

Integrating Disaster Risk Reduction Education into Local Curricula in Nepal

¹Toya Nath Pahadi, MPhil ²Chitra Bahadur Budhathoki, PhD

¹Asst. Prof., Mid-West University, Graduate School of Education, Nepal

²Prof. Faculty of Education, Tribhuvan University, Nepal

Article Info

Received: August 03, 2025

Accepted: October 11, 2025

Keywords

Disaster risk reduction

Hazard

Integration

Local curriculum

School safety

Abstract

While school safety in Nepal is compromised due to the vulnerability of multiple hazards, the incorporation of disaster risk reduction (DRR) education into local curricula remains limited and uneven. The document analysis method was adopted to review the thirty-two local curricula (2076-2080 B.S.) and explore the integration of DRR education into local curricula, examining variations over time, across regions, and grade levels, as well as by thematic domains, hazards incorporated, and the instructional weightage allocated to them. Among these curricula, two curricula have not incorporated DRR content at all, reflecting an implementation gap. The integration is led by Bagmati and Lumbini provinces, while Madhesh, Karnali, Koshi, and Gandaki provinces are lagging, highlighting regional disparities. Most of the DRR content is integrated with other thematic domains, and annual teaching hours vary widely (5- 40). Despite progress in integration, uneven coverage of hazards and poor attention to local risks indicate a policy-practice gap. Standardized benchmarks and alignment with hazard mapping are essential to effectively integrate the DRR education into local curricula in Nepal.

Introduction

As school safety threats and crises, including natural disasters and emergencies, continue to increase globally, emphasis is being laid on effective safety and crisis management in educational sectors (Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector [GADRRRES], 2022). Specifically, nearly two-thirds of schools in Nepal are located in disaster-prone areas, putting them at high risk of multiple hazards such as earthquakes, floods and landslides, thunderstorms, lightning, snow, fires, heat waves, cold waves, and epidemics (Ministry of Home Affairs, 2019). The immediate impact of the disaster in the educational sector may include damage to the physical infrastructure of the school, the death and injury of children and school members, and the inability to continue the study work of the school. Similarly, children may be affected by psychological problems such as depression, anxiety, behavioural problems, etc., as a long-term effect. Young children, especially at the basic school level, are more vulnerable to disasters because they are unable to respond effectively to their safety during emergencies and depend on others for life-saving, livelihood, decision-making, and emotional support. Therefore, incorporating disaster education at the school level can help students prepare for disasters and develop the critical knowledge, skills, and attitudes needed for disaster preparedness and responses. It also helps communities to cope with crises and disasters. This is because children's knowledge and skills on disaster risk reduction, preparedness and response reach families and communities, and this enhances the potential for disaster resilience in all of these aspects.

With an increase in the worldwide practice of developing and implementing local context-based curriculum to address local needs and problems, including the specific types of disasters that frequently occur at the local level, the process of formulating and implementing local curriculum has also been initiated in Nepal. Focused on local issues and challenges, such a curriculum helps children identify problems, explore root causes, identify innovative solutions, and develop critical thinking and problem-solving skills. Due to the geographical diversity of Nepal, there are specific hazards and disaster risks in different regions. To address this issue, it is very important and relevant to include disaster risk reduction education in the local curriculum.

*Corresponding Author:

pahadi.toya@gmail.com

Documents Review

Globally, various policy and implementation efforts have been made by giving high priority to the inclusion of disaster risk reduction education in the school curriculum under the School Safety Program. Nepal has already ratified the Hyogo Framework for Action 2005-2015 (United Nations Office for Disaster Risk Reduction [UNISDR], 2005) and Sendai Framework for Disaster Risk Reduction 2015-2030 (United Nations Office for Disaster Risk Reduction [UNISDR], 2015), which recommended incorporating disaster risk reduction education at all levels of schools. The revised Comprehensive School Safety Framework 2022-2030 issued by GADRRRES (2022) also calls for the inclusion of disaster risk reduction and revitalization education in the school curriculum, and Nepal has already approved it. Nepal has also initiated several policy initiatives to implement these global commitments. The Curriculum Development Center (2011 B. S.) in Nepal had recommended the inclusion of disaster management and risk reduction at the school level. On the other hand, The Government of Nepal's Comprehensive School Safety Master Plan 2017 (Ministry of Education, 2017), Comprehensive School Safety Minimum Package 2018 (Centre For Education and Human Resource Development, 2018), Comprehensive School Safety Implementation Guidelines 2019 (Ministry of Education Science and Technology, 2019a), and Comprehensive School Safety Communication and Dissemination Strategy 2019 (Ministry of Education Science and Technology, 2019b) have also placed special emphasis on including disaster risk reduction education in the curriculum of all levels of schools, especially in the local curriculum. Similarly, the School Sector Development Plan 2016–2023 (Ministry of Education, 2016) and the Disaster Risk Reduction National Strategic Plan of Action 2018-2030 (Ministry of Home Affairs, 2018) have also laid special emphasis on including disaster risk reduction and resilience education in the local curriculum.

Despite so many international and national commitments, efforts, and policy arrangements, their practical implementation seems to have been overshadowed. There is not enough information available about the extent at which local governments have formulated and implemented local curricula incorporating disaster education. According to a study conducted by Paci-Green et al. (2020) in 68 countries, including Nepal, only about 45% of Asia-Pacific countries have included disaster education in school-level curricula, while Desila et al. (2023) in 100 countries, including Nepal, found that 50% of countries did not include climate change content in school-level curricula. However, neither of these studies provides much information about how disaster education is included in Nepal's school-level curriculum. Although the studies by Seddighi et al. (2022) and Güvelioğlu and ERDEN (2023) focused on analyzing the effectiveness of curriculum that includes school-level disaster education, these studies did not include Nepal.

Aforementioned studies, especially those conducted in the context of other countries, have mostly focused on policy studies on disaster risk reduction education, but there is a lack of detailed studies regarding the implementation of disaster education through local curriculum in the local context. In addition, past studies have not done much on whether or not local hazards and disasters are included in the curriculum. In this context, the current study has been conducted to analyze the evolution of disaster risk reduction education within local curricula in Nepal, considering variations over time, across different regions, and among various grade levels. This study also examines the key thematic domains and specific hazards included in local curricula, as well as the instructional weightage assigned to these domains. Further, the present study provides significant information to those interested in the field of school safety, disaster risk reduction education in schools, and policy makers in related fields.

Methods

In this study, the document analysis method, as described by Bowen (2009), has been used to review the integration of disaster education into the local curricula developed by the local governments in Nepal. All thirty-two local curricula published by the local governments for the basic school level that were publicly available on the official website of the Curriculum Development Centre (Curriculum Development Centre, 2024) up to the year 2080 B.S. were included in the study. As the total population of available curricula was analyzed, no sampling technique was applied. Each document was then organized and cataloged for analysis. In the preliminary phase, five local curricula were examined, and a structured thematic framework was created based on the purpose of the study for document analysis.

The document analysis framework was informed by the Comprehensive School Safety Framework 2022–2030 (GADRRRES, 2022) and Comprehensive School Safety Implementation Guideline 2075 (Ministry of Education Science and Technology, 2019a) to ensure analytical consistency and credibility. These documents emphasize three core dimensions, safe learning facilities, school disaster management, and risk reduction and resilience education, which guided the categorization of DRR-related contents, hazard types, and grade-level coverage in the local curricula. Evolution of DRR education over time, across different regions, and class ranges; organization of DRR content by separate domain or infused domain; types of hazards included by ecological zones; and allotted teaching hours for the DRR domain were included in the framework.

Then, a detailed data entry matrix was built based on the framework. The matrix included fields for document identification (local government name, year of curriculum development); evolution of DRR education (timeline of DRR integration, regional variations, grade range variations); dominant themes and types of hazards; and allotted teaching hours (total annual working hours and teaching hours). To ensure the content validity of the document analysis framework and data entry matrix, they were sent to a peer and a supervisor with two local curricula for their evaluation and refined based on the feedback obtained. In addition, the peer and supervisor's involvement in the review process provided the face validity of those tools.

Each curriculum was deliberately reviewed, and relevant sections were manually coded and categorized according to the document analysis framework and data analysis matrix. The study employed quantitative (descriptive) content analysis methods to analyze the predetermined aspects of DRR education integration into local curricula. The frequencies of relevant data were counted, and percentages were enumerated in this content analysis. This method allowed for a statistical overview of how frequently certain themes and concepts appeared within the curriculum. The peer review and member checking strategy were used to ensure accuracy and reliability of the findings. A peer, who was knowledgeable in the field, critically examined the methodology, coding, categorization, and interpretations. For member checking, the analyzed data and preliminary findings were shared with a local curriculum designer and an educator who were familiar with the local curricula.

The current study adhered to principles of transparency and respect for intellectual property by only utilizing publicly available documents from the official websites of the CDC and local governments in Nepal. No confidential or private information was accessed and presented in this article. Additionally, the objectivity and impartiality are maintained throughout the analysis process, ensuring that personal biases did not influence the coding, categorization, or interpretation of the data. Furthermore, the study's findings were reported honestly and accurately, with due acknowledgment given to all sources and contributors.

Results

Status of Integrated Disaster Risk Reduction Education into Local Curriculum

This section provides an analysis of the incorporation of DRR education into the 32 selected local curricula developed by different types of local levels in Nepal. Those curricula were developed from 2076 to 2080 B.S. The number of those curricula is presented by different types of local levels such as rural municipalities, urban municipalities, and sub-metropolitan cities.

Table 1

Distribution of DRR Education Integrated Local Curricula by Year of Development (B.S.) and Types of Local Level

Year curriculum development	of	Type of local level			Total
		Rural Municipality	Urban Municipality	Sub-Metropolitan City	
2076	0	2	0	0	2
2077	2	2	0	0	4
2078	5	3	0	0	8
2079	4	3	1	0	8
2080	5	2	1	0	8
Total	16	12	2	0	30
Local governments are developing local curricula without incorporating DRR education					2

Of the 32 local curricula included in the study, 30 curricula had incorporated the DRR education, but two had not yet integrated. Further exploration is needed to find out why DRR education was not included in these two local curricula. Of the 30 curricula that integrated DRR education, the present study included the curricula developed by 16 rural municipalities, 12 Urban municipalities, and two Sub-metropolitan cities. The results indicate a gradual and positive trend in the incorporation of DRR education into local curricula by Nepalese local governments from 2076 to 2080 B.S., reflecting the growing attention toward disaster risk reduction at local level.

Provincial Distribution of Local Curricula Incorporating Disaster Risk Reduction

This study analyzed the province-wise distribution of 30 DRR education integrated local curricula. The number and percentage of those curricula are presented by province in Table 2.

Table 2

Distribution of DRR Education Integrated Local Curricula Developed by Province

Province	Number (%) of DRR education integrated into local curricula
Bagmati	12 (40)
Lumbini	7 (23.33)
Sudurpashchim	5 (16.67)
Madhesh	2 (6.67)
Karnali	2 (6.67)
Koshi	1 (3.33)
Gandaki	1 (3.33)
Total	30

Of the 30 DRR education integrated curricula included in this study retrieved from the website of the Curriculum Development Centre, the highest number of curricula were found to be created by the local governments of Bagmati Province, followed by Lumbini Province and Sudurpashchim Province, respectively. Among the retrieved curricula, a relatively small number of curricula were found developed by the Madhesh, Karnali, Koshi, and Gandaki provinces. The results indicate significant disparities in the development of DRR education-integrated local curricula across different provinces in Nepal.

Ecological Region-Based Analysis of Local Curricula Incorporating Disaster Risk Reduction

This study examined the distribution of retrieved DRR education integrated curricula by different ecological regions. This distribution is presented in Table 3.

Table 3*Distribution of DRR Education Integrated Local Curricula Developed by the Ecological Regions*

Ecological zone	Number (%) of DRR education integrated into local curricula
Mountain	5 (16.67)
Hill	4 (13.33)
Inner Madhesh	12 (40)
Terai	7 (23.33)
Kathmandu Valley	2 (6.67)
Total	30

The leading number of the curricula were from Inner Madhesh, followed by Terai, Mountain, and Hill, respectively. In contrast, Kathmandu Valley lagged. The current document analysis indicates the significant disparities in the development of DRR education integrated into local curricula by ecological regions in Nepal.

Grade Range-Specific Analysis of Local Curricula Incorporating DRR Education

The current study analyzed the distribution of retrieved curricula developed for different grade ranges, which is presented in Table 4.

Table 4*Number and Percentage of Local Curricula Incorporating Disaster Risk Reduction by the Different Ranges of Grades*

Grade range	No. (%) of the local curriculum
1- 5	6 (20%)
6- 8	3 (10%)
1- 8	21 (70%)
Total	30

The present study revealed the significant strength in the development of DRR education integrated local curricula, where more than two-thirds of the curricula were designed to cover the full range from grades one to eight of basic school level. However, nearly one-third of curricula are designed exclusively for either grades 1-5 or grades 6-8, rather than encompassing the entire basic education range. This indicates a critical gap that warrants exploration to understand why these curricula are not addressing the full basic education range.

DRR Education-Related Content Domains Incorporated into Local Curricula

This study explored the various content domains related to DRR education included in local curricula. The results in Table 5 provide a detailed description of how different thematic domains related to DRR education are integrated within these curricula.

Table 5*Adoption of Disaster Risk Reduction Education by the Thematic Domain*

Thematic domain	No. (%) of local curricula
Hazards, Risk reduction, and disaster management	8 (26.67)
Disaster management, environment, and green school	7 (23.33)
Road safety and disaster management	3 (10)
Disaster management and safe school	3 (10)
Accident and disaster management	3 (10)
Safety, precaution, and disaster management	2 (6.67)
Local natural hazards, health awareness, and traffic rules	1 (3.33)
Health and disaster management	1 (3.33)
Climate change and disaster management	1 (3.33)
Infused within other domain/theme (Natural resources and environment)	1 (3.33)
Total	30

The current document analysis revealed that the first leading number of the curricula had incorporated themes on “hazards, risk reduction, and disaster management” as a separate domain. The second leading number of curricula had integrated DRR education with environmental education, incorporating the domain as “disaster management with environmental and green school initiatives”. The remaining curricula had incorporated the DRR education, integrating with other thematic areas, such as road safety, safe school initiatives, and accident management as an integrated domain. In one curriculum, DRR education contents were infused within other themes like natural resources and environment, indicating an alarming lack of recognition for DRR education. Nearly three-fourths of curricula integrate DRR within other domains, failing to treat it as a distinct, dedicated domain.

Annual Teaching Hours Allocated for DRR Education Domains in Local Curricula

This study examined the distribution of teaching hours dedicated to DRR education in the curricula. Table 6 provides a detailed description of the annual teaching hours allotted for both DRR-only domains and DRR-integrated domains across various local curricula.

Table 6

Allotted Annual Teaching Hours for DRR Only Domains and DRR Integrated Domains in Local Curricula by the Grade Range

Grade range	Total annual working hours	Teaching hours allotted for the DRR only domain			Teaching hours allotted for the DRR integrated domain		
		Range	Mean	Proportion (%)	Range	Mean	Proportion (%)
1–3	160	6–25	14.44	9.03	10–40	18.67	11.67
4–5	128	5–20	11.89	9.29	8–33	15.27	11.93
6–8	128	5–28	13.30	10.40	8–38	19.42	15.17
Overall (1–8)		5–28	13.50	-	8–40	18.08	-

The current study revealed that out of 128 to 160 annual working hours allotted for teaching various educational contents in local curricula for grades one to eight, an average of 13.50 hours is specifically designated for DRR education-only content. In contrast, an average of 18.08 hours is allocated for DRR education-integrated content. Additionally, the proportion of teaching hours dedicated to DRR education progressively increases from lower to upper grades. Overall, DRR education integrated domains receive more teaching hours than DRR education-only domains, indicating a strong preference for embedding DRR education within broader educational content.

Types of Hazards Incorporated in Local Curricula

The present study analyzed the inclusion of various hazards within local curricula. Table 7 presents the description of different types of hazards incorporated into local curricula by ecological zone.

Table 7

Distribution of Local Curricula in Different Ecological Regions by the Types of Hazards Incorporated

Hazards	All curriculums (30)	Curriculums in Mountain (2)	Curriculums in Hill (18)	Curriculums in Terai (10)
Fire	29 (96.67%)	2 (100%)	17 (94.44%)	10 (100%)
Flood	29 (96.67%)	2 (100%)	17 (94.44%)	10 (100%)
Landslide	22 (73.33%)	2 (100%)	13 (72.22%)	7 (70%)
Lightning and Thunder	22 (73.33%)	1 (50%)	15 (83.33%)	6 (60%)
Earthquake	19 (63.33%)	1 (50%)	13 (72.22%)	5 (50%)
Storm	16 (53.33%)	-	13 (72.22%)	3 (30%)
Epidemic/ Pandemic	13 (43.33%)	1 (50%)	9 (50%)	3 (30%)
Road accidents	13 (43.33%)	1 (50%)	9 (50%)	3 (30%)
Attack by wild animals	7 (23.33%)	1 (50%)	4 (22.22%)	2 (20%)
Inundation	6 (20.00%)	-	3 (16.67%)	3 (30%)

Snake bite	3 (10.00%)	-	2 (11.11%)	1 (10%)
Cold waves	2 (6.67%)	-	1 (5.56%)	1 (10%)
Hailstorm	2 (6.67%)	1 (50%)	1 (5.56%)	-
Structure collapse	2 (6.67%)	-	2 (11.11%)	-
Draught	1 (3.33%)	-	1 (5.56%)	-
Drowning	1 (3.33%)	-	-	1 (10%)

The present analysis revealed that the majority of the local curricula had incorporated hazards such as fire, flood, landslide, lightning, thunder, earthquake, and storm. Whereas, epidemic and road accidents were included in over one-third of the curricula. However, less than 10% cover hazards like snake bites, cold waves, hailstorms, structural collapse, drought, and drowning. Even frequently occurring hazards like earthquakes are underrepresented, with only 7.22% of Hilly region curricula and only 50% of Terai region curricula incorporating them. Similarly, although storms affect the Terai region annually, only 30% of curricula had covered them. Other region-specific hazards like attacks by wild animals, inundation, snake bites, and cold waves were insufficiently covered in the Terai region, and no curricula had addressed heat waves, a significant hazard in the Terai. These findings highlight substantial gaps in addressing localized hazards.

Discussion

In the context of global and national priority to school safety against various types of hazards and disasters and growing recommendations for DRR education in schools, the present study was carried out to explore the situation of integration of DRR education in local curricula in Nepal through document analysis. The present study explored how the integration of DRR education has evolved in local curricula in Nepal over time, across different regions, and various grade ranges. An analysis of the 32 available local curricula included in this study showed that the local curriculum has started to be developed since 2076 B.S in Nepal. The fact that only 32 of Nepal's 753 municipalities have local curriculum available on the website of the Curriculum Development Centre raises doubts that either there is no effective coordination between the Curriculum Development Centre and the local governments, or the process of formulating local curriculum is progressing at a slow pace. What is even more worrying is that DRR education is not given any place in two of these 32 curricula. Why DRR education was ignored while designing these curricula should be the subject of further investigation, and the curriculum should be revised to include DRR education in the coming days.

The availability of the DRR education integrated local curricula in a minimal number of Madhesh, Karnali, Koshi, and Gandaki provinces in the Curriculum Development Centre should be another topic of research. While due to the availability of a large number of DRR education integrated local curricula from the Inner Madhesh, it can be assumed that the local governments of the region are making good efforts to develop such curricula. Looking at the number of available curricula from the Terai region, it seems that the efforts to build such curricula in the region should be further accelerated. But the relatively low curricula available from the Hill region and the country's capital Kathmandu Valley, which has a large number of municipalities, can certainly not be a positive sign. It is a good progress to incorporate the DRR education by 70 percent of the local curricula included in the current study covering the whole grades from 1 to 8 in basic school level. On the other hand, the fact that 30% of the curricula is constructed only for grades 1 to 5 and 6 to 8 without covering all the basic levels of the school shows that there is still a lot of work to be done in those municipalities.

Aligning with a study in the Philippines (Libayao et al., 2024), the present research explores the progression of integrating DRR into local basic education curricula. However, similar to findings in Indonesia (Desilia et al., 2023), the number of local governments in Nepal incorporating DRR education remains unsatisfactory. Despite all local governments having established their own DRR laws and policies and half-developing local disaster and climate resilience plans (Ministry of Home Affairs, 2023), only 30 published local curricula currently include DRR education, indicating significant room for improvement. The steady increase in DRR education integration reflects a positive trend towards disaster preparedness. However, the regional disparities and gaps in specific class ranges suggest that while there

is a growing recognition of the importance of DRR, the implementation is uneven. This uneven implementation could be due to variations in local government priorities, resource allocation, and regional challenges. The need for targeted interventions and support is evident to ensure comprehensive DRR education across all regions and educational stages. The findings imply that targeted policy interventions and resource allocation are necessary to address regional disparities and enhance the integration of DRR education. Future research should investigate the reasons behind the slow progression and regional disparities in developing local curricula that incorporate DRR education.

The present study also examined the incorporation of DRR education within local curricula, focusing on dominant themes, teaching hour allocation, and region-specific hazards. The incorporation of DRR education into about three-fourths of the local curricula within other broader thematic areas indicates the priority given by the local governments to provide integrated knowledge and skills to their children in schools. The current findings largely align with previous studies. They agree with Selby and Kagawa (2012) and Libayao et al. (2024) in identifying that DRR education is commonly integrated into other subject areas in Nepalese curricula. These findings underscore the need for a comprehensive and interdisciplinary approach to DRR education as advocated by the Climate Technology Centre and Network (2021). While contrary to these previous studies, the incorporation of DRR education as a separate domain in about one-quarter of the curricula indicates more space given to DRR education without integration.

This document analysis also revealed that, out of 128 to 160 teaching hours per year, DRR-only domains have provided fewer teaching hours (average 13.50) compared to DRR-integrated domains (average 18.08), with a progressive increase from lower to upper grades. The current study found that a minimum of 5 to a maximum of 40 teaching hours per year for the thematic domain related to DRR education were allotted in the local curricula. The large variation in teaching hours does not seem to place the same weight and importance on DRR education in local curricula. It is necessary to further explore why such differences occurred while formulating the local curriculum. This study further explored that most of the curricula had included hazards such as fire, flood, landslide, and lightning and thunder for DRR education. But only about half of the curricula had incorporated earthquake, storm, epidemic, and road accident, while these hazards are frequently seen as large-scale disasters in Nepal. Furthermore, there are significant gaps in addressing region-specific hazards comprehensively in those curricula included in the study, especially in the Terai region, where prevalent hazards like inundation, cold waves, and heat waves are insufficiently covered.

Conclusion

Though the incorporation of DRR education in local curricula in Nepal shows a progressive initiative to enhance school safety, this study reveals significant gaps and demands urgent attention. The limited availability of the curricula in the public domain, especially from Madhesh, Karnali, Koshi, and Gandaki provinces and from the Hill region and Kathmandu valley, indicates slow progression of DRR integrated curriculum development in these regions or a lack of coordination and communication between the Curriculum Development Centre and local governments. In addition, the uneven coverage across grade levels, nominal attention to region-specific hazards, and marked discrepancies in teaching hour allocations reflect a lack of standardized policy guidance and resource support in DRR education integrated with local curriculum development. To address these critical gaps, the government needs to enforce mandatory inclusion of DRR education across all municipalities, ensure full-grade coverage, establish clear benchmarks for teaching hours, and support to conduct of comprehensive hazard mapping at the regional level to align the curricular content with those hazards. Further research should be carried out to understand the systemic barriers to the development of such curricula and the policy-practice gap that hinders equitable and context-specific DRR education in Nepal.

This study highlights the need to mandate the integration of comprehensive DRR education into local curricula at the policy level across all municipalities. At the practice level, local governments should strengthen curriculum design processes informed by regional hazard mapping. Further studies are required to examine implementation barriers and assess the effectiveness of DRR education in improving school and community resilience.

References

- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40. <https://doi.org/10.3316/qrj0902027>
- Centre For Education and Human Resource Development. (2018). *Comprehensive school safety minimum package*. https://www.dpnet.org.np/uploads/files/65464_comprehensiveschoolsafetyminimumpac%202019-07-25%2010-51-41.pdf
- Climate Technology Centre and Network. (2021). *Framework for including disaster risk reduction in the school curriculum*. <https://www.ctc-n.org/file-download/download/private/30453>
- Curriculum Development Centre. (2024). *Local curriculum*. Retrieved from http://202.45.146.138/catalog/opac_css/index.php?lvl=etagere_see&id=82%22
- Curriculum Development Centre. (2071 B. S.). *Vidhyalaya shikshaka lagi sthaniya pathyakram prarup (Local curriculum framework for school curriculum)*. <http://lib.moeccdc.gov.np/elibrary/pages/download.php?direct=1&noattach=true&ref=1407&ext=pdf&k=>
- Desilia, N. R., Lassa, J., & Oktari, R. S. (2023). Integrating disaster education into school curriculum in Indonesia: A scoping review. *International Journal of Disaster Management*, 6(2), 263–274. <https://doi.org/10.24815/ijdm.v6i2.34867>
- Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector. (2022). *Comprehensive school safety framework 2022-2030 for child rights and resilience in the education sector*. <https://www.unicef.cn/media/24851/file/Comprehensive%20School%20Safety%20Framework%202022-2030.pdf>
- Güvelioğlu, E., & ERDEN, F. T. (2023). Disaster education for young children: A systematic review and thematic analysis. *Sakarya University Journal of Education*, 13(4), 574–591. <https://doi.org/10.19126/suje.1332070>
- Libayao, H. G. C., Navaluna Jr, C. A., Allosada, J. L., & Tacadena, J. E. (2024). Disaster education in elementary school curriculum: Basis for framework designing. *Journal of Learning and Educational Policy*, 4(3), 15–22. <https://doi.org/10.55529/jlep.43.15.22>
- Ministry of Education. (2016). *School sector development plan 2016/17-2022/2023*. <https://doe.gov.np/assets/uploads/files/87b3287f8f46c497c2cb97d7d4504f5a.pdf>
- Ministry of Education. (2017). *Comprehensive school safety master plan, Nepal*.
- Ministry of Education Science and Technology. (2019a). *Comprehensive school safety implementation guideline* 2075. https://www.preventionweb.net/files/65374_cssimplementationguidelineswithendc.pdf
- Ministry of Education, Science and Technology. (2019b). *Comprehensive school safety communication and dissemination strategy* 2075. https://www.preventionweb.net/files/submissions/65375_csscanddenglishfinal25marchwithcreditline.pdf
- Ministry of Home Affairs. (2018). *Disaster Risk Reduction National Strategic Plan of Action 2018-2030*. drportal.gov.np/uploads/document/1445.pdf
- Ministry of Home Affairs. (2019). *Nepal disaster report-2019*. <http://drportal.gov.np/uploads/document/1594.pdf>
- Ministry of Home Affairs. (2023). *Mid-term review of the implementation of Sendai framework for disaster risk reduction (2015—2030) [Nepal National Voluntary Report]*. <http://drportal.gov.np/uploads/document/2482.pdf>
- Paci-Green, R., Varchetta, A., McFarlane, K., Iyer, P., & Goyeneche, M. (2020). Comprehensive school safety policy: A global baseline survey. *International Journal of Disaster Risk Reduction*, 44, 1–11. <https://doi.org/10.1016/j.ijdrr.2019.101399>

- Seddighi, H., Sajjadi, H., Yousefzadeh, S., López, M. L., Vameghi, M., Rafiey, H., & Khankeh, H. (2022). School-based education programs for preparing children for natural hazards: A systematic review. *Disaster Medicine and Public Health Preparedness*, 16(3), 1229–1241. <https://doi.org/10.1017/dmp.2020.479>
- Selby, D., & Kagawa, F. (2012). *Disaster risk reduction in school curricula: Case studies from thirty countries*. <https://unesdoc.unesco.org/ark:/48223/pf0000217036>
- United Nations Office for Disaster Risk Reduction. (UNISDR, 2005). *Hyogo framework for action 2005–2015: Building the resilience of nations and communities to disasters*. https://www.unisdr.org/files/1037_hyogoframeworkforactionenglish.pdf
- United Nations Office for Disaster Risk Reduction. (UNISDR, 2015). *Sendai Framework for Disaster Risk Reduction 2015–2030*. https://www.unisdr.org/files/43291_sendaiframeworkfordrrren.pdf