

Securing and Adapting Birth Registration Systems in Response to Climate Change-Induced Natural and Humanitarian Disasters

Case Study Report 3: Nepal



Contents

Executive summary	3
Nepal: Progress and Priorities	5
I. Introduction	6
Background and justification	6
Context and climate profile	6
CRVS Snapshot	9
II. Findings	10
Effects of Climate-Induced Disasters on CRVS Systems: Building Resilience	10
Multi-dimensional resilience	11
III. Good Practices and Lessons Learned from Nepal	18
IV. Recommendations for enhancing CRVS resilience	20
Universal and Inclusive Birth Registration	20
Improve INtegration with health systems for Vital Statistics Production and Use	20
Formalize Disaster-Specific CRVS Protocols	20
Deepen Interoperability	20
Digitalization, Data Quality Assurance and Security Measures	21
Sustain and Expand Human Capacity and Digital Literacy	21
Enhance Public Awareness and Incentives for Timely Registration	21
Integrate CRVS into Broader Disaster Risk Reduction Strategies	21
V. Conclusion	22
Annex: Framework analysis table	23
Acronyms	30
Endnotes	32
Acknowledgements	33

Executive summary

Climate change is no longer a distant threat; it is a present reality. Over 99 per cent of the world's children face at least one climate or environmental hazard.

Notably, the climate crisis threatens not only the environment but also identity, safety and rights. When disasters strike, civil registration and vital statistics (CRVS) systems are often among the first to fail. Offices are damaged, records lost, and services halted, leaving children invisible and families without access to essential services.

While the impact of climate change on health, water, agriculture and infrastructure is widely acknowledged, its effects on birth registration and CRVS systems are less well understood. This gap is critical where climate risks intersect with low registration rates, heightening the risk of exclusion. In Asia and the Pacific alone, 51 million children under 5 remain unregistered at birth, one third of the global total.

To address this, the United Nations Children's Fund (UNICEF), on behalf of the United Nations Legal Identity Agenda (UNLIA), commissioned a study: *Securing and Adapting Birth Registration Systems in Response to Climate Change-Induced Natural and Humanitarian Disasters*.

The study reviewed literature and case studies from five countries with three aims:

- (i) to identify challenges in securing and adapting CRVS systems before, during and after disasters;
- (ii) to document successful strategies, innovations and best practices; and
- (iii) to develop evidence-based recommendations to strengthen CRVS resilience and adaptability.

Country case studies explored two key questions:

- a) What are the effects of climate-related disasters on birth and civil registration systems – both supply and demand?
- b) How do national and subnational systems prepare for, respond to and recover from these disasters?

Overall, the focus was on how countries strengthen CRVS resilience through innovative, context-specific approaches.

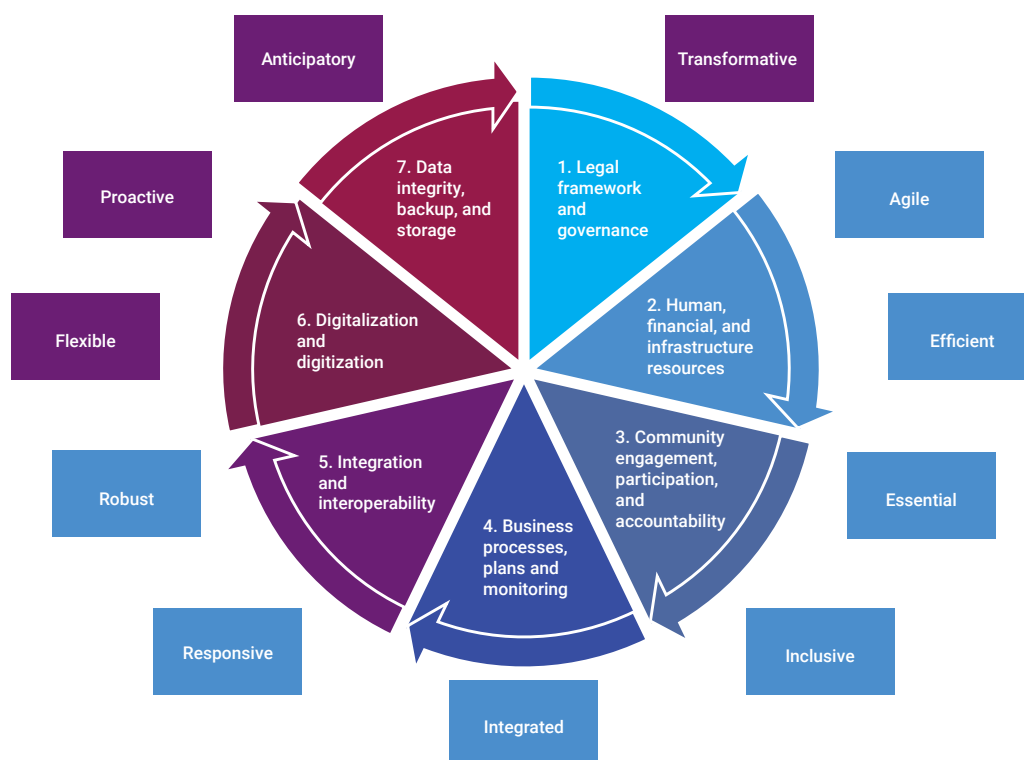
Due to its strategic progress and efforts towards climate-resilient birth registration, Nepal was chosen as a country case study to enrich the study, along with Ethiopia, Mozambique, Papua New Guinea and the Philippines.

Drawing on Carmen et al. (2021), the study applied a multi-dimensional system resilience framework to assess CRVS resilience to climate-related disasters. The customized framework includes seven dimensions:

1. Legal framework and governance
2. Human, financial and infrastructural resources
3. Community engagement, participation and accountability
4. Business processes, plans and monitoring
5. Integration and interoperability
6. Digitalization and digitization
7. Data integrity, back-up and storage

Surrounding these are 11 critical competencies: agile, efficient, essential, inclusive, integrated, responsive, robust, flexible, proactive, anticipatory and transformative.

Figure 1: Elements of multi-dimensional system resilience



Source: Based on a desk review of existing literature on CRVS quality improvement (see Fruchtmann et al., 2021).

To complement the global desk review (available as a separate report), a comprehensive, framework-guided questionnaire was deployed to validate existing data and, where necessary, collect additional information from the five selected countries, aligned with the multi-dimensional system resilience framework. The analysis covers 11 key competencies of a resilient, multi-dimensional system.

UNICEF country offices facilitated data collection from government agencies, and country consultation webinars were also held to validate findings. Based on these consultations, country case studies and a synthesis report comparing findings were prepared. These reports, along with a policy brief, were

shared with the UNLIA Task Force for review and feedback. Country case studies were also circulated to respective CRVS authorities, and their suggestions and feedback were duly incorporated.

Nepal: Progress and Priorities

Despite diverse geographical and climate-related challenges, Nepal has demonstrated commitment to and made significant progress in strengthening its CRVS system, particularly in birth registration. Drawing on findings from recent UNICEF studies, stakeholder consultations and key government and United Nations publications, this report highlights Nepal's progress and identifies strategic opportunities to enhance resilience.

A key achievement is the widespread adoption of the Vital Event Registration and Social Protection Management Information System (VERSP-MIS), a digital platform that has enabled online registration in over 99 per cent of local ward offices and the digitization of millions of paper-based records. This digital transformation, supported by the Strengthening Systems for Social Protection and Civil Registration (SSSPCR) project, has improved the efficiency of service delivery and data management, playing a crucial role in connecting civil registration with social security allowances. Following the system-level service integration between VERSP-MIS and the Financial Comptroller General Office (FCGO) electronic funds transfer (EFT) system, local offices were able to send allowances directly to the bank accounts of 3.8 million recipients. The rollout of government EFT-based payments for the distribution of social security allowances was led by the Department of National ID and Civil Registration (DoNIDCR) and the FCGO in their Annual Progress Report 2024.

Nepal's legal framework, notably the National ID and Civil Registration Act, 2020, enshrines the right to birth registration, establishes CRVS as an essential service and provides a robust constitutional basis for its development. Its decentralized structure, with ward secretaries acting as local registrars, further enhances the system's flexibility and responsiveness in reaching communities across Nepal.

While progress in birth registration coverage has been substantial, reaching 85 per cent for children under 5 by 2025, Nepal can further build the resilience of its CRVS system through full integration with health and disaster statistics data. It is crucial to formalize disaster-specific CRVS protocols, designate birth and death registration as essential services during emergencies and establish procedures for post-disaster record reconstruction and mobile registration. Deepening interoperability and digital ecosystem integration, including application programming interface (API) integration with health facilities, will improve data flow and support disaster response management. Strengthening data quality assurance and security measures, such as continuous validation and robust data back-ups, is also vital. In addition, sustaining and expanding human capacity and digital literacy among CRVS personnel, especially ward secretaries, will enhance workforce agility and responsiveness. Finally, intensifying public awareness campaigns on the benefits of timely registration and formally integrating CRVS data into broader disaster risk reduction strategies will ensure a more inclusive, anticipatory and resilient system.

I. Introduction

Background and justification

Birth registration establishes a person's existence under the law and provides legal proof of identity. It is a fundamental human right and a cornerstone of effective CRVS systems (UNICEF, 2013). It serves as a primary source of vital statistics, establishes legal identity,¹ protects the human rights of vulnerable groups and facilitates access to essential humanitarian aid, services and legal entitlements.

Globally, over 99% of children are exposed to at least one climate hazard, with 850 million facing four or more (UNICEF, 2021). In contexts of increasing climate risk, disasters are becoming more frequent and severe, with direct consequences for the functioning of CRVS systems and thus the rights of children. Conflicts and disasters cause widespread damage to infrastructure, severely disrupting CRVS operations and continuity. Unregistered children face heightened risks of child labour, exploitation, trafficking and recruitment into armed groups (Plan International, 2014). Refugees and displaced, separated children affected by humanitarian situations and natural disasters are particularly vulnerable to statelessness and denial of asylum (UNHCR, 2024; UNICEF, 2019). Robust CRVS systems are therefore vital to mitigate these severe consequences.

This report presents a case study of Nepal as part of UNICEF's multi-country research initiative, *Securing and Adapting Birth Registration Systems in Response to Climate-Induced Disasters* (2024–2025). It offers a summary and an outlook on Nepal's CRVS landscape in the context of the growing climate-disaster-displacement nexus, aiming to document efforts to build multi-dimensional resilience. The report is organized around key aspects of system resilience and draws on insights from 11 related competencies.

Context and climate profile

Nepal, administratively divided into diverse local units and spanning 147,181 square kilometres, shares borders with India and the Tibet Autonomous Region of China,² and its unique geography and socioeconomic context present significant challenges for climate resilience.

As of 2021, Nepal had a population of approximately 29.16 million, with a growth rate of 0.92 per cent and a life expectancy of 70.4 years (Government of Nepal, 2021). Nepal has been classified as a Least Developed Country (LDC) by the United Nations and is scheduled to graduate from LDC status in 2026. Meanwhile, the World Bank classifies Nepal as a lower-middle-income country, reflecting growth in its per capita income. Nepal's gross domestic product (GDP) per capita was estimated at Rs. 181,569 (about \$1,496.21 USD) in 2022/23, the poverty rate at the national poverty line was reported to be 20.27 per cent in the same period (National Statistics Office [NSO], 2023) and the

1 The United Nations operational definition: "the basic characteristics of an individual's identity, e.g., name, sex, place and date of birth, which is conferred through civil registration and the issuance of a certificate by an authorized civil registration authority following the occurrence of birth. In the absence of birth registration, legal identity may be conferred by a legally recognized identification authority." While nationality is not included as one of basic characteristics of the United Nations operational definition of legal identity, the link to nationality is derived from birth registration which records where a person was born and the individual's parents – key pieces of information needed to establish nationality. (United Nations Economic and Social Commission for Asia and the Pacific [UNESCAP], 2023b; United Nations High Commissioner for Refugees [UNHCR], 2024)

2 Source: [Online] accessed at <https://data.worldbank.org/indicator/AG.LND.TOTL.K2?locations=NP>

adult literacy rate was 81 per cent in 2021.³ Access to basic services remains uneven. In 2022, access to safely managed drinking water was 23.2 per cent in urban areas and 14.2 per cent in rural areas, while access to safely managed sanitation was 42.5 per cent and 50.2 per cent, respectively.⁴ These geographical, governmental, demographic and socioeconomic characteristics define Nepal's development and humanitarian context.

Nepal's diverse topography, from the Terai (70 m) to the Himalayas (above 8,000 m), creates varied climate zones with notable differences in temperature and rainfall. This geographic diversity increases vulnerability to natural disasters related to geology and climate. Ranked 161 out of 191 on the 2025 Index for Risk Management (INFORM) Risk Index,⁵ Nepal faces significant flood risks and moderate drought vulnerability. Climate models predict a steady warming trend, particularly in northern areas, along with diverse regional rainfall patterns. The country is experiencing increasing soil erosion, landslides, flash floods and droughts, all of which severely affect lives and livelihoods. Its mountainous terrain and varied climate zones require resilient infrastructure and services, particularly in relation to risks from river flooding, monsoon-induced floods, frequent monsoon landslides and glacial lake outburst floods (GLOFs) that pose major threats.⁶

Data from 2008–2024 show the scale of these impacts. Major floods have affected millions of people (e.g., 2,590,178 affected in 2024, 1,700,134 in 2017) and caused hundreds of deaths each year. Droughts have also affected large populations, with 303,000 people in 2009 and 200,000 in 2006. Besides climate-related events, earthquakes pose a serious threat. The 7.8 magnitude Gorkha earthquake in 2015 affected over 5.6 million people and resulted in 8,831 deaths, while the 6.4 magnitude Jajarkot earthquake in 2023 caused 154 fatalities.⁷

Other major non-climate disasters include epidemics such as COVID-19 and outbreaks of diarrhoea and cholera, with COVID-19 causing more than 12,020 deaths nationwide. Wildfires also contribute to the disaster landscape. These recurring hazards and events highlight the urgent need for strengthened, effective disaster risk reduction and climate resilience strategies to protect lives, livelihoods and development progress in Nepal.

3 Source: [Online] accessed at <https://data.worldbank.org/indicator/SE.ADT.LITR.MA.ZS?view=chart>

4 Source: accessed at <https://washdata.org/data/household#!/table?geo0=country&geo1=NPL>

5 Source: INFORM Risk Index 2025 2nd edition (<https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Results-and-data>)

6 Source: accessed at https://climateknowledgeportal.worldbank.org/sites/default/files/2021-05/15720-WB_Nepal%20Country%20Profile-WEB.pdf

7 Source: EM-DAT International Disaster Database (<https://www.emdat.be/>)

Table 1: Significant climate-induced and non-climate-induced disasters and their population impacts in Nepal (2008–2025)

Disaster type	Year(s)	Primary location(s) affected	Total affected (people)	Total deaths (people)
Major climate-induced disasters				
Flood (Riverine flood)	2024	Kathmandu, Kavrepalanchok, Lalitpur, Bagmati, Gandak	2,590,178	268
Flood (Riverine flood)	2017	Lalitpur, Palpa, Jhapa, Morang, Sunsari, Saptari, Bardiya and multiple other districts	1,700,134	176
Flood	2020	Parbat, Lamjung, Gorkha, Kalikot, Syangja, Gulmi, Bajhang, Darchula, Bajura, Sindhupalchok and other districts	117,677	448
Flood (Riverine flood)	2004	Morang, Sunsari, Jhapa, etc. (eastern province); Pyuthan, Dang (mid-western province); Janakpur (central province)	800,015	185
Landslide or mass movement	2006	Banke, Bardiya, Kailali (mid- and far western province); Chitwan, Makwanpur areas (central province); Tanahun (western province); Tehrathum (eastern province)	80,000	147
Landslide or mass movement	2014	Jure, Mankha villages (Sindhupalchowk area, Bagmati district, central province)	476	156
Landslide or mass movement	2024	Chitwan district	N/A	62
Drought	2009	Far and mid-western provinces	303,000	N/A
Wildfire	2016	Dhanusha, Mahottari, Sindhuli (Janakpur), Rupandehi, Argakhanchi (Lumbini), Bardiya (Bheri) and several other districts	N/A	16
Blizzard or winter storm	2014, 2022, 2025	N/A	N/A	N/A
Cold wave	2008, 2009, 2011, 2012, 2018	N/A	N/A	N/A
Avalanche (wet) and GLOFs	2005, 2012, 2014, 2024	N/A	135 (2024 GLOF)	N/A
Major non-climate-induced disasters				
Earthquake	2005	Gorkha area (western province); Dolakha, Ramechhap, Bagmati (central province)	5,639,722	8,831
Earthquake	2023	Jajarkot and Rukum districts of Karnali province	300,366	154
COVID-19 pandemic	N/A (up to 2023)	Nationwide	1,001,154 (confirmed)	12,020
Disease outbreak	2009	Achham, Baitadi, Bajhang, Jumla, Kalikot, Kanchanpur, Pyuthan, Rolpa, Jajarkot and many other districts	58,874	314
Conflict or violence	1996–2006	N/A	5,000	N/A
Mass movement II	2006	N/A	N/A	N/A

Sources: UNICEF survey,⁸ EM-DAT: The International Disaster Database,⁹ Internal Displacement Monitoring Centre (IDMC),¹⁰ Johns Hopkins Coronavirus Resource Center.¹¹

8 UNICEF Survey (2025) – for the purpose of this case study, an online survey containing over 1,800 questions was held. Detailed data and the tool are available upon request through UNICEF.

9 International Disaster Database accessed May 2025 at: <https://public.emdat.be/data>

10 IDMC website accessed May 2025 at: <https://www.internal-displacement.org/countries/Nepal/>

11 Johns Hopkins University Coronavirus Resource Center accessed in May 2025 <https://coronavirus.jhu.edu/region/Nepal>

CRVS Snapshot

Nepal's CRVS system has made significant progress since its inception in 1976, particularly in digitalization and the expansion of birth registration. Supported by Article 39 of the Constitution of Nepal (2015), which guarantees every child's right to identity and registration, and reinforced by the National ID and Civil Registration Act, 2020, and the 2019 CRVS Strategy, the system aims to achieve universal and timely registration, recognizing CRVS an essential service. Together, these legal and policy frameworks have supported sustained improvements in birth registration coverage. As a result, birth registration rates have more than doubled since the 1980s, reaching 85 per cent for children under 5, according to UNICEF's 2024-2025 Multiple Indicator Cluster Survey (MICS) (Government of Nepal, 2026).

The institutional framework of the system is led by the DoNIDCR under the Ministry of Home Affairs (MoHA), which acts as the central authority and registrar for vital events and civil registration, including birth, death, stillbirths, marriage, divorce, adoption and migration, and ward secretaries serve as local registrars. This decentralized civil registration service structure enhances the system's responsiveness and flexibility in the face of disaster risks. DoNIDCR also oversees the national ID system and social protection programmes, including social security allowance distribution schemes for the elderly, single women, people with disabilities, ethnic minorities, Dalit children, and child nutritional allowances in selected districts. The NSO (formerly Central Bureau of Statistics) then compiles and disseminates statistical reports.

Building on this institutional foundation of decentralization within the federal structure, digitalization has played a crucial role in this progress. The VERSP-MIS, a digital platform that has been operational since 2017, enables online event registration in 6,735 of 6,743 local registrars' offices (as of March 2026, DoNIDCR) and in 20 diplomatic missions abroad. More than 19 million paper records have been digitized during this digital transformation (Government of Nepal, 2023). The SSSPCR project has played a vital role in enhancing the connection between the CRVS system and other social protection systems. As a result, all 3.8 million recipients of social security allowances now receive payments directly into their bank accounts, and more than 99 per cent of wards have transitioned to online registration of vital events, thereby improving the system's efficiency and flexibility (World Bank, 2023).

Despite this progress, challenges remain in achieving full coverage and ensuring timely registration. While birth registration coverage for children under 5 reached 85 per cent (Nepal Census 2021), only 30 per cent of registrations are completed within the required 35-day period (UNICEF & New Legacy Digital, 2021). Although birth registration is free, penalties apply for late registration. Birth certificates are required for access to services, such as school enrolment, child nutrition grants and passports. While Nepal has also made progress in marriage and divorce registration rates, death registration and the overall collection of vital statistics remain areas for improvement (Government of Nepal, n.d.-b; Pandey & Adair, 2023).

Physical access to registration offices, especially in mountainous areas, and limited awareness of social protection programmes continue to pose challenges, leading to indirect costs for applicants and the risk of exclusion (UNICEF & New Legacy Digital, 2021).

II. Findings

Effects of Climate-Induced Disasters on CRVS Systems: Building Resilience

Climate-induced disasters can significantly impact and disrupt the functioning of CRVS systems, exposing structural vulnerabilities and highlighting areas for strengthening resilience. Physical damage to infrastructure, communication breakdowns and transportation difficulties during disasters can disrupt CRVS services. However, this also presents an opportunity to develop flexible service delivery models, such as mobile registration and remote services, to ensure continuity and responsiveness.

In Nepal, CRVS systems have experienced widespread disruption during major disasters in the past, although evidence on system-specific impacts remains limited and not well-documented. The most notable evidence is from the 2015 Gorkha earthquakes, which exposed several critical vulnerabilities across the CRVS system (Đoković, 2020; United Nations Population Fund (UNFPA) et al., n.d.), including the lessons listed below.

- **Destruction of records and infrastructure:** The earthquake caused widespread damage to government buildings, including ward and village development committee offices that are critical for civil registration. This resulted in the destruction and loss of vital records and infrastructure, disrupting access to existing records and the processing of new registrations.
- **Disruption of services:** The disaster severely hampered the functioning of vital registration services due to damaged offices, displaced staff and the immediate focus on emergency relief. This led to a decline in registrations, particularly for births and deaths.
- **Challenges in data collection and reporting:** The emergency context limited the collection of accurate and timely vital statistics, particularly data on deaths, injuries and displacement, which are crucial for effective disaster response and recovery planning.
- **Increased vulnerability of unregistered populations:** The earthquake exacerbated the vulnerability of individuals who were already unregistered, as the absence of official identity documents limited access to humanitarian aid and social protection services (UNFPA et al., n.d.).
- **Recognition of disaster preparedness as a priority:** The documented evidence indicates that Nepal has recognized the importance of integrating disaster risk reduction into CRVS planning.

Evidence from other climate-related events reinforces these findings. On climate-induced disasters, UNICEF's Nepal Humanitarian Situation Report on floods response in 2017 notes that the loss of civil documentation, including birth registration records, citizenship documents, and land certificates, posed a significant obstacle for affected populations in accessing essential services, entitlements, and post-disaster compensation.¹²

While not climate-specific, findings from UNLIA's global CRVS survey assessing disruptions during early COVID19 (April 2020) provide additional insight into system resilience under crisis conditions.

¹² UNICEF. (2017, 15 November). *Nepal Humanitarian Situation Report No. 7: Floods Response*. <https://reliefweb.int/report/nepal/unicef-nepal-humanitarian-situation-report-7-15-november-2017>

The survey findings highlighted:

- **reduced access to registration centres** due to travel restrictions, postponed events (e.g., mass registration activities in 2020) and limited donor support;
- **continuity measures**, such as Nepal's CRVS offices remaining open in limited capacity with staff working reduced hours or shifts and needing to be equipped with masks, gloves, thermometers and handwash stations;
- **live events (births/deaths)** were still registered, while non-essential events (like marriages) were paused; and
- **community registration campaigns** and alternative communication (email, social media) were leveraged to compensate for reduced physical attendance.

Multi-dimensional resilience

1. Legal frameworks

Nepal's CRVS system is supported by a strong yet evolving legal framework that began with the Birth, Death and Other Personal Event Registration Act, enacted in 1976. Over the years, this initial framework has been strengthened by multiple amendments to the Vital Registration Act, reflecting ongoing efforts to improve the legal foundation of CRVS. A major expansion took place in 1989–1990, when birth registration coverage was extended to all 75 districts in Nepal, marking a nationwide push for comprehensive registration. The Local Self-Governance Act in 1999 further decentralized responsibilities by empowering municipal and village authorities to manage vital registration. The groundbreaking step was the Constitution of Nepal (2015), which explicitly enshrined birth registration as a fundamental right, providing a strong legal foundation for guaranteeing every child's legal identity from birth.

Building on this, the National ID and Civil Registration Act, 2020 and its 2021 Regulations outline detailed procedures for registering vital events, including births, deaths, stillbirths, marriages, divorces, adoptions and migrations. These legal provisions are crucial for aligning the CRVS system with Nepal's federal structure and promoting decentralization of services to 6,743 local ward offices across the country. The Act also introduces important provisions for data protection and establishes mechanisms for reissuing lost vital records, a critical feature for maintaining continuity in identity management, especially after disasters.

Despite these legal frameworks, a significant gap remains for disaster recovery. Nepal's CRVS-specific legislation, as well as broader disaster risk reduction and management (DRRM) laws including the DRRM Act (2017), do not explicitly define CRVS actions or mandates during climate-related disasters. As a result, there are no formal legal requirements for immediate post-disaster interventions, such as establishing temporary registration centres or explicitly waiving fees for disaster-affected populations.

However, the system has shown flexibility in practice, with some adaptive measures implemented. For example, national ID requirements for accessing social benefits were temporarily relaxed by

government during severe floods in July 2024.¹³ Mobile registration camps were also deployed, with over 400 such initiatives previously organized, further demonstrating adaptive capacity. While birth registration is generally free, penalties apply for late registration, and local governments showed discretion in waiving these fees in disaster-affected areas.

2. Governance

Governance of Nepal's CRVS system is centrally managed by the DoNIDCR, operating under the MoHA, with the Director General of DoNIDCR serving as the central registrar. This structure is complemented by a multi-tiered governance model that includes the National Civil Registration Board (NCRB), chaired by the Home Affairs Secretary, and further extended through decentralized provincial and local civil registration boards. This robust decentralized system empowers local ward secretaries to act as registrars, embedding vital services directly within communities, which is crucial for rapid response during localized climate events.

Within this governance framework, digitalization has played a central role in system development. Significant strides in modernization include the implementation of the National CRVS Strategic Plan 2020–2024 and the ongoing development of the VERSP-MIS.¹⁴ Launched in 2015, this digital platform has enabled online registration at the vast majority of local offices (6,735 out of 6,743), dramatically enhancing data security, accessibility and the system's overall resilience to physical record damage during disasters. The system allows flexibility in registering vital events either at the location where the event occurred or at the individual's permanent address, with provisions for various family members or guardians to serve as legal informants.

Coordination mechanisms further support system functioning, particularly in disaster contexts. CRVS coordination in Nepal is strengthened locally through the active involvement of local bodies, health institutions and schools in CRVS outreach. While birth and death registration are legally essential services in normal times, this designation does not formally extend to climate-related disasters. Nevertheless, death registration was provided in disasters for compensation, though birth registration was not consistently prioritized.

Despite these institutional arrangements, gaps remain in inclusion and access. The National ID and Civil Registration Act 2020 and Regulations 2021 mandate the registration of vital events for all residents, including IDPs, at their permanent or temporary locations. However, explicit legal provisions for refugees and stateless persons in mainstream CRVS are generally absent, and documentation requirements, especially for these groups, are difficult to meet. Formalizing CRVS as an essential disaster service and strengthening legal provisions for all vulnerable groups are both crucial for enhanced preparedness.

13 The Kathmandu Post. (2024, 11 July). 'Government backtracks on plan to make National ID cards mandatory for social security allowance'. https://kathmandupost.com/national/2024/07/11/government-backtracks-on-plan-to-make-national-id-cards-mandatory-for-social-security-allowance#google_vignette. https://kathmandupost.com/national/2024/07/11/government-backtracks-on-plan-to-make-national-id-cards-mandatory-for-social-security-allowance#google_vignette

14 World Health Organization. (2023). COLLABORATING FOR IMPROVED CIVIL REGISTRATION SYSTEMS TO ADVANCE HEALTH AND POPULATION DATA IN NEPAL. Retrieved from <https://www.who.int/news-room/feature-stories/detail/collaborating-improved-civil-registration-system-advance-health-population-data-nepal>

3. Human, financial and infrastructural resources

Nepal has made efforts to strengthen human and institutional capacity within its CRVS system, including investments in workforce development and infrastructure. In terms of workforce resilience at the local level, many ward secretaries are enhancing their digital literacy skills, and training is crucial for effective use of the VERSP-MIS system. MIS operators and field assistants, funded through World Bank-supported programmes, support data entry, training and the digitization of legacy records, demonstrating a proactive commitment to human resource development for digitalization (UNICEF & New Legacy Digital, 2021). Retaining and absorbing these operators into the permanent staffing structures of Palikas (municipal and rural municipal governments) would help preserve institutional knowledge and technical expertise at the local level. This, in turn, could strengthen local ownership, improve system agility and efficiency, and support the long-term sustainability of CRVS services.

In terms of financial resources, Nepal's investment in social protection has increased over the past decade, reflecting a growing commitment to social welfare and the expansion of social security allowance programmes. These investments can indirectly support CRVS by strengthening beneficiary identification, registration, and service delivery systems (UNICEF & New Legacy Digital, 2021). Programmes such as the SSSPCR project, financed by the World Bank, provide substantial support for strengthening CRVS and social protection systems (World Bank, 2023), highlighting the importance of continued international partnership for efficient resource use.

Policy frameworks also support resource allocation for disaster risk reduction. The national disaster risk reduction (DRR) policy (2018) mandates 5 per cent of the development budget be specifically allocated for DRR activities, with 70 per cent directed toward preparedness and risk reduction. It also encourages sectoral ministries, as well as provincial and local governments, to integrate DRR activities and budgets into their annual development budgets (Ministry of Home Affairs, 2024). Developing dedicated budget lines for CRVS preparedness and response in national and local government budgets would significantly enhance resilience by enabling a more anticipatory, robust financial framework.

Infrastructure and connectivity remain critical enablers of system performance. For infrastructure and supplies, the ongoing rollout of internet infrastructure has enabled online registration in most wards, showcasing a significant investment in digital connectivity. However, connectivity gaps in some wards and power outages continue to affect service delivery in some areas, highlighting opportunities for targeted infrastructure development and reliable back-up power solutions (UNICEF & New Legacy Digital, 2021). Overall, digitalization is critical for ensuring accuracy, correctness, increased efficiency and process automation in CRVS system operations (Government of Nepal, 2023), underscoring the need for continued investment in both physical and technical infrastructure to build a truly robust system (UNICEF & New Legacy Digital, 2021).

4. Community engagement, participation and accountability

Nepal's CRVS efforts recognize the importance of community involvement and are continuously working to enhance public awareness and participation, aiming for a more inclusive and responsive system. Planned approaches include designing new client-centric services supported by digital technology and implementing an integrated marketing and communications campaign – the Communication for Development (C4D) campaign – to build understanding of the process and create demand for CRVS services (UNICEF & New Legacy Digital, 2021).

While progress has been made, awareness of vital registration and associated benefits remains uneven, contributing to gaps in registration coverage. Targeted outreach, sensitization and promotion campaigns have been identified as crucial for improving social protection registration and ensuring inclusivity (UNICEF & New Legacy Digital, 2021; World Bank, 2023). The commitment to providing consistent, excellent service and strengthening collaboration through a national coordination mechanism further aims to improve service quality and foster public trust, demonstrating a responsive and inclusive approach.

BOX 1: NAVIGATING THE 2024 MONSOON FLOODS – DECENTRALIZED RESPONSE IN NEPAL'S CRVS

Nepal's vulnerability to extreme monsoon rainfall continues to pose significant challenges to its civil registration system. The continuous heavy rainfall in late September 2024, identified as the heaviest ever recorded in the Kathmandu Valley,¹⁵ triggered widespread flooding and landslides across multiple districts, causing extensive damage to infrastructure and displacing thousands (Nepal Flood and Landslide Response 2024 – Disaster Response Emergency Fund (DREF) Operation, ReliefWeb, Oct 2024; Nepal Shows Resilience In Adversity, Rising Nepal Daily, April 2025). These events disrupted access to civil registration services and increased the risk of loss or damage to vital records, particularly in remote and rural areas.

During disaster response, immediate priorities focus on life-saving aid. However, the decentralized structure of Nepal's civil registration system, managed through ward offices at the local level, enables localized and responsive recovery efforts (Birth Registration in Nepal – 2081 Latest Process, muddanepal.com, June 2024). Lessons learned from previous large-scale disasters, such as the 2015 earthquake, underscore the essential need for community-level action for restoring access to legal identity. Ward officials are often at the forefront of identifying affected families and facilitating the reissuance of lost documents or the registration of new events under constrained conditions.

The ongoing emphasis on strengthening local government capacities for DRRM (at provincial and local levels) provides a crucial enabling environment for CRVS resilience (Nepal Disaster Report, ReliefWeb, March 2025). Although a dedicated CRVS-specific disaster response plan may still be developing, the inherent flexibility in local procedures, such as allowing community members to act as informants for registration when primary documents are lost, supports continuity of registration. The 2024 floods underscored the critical need for even more robust digital back-up systems at the local level and the continuous training of ward secretaries and local CRVS personnel on emergency protocols to ensure that every life remains 'counted' despite the escalating climate challenges.

¹⁵ Ministry of Energy, Water Resource and Irrigation. (2024, 8 October). *Situational Report on Extreme Precipitation and Flooding Event of 27-29 September, 2024* https://dhm.gov.np/uploads/dhm/downloads/Situational_Report_on_Extreme_Precipitation_and_Flooding_Event_of_27-29_September_2024.pdf

5. Business processes, plans and monitoring

Nepal is actively refining its CRVS business processes, with a strong focus on digitalization and efficiency, leading to more agile and flexible operations. Online event registration is operational in most local registrars' offices, reflecting a successful shift towards digital processes. The VERSP-MIS system is designed to streamline registration, record management and reporting, contributing to improved process efficiency (Đoković, 2020; Government of Nepal, 2023). The ongoing digitization of 20 million paper-based records is a significant undertaking that is expected to improve data accessibility and reduce the risk of data loss (Government of Nepal, 2023).¹⁶ While variations in birth registration practices persist, efforts are underway to define national standards to support consistency (UNICEF & New Legacy Digital, 2021).

Planned CRVS digitalization initiatives include expanding the notification system, rolling out the Birth Registration Management System (BRMS) and the Death Registration Management System (DRMS) nationwide, integrating APIs for health facilities, and developing a public portal. These initiatives demonstrate a commitment to continuous operational improvement, as well as enhanced flexibility, responsiveness, and service delivery.

6. Integration and interoperability

Nepal is making significant strides in integrating its CRVS system with other key sectors, enhancing data utilization and service delivery and building a more robust and efficient CRVS ecosystem. Integration efforts span multiple sectors, including health, statistics, social protection and other administrative systems.

In the health sector, high coverage of antenatal care (93.6 per cent) and institutional deliveries (90.5 per cent) (MICS 2024–2025) presents a significant opportunity for integrated birth notification at the point of care. The 'Next Plan' explicitly includes API integration for health facility systems, aiming for seamless data exchange and enhanced efficiency.

Development of an integrated, interoperable CRVS system, including civil registration, the Health Management Information System (HMIS) and the NSO, is underway, with the potential to improve the generation of vital statistics and contribute to a more robust data system.

Nepal's social protection programmes have served as a **key accelerator** for birth registration, particularly among **poor and rural populations**. This linkage has driven **high completeness rates** in birth registration, even among the poorest quintiles. The VERSP-MIS is specifically designed to manage both civil registration and social protection, demonstrating a strong integration at the system level (Đoković, 2020; Government of Nepal, 2023).

The civil registration system has already been integrated with social security, consular services, citizenship and National ID (Government of Nepal, 2023), and direct deposit of social security allowances into bank accounts for 3.8 million recipients was also enabled by CRVS digitalization. This significantly reduces duplication, leakage and delays in benefit payments, demonstrating an efficient and integrated approach to service delivery (World Bank, 2023).

¹⁶ Quoted from the panelist speaker (Mr. Mukesh Kumar Keshari, Director of Nepal DoNIDCR) during the UNICEF side event (June 26, 2025) at the Third Ministerial Conference on Civil Registration and Vital Statistics in Asia and the Pacific

In the education sector, integration with the Election Commission and Education is in progress, signalling future opportunities for cross-sectoral data use to enhance services and planning (Government of Nepal, 2023).

7. Digitalization and digitization¹⁷

Nepal's CRVS system is rapidly transitioning towards full digitalization, a truly transformative process and a key enabler of efficiency and resilience for data management. Widespread online registration is operational in a vast majority of local registrar's offices, reflecting a successful shift towards digital processes (Government of Nepal, 2023). The VERSP-MIS is effectively used as a digital tool for managing the civil registration system and social protection, incorporating features like registration forms, data entry and validation, document imaging, record management, workflow management, reporting, security and integration with external systems (Government of Nepal, 2023), increasing overall efficiency and agility.

The shift to online registration has reduced reliance on paper-based processes, helping to mitigate risks of data loss and improve data utilization for planning (World Bank, 2023). The ongoing digitization of over 20 million paper-based records is a systematic effort to convert historical data into digital format (Government of Nepal, 2023). The 'Next Plan' for CRVS digitalization includes nationwide rollout of BRMS and DRMS, public portals and SMS/mobile notifications from female community health volunteers (FCHVs), indicating a clear roadmap for continuous digital expansion that enhances agility and responsiveness (Government of Nepal, 2023).

BOX 2: BUILDING CRVS RESILIENCE THROUGH COLLABORATION AND DIGITALIZATION IN NEPAL

Nepal has actively embraced collaboration and digital transformation to enhance the resilience of its CRVS system, particularly in the wake of lessons learned from events like the COVID-19 pandemic. Through initiatives such as the Global Action Plan for Healthy Lives and Well-being for All (SDG3 GAP) and the Health Data Collaborative (HDC), Nepal has fostered a unified approach to strengthening its national data systems. A key aspect of this resilience building is the joint efforts, exemplified by a January 2023 mission, which convened diverse stakeholders to align support for Nepal's CRVS Strategy 2019, leading to improved coherence and data-sharing agreements between national agencies and the DoNIDCR.

Central to Nepal's CRVS resilience is the scaling up of digitalization and integration under the federal government structure. The VERSP-MIS serves as a centralized repository that is crucial for data sharing and digital integration, leveraging established agreements with the NSO. Furthermore, the development and planned nationwide rollout of the BRMS and Medical Certification of Cause of Death systems – with support from partners like Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ, or the German Agency for International Cooperation), UNICEF, UNFPA and the World Health Organization (WHO) – are enabling automated digital notification and sharing of vital

¹⁷ Digitization refers to converting analogue records into digital formats, whereas digitalization is an end-to-end transformation that uses digital technologies to redesign and improve processes, service delivery, and system performance. The distinction is well understood within the CRVS community.

event data from health facilities directly to the CRVS database. This comprehensive digital infrastructure, which includes online registration in 99.6 per cent of local registrars' offices and the digitization of over 19 million historical paper-based records, ensures data preservation, accessibility and streamlined service delivery, even in challenging circumstances. By focusing on continuous quality improvement through a business process improvement approach and leveraging data for impactful health outcomes, Nepal is proactively strengthening its CRVS system to be more robust, responsive and resilient.

Source: WHO (2023) *Collaborating for an Improved Civil Registration System to Advance Health and Population Data System in Nepal*. Accessed at <https://www.who.int/news-room/feature-stories/detail/collaborating-improved-civil-registration-system-advance-health-population-data-nepal>.

8. Data integrity, back-up and storage

Nepal is working to improve the quality, integrity and security of its CRVS data, with proactive plans for future upgrades and strong data infrastructure development, including data standardization supported by the VERSP-MIS. Efforts are in progress to digitize data, remove duplicates and transfer records to the live system, improving data integrity for issuing copy certificates. There are also plans to publish automated, disaggregated vital statistics reports, using 2021 census data for assessing quality and completeness, disaggregated by sex (Government of Nepal, n.d.-a). These measures reflect a broader effort to strengthen data management across the CRVS system and safely share this information.

At the system-level, infrastructure and security arrangements further support data integrity. The VERSP-MIS includes security and access control features that support data protection and a more robust system. To maintain high service availability, the Civil Registry System infrastructure is located in three sites: the primary data centre at the DoNIDCR office, with secondary disaster recovery locations in Hetauda and Singhadurbar. Daily synchronous and asynchronous data synchronization, data back-ups and other data protection methods are performed across multiple sites, including weekly incremental back-ups and a full monthly back-up, to ensure data security. Future plans involve integrating the National ID for identity verification during certificate issuance to improve data accuracy and prevent fraud, which is a key proactive anticipatory measure (Government of Nepal, 2023).

While significant progress has been achieved, challenges such as complex business processes – including cumbersome document verification procedures that mainly place the burden on clients – as well as inconsistencies in data collection caused by varying local practices and low digital literacy among some ward officials, offer opportunities for further improvement in data quality and integrity. The absence of client-side validation in the MIS is also an area for future enhancement, which will further improve data robustness.

III. Good Practices and Lessons Learned from Nepal

Nepal's experience in strengthening its CRVS system provides valuable good practices and insights for other countries facing similar development and climate-related challenges. Table 2 presents a list of select practices identified in this study.

Table 2: Good Practices

Dimension	Competency characteristics	Examples of good practices (expanded)
1. Legal frameworks	Robust, transformative, inclusive	Robust legal and constitutional foundation: Nepal's Constitution guarantees the right to birth registration, establishing a strong legal mandate alongside the National ID and Civil Registration Act, 2020, which includes provisions for IDPs, ensuring an inclusive approach to civil registration.
2. Governance	Integrated, efficient	Multisectoral coordination and partnerships: National coordination mechanisms and partnerships with organizations, such as the World Bank (e.g., SSSPCR project) and UNICEF, exemplify an integrated and collaborative strategy for strengthening CRVS in Nepal, crucial for addressing complex challenges and resource mobilization.
3. Resources	Agile, responsive	Decentralized service delivery: Empowering ward secretaries as local registrars facilitates community-proximate CRVS services. Complemented by mobile registration camps, this decentralized model boosts accessibility, especially in remote areas, and supports rapid emergency response with agility and flexibility.
4. Community engagement	Inclusive, efficient	Targeted outreach campaigns for equitable access: Outreach efforts aim to address challenges in universal birth certificate coverage, particularly in rural areas, with targeted efforts to eliminate barriers and ensure equitable access to birth registration for all children (Kafle, 2024).
5. Business processes, plans and monitoring	Anticipatory, proactive	Commitment to future development: Nepal's 'Next Plan' for CRVS digitalization – including expanding notification systems, API integration with health facilities and developing a public portal and using SMS/mobile notifications – outlines an ambitious and continuous roadmap for improvement and innovation, reflecting an anticipatory and proactive development approach.
6. Integration and interoperability	Efficient, integrated	Extensive system integration especially with health and social protection: The VERSP-MIS is integrated widely with numerous government systems, including National ID, NSO, Department of Immigration, Centralized Citizen Information Management System (CCIMS) and HMIS. Integration with the Election Commission and Education systems is also in progress, facilitating comprehensive data sharing and utility. For example, Nepal has effectively integrated civil registration with its social security allowance program, facilitating direct bank transfers for millions of recipients. This integration enhances efficiency, reduces fraud and incentivizes vital event registration, highlighting CRVS as an essential social welfare service. Enhancing interoperability and data exchange Linking existing data management systems, such as the Ministry of Health and Population's HMIS and DoNIDCR's VERSP-MIS, is recommended to facilitate efficient data exchange between agencies (Pandey & Adair, 2023).

Dimension	Competency characteristics	Examples of good practices (expanded)
7. Digitalization and digitization	Transformative robust, efficient inclusive	Pioneering digital transformation (VERSP-MIS) and mass digitization: The widespread adoption of the VERSP-MIS in local ward offices marks a transformative digital shift, enabling online event registration, efficient record management and improved reporting for data robustness and service continuity. Proactive digitization of historical records: The ongoing digitization of over 20 million paper-based records is a critical initiative for preserving historical data, mitigating physical damage risks, improving information accessibility for future use and verification and demonstrating a proactive and anticipatory data management strategy.
8. Data integrity, back-up and storage	Anticipatory, proactive	Strategic future digitalization plans: Nepal has outlined ambitious future plans, including the nationwide rollout of BRMS and DRMS integrated with the Health System, API integration for various health facilities, development of a public portal and the use of SMS and mobile notifications from FCHVs for registration. Advanced data management and security initiatives: Future plans also include integrating the National ID for identity verification during certificate issuance, implementing digitized data de-duplication, developing an integrated interoperable CRVS system (including civil registration, HMIS, NSO), utilizing business intelligence tools for automated reporting, exploring big data implementation for analysis and potentially using blockchain technology for integrity verification of CRVS registries.

IV. Recommendations for enhancing CRVS resilience

Building on its considerable achievements and recent progress, Nepal has clear opportunities to further accelerate progress and strategically strengthen its CRVS system, particularly in the context of climate resilience.

Universal and Inclusive Birth Registration

- Establish a national legal framework for refugees and asylum seekers, including provisions for registration and documentation.
- Strengthen the CRVS system's provisions for inclusion by prioritizing and simplifying the process of birth registration for all children, including those born to refugees, asylum seekers and stateless persons, regardless of their parents' status or documentation.
- Issue unique identification numbers during birth registration to all children through appropriate measures, not restricting it to children whose fathers' identity is established and who are Nepali citizens, to avoid inclusiveness gaps in the digital system.

Improve Integration with health systems for Vital Statistics Production and Use

- Fully implement the planned integration of CRVS so that HMIS and NSO data will enable real-time monitoring and evidence-based planning, thus promoting a more proactive and efficient system (Pandey & Adair, 2023).
- Use BRMS and DRMS to send completed declaration forms to civil registrars' offices, reducing the need for in-person visits for registration and maximizing the benefits of digitalization.

Formalize Disaster-Specific CRVS Protocols

- Establish disaster-specific provisions within CRVS legal and operational guidelines that build on existing legal foundations.
- Standardize procedures for post-disaster record reconstruction and mobile registration in affected areas, and equip areas with durable, offline-capable devices supported by portable power sources.
- Adopt platforms designed for resource-constrained, low-connectivity settings, including offline functionality with clear protocols for offline data entry and data validation measures, secure local storage, robust encryption, effective data synchronization mechanisms and transfer capabilities to the central system once connectivity is restored.
- Designate CRVS formally as an essential service specifically during disasters to ensure continuity during emergencies.

Deepen Interoperability

- Accelerate API integration with all health facilities and other relevant sectors (e.g., education, migration data, social protection) to improve data flow and accuracy while also providing essential population data for disaster management and humanitarian response.

- Develop a population registry to track individuals who relocate and reside in a new location for more than three months to facilitate accurate registration of vital events through interoperability with migration databases.
- Establish and adhere to clear interoperability standards for seamless data exchange between the population registry and other relevant databases (e.g., migration databases, health registries, national identification systems), including definitions of data formats, classifications and transfer protocols.

Digitalization, Data Quality Assurance and Security Measures

- Expand accessible and inclusive online birth registration systems.
- Implement continuous, automated data validation and de-duplication processes within the VERSP-MIS to enhance data completeness and accuracy.
- Invest in advanced cybersecurity measures, ensure robust data quality and continue geographically dispersed data back-ups (i.e., once in place, test effectiveness with drills) to protect the integrity and availability of vital records, even during system disruptions or disasters.

Sustain and Expand Human Capacity and Digital Literacy

- Continue and expand training programmes for all CRVS personnel, particularly ward secretaries, with a focus on digital literacy, new system functionalities and disaster response and data recovery protocols.
- Explore strategies to retain skilled MIS operators and build a reserve capacity to ensure service continuity.

Enhance Public Awareness and Incentives for Timely Registration

- Design and implement ongoing, targeted public awareness campaigns, collaborating with FCHVs as mobilizers, to highlight the importance of timely birth registration and its connections to social protection, education and other benefits.
- Address indirect costs and accessibility barriers to further encourage quick registration.

Integrate CRVS into Broader Disaster Risk Reduction Strategies

- Ensure that CRVS data and systems are formally incorporated into national and local disaster preparedness and response plans, which includes using vital event data for risk assessments, population tracking and humanitarian aid distribution and strengthening the nexus between CRVS, migration and disaster statistics to make the system more integrated and anticipatory.

These strategic opportunities, when backed by Nepal's demonstrated commitment, will enhance its CRVS system as a strong and adaptable foundation for legal identity, social protection and effective governance against future challenges.

V. Conclusion

Nepal has made significant progress in strengthening its CRVS system, particularly in birth registration, over the past decade. The country's proactive adoption of digital technology through the VERSP-MIS, supported by strong legal frameworks from its Constitution and the National ID and Civil Registration Act, 2020, has expanded access to vital event registration and marked a transformative shift in access to registration services. The effective linking of CRVS with social security allowance disbursements demonstrates how digital transformation and interoperability can directly improve both social protection and civil registration coverage, benefiting millions of citizens. Nepal's ongoing commitment to modernizing and decentralizing services, along with continued efforts to digitize historical records, provides a strong foundation for a more resilient system and further development.

Despite these significant achievements, challenges remain to further enhance Nepal's CRVS system's ability to withstand and respond to climate-induced and other shocks. Continued adaptation based on risk and vulnerability assessments, alongside preparedness and response planning, will be important. Strategic focus on improving vital statistics production, deepening inter-sectoral integration and ensuring sustained investment in infrastructure and human capacity will be required.

Annex: Framework analysis table

● (Fully, Yes), ● (Partially), ● (Not functional, no mechanism, No)

Dimension	Country Name	Nepal	
	Subcategory	Regular	During CC-disaster
1. Legal	Disaster-specific provision	●	●
	Flexibility in interpretation and application		●
	Legal requirements waived/relaxed		●
	Digital/remote business process		●
	Legal provision on temporary mobile CR centres		●
	Who was authorized to notify, declare, register		●
	Extending time limit		●
	Fee/fines waiver/removal for late registration		●
	Fees for certification		Don't Know
	Data share, data protection, storage		
	Data protection and privacy	●	
	Cross-sector, cross-agency data sharing agreements	●	●
	Cross-border data sharing agreements	●	●
	Safe storage or archiving	●	
	Essential Service		
	BR as essential service by law	●	●
	In practice		Don't Know
	DR as essential service by law	●	●
	In practice		●
	R/DivR as essential service by law	●	●
	In practice		●
	Legal provisions for refugees	●	●
	for stateless persons	●	●
	for IDPs	●	Don't Know
	for vulnerable groups	●	●
2. Governance	National Coordination	●	
	With ID	●	
	National Statistics Office/Bureau	●	
	With Disaster Management		●

● (Fully, Yes), ● (Partially), ● (Not functional, no mechanism, No)

Dimension	Country Name	Nepal	
	Subcategory	Regular	During CC-disaster
	Sub-national coordination		
	Provincial coordination	●	●
	District-level coordination	●	●
	Village level coordination	●	●
	Anticipatory coordination mechanism as prepareDon't Know	●	
	Any other specific arrangement	●	
3. Resources	Human Resources		
	Delegation staff responsibilities to LG/ other sector		● (all stages)
	Reserve capacity/staff deployment protocol		● (Don't Know)
	Staff training on disaster response protocols	●	
	Staff training on emergency drills, activating personnel dispatch and com. procedures	●	
	Staff wellbeing assessment		●
	Staff training on stress management	Other	
	Psychosocial counselling service for staff		●
	Pre-disaster training assessment (empathy and compassion)	Other	
	Ensure safety and security of front-line staff		Don't Know
	Staff motivation and morale		●
	Supportive supervision provided		●
	Supervision through health sector		Don't Know
	Physical Infrastructure, Supplies		
	Pre-identifying & cataloging CRVS infrastructure vulnerabilities	●	
	Pre-Event Backup Infrastructure for CRVS	●	
	Pre-Event CRVS Planning: Displacement Risk & Flexible Infrastructure	●	
	Pre-positioned CRVS Supplies	Don't Know	
	Shock-Responsive CRVS Infrastructure Standards	●	
	Relocation Sites During Disasters		Don't Know
	Retrofitted existing buildings to withstand climate shock	Don't Know	
	Assessing Power Source Reliability in Disaster-Prone areas	Don't Know	
	Underground Cable Installation	●	
	Satellite communication systems	●	

● (Fully, Yes), ● (Partially), ● (Not functional, no mechanism, No)

Dimension	Country Name	Nepal	
	Subcategory	Regular	During CC-disaster
	Installed drone-based connectivity	●	
	Rapid deployment of IT repair teams		●
	Financial Resources		
	% of external donor budget within CRVS budget	Very nominal	
	Dedicated budget line for disaster prepareDon't Knowess and response	●	
	CRVS for prepareDon't Knowess budget line in DM authority's budget	●	
	Funds sufficient to cover/absorb shocks and recover from disaster		● not at all
	Sustainable response and recovery funding major constraint		● moderately
	Delayed allocation of response and recovery funds a constraint		● moderately
	Limited flexibility in reallocating funds from regular programs		● moderately
	inefficient fund- utilization by LG/CROs was a constraint		● moderately
	Certification/registration fee waiver led to LG oppositions		● not at all
	Tracking/auditing funds utilization		Don't Know
4. Community Engagement	Community Involvement in Pre-Emergency CRVS Communication Activities	● moderately	
	Community Feedback Mechanisms for Trust, Responsiveness, and Accountability	● moderately	
	Citizens Informed About CRVS Disruptions and Alternative Provisions During Disasters?	Don't Know	
	Identification of Vulnerable Beneficiaries for Targeted CRVS Communicatio		● moderately
	Refugee Outreach on Identity Rights and Procedures in Disaster Contexts		Don't Know
	Outreach to Stateless Populations on Identity Rights and Registration Procedures in Emergencies		Don't Know
	Outreach to IDPs on Legal Identity Rights and Registration Procedures in Emergencies		● Great extent
	Awareness Campaigns for Vulnerable, Undocumented Populations		● moderately
	Religious and political leaders engagement in CRVS communication during disasters		● Yes
	Youth Engagement in CRVS communication during Climate-related Disasters		● Yes

● (Fully, Yes), ● (Partially), ● (Not functional, no mechanism, No)

Dimension	Country Name	Nepal	
	Subcategory	Regular	During CC-disaster
5. Business Process	Plans and assessments		
	Specific provision for emergencies in national CRVS strategy/ action plan	● No	nr
	Comprehensive pre-disaster climate risk assessment of CRVS system	● No	nr
	CRVS specific prepareDon't Knowess plans	● No	nr
	Contingency Plans for CC disaster scenario	● No	nr
	Business continuity plan for CC disasters scenario	Don't Know	● partially
	Pre-disaster recovery plan	● No	nr
	Business Processes		
	Specific business process (BR/DR) during any disaster	● Yes	● fully
	Specific business process (MR/DivR) during any disaster	● No	● partially
	Operating Procedures at local level registration service points (CR offices and health facilities)	Other	● partially
	Flexibilities in temporary registration mechanisms and/or alternative measures		● Yes
	Implement any flexible and/or adaptable operational procedure, such as simplified notification, or declaration, or registration processes	● (Only notifications)	● None of the above
	Implement any flexible and/or adaptable operational procedure, like increase service entry points through <u>health sector services and systems</u> ?	Other	● None of the above
	Flexible and/or adaptable operational procedure, like increase service entry points <u>through other sectors</u> .	Other	● None of the above
	Adaptable operational procedure, like conducting mobile campaigns or outreach campaigns ?	Other	● None of the above
	Any flexible and/or adaptable operational procedure, like change and adapt operating hours?	Other	● None of the above
	Flexible and/or adaptable operational procedure, like staff taking additional/new responsibilities?	Other	● No
6.Integration	Use of BR data		fully described
	Use of BR data		just started

● (Fully, Yes), ● (Partially), ● (Not functional, no mechanism, No)

Dimension	Country Name	Nepal	
	Subcategory	Regular	During CC-disaster
	Integration with Health		
	CRO co-located within health facilities	● not integrated	● not integrated
	Birth/Death Notifications done by HWs	● partially	● partially
	BR in routine immunization (static, at health facility service)	● not integrated	● not integrated
	BR in mobile immunization hard to reach/remote areas	● not integrated	● not integrated
	Engaging community health workers to promote BR	● partially	● partially
	With mobile campaigns (measles, Vitamin A, Polio cmpaigns)	● not integrated	● not integrated
	Data exchange between health facilities and CRVS offices	● partially	● fully
	Integrating CRVS data collection with routine health data collection	Don't Know	Don't Know
	Doctors in hospitals are required to issue medical certificates of cause of death,	NR	NR
	Integration with social protection sector		
	Identify unregistered children	● partially	● partially
	Identify and refer unregistered	● partially	● partially
	Certification as a condition	● fully	● fully
	Integration with education sector		
	Identify unregistered children		● not integrated
	Identify and refer unregistered		● not integrated
	Faciliate registration (proactively than refer)		● not integrated
	Offers/serves as a registration service point		● not integrated
	ONE-STOP-SHOP		
	Coordinated one stop shop at evacuation centers		●
	Integration with National ID system		
	Integration with National ID	● Yes	● Yes

● (Fully, Yes), ● (Partially), ● (Not functional, no mechanism, No)

Dimension	Country Name	Nepal	
	Subcategory	Regular	During CC-disaster
	Country Names	Nepal	
Dimension	Sub-category	Regular	CC-disaster
7. Digitalization & Digitization	BR system digitalization status	● fully	
	DR system digitalization status	● just started	
	Digital (mobile/online) notification		● Great extent
	Digital (mobile/online) declaration		Don't Know
	Digital (mobile/online) registration		● Great extent
	End-to-end business processes effective		● Great extent
	Interoperability		
	Interoperability with the overall National E-Governance System	● moderately	● moderately
	CRVS system interoperability with the National ID System	● Great extent	● Great extent
	Interoperability with the DHIS (Health Information System	Don't Know	Don't Know
	Linking CRVS systems to the Social Protection Database (e.g., Poverty Identification)	● Great extent	● Great extent
	CRVS system interoperability with the EMIS	● not at all	● not at all
Dimension	Sub-category	Regular	CC-disaster
8. Data integrity, backup, storage	Data quality, integrity		
	BR forms standardized	● Yes	
	Data cleaning procedures, such as deduplication and error checks	● moderately	● moderately
	DR forms standardized	● Yes	
	Data cleaning procedures, such as deduplication and error checks	● moderately	● not at all
	Data disaggregated by gender, age, location, and other relevant variables		
	Gender	● Yes	
	Age	● Yes	

● (Fully, Yes), ● (Partially), ● (Not functional, no mechanism, No)

Dimension	Country Name	Nepal	
	Subcategory	Regular	During CC-disaster
	Geographical	● Yes	
	Ethnicity /race	● Yes	
	Socio-economic status	● no	
	Data Protection measures		
	Data security	● moderately	● great extent
	Cybersecurity	● moderately	● great extent
	Protection against privacy concerns	● not at all	● moderately
	Protection against Discrimination	● not at all	● great extent
	Data flow, alternative measures		
	Data transfer flow	● great extent	Don't Know
	Birth certificate replacement irrespective of the location of the vital event		● great extent
	Registration in another location than the vital event (birth) occurrence location?		● great extent
	Regular maintenance and check for data accuracy and reliability	● moderately	
	CR staff follow the same protocol for the e-CRVS database maintenance and quality assurance measures		● Yes
	Data storage, backup, archiving		
	Robust, timely backup, recovery procedures in place	● Yes	● moderately
	Type of storage	off-site	
	Data archiving	● Yes	
	Timing of data archiving	automatically	
	Other emergency data center other than CR authority mandated to store and archive	● Yes	

Acronyms

API	application programming interface
BRMS	Birth Registration Management System
CRVS	civil registration and vital statistics
DoNIDCR	Department of National ID and Civil Registration
DRMS	Death Registration Management System
DRR	disaster risk reduction
DRRM	disaster risk reduction and management
EFT	electronic funds transfer
FCGO	Financial Comptroller General Office
FCHV	female community health volunteer
GLOF	glacial lake outburst flood
HMIS	Health Management Information System
IDMC	Internal Displacement Monitoring Centre
IDP	internally displaced person
INFORM	Index for Risk Management
MICS	Multiple Indicator Cluster Survey
MIS	Management Information System
MoHA	Ministry of Home Affairs
NDHS	Nepal Demographic and Health Survey
NSO	National Statistics Office of Nepal
Rs	Rupee (Nepali rupee)
SMS	short message service
SSSPCR	Strengthening Systems for Social Protection and Civil Registration
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees

UNICEF	United Nations Children's Fund
UNLIA	United Nations Legal Identity Agenda
USD	United States dollar
VERSP-MIS	Vital Event Registration and Social Protection Management Information System
WHO	World Health Organization

Endnotes

- Doković, Z. (2020). *Snapshot of Civil Registration and Vital Statistics System of Nepal*. www.CRVSSystems.ca
- Government of Nepal. (n.d.-a). *CRVS System in Nepal and status of CRVS strategy*.
- Government of Nepal. (2021). *Nepal National Population and Housing Census*. <https://censusnepal.cbs.gov.np/results>
- Government of Nepal. (2023). *CRVS digitalization in Nepal*. https://crvs.unescap.org/system/files/sites/default/files/CRVS%20digitalization%20in%20Nepal_0.pdf
- Kafle, R. (2024). Current Status of Birth Registration Practice in Nepal. *Baneshwor Campus Journal of Academia*, 3(1), 13–26. <https://doi.org/10.3126/bcja.v3i1.65460>
- Ministry of Home Affairs, G. (2024). *Nepal's Position Paper on Asia-Pacific Ministerial Conference on Disaster Risk Reduction (APMCDRR) 2024*.
- National Statistics Office. (2023). *National Account Statistics of Nepal 2022/2023*. <https://data.nsonepal.gov.np/ne/data-set/national-accounts>
- National Statistics Office of Nepal. (2023). *The Nepal Living Standards Survey 2022/23*. https://nepalindata.com/media/resources/items/0/b1707800524_89.pdf.pdf
- Pandey, S., & Adair, T. (2023). Development of the civil registration and vital statistics system in Nepal: making progress with civil registration, but lacking with vital statistics. *Asia-Pacific Sustainable Development Journal*, 30-No.2.
- Plan International. (2014). *Birth registration in emergencies: a review of best practices in humanitarian action*.
- UNESCAP and UNICEF. (2024). *20 Report of the Third Meeting of the Civil Registration Professionals of South Asia (CR8)*.
- UNFPA, UNICEF, & WHO. (n.d.). *Strategic Brief: Aligning Partner Support with the Government of Nepal to Strengthen Civil Registration and Vital Statistics and Geographic Information Systems*.
- UNHCR. (2024). *Ensuring birth registration for the prevention of statelessness*.
- UNICEF. (2013). *A passport to protection: a guide to birth registration programming*.
- UNICEF. (2019). *Birth Registration for Every Child by 2030: Are we on track?* <https://data.unicef.org/resources/birth-registration-for-every-child-by-2030/>
- UNICEF. (2021). *The climate crisis is a child rights crisis Introducing the Children's Climate Risk Index*.
- UNICEF Nepal. (2017). *Nepal Humanitarian Situation Report: Floods Response*. file:///Users/midori/Downloads/NEPAL%20Humanitarian%20Situation%20Report%20No.7%20-%202017%20November%202017.pdf
- UNICEF, & New Legacy Digital. (2021). *Strengthening Online Vital Registration and Social Security Allowances in Nepal*.
- World Bank. (2023). *Digitizing Civil Registration and Cash Transfers in Nepal*.

Acknowledgements

This case study is presented as an annex chapter to the comprehensive report, *Securing and Adapting Birth Registration Systems in Response to Climate-Induced Disasters*. The study was commissioned by UNICEF on behalf of the UNLIA Task Force. Midori Sato, serving as a consultant, led the study under the expert guidance of a joint team from UNICEF Global Research and Foresight and UNICEF Child Protection and Migration Practice, which included Dr. Ramya Subrahmanian, Mr. Bhaskar Mishra and Dr. Josiah Kaplan. A detailed questionnaire organized by thematic areas was developed by the consultant with technical guidance and support from Bhaskar Mishra. After a thorough review and input from Nepal, Midori Sato revised the document, and Bhaskar Mishra reviewed and further improved it.

The selection of case study countries, alongside rigorous data collection and validation, was carried out in close collaboration with UNICEF country and regional offices. Appreciation is extended to their dedicated child protection and birth registration specialists. Overall technical oversight for this critical research initiative was proficiently provided by technical partners and members of the UNLIA Task Force.

For this Nepal case study report, we would like to sincerely thank the government officials from the DoNIDCR for their valuable insights and steadfast support. Our heartfelt thanks also go to the UNICEF Nepal Country Office's Ms. Radha Gurung and Mr. Ram Prasad Gautam for their specific technical contributions and support throughout the study.

Cover photo: © UNICEF/UNI767273/Rabik Upadhayay

This research was made possible with the generous support of the Norwegian Agency for Development Cooperation (NORAD)



About us

UNICEF, the United Nations agency for children, works to protect the rights of every child, everywhere, especially the most disadvantaged children and in the toughest places to reach. Across more than 190 countries and territories, we do whatever it takes to help children survive, thrive, and fulfil their potential.

UNICEF Child Protection and Migration Practice's core objective is to support countries to strengthen child protection systems that prevent and respond to violence, in the physical world and in the digital space, including for children on the move, across development and humanitarian contexts. Globally, it leads in shaping the child protection agenda through thought leadership, strategic policy, and partnerships to accelerate progress and support countries to deliver results at scale.

UNICEF Office of Strategy and Evidence – Innocenti accelerates progress for children by working to ensure that policies and programming are informed by high-quality evidence. As the global custodian of child-related official statistics, it works closely with governments and partners to strengthen national statistical systems. Through world-leading data, research and foresight, it underpins UNICEF's global leadership on children's rights and serves as the organization's hub for setting strategy and monitoring programmes. With the active engagement of young people and other partners, it supports advocacy and dialogue aimed at improving the lives of children everywhere.

Published by

UNICEF Office of Strategy and Evidence – Innocenti
Via degli Alfani, 58
50121, Florence, Italy

Email: innocenti@unicef.org

Web: unicef.org/innocenti | data.unicef.org

Social media: @UNICEFINnocenti on [Bluesky](#), [Instagram](#), [LinkedIn](#), and [YouTube](#)

In partnership with

UNICEF Child Protection and Migration Practice

Suggested citation

UNICEF Global Office of Strategy and Evidence – Innocenti. (2026).
*Securing and Adapting Birth Registration Systems in Response to Climate
Change-Induced Natural and Humanitarian Disasters – Case Study Report 3:
Nepal*, UNICEF Innocenti, Florence, January 2026.

© United Nations Children’s Fund (UNICEF), August 2026. Except for the
UNICEF logo, photos and where another © appears, this work is licensed under
[CC BY 4.0](#). The UNICEF logo and enclosed photos may only be used in exact
copies of the publication. Where another © appears, you must ask the listed
copyright holder to use the item outside exact copies of the publication.

for every child, answers