restricted some immigration processes due to the current pandemic situation. It must be noted that other than Rani PoE, Bhattamod PoE, Maheshpur PoE, Belahiya PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, and Jhulaghat PoE, all other PoEs informed traders about changes related to trade/immigration formalities and restrictions. In addition to this, six of the ground crossings (Kunauli PoE, Saptari; Belahiya PoE, Rupandehi; Taulihawa PoE, Kapilvastu; Krishnanagar PoE, Kapilvastu; Gulariya PoE, Bardiya and Gaddachauki PoE, Kanchanpur) had restricted trucks from crossing the border. Still, on an average, 37 trucks crossed the borders daily, with the number peaking at 238 trucks per day from and to India.

## 5.6 Infection prevention and control

Environmental health capacities and ensuring safer environments for travelers serve as a fundamental preventive measure to make sure GCPs are in safe and sanitary conditions, thereby reducing the potential risks to travelers' health and disease transmission. As per the handbook of capacity building of GCPs, essential environment capacities—such as vector control, solid and liquid waste management, potable water, and general sanitation, including toilet facilities—are highlighted in the guidance as crucial for infection prevention and control (WHO, 2020). The GCPs with functional health desks were

assessed for infection prevention and control (IPC) measures. As per the interim guidance on controlling the spread of COVID-19 at ground crossings, the GCPs should have adequate supplies of alcohol-based hand rub or soap and water, toilets (separate for travelers, suspected cases, men, and women), waste bins with lids, cleaning supplies, handwashing stations, potable water, well-ventilated toilets, and decontamination facilities.

Handwashing materials and hand sanitizers were the most available measures at ground crossings, the least being decontamination services. Only nine of the assessed ground crossings (Rani PoE, Maadar PoE, Thadi PoE, Kunauli PoE, Bhittamod PoE, Belahiya PoE, Gaddachauki PoE, Gauriphanta PoE and Darchula PoE) had proper wash basins and eight GCPs had potable water with storage facilities. Likewise, six of GCPs (Maadar PoE, Kunauli PoE, Belahiya PoE, Taulihawa PoE, Gaddachauki PoE and Gauriphanta PoE) had bio-hazard waste bins with lids for managing hazardous waste. However, six of the ground crossings (Pashupatinagar PoE, Malangwa PoE, Gaur PoE, Birgunj PoE, Maheshpur PoE, Krishnanagar PoE) had none of the IPC parameters in place; this count includes the entry points without health desks as well.

Water availability, access to toilets, solid and liquid waste management, electricity connections, and waste management systems were the parameters under this study. Clean and quality potable water supply contributes majorly to a safe environment for travelers and other users at GCPs. However, only four (Belahiya PoE, Birgunj PoE, Gauriphanta PoE and Jamunaha PoE) had this facility, and travelers could access the supply in three of the GCPs (Belahiya PoE, Birgunj PoE and Maadar PoE). As per the IHR (2005), PoE authorities are obliged to ensure that the premises and conveyances are kept free from sources of infection or contamination to halt the spread of health risks. The guideline encourages the development of management plans for sanitation, with easy access to sanitation facilities for travelers and authorities at entry points. But three of the GCPs (Birgunj PoE, Gaddachauki PoE and Pashupatinagar PoE) with health desks did not even have usable toilets nearby and, apart from Belahiya PoE in Rupandehi, travelers could not access toilets in any of the ground crossings. Additionally, with the exception of four points, there were no well-ventilated toilets and separate usable toilets for travelers, with secluded spaces for men and women, at Birgunj PoE, Gaddachauki PoE, Jamunaha PoE, Kakadbhitta PoE, and Pashupatinagar PoE.

The IHR (2005) postulates that there must be an adequate number of personnel with training on cleanliness and sanitation to carry out sanitation activities effectively and frequently. Infection prevention and control requires regular cleaning of sanitation facilities, as well as the availability of cleaning materials, along with demonstrations on the correct methods of cleaning, disinfection and decontamination. However, on the ground, only three GCPs (Maadar PoE, Sarlahi; Belahiya PoE, Rupandehi; Jamunaha PoE, Banke) had cleaning staff. Among them, only one PoE (Maadar PoE, Siraha) had personnel that had received training on disinfecting procedures, handling of disinfectants, management of waste, and use of PPEs. In addition, though the IHR (2005) encourages the management/supervision of the removal and safe disposal of contaminated matter, the GCPs did not appear to be practicing it strictly as only three of the ground crossings (Gaddachauki PoE, Gauriphanta PoE and Maadar PoE) reported having measures for treating infectious waste.

## 5.7 Protection

With unprepared and logistically constricted GCPs, the process of cross-border migration during the pandemic has been exposing travelers to the coronavirus disease. The surveyed GCPs had limited resources and staff that were not trained enough for infection prevention and control and management.

The COVID-19 pandemic demands special and stronger protection mechanisms, not just considering the risk of the coronavirus disease but also towards the human rights protection of migrants in vulnerable situations. According to IOM, vulnerable migrants are people who are unable to effectively enjoy their human rights, and are at increased risk of violation and abuse, and who, accordingly, are entitled to call on a duty bearer's heightened duty of care (IOM, 2019).

According to the UNHCR, 'People of Concern', or vulnerable groups, comprise of migrants who, because of their precarious situations, are under the protection mandate of the UNHCR. This includes internally displaced persons, refugees, returnees, asylum seekers, victims of trafficking, the stranded, smuggled migrants, and others (IFHV, 2020). These migrants are not to be neglected specifically in a porous border like that between Nepal and India where crossing to the other side mostly does not require legal papers. Considering the urgent need to protect the vulnerable in any crisis situation, information desks for counselling or knowledge on safer migration were established in all but four GCPs (Maadar PoE, Siraha; Thadi PoE, Siraha; Darchula PoE, Darchula; Jhulaghat PoE, Baitadi). The local police at the different entry points were the most active among the different organizations for protection services. More than half of the GCPs had their authorities at the information desks trained on screening, victim identification, and care of vulnerable migrant groups. Only four GCPs were the exception (Bhittamod PoE, Mahottari; Maheshpur PoE, Nawalaparasi West; Jamunaha PoE, Banke; Darchula PoE and Jhulaghat PoE). The GCPs were found to regularly coordinate with other organizations like Maiti Nepal, 3 Angels Nepal, and WOREC Nepal for rescue and return assistance or for referring to local authorities, along with provisions of counselling services and legal remedies in most of the GCPs.

Almost all GCPs (except Krishnanagar PoE) reported that they needed assistance for vulnerable migrants. Most of the reported cases were smuggled migrants with protection concerns (in 15 GCPs, apart from Pashupatinagar PoE, Kunauli PoE, Gulariya PoE, and Gauriphanta PoE), followed by separated and unaccompanied children (in 13 GCPs, except in Kakadbhitta PoE, Pashupatinagar PoE, Maadar PoE, Gaur PoE, Bhittamod PoE and Jhulaghat PoE). Victims of trafficking and trafficked children with protection concerns were also reported in Rani PoE, Kakadbhitta PoE, Malangwa PoE, Gaur PoE, Birgunj PoE, Maheshpur PoE, Belahiya PoE, Taulihawa PoE, Jamunaha PoE, Gaddachauki PoE, and Gaurfanta PoE. Rescuing and return assistance was accompanied by regular reporting and sharing of updates on the vulnerable migrants to the respective authorities. Half of the GCPs were found to be reporting such cases on a monthly basis, whereas only one PoE (Kakadbhitta PoE) was concerned about updating the statuses on a daily basis.

## 5.8 Risk communication

A porous border with nearby communities cannot just be considered a risk factor for disease transmission but also a unique opportunity to educate and sensitize travelers and commuters about public health events, along with preventive and control measures. Therefore, risk communication planning and training are essential for public health preparedness and response as well as determining resources to allocate risk communication activities, as per WHO recommendations on capacity building and cross-border collaborations (WHO, 2020). The WHO encourages active community engagement between neighboring countries to ensure harmonized and consistent approaches to public health threats.

In order to educate and inform travelers, mask-wearing techniques had been clearly posted in visible places at only four of the partially open borders (Maadar PoE, Thadi PoE, Rupandehi PoE, Jamunaha PoE). Likewise, posters on COVID-19 preventive measures were visible and posted in nine GCPs (Rani

PoE, Maadar PoE, Thadi PoE, Birgunj PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and Jhulaghat PoE), and handwashing techniques were visibly posted in 11 GCPs (Rani PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Gaur PoE, Maheshpur PoE, Belahiya PoE, Jamunaha PoE, Gauriphanta PoE and Jhulaghat PoE). Considering the need for sensitization on the stigma associated with COVID-19, only two GCPs (Maadar PoE and Jamunaha PoE) had managed to put up awareness-related posters. However, the GCPs were yet to focus on active community engagement, training to risk communication personnel for responding to local hazards, and coordination mechanisms on communicating risks to the communities.

## 6. CONCLUSIONS AND RECOMMENDATIONS

### 6.1 Capacity development

With regards to capacity development at the GCPs, most multisectoral branches belonged to the security, custom, and health departments, while only a few had other branches like agriculture, animal health, and immigration. Although the world is in the midst of a pandemic, the number of health personnel delegated for detection, notification, management, and referral of infected cases was comparatively lower than those from other departments, such as security and customs. However, the former had been appointed only during the pandemic. The number of personnel did not meet the needs of the PoEs for screening and for undertaking non-invasive medical examinations. Additionally, a point that the IHR stresses upon is the establishment and endorsement of standard operating procedures (SOPs) on areas such as detection and notification, IPC, and contingency planning, among others. However, such SOPs were not in place in most GCPs, and very few staff were trained on the respective SOPs, even if they were present. Nevertheless, most GCPs had provided training to personnel (mostly GCP screeners) regarding the screening and use of PPEs. On the contrary, very few staff were trained on aspects such as IPC and the handling of ill travelers.

- **Strengthen GCPs through multi-sector engagement:** The study found that multiple agencies in GCPs often performed on an ad hoc basis. Furthermore, the workings of local, provincial, and federal government were not in tandem. Therefore, multi-sector engagement is required, and it should encompass all relevant ministries, including health, customs, and livestock, among others. These agencies need support—based on evidence and need of institutions—from all three tiers of government.
- **Increase numbers and widen the range of health personnel at GCPs:** The study findings show that the number of health personnel deployed at the GCPs was comparatively lower than those from other departments. The health department was responsible for coordinating with health authorities in only a few the GCPs. Considering the current pandemic situation, a larger number as well as wider range of health personnel, such as public health officers or medical officers, need to be on the ground. Similarly, the engagement of the health department seemed to be lacking when it came to detection, notification, management, and referral. This scenario does not meet IHR (2005) guidelines and, hence, needs to be addressed.
- **Develop and disseminate related SOPs to frontline officials at GCPs:** Specific standard operating procedures (SOPs) on detection, notification, infection prevention and control (IPC) measures, as well as on traveler processing adapted to public health emergencies of international concern (PHEIC) contexts, should be developed and disseminated to frontline border officials at GCPs. More than half of the GCPs had up-to-date emergency contingency plans, SOPs for COVID-19 screening and referral, along with SOPs for quarantine, isolation, and disinfection of vehicles. However, the monitoring of these activities needs to be increased in order to check their compliance with the IHR (2005).
- **Develop capacity and provide training on SOPs to frontline officials:** The personnel at the GCPs were not adequately trained on the respective SOPs, where they were present. Capacity enhancement and training of staff at ground crossings should be a priority program for preparedness and emergency response.

- **Investigate the endorsement and operation of SOPs:** SOPs are a pivotal component of the IHR, but compliance appeared to be minimal. Although many GCPs had endorsed some of these SOPs, it was still not clear whether they had been operating as per procedures. Therefore, further investigation is required on this aspect.
- **Conduct trainings for health desk staff at the GCPs:** A majority of the health desk staff at the GCPs—who had been assigned screening, detection, notification, and case management roles—were reported to be untrained. This shows a strong need for identifying and training health staff on conducting health screenings, PPE use, IPC measures, and safe methods of handling ill travelers.

## 6.2 Contingency planning

To understand contingency planning, coordination and contact points were also included as indicators for the study. The leading departments for coordinating with health agencies were security and health. But only nine GCPs (Rani PoE, Kakadbhitta PoE, pashupatinagar PoE, Maadar PoE, Malangwa PoE, Jamunaha PoE, Gaddachauki PoE, Darchula PoE and Jhulaghat PoE) had coordination mechanisms in place before the pandemic, while the other nine developed mechanisms on an ad-hoc manner after the disease outbreak. Two GCPs (Thadi PoE, Siraha and Belahiya PoE, Rupandehi) did not have any such mechanisms at the time of the survey. On a slightly positive note, only five GCPs (Rani PoE, Pashupatinagar PoE, Thadi PoE, Malangwa PoE and Gaur PoE) did not have the contact details of designated COVID-19 hospitals. Contradictorily, just eight GCPs (Kakadbhitta PoE, Kunauli PoE, Bhattamod PoE, Maheshpur PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE and Jhulaghat PoE) had clearly displayed contact details of focal points, such as hospitals and health offices. Moreover, supervisors in only five GCPs (Rani PoE, Kakadbhitta PoE, Kunauli PoE, Belahiya PoE and Gaddachauki PoE) had contacts of competent authorities in the abutting GCPs. In addition, only 11 of the GCPs (Kakadbhitta PoE, Maadar PoE, Kunauli PoE, Belahiya PoE, Taulihawa PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and Darchula PoE) had SOPs regarding emergency, contingency planning, and response. The number of personnel instructed on this aspect varied, but, on an average, 21 staff members at the GCPs were trained on the aforementioned SOP. Furthermore, only two GCPs (Kakadbhitta PoE and Gaddachauki PoE) out of eight with immigration departments had border and/or custom authorities' operational plans integrated into their coordinated public health emergency plans.

- **Encourage integrated coordination mechanisms at GCPs:** Integrated coordination mechanisms should be encouraged at the ground crossings with the active involvement of all the border agencies at GCPs. The health and customs departments were found to be mostly taking the lead in coordination activities; this could be further smoothed with the engagement of all border agencies.
- **Share information, guidelines, and contact details of focal points:** Definite coordination mechanisms at GCPs are critical for identifying and reporting suspected cases and their management at/from ground crossings. A list of designated hospitals for referral, contact details of focal points, along with functional means of communication should be ensured at all ground crossings. Mechanisms for sharing information and guidelines in response to public health hazards should be included in contingency planning as part of disease surveillance systems in the local and national levels.
- **Ensure systematic operations that are aligned with the IHR (2005):** Some recommended measures for effective contingency planning are coordinating with neighboring countries for

emergency operational plan updates, reporting, and information sharing with cross-border health supervisors. Currently, the operational mechanisms that are aligned with the IHR (2005) in most ground crossings are on an ad-hoc rather than systematic basis.

### 6.3 Cross-border coordination

When it came to coordination, only half of the assessed GCPs (Rani PoE, Pashupatinagar PoE, Maadar PoE, Malangwa PoE, Kunauli PoE, Birgunj PoE, Maheshpur PoE, Taulihawa PoE, Gaddachauki PoE and Gauriphanta PoE) had regular meetings. Similarly, slightly over half of the GCPs (other than Maadar PoE, Thadi PoE, Gaur PoE, Bhattamod PoE, Maheshpur PoE, Belahiya PoE, Gulariya PoE and Darchula PoE) held regular meetings with their cross-border counterparts. However, collaborations between cross-border health coordinators appeared to be quite low as it was evident in only six of the assessed GCPs (Rani PoE, Kakadhbitta PoE, Malangwa PoE, Kunauli PoE and Gaddachauki PoE). The purpose of coming together was for meetings, information sharing, informal exchanges, and whenever the need arose.

Thus far in the pandemic, only four GCPs (Rani PoE, Malangwa PoE, Kunauli PoE and Belahiya PoE) received updates regarding suspected Nepali COVID-19 cases from the Indian side. Likewise, only six GCPs (Rani PoE, Malangwa PoE, Kunauli PoE, Birgunj PoE, Gulariya PoE and Darchula PoE) from the Nepal side sent updates of suspected Indian COVID-19 cases; this was either done on a daily, weekly, or on-need basis. Much of these updates came from other institutions like the West Bengal Police (on the Indian side) and border security personnel, apart from the municipality offices and designated health teams at GCPs.

Only nine GCPs (Kakadhbitta PoE, Malangwa PoE, Kunauli PoE, Bhattamod PoE, Birgunj PoE, Jamunaha PoE, Gaddachauki PoE and Jhulaghat PoE), among which one was open (Gauriphanta PoE), had updated IHR focal point and contact details. The health and security agencies were responsible for reporting to IHR focal points at these GCPs, and a majority of the communication took place through landline phone calls, followed by e-mail. The overall coordination operations at the GCPs was mostly performed by either the health or the security departments, as well as other departments within the municipality.

- **Establish inter- and intra-national cross-border communication and coordination protocols and share information within and across the border:** Coordination among ground crossing border agencies in Nepal and between their cross-border counterparts plays a pivotal role in capacity building and cross-border collaboration. The surveyed GCPs reported having coordination meetings in only a few of the ground crossings. Based on the study, establishing inter- and intra-national cross-border communication and coordination protocols, and sharing information on public health events within and across the border, is of utmost necessity.
- **Set up systematic coordination mechanism and daily information sharing among cross-border agencies:** Consistent and systematic coordination mechanisms were not available in any of the ground crossings. When border agencies lag behind in building prompt and resilient response systems and coordination mechanisms, risk and exposure to disease heightens. Therefore, cross-border agencies should be encouraged to provide daily updates.
- **Establish and determine the key elements for cross-border information sharing and coordination:** Almost half of the GCPs reported that coordination meetings took place among border agencies. However, there is a need to establish and determine the key elements for cross-border information sharing and coordination. These can include public health events to notify to IHR Focal Person, potential security issues that could impact outbreak response,

information sharing on mass movements, peak times, travel restrictions, and information on preparedness and response efforts.

- **Start specific communication channels and coordination guidelines at GCPs:** International travel and traffic at ground crossings, even in non-designated GCPs, pose substantial challenges to the consistent implementation of the IHR (2005). Additionally, GCPs that do not have updated IHR information, or those that have weak communication infrastructure and do not provide consistent reports to IHR focal persons, pose a great challenge to the national disease surveillance mechanism. Therefore, integrated coordination mechanisms with clear role definitions for health coordinators, border agencies, and institutions providing information on cross-border travelers is essential for timely response. Specific communication channels should be established at GCPs. In order to strengthen effective cross-border coordination and communication, they should be functional and free of interruptions.

## 6.4 Disease surveillance

For disease surveillance, there were only nine GCPs with functioning health desks, and only these had screening services available. Verbal screening and temperature methods were applied by most GCPs (except Malangwa PoE, Sarlahi, and Taulihawa PoE and Krishnanagar PoE, Kapilvastu), followed by visual observations of symptoms and triage. Health certificate checks and screening of signs and symptoms were done by a few GCPs (Kakadbhitta PoE, Kunauli PoE, Birgunj PoE, Maheshpur PoE and Gaddachauki PoE). On the other hand, awareness raising and sensitization were carried out by most GCPs, except for Pashupatinagar PoE, Thadi PoE, and Malangwa PoE. Such services were provided to various groups of travelers, such as truck drivers, returnees, and other people passing through the GCPs. However, only eight out of nine GCPs (except Pashupatinagar PoE, Ilam) with functioning health desks had designated staff for conducting COVID-19 screening; these personnel were mostly from the health department.

- **Integrate Nepal's GCPs into the national health surveillance system :** Effective surveillance systems should be established at GCPs for the timely detection of public health events, the coordination and exchange of epidemiological information, and for the application of appropriate public health measures for disease prevention and control. This should include building on existing disease surveillance and response mechanisms (EWARS), and enhancing community involvement and capacities in the surveillance system. Disease surveillance systems at ground crossings will be ineffective unless a strong national surveillance system is built through an integrated approach, with the active involvement of all tiers of government. The early detection of COVID-19 cases and the timely management of such cases is crucial to halt transmission. To begin with, the surveillance can be run as a pilot program in GCPs with the highest inflows and outflows of people.
- **Universally adopt e-BMIS:** The uptake of e-BMIS by the GCPs was found to be low. It remained unused even in GCPs that had installed the system. Therefore, it is necessary for the authorities to earmark an annual budget to ensure the sustainability of e-BMIS. The system will allow for real-time disease surveillance and data mapping, which will contribute to national disease surveillance.
- **Train designated staff at GCPs to perform primary screenings of travelers:** Designated and trained staff should be appointed at ground crossings to perform primary screening of travelers using appropriate PPE and established procedures. Mobility tracking and recording traveler

details, visually observing signs and symptoms, and taking temperature measurements and health record history should be in place in each GCP.

- **Harmonize available resources and establish a proper registration system through cross-border collaboration:** None of the GCPs reported having proper systems available for traveler registration. Immigration ledgers, screening headcounts, and visual estimation were some of the reported registration modalities in place. Moreover, cross-border communities traversing the border on a daily basis were not even recorded in most GCPs. Therefore, the establishment of a proper registration and surveillance system should be focused upon through cross-border collaboration by harmonizing available resources.
- **Establish clear SOPs and specific guidelines for screening travelers:** SOPs and guidelines should be established that clearly mention the parameters for screening travelers, associated restrictions, the population to be screened, measures for screening, health forms, business continuity plans, transportation facilities to transport ill travelers, and health referral systems.
- **Enhance joint efforts at the GCPs through collaborations with other health organizations:** Due to the limited financial and human resources at GCPs, there are several points that need to be encouraged. This includes increased coordination and communication, expansion of joint efforts, and the integration of GCPs into the local health system through collaborations with other health organizations.

## 6.5 Infrastructure, equipment, and supplies (Including ICT)

With regards to infrastructure at the GCPs, the health sections were housed in tents or prefabricated buildings, and hence had the least appropriate physical structures among the departments. On the contrary, all other departments had permanent buildings. Similarly, the health departments had the lowest number of transportation mediums. Nevertheless, on the brighter side, most of the assessed GCPs did have vehicles (mostly ambulances) to transport travelers to referral sites. On the other hand, only seven GCPs (Rani PoE, Kakadbhitta PoE, Pashupatinagar PoE, Birgunj PoE, Belahiya PoE, Jamunaha PoE and Gaddachauki PoE) had screening infrastructure, such as triage, isolation/observation, and referrals to primary health care centers. A point to be noted is that although vehicles were available for transferring ill or suspected ill travelers, only a few GCPs decontaminated their vehicles with detergent or 0.5% NaHCL. In addition, the health facilities designated for COVID-19 were not sufficient in terms of capacity.

- **Improve structural and health infrastructure:** Health infrastructure in most GCPs were found to be inadequate in terms of structure as well as capacity. A proper structural infrastructure is needed for screening and quarantining, as well as physical distancing. Moreover, a well-established infrastructure alleviates the provision of other facilities like electricity, communication, toilets including WASH, and drainage systems.
- **Establish laboratory facilities at potential GCPs:** In terms of capacity, the findings showed that none of the GCPs had laboratories. This lack of laboratories might hinder prompt medical interventions since the samples have to be taken elsewhere, thereby delaying results. Therefore, laboratory facilities need to be established in the GCPs.
- **Provide screening infrastructure at functioning health desks:** The GCPs with currently functioning health desks were not well equipped with screening infrastructure such as triage, isolation/observation, and isolation. Hence, the supply and management of these articles are a major issue.

- **Ensure adequate stock of PPE equipment at all GCPs:** Our finding shows a similar situation with respect to the stock of PPE equipment. There were discrepancies between the GCPs, with some having abundant supplies of PPE material, and others none at all.
- **Frequently decontaminate all transferring vehicles for confirmed or suspected cases:** On a positive note, the GCPs did have referral links and vehicles available for transferring confirmed or suspected cases. On the other hand, most GCPs did not decontaminate these vehicles, thus increasing the risk of transmission for drivers and passengers. Urgent intervention is needed in this regard.
- **Strengthen capacity of staff at the designated COVID-19 health facilities:** The designated COVID-19 health facilities were low in capacity. For instance, there was a total of only 10 emergency beds in 19 GCPs. Similarly, there were only six ICU/CCUs, and a single pediatric ICU. Likewise, only six designated health facilities had laboratory facilities for virus testing. Capacity, thus, needs to be strengthened in this regard.
- **Ensure accurate information collection and consistent analysis of the health statuses of travelers following the IHR (2005):** Regarding information and communication technology (ICT), most GCPs had manual systems, and none were connected to e-BMIS. Moreover, only a few kept records of the health statuses of travelers. In other words, the GCPs had not followed the IHR (2005) for information collection. The IHR insists on the collection and analysis of such information in order to inform the local response teams at destination points about potential risks. Hence, this is an aspect that requires intervention.

## 6.6 Immigration and visa consular process

Regarding equipment and supplies, first on the list were communication facilities. Functional communication services were mostly available in the security departments of the assessed GCPs. In contrast, the health departments of most GCPs had the lowest number of functioning communication facilities. When it came to information collection systems, only 14 GCPs (except for Pashupatinagar PoE, Thadi PoE, Kunauli PoE, Gaur PoE, Maheshpur PoE, and Jamunaha PoE) had such facilities in different modalities but none were connected to e-BMIS. Instead, manual registration using notebooks was the most popular method. Out of the 14 GCPs with information collection systems in place, three (Thadi PoE, Malangwa PoE and Darchula PoE) did not collect the health information of travelers. Information collection was mostly done manually while a few used paper-based health declaration forms and one even had an automated system.

- **Establish guidelines for online and remote visa processing with the support of local and provincial level governments:** Necessary services like on-arrival visas, work permits, and NRN and tourist visas were not all available at the GCP immigration departments. Guidelines should be established for online and remote visa processing with the support of local and provincial level governments. Based on traveler volume, the visa services available at immigration departments should also be clearly mentioned.
- **Provide guidance and share available guidelines with neighboring countries for strengthening the immigration and visa consular process:** Only half of the ground crossings provided guidance on the management of entry requirements, exemptions, visa processes, and management of visas. The provision of guidance and sharing of available guidelines with neighboring countries is a must for strengthening the immigration and visa consular process. This was evident in only

a few of the GCPs. There is a strong need of support for tracking and documenting the newly introduced regulations and changes made for immigration in response to the pandemic.

- **Update travel and trade restrictions, exemptions, formalities for truck drivers and traders between India and Nepal:** As India has strong trade links with Nepal, revisions and updates on travel and trade restrictions, exemptions, formalities for truck drivers and traders should be developed and shared within and across border agencies for orderly migration and cross-border mobility.
- **Share new developments and agreements between countries with travelers and cross-border traders:** Mechanisms should be developed for sharing information with travelers and cross-border traders as they are the most impacted by new developments and agreements between countries that share borders.

## 6.7 IPC including WASH services

When it came to IPC and water, sanitation, and hygiene (WASH), the IHR (2005) was assessed only among GCPs with functional health desks. The four parameters (water supply, availability of drinking water, availability of water to travelers and water quality test) of water facilities were met by only two GCPs (Belahiya PoE and Birgunj PoE), while three (Gaddachauki PoE, Gauriphanta PoE and Pashupatinagar PoE) did not have any source of water available. Likewise, only six GCPs (Belahiya PoE, Gauriphanta PoE, Jamunaha PoE, Kakadbhitta PoE, Maadar PoE and Rani PoE) had toilet facilities in the vicinity of the health desks. It must be noted that none of the GCPs had separate toilets for presumptive cases. Similarly, sewage systems were observed in only four of those GCPs (Gaddachauki PoE, Jamunaha PoE, Kakadbhitta PoE and Maadar PoE), and only one (Jamunaha PoE) had treated sewage. Additionally, one GCP (Gaddachauki PoE) did not have a supply of electricity at the health desk. Hygiene materials like soap, water, water basins, disposable paper, and toilet paper was also lacking in most GCPs (Birgunj PoE, Gauriphanta PoE, Jamunaha PoE, Kakadbhitta PoE and Rani PoE). Moreover, cleaning staff in only three GCPs (Maadar PoE, Belahiya PoE and Jamunaha PoE) had received training on disinfecting procedures, handling disinfectants, waste management, and PPE use. IPC measures, though, were assessed in all 20 GCPs. The most observed IPC procedures were hand washing materials and hand sanitizers followed by use of biohazard boxes and chlorine, while decontamination was the least used measure. On the other hand, six GCPs (Pashupatinagar PoE, Malangwa PoE, Gaur PoE, Birgunj PoE, Maheshpur PoE, Krishnanagar PoE) did not follow any of the IPC courses of action.

- **Ensure adequate IPC measures at all GCPs:** A majority of GCPs lacked IPC measures such as vector control, solid and liquid waste management, potable water, and general sanitation.
- **Provide separate toilets for ill travelers at the GCPs:** Separate toilets had not been segregated for ill travelers even at the health desks. This signified a high risk of disease transmission around the periphery of the GCPs.
- **Improve toilets and facilities at the GCPs:** Some GCPs did not have toilets near the entry points. Those that were present were not well ventilated and, in most cases, were public toilets, thus increasing the range of disease transmission. This is an issue that needs to be addressed urgently.
- **Provide clean drinking water supply at all GCPs:** The lack of safe and potable water at GCPs is another finding of the study. A clean and quality drinking water supply is intrinsic for a safe environment. However, such facilities were absent in most GCPs and, hence, is another urgent issue to be worked upon.

- **Improve drainage systems for safe environments:** Another important finding was the lack of drainage systems. This means that the areas around the health desks were full of sources of infection and contamination, thereby increasing the risk of disease transmission.
- **Set up proper waste management systems:** Similarly, the GCPs did not have proper waste management systems. Although the IHR (2005) calls for separate spaces for waste segregation, a majority of GCPs did not even have containers.
- **Provide training on disinfection, management of waste and use of PPEs to cleaning personnel at GCPs:** Most GCPs did not have separate cleaning staff. Moreover, only a few staff members had received training on disinfecting procedures, handling of disinfectants, management of waste, and use of PPEs as per the IHR (2005). This is an essential aspect since IPC majorly relies upon cleaning staff. If cleaning personnel are not well trained in this regard, the possibility of disease and infection transmission will be high.

## 6.8 Protection

In order to protect vulnerable migrants, all but four GCPs (Maadar PoE, Thadi PoE, Darchula PoE, and Jhulaghat PoE) had separate desks for safe migration. Local police and organizations like 3 Angels Nepal, PRC, Aafanta Nepal, Maiti Nepal, CWIN, WOREC Nepal, and other community organizations were the leading authorities responsible for managing and operating information desks at the GCPs. Necessary protection mechanisms—such as training on screening, referral mechanisms, need for assistance, mechanisms to screen vulnerable groups, and coordination with other organizations—were fulfilled by most GCPs. Vulnerable groups mostly included smuggled migrants, separated and unaccompanied children, and victims of trafficking, including children.

- **Establish proper collaboration and coordination procedures among human right protection agencies and concerned organizations within the country and across the border:** Linkage and collaboration with human rights protection agencies, community-based organizations, Maiti Nepal, and other local NGOs and INGOs were reported in most GCPs. However, there is a need to establish proper collaboration and coordination procedures, along with guidelines within the country and among agencies across the border, in order to protect vulnerable migrants.
- **Develop an inbuilt system on human rights protection measures linked to the border management information system:** Though vulnerable migrant groups were counted in more than half of the ground crossings, the development of an inbuilt system linked to the border management information system would have been more helpful. This would assist in planning and designing human rights protection measures through the optimum utilization of resources, within and across borders.
- **Establish referral mechanisms for vulnerable migrants:** It is necessary to triage vulnerable migrant groups based on the immediacy of assistance required. A strong and resilient referral mechanism could be established with thorough screening procedures. Counselling booths, mobile health service vans, hotline services, and temporary shelters should be set up for vulnerable migrants at GCPs. An integrated approach for the coordination and communication of information on vulnerable migrant groups—especially separated and unaccompanied children, migrants intercepted in transit, and trafficked children with protection concerns—should be specified and developed. There should be a provision for providing temporary shelters and basic needs to migrants of concern until they are safely assigned. The GCPs

reported having only information desks for safe migration. Counselling booths, mobile health service vans, and hotline services should be made available at GCPs to reduce vulnerability.

## 6.9 Risk communication

With regards to risk communication and community engagement (RCCE), one major variance was information dissemination to the communities as per the IHR (2005). Information dissemination included COVID-related indicators, such as signs and symptoms, preventive measures, handwashing techniques, mask wearing techniques, stigma-related materials, hotline numbers for psychological counselling, and other IEC materials. Most GCPs reported having clearly and visibly posted IEC materials regarding COVID-19 signs and symptoms, while only around half (Rani PoE, Pashupatinagar PoE, Maadar PoE, Thadi PoE, Malangwa PoE, Gaur PoE, Belahiya PoE, Jamunaha PoE, Gaddachauki PoE, Gauriphanta PoE and Jhulaghat PoE) had such information about handwashing techniques and preventive measures. However, information on other indicators—such as techniques on proper mask wearing, stigma-related materials, and hotline numbers for psychological counselling—were not displayed clearly in most GCPs, except for Maadar PoE and Jamunaha PoE. Furthermore, the urgent support mechanisms needed for GCPs was also assessed under this variant. In this regard, infrastructure for health desk assessment was the most urgent support required by most GCPs (Malangwa PoE and Jhulaghat PoE being the exceptions). This was followed by need for training/orientation for border officials and health staff for COVID-19-related issues/screening/management, which was not reported as an immediate need in Maadar PoE, Bhattamod PoE, Krishnanagar PoE, Gulariya PoE, Gaddachauki PoE, Darchula PoE, and Jhulaghat PoE. Over half of the GCPs (other than Maadar PoE, Bhattamod PoE, Krishnanagar PoE, Gulariya PoE, Jamunaha PoE, Gaddachauki PoE, Darchula PoE and Jhulaghat PoE) stated the need for plans and SOPs, as well as provisions for adequate IPC and infrastructure for holding returnees. Half of the GCPs (Rani PoE, Kakadbhitta PoE, Maadar PoE, Kunauli PoE, Gaur PoE, Birgunj PoE, Maheshpur PoE, Taulihawa PoE, Jamunaha PoE and Gaddachauki PoE) required PPEs and risk communication materials, and a few (Rani PoE, Pashupatinagar PoE, Kunauli PoE, Gaur PoE, Maheshpur PoE and Gaddachauki PoE) called for better WASH arrangements. Apart from these, some GCPs (Pashupatinagar PoE, Krishnanagar PoE, Gaddachauki PoE and Darchula PoE) reported other urgent support, such as additional health workers, proper sanitation and toilets, mobility monitoring SOPs, CCTVs, digital entry systems, and public toilets.

- **Appoint communication focal points to enhance risk communication and community engagement at the GCPs:** The risk communication at surveyed ground crossings seemed to be limited only to IEC materials pertaining to COVID-19 signs and symptoms, handwashing techniques, and other preventive measures of various communicable diseases. In order to build the capacity of GCPs, communication delegates should be appointed to enhance risk communication and community engagement. A priority program should be to train communication staff on audience engagement when conveying messages related to preventative measures, as well as on effective methods to prevent contracting COVID-19 themselves.
- **Develop linguistically and cultural appropriate IEC materials on COVID-19 at GCPs:** The IEC materials and informative posters at most GCPs were in the Nepali language. Another factor that should be considered in risk communication is the use of appropriate mediums and languages, with attention to literacy levels and cultural relevance.
- **Map out partner organizations and potential stakeholders working on COVID-19 at the borders to reach out to communities at the border:** To conduct RCCE activities on COVID-19,

organizational mapping by involving partner organizations could help reach out to marginalized and hard to reach communities at border areas.

- **Establish hotlines and/or complaint and feedback mechanisms to improve risk communication at the border areas:** Only a few of the GCPs reported having hotline numbers for psychological counselling. Therefore, complaint and feedback mechanisms should be established to improve risk communication, and the received feedback should be used to inform the operation response, including the utilization of hotline numbers for the target audience.

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