

Policy Implication on Effectiveness of Disaster Management Training in Armed Police Force, Nepal

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Abstract

This study investigates the influence of policy frameworks on the effectiveness of disaster management training within the Armed Police Force (APF), Nepal. Adopting a mixed-methods design, the research integrates quantitative data from 178 trained APF personnel with qualitative insights from interviews. Advanced analytical techniques, including Structural Equation Modeling (SEM), regression analysis, t-tests and ANOVA, were employed to examine the relationships between policy and training effectiveness. The results suggest that policy plays a positive and meaningful role in improving training effectiveness ($\beta = 0.040, p < 0.05$), a finding that is further supported by regression analysis ($\beta = 0.095, p < 0.01$). Although the strength of this effect is modest, it clearly shows that well-designed policies help create a supportive environment for better training outcomes. Interestingly, the study also found no significant differences across demographic groups such as gender, age, rank, years of service and work level indicating that employees across all levels share a similar view on the effectiveness of the

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training .Qualitative findings reinforce quantitative results, highlighting the importance of policy coherence, continuous training mechanisms, resource adequacy and alignment with international standards. The study advances the policy–practice discourse in disaster governance by empirically validating the role of structured policy frameworks in enhancing operational readiness. The research contributes both theoretically and practically by offering evidence-based insights for policy refinement, capacity building and institutional strengthening, thereby supporting more resilient and effective disaster response systems in Nepal and comparable contexts.

Introduction

Disasters are conceptualized by the United Nations Office for Disaster Risk Reduction (UNDRR) as severe disruptions that significantly impair the functioning of communities and exceed their capacity to cope using available resources (UNDRR, 2017). In the case of Nepal, exposure to multiple hazards, including earthquakes, floods, landslides and disease outbreaks that makes it one of the most disaster-prone countries in the region (MOHA, 2017). This heightened vulnerability is largely shaped by the country’s rugged terrain, geologically fragile structure, and the increasing impacts of climate variability. Within this governance landscape, the Ministry of Home Affairs assumes a central coordinating role, working in close collaboration with key security institutions such as the Armed Police Force, Nepal Army and Nepal Police, all which function as frontline responders during emergencies. Security agencies, in general, play a vital role in disaster management through rapid response, coordination, and operational support (Barbee, 2007). Since its establishment in 2001, the Armed Police Force (APF) has evolved into a key national institution in disaster response and relief, demonstrating operational efficiency and adaptability in crisis situations, which has strengthened public confidence and institutional credibility (Khatri, 2013; Thapa, 2013).

Located in the Himalayan region, Nepal grapples with disaster risks due to its diverse topography, fragile geology, and variable climatic conditions (MOHA, 2017). The country is highly vulnerable to hazards such as floods, landslides, glacial lake outburst floods and earthquakes, making it one of the most disaster-prone nations in the world (Petley et al., 2007; MoHA, 2011). Nepal has taken important steps to strengthen its disaster risk management system, particularly with the introduction of the Disaster Risk Reduction and Management (DRRM) Act, 2017. This law has helped bring the country’s efforts more in line with global frameworks like the Hyogo Framework for Action and the Sendai Framework for Disaster Risk Reduction, reflecting a growing commitment to managing

disasters in a more coordinated and forward-looking way. Despite these developments, challenges remain in translating policy provisions into effective training outcomes and operational preparedness. While existing literature has examined disaster management systems and community-based approaches, there is limited empirical research assessing how policy frameworks specifically influence the effectiveness of disaster management training within Nepal's security forces, particularly in the post-DRRM Act context.

This research focuses on evaluating the Armed Police Force, Nepal's efficacy in disaster management in Nepal, with a specific emphasis on assessing the policy implication and effectiveness of training programs. The systematic creation of policy plans, legislative provisions, institutions, and their roles and duties in dealing with disasters are major contributors to the success of disaster management efforts (Quarantelli, 1988; Wisner et al., 2004;). The research aims to identify gaps in training initiatives and understand the perceptions of APF personnel regarding policy and the effectiveness of disaster management training. By exploring the relationships between these key factors, the research seeks to contribute to Nepal's overall resilience by improving disaster response and preparedness. The proposed hypotheses suggest that robust policies are linked to enhanced disaster management training effectiveness. Additionally, the study hypothesizes that perceptions of training effectiveness vary significantly across demographic variables such as gender, age, rank, years of service, and levels of work within the APF. Employing a case study approach, the research aims to use various measures to comprehensively evaluate the effectiveness of the disaster management training program and provide insights for strengthening Nepal's disaster response capabilities.

To address this gap, the present study explores how policy influences training effectiveness within the Armed Police Force (APF) Nepal, while also examining whether this relationship varies across key demographic factors. By integrating quantitative and qualitative evidence, the study seeks to generate a comprehensive understanding of how policy structures shape training outcomes. Ultimately, the findings aim to contribute both to theoretical advancements in disaster governance and to practical improvements in policy design, capacity building, and institutional preparedness in Nepal.

Review of Literature

This study adopts a narrative and integrative literature review approach, combining theoretical, policy, and empirical perspectives to build a comprehensive understanding of disaster management training effectiveness. The review is essential for situating the study within existing scholarship, identifying key variables influencing training outcomes, and

establishing the research gap, particularly in relation to policy–practice linkages within the Armed Police Force, Nepal.

Theoretical Review

The theoretical review provides the conceptual foundation for understanding disaster management and training effectiveness. It draws upon interdisciplinary perspectives from sociology, risk studies, and disaster governance to explain how disasters are conceptualized, managed, and influenced by institutional frameworks (Alexander, 2002; Beck, 1992; Wisner et al., 2004).

Acts of Nature

The term "Acts of Nature," also known as "Acts of God," refers to natural events or disasters that are beyond human control and are not caused by human actions (Hochstrasser, 2000). "Acts of Nature," are natural disasters beyond human control, like earthquakes and hurricanes, with catastrophic impacts on lives, property and environment. These events stem from geological and weather processes, emphasizing their unpredictability and the need for preparedness, response, and recovery measures. Legal and insurance frameworks often consider liability, with some policies excluding coverage for Acts of Nature due to their unpredictability. While acknowledging human influence on certain events, the theory prioritizes strategies to mitigate impacts and enhance resilience in the face of unpredictable natural disasters.

The Theory of Joint Effects of Nature and Society

The theory of Joint Effects of Nature and Society recognizes that the interactions between nature and human society can have significant implications for both (McKibben, 2006). The theory of Joint Effects of Nature and Society recognizes the interplay between nature and human society, emphasizing vulnerability to disasters and resilience in coping with them. It links social factors like poverty and governance to disaster impacts while acknowledging influence of human activities on natural events. Advocating a holistic disaster management approach, it integrates physical and social sciences, community engagement, and vulnerability reduction to enhance resilience and promote sustainable development in the face of environmental hazards.

The Theory of Social Constructions

The theory of social constructions posits that reality and meaning are not inherent in objects or events, but rather they are created and shaped through social interactions and cultural processes (Döbler, 2022). The theory of social constructions suggests that reality and

meaning are products of social interactions and cultural processes, rather than inherent in objects or events. Individuals and societies construct and interpret the world around them through shared beliefs and cultural practices, shaping behaviors and identities. While critics caution against relativism, proponents argue for its value in understanding social phenomena and promoting social change. Ultimately, the theory underscores the socially constructed nature of reality, offering insights into societal norms and power dynamics for critical examination and potential transformation.

The Risk Theory

Risk theory, spanning various disciplines, focuses on assessing and managing risks through systematic identification and evaluation (Beck, 1992). It emphasizes subjective risk perception influenced by personal and cultural factors, necessitating tailored risk communication. Risk management strategies aim to prevent or mitigate risks, considering uncertainties and probabilities, with the precautionary principle advocating preventive actions amid scientific uncertainty. Stakeholder engagement ensures transparency and inclusivity in decision-making. Overall, risk theory offers tools for enhancing safety and resilience by considering uncertainties, diverse perspectives, and effective communication and engagement. Overall, risk theory provides valuable tools for systematically assessing and managing risks, enhancing safety, resilience, and well-being through considerations of uncertainties, diverse perspectives, and effective communication and stakeholder engagement (Rakow, 2010).

The Uncertainty Theory

Uncertainty theory is a branch of decision theory that addresses situations where there is incomplete information or ambiguity about the outcomes of decisions (Rios, 1997). Unlike traditional approaches, it recognizes the subjective nature of uncertainty, where probabilities may be unknown or imprecise. Subjective probability allows individuals to assess outcomes based on available information and personal experiences. Applied in various fields, uncertainty theory aids in informed decision-making by incorporating subjective assessments of uncertainty, enhancing effectiveness in complex environments. Overall, uncertainty theory contributes to more informed and effective decision-making in complex and uncertain environments (Bonatti, 1984).

Empirical Review

Building on the theoretical foundations of disaster management, which emphasize risk, vulnerability, governance, and institutional response (Beck, 1992; Wisner et al., 2004),

empirical studies provide practical insights into how policies and training systems operate in real-world contexts. These studies highlight the importance of coordinated frameworks, institutional capacity, and continuous training in enhancing disaster response effectiveness.

The National Disaster Response Framework (NDRF), endorsed by the Government of Nepal in 2013, serves as a practical guide for organizing and managing disaster response across the country (MoHA, 2013). Its main aim is to ensure that national and international support is well coordinated, especially during large-scale disasters that exceed the government's immediate capacity. The framework lays out clear objectives, coordination mechanisms, operational arrangements, and strategic directions for both preparedness and response. By addressing key gaps in disaster risk management, it also clarifies the roles and responsibilities of government agencies, non-governmental organizations, and international partners, helping different stakeholders work together in a more unified and effective way (MoHA, 2011, 2013).

Nerby (2017), in *Disaster Management in Nepal: In Theory and in Practice*, examines Nepal's vulnerability from both biophysical and social perspectives and analyzes disaster management practices such as mitigation and decentralization. The study evaluates the extent to which Nepal's disaster management policies align with international best practices, providing a comprehensive overview of existing frameworks and institutional arrangements.

From an organizational perspective, Devi and Shaik (2012) underscore the critical role of training and development in enhancing human capital and improving organizational performance. Their four-stage cyclic model for measuring training effectiveness encompassing training needs assessment, training design, trainer performance, and trainee performance offers a systematic framework for evaluating and strengthening training outcomes.

In the Nepalese context, Bista (2023) highlights that community-based disaster management has significantly contributed to mobilizing local communities and integrating indigenous knowledge into disaster risk reduction practices. However, persistent challenges such as inconsistent funding, limited technical capacity, and weak coordination between national and local levels continue to constrain long-term resilience and sustainability (Bista, 2023; MoHA, 2017).

Internationally, studies suggest that policy coherence, institutional capacity, and continuous training are key determinants of effective disaster management systems (Wisner et al., 2004). However, there is still very limited research that clearly shows how policy frameworks

actually affect training effectiveness in paramilitary or security institutions, particularly in developing countries.

Overall, the empirical literature indicates that while Nepal has established important policy and institutional frameworks, significant gaps remain in implementation, coordination, and capacity development. More importantly, there is limited empirical evidence examining how policy frameworks influence the effectiveness of disaster management training within security institutions such as the Armed Police Force. This study addresses this gap by providing an integrated analysis of policy–training linkages in the APF, Nepal.

Objective

This study focuses on the connection between disaster management training policies and the effectiveness of training in the Armed Police Force, along with the differences in perceived effectiveness based on the demographic and professional traits of APF personnel.

Hypotheses

A hypothesis is a tentative statement about the relationship between two or more variables that can be tested through research (Creswell & Clark, 2017). In line with the research objectives, the study proposes and tests the following hypotheses:

H1: Well-structured disaster management training policies in the Armed Police Force positively influence the effectiveness of disaster management training.

H2: Perceptions of disaster management training effectiveness differ significantly across demographic characteristics (gender, age, rank, years of service, and level of work).

Positioning the hypotheses within this broader research framework ensures methodological coherence, where quantitative testing complements qualitative insights, enabling a more comprehensive understanding of policy–practice linkages in disaster management training.

Research Methodology

This study employs a mixed-methods approach to investigate the effectiveness of disaster management training within the Armed Police Force (APF) of Nepal. Guided by a pragmatic research perspective (Creswell & Clark, 2017), it combines both quantitative and qualitative methods, while a social constructivist lens helps to better understand participants' experiences. A convergent parallel design was applied, meaning that both types of data were collected at the same time, analyzed separately, and then brought together for a comprehensive understanding. This article is substantially revised and updated version of the author's MPhil thesis submitted in 2023 to the Department of Public Administration, Tribhuvan University, Nepal.

The study population comprised APF personnel involved in disaster management. A cluster sampling technique ensured representation across ranks, units, and operational levels. A total of 178 respondents participated in the survey, providing sufficient data for statistical analyses such as Structural Equation Modeling (SEM). Additionally, seven semi-structured interviews were conducted with purposively selected officers and field personnel to obtain in-depth insights.

The study focused on two key constructs, Policy (5 items) and the Effectiveness of Disaster Management Training (9 items), both measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Policy Construct looked at how clear, relevant, and well-implemented the training policies are, while the Effectiveness construct examined outcomes such as skill development, operational readiness, and overall response performance.

Primary data were collected through questionnaires and interviews, while secondary data were drawn from peer-reviewed literature and official policy documents. The quantitative data were analyzed using descriptive statistics, regression, ANOVA, and SEM, while the qualitative data were examined through thematic analysis. To ensure the quality of the findings, validity and reliability were maintained using established measures such as Cronbach's alpha and test-retest methods.

Findings and Discussion

This section presents the main findings from both quantitative and qualitative analyses to address the study's research questions and hypotheses. The quantitative results are summarized using descriptive statistics and model assessments, supported by relevant tables and figures. Qualitative insights are included to add context and help explain the patterns observed in the data. Together, these findings provide a well-rounded understanding of how policy frameworks relate to the effectiveness of disaster management training within the Armed Police Force, Nepal.

Descriptive Analysis

The descriptive analysis is crucial in summarizing survey data, adopting Moser and Korstjens' (2018) approach. It scrutinizes demographics, including gender, age, rank, service years, and professional roles. The aim is to give a concise overview and extraction of insights for a holistic understanding of the research landscape, particularly in our study policy implication on the effectiveness of disaster management training.

Validity and Reliability

When assessing the reliability and validity of latent variables, it is important to follow well-established threshold criteria. In this study, the measurement model was evaluated using factor loadings, communalities, Cronbach's alpha, and Average Variance Extracted (AVE) within the PLS-SEM framework. Factor loadings indicate how well each item represents its underlying construct; values above 0.7 are preferred, although values above 0.5 are still considered acceptable (Hulland, 1999; Sachin & Rajesh, 2022).

Communalities show how much of the variance in each indicator is explained by the latent variable, with values above 0.4 generally considered adequate (Sanchez, 2013). Cronbach's alpha was used to assess internal consistency, where values above 0.7 suggest that the items reliably measure the same construct (Nunnally, 1994). Convergent validity was examined using AVE, and a value greater than 0.5 indicates that the construct explains at least half of the variance in its indicators (Haji-Othman & Yusuff, 2022).

In addition, George and Mallery (2019) provide a useful guideline for interpreting reliability scores: values above 0.9 are excellent, above 0.8 are good, above 0.7 are acceptable, above 0.6 are questionable, above 0.5 are poor, and below 0.5 are considered unacceptable.

Table 1 presents the assessment of validity and reliability for two key constructs: "Policy" and "Effectiveness." Each construct is measured through a set of items designed to capture different aspects of the underlying concept. The data are derived from factor analysis, where latent variables explain the relationships among these items. Ensuring that these measures are both valid and reliable is essential, as it strengthens the credibility of the study's findings and the conclusions drawn from them.

For the Policy construct, five items (Policy1 to Policy5) were used to capture different aspects of the concept. The factor loadings, ranging from 0.697 to 0.794, suggest that all items are well aligned with the Policy factor. The communality values show how much of each item is explained by the factor—for example, Policy1 has a communality of 0.462, meaning that about 46.2% of its variation is explained by the Policy construct. The Cronbach's alpha value of 0.808 indicates good internal consistency, showing that the items work well together in measuring the same concept. Likewise, the AVE value of 0.566 exceeds the recommended threshold of 0.5, confirming that the construct demonstrates good convergent validity.

For the Effectiveness construct, nine items (Effectiveness1 to Effectiveness9) were included. The factor loadings range from 0.628 to 0.802, indicating that the items are

reasonably to strongly related to the underlying factor. The communality values, ranging from 0.408 to 0.877, show that a meaningful portion of each item's variance is explained by the construct. The Cronbach's alpha value of 0.877 reflects a high level of internal consistency, suggesting that the items are reliably measuring effectiveness. Similarly, the AVE value of 0.505 meets the acceptable threshold, indicating that the construct has satisfactory convergent validity.

The results shown in the table confirm that the constructs are reliable, as all Cronbach's alpha values are above the recommended threshold of 0.7 (Nunnally, 1994). In addition, convergent validity is also well established, since all AVE values exceed 0.5 (Al-Qudah et al., 2022). Overall, the findings indicate that the factors demonstrate solid factor loadings, good internal consistency, and acceptable convergent validity. This suggests that the measurement items are effectively capturing the underlying constructs they are intended to represent.

Table 1

Measurement of Validity and Reliability

Construct	Items	Loading	Communality	Cronbach's Alpha	AVE
Policy	Policy1	0.697	0.462	0.808	0.566
	Policy2	0.749	0.55		
	Policy3	0.760	0.537		
	Policy4	0.794	0.665		
	Policy5	0.757	0.622		
Effectiveness	Effectivness1	0.743	0.567	0.877	0.505
	Effectivness2	0.720	0.527		
	Effectivness3	0.685	0.483		
	Effectivness4	0.633	0.408		
	Effectivness5	0.628	0.422		
	Effectivness6	0.766	0.569		
	Effectivness7	0.700	0.481		
	Effectivness8	0.802	0.639		
	Effectivness9	0.713	0.512		

Source: Based on Field Survey data (2023) analyzed using IBM SPSS.

a) Structural Equation Model (SEM)

The path coefficient value 0.040 (Table 2) between Policy and Effectiveness was produced automatically by the SEM software Smart PLS as a standardized regression weight (β) showing the strength and direction of their relationship. It is calculated from the covariance and correlation among the observed indicators of both constructs. The SEM algorithm estimates this coefficient by determining how much variance in Effectiveness is explained by Policy. The value 0.040 indicates a small but positive effect, while the double asterisks (**) denote statistical significance at the 5% level, confirming that the relationship is not due to chance. This result supports Hypothesis 1, which states that better disaster management training policies in the Armed Police Force enhance the effectiveness of disaster management training.

Table 2

Structural Equation Model

Structural path	Estimate
Policy \rightarrow Effectiveness	0.040**

** indicates significance at 5%

Source: Based on Field Survey data (2023) analyzed using IBM SPSS.

b) Discriminant Validity

The presented table provides insights into the discriminant validity of the constructs "Policy" and "Effectiveness." The values in Table 3 were derived from the Smart PLS SEM output, which automatically calculates the Average Variance Extracted (AVE), mean scores, standard deviations (SD), and correlations among constructs to test discriminant validity. For the construct Policy, the AVE value of 0.808 and for Effectiveness, 0.877, indicate that a substantial portion of variance in their respective indicators is explained by each construct, confirming strong internal consistency and convergent validity. The average scores (Policy = 4.228; Effectiveness = 4.231) and their standard deviations reflect consistent respondent perceptions across indicators. Discriminant validity is confirmed, as the square roots of the AVE for both constructs are higher than their inter-construct correlations. This indicates that Policy and Effectiveness are clearly distinct concepts, while still being positively related. This finding further supports Hypothesis 1, suggesting that clear and well-structured disaster management training policies in the Armed Police Force positively contribute to the overall effectiveness of disaster management training.

Table 3*Discriminant Validity*

Construct	Average Score	SD	AVE	Policy
Policy	4.228	0.523	0.808	0.752
Effectiveness	4.231	0.423	0.877	

Source: Based on Field Survey data (2023) analyzed using IBM SPSS.

Regression Analysis

The regression analysis was conducted using Partial Least Squares (PLS) within the SEM framework to better understand how Policy affects Effectiveness. The standardized coefficient ($\beta = 0.095$) shows a positive link, indicating that when disaster management training policies improve, the effectiveness of training also tends to improve. In simple terms, stronger policies contribute to better training outcomes.

The result is statistically significant at the 1% level, meaning there is a very high level of confidence that this relationship is real and not due to chance. Overall, this finding supports Hypothesis 1 and highlights that well-designed and properly implemented training policies in the Armed Police Force play a meaningful role in strengthening the effectiveness of disaster management training programs.

Demographic Characteristics

Table 4 gives the demographic characteristics of the informants. In examining various demographic factors, the study reveals a notable gender imbalance, with 90.4% males and 9.6% females in the sample of 178 participants. Regarding ranks, "Constable" dominates at 43.3%, followed by "Senior Officer" at 38.2%. The tenure distribution shows a significant portion serving for 16-20 years (30.9%), while in terms of work levels, 62.9% are in "Tactical level" roles, 32.0% in "Managerial level," and 5.1% in "Policy level." Age-wise, the "36-45" group is the largest at 39.33%, followed by "18-25" (32.02%) and "26-35" (23.03%), with the smallest proportion in the "46-55" age group at 5.62% (Table 4). The percentages account for the entire dataset, providing a comprehensive overview of demographic distributions among the individuals surveyed.

Table 4*Demographic Characteristics of Informants*

Gender	Number of informants	Percent
Male	161	90.4
Female	17	9.6
Total	178	100
Rank		
Constable	77	43.3
Billadar	19	10.7
Junior officer	14	7.9
Senior officer	68	38.2
Total	178	100
Years of service in APF		
5 and below	61	34.3
6-10	22	12.4
11-15	17	9.6
16-20	55	30.9
21 and above	23	12.9
Total	178	100
Level of work		
Tactical level	112	62.9
Managerial level	57	32.0
Policy level	9	5.1
Total	178	100
Age		
18-25	57	32.02
26-35	41	23.03
36-45	70	39.33
46-55	10	5.62
Total	178	100

Source: Field Survey (2023).

Relationship between Perception of Effectiveness with Gender

Table 5 presents the results of a t-test comparing how male and female personnel perceive the effectiveness of disaster management training (DMT) in the Armed Police Force, Nepal. While females reported a slightly higher average score (4.33) compared to males

(4.22), the difference is minimal. The statistical test results ($t = 1.048$, $p = 0.296$) show that this difference is not significant. In practical terms, this means that both male and female participants share a similar view regarding the effectiveness of the training. As a result, Hypothesis 2 is not supported, indicating that there is no meaningful gender-based difference in how DMT effectiveness is perceived within the Armed Police Force, Nepal.

Table 5

Relationship between Perception of Effectiveness with Gender

t-test

Gender	Number	Average Score	SD	t value	p value
Male	161	4.220	0.419	1.048	0.296
Female	17	4.333	0.471		
Total	178				

Source: Based on Field Survey data (2023) analyzed using IBM SPSS.

Relationship between Perception of Effectiveness with Age

ANOVA (Analysis of Variance) is a statistical method used to check whether there are meaningful differences between the average values of three or more independent groups (Connelly, 2021). ANOVA was used to see whether people of different age groups view the effectiveness of training differently. Table 6 includes age categories “18–25,” “26–35,” “36–45” and “46–55” along with the number of participants, their average scores, and standard deviations. The results show an F-value of 0.404 and a p-value of 0.750. Since the p-value is quite high, it means there is no meaningful difference between the age groups. In simple terms, participants of all ages tend to view the effectiveness of disaster management training in a similar way. Therefore, Hypothesis 2, which expected differences across age groups, is not supported by the findings.

Table 6

Relationship between Perception of Effectiveness with Age

Age	Number	Average Score	SD	F value	p value
18-25	57	4.270	0.376		
26-35	41	4.190	0.493	0.404	0.750
36-45	70	4.214	0.420		
46-55	10	4.300	0.435		
Total	178	4.231	0.423		

Source: Based on Field Survey data (2023) analyzed using IBM SPSS.

Relationship between Perception of Effectiveness with Rank

As noted by Connelly (2021), ANOVA is used to determine whether there are meaningful differences in average scores across three or more independent groups. In this study, Table 7 presents the comparison across different ranks Constable, Billadar, Junior Officer and Senior Officer along with the number of participants, average effectiveness scores, and standard deviations.

The results show an F value of 1.407 and a p-value of 0.242, which indicates that the differences observed among the ranks are not statistically significant. In simple terms, personnel across all ranks tend to have a similar perception of disaster management training effectiveness. Therefore, Hypothesis 2, which expected differences across rank groups, is not supported by this study.

Table 7

Relationship between Perception of Effectiveness with Rank

Rank	Number	Average Score	SD	F value	p value
Constable	77	4.224	0.445	1.407	0.242
Bildar	19	4.088	0.360		
Junior officer	14	4.111	0.346		
Senior officer	68	4.247	0.424		
Total	178	4.231	0.423		

Source: Based on Field Survey data (2023) analyzed using IBM SPSS.

Relationship between Perception of Effectiveness with Service of Year

Given the lack of significant differences in variances, ANOVA was applied to assess the significance of average scores across various service years. Table 8 outlines service year categories ("5 years and below," "6-10 years," "11-15 years," "16-20 years," and "21 years and above"), participant counts, average effectiveness perception scores, standard deviations (SD), ANOVA F value, and associated p-value. The F value of 1.047 with a p-value of 0.242 (Table 8) suggests no significant difference in effectiveness perception among different service year periods. Consequently, Hypothesis 2, proposing a significant difference in DMT effectiveness perception across years of service, is not supported by this study.

Table 8*Relationship between Perception of Effectiveness with Service Year*

Service year	Number	Average Score	SD	F value	p value
5 and below	61	4.282	0.374		
6-10	22	4.253	0.431		
11-15	17	4.085	0.545	1.407	0.242
16-20	55	4.168	0.448		
21 and above	23	4.333	0.358		
Total	178	4.231	0.423		

Source: Based on Field Survey data (2023) analyzed using IBM SPSS.

Relationship between Perception of Effectiveness with Level of Work

ANOVA, a statistical method for comparing means across multiple groups, was employed to assess the significance of average scores among different levels of work (Tactical, Managerial, and Policy). Table 9 includes the number of responses, average scores, standard deviations, F values, and p-values for each level of work. The F value of 1.517 with a p-value of 0.222 (Table 9) suggests no significant difference in the perception of effectiveness of disaster management training across different levels of work. Consequently, Hypothesis 2, positing a significant difference in DMT effectiveness perception among various work levels, is not supported by this study.

Table 9*Relationship between Perception of Effectiveness with Level of Work*

Level of work	Number	Average Score	SD	F value	p value
Tactical	112	4.215	0.445		
Managerial	57	4.224	0.381	1.517	0.222
Policy	9	4.470	0.368		
Total	178	4.231	0.423		

Source: Based on Field Survey data (2023) analyzed using IBM SPSS.

Thematic Analysis of Response

Thematic analysis might involve, identifying patterns and recurring themes across the data (Riger & Sigurvinsdottir, 2016).

Understanding Disaster Management Training Policies

Interview participants conveyed their perspectives on the effectiveness of disaster management training policies in the Armed Police Force, Nepal. Overall, participants recognized APF's policies as well-defined and comprehensive to some extent, emphasizing the need for further refinement. Positive aspects highlighted include the establishment of a dedicated training school in Kurintar, Chitwan, and ongoing training programs, along with the presence of disaster response teams in each unit. However, concerns were raised about the adequacy of resources for these teams, calling for continuous training and overlapping sessions. A key development has been the shift from the Natural Calamity Act, 1982 to the Disaster Risk Reduction and Management (DRRM) Act, 2017, which clearly defines the role of the Armed Police Force in disaster response. The importance of adhering to guidelines issued by the National Disaster Risk Reduction and Management Authority (NDRRMA) and the Ministry of Home Affairs (MoHA) is emphasized, along with the use of standardized operating procedures to ensure effective and consistent training implementation. Participants highlighted APF's adaptive approach to disaster management, refining strategies based on operational experiences. Suggestions included aligning training with international standards and expanding the scope beyond domestic scenarios. In summary, while APF's disaster management policies were generally viewed positively, participants identified areas for improvement, such as resource adequacy, continuous training, international standard alignment, and policy refinement based on practical experiences. The transition to the DRRM Act 2017 and adherence to guidelines reflect ongoing efforts to enhance disaster response effectiveness.

Perceptions of Training Effectiveness

The insights gathered from interview participants provide a positive evaluation of the effectiveness of the disaster management training programs conducted by the Armed Police Force, Nepal. Key sentiments include the acknowledgment of enhanced professionalism and efficiency among personnel, with the training directly contributing to their capabilities in real-world disaster scenarios. The efficacy of the programs is recognized across a spectrum of disaster scenarios, showcasing the adaptability and effectiveness of APF personnel in various challenging situations. Improved performance, increased professionalism, and dedication are noted outcomes of the training efforts, contributing to the organization's

effectiveness in disaster response. Participants suggest that expanding training to a global level and providing international exposure could further enhance the skill set and effectiveness of APF personnel. Despite resource limitations, the organization has demonstrated effective performance in disaster response situations, indicating untapped potential that could be fully realized with improved resource allocation. In summary, the positive perception of APF's disaster management training effectiveness, coupled with insights on potential improvements, highlights the organization's commitment to enhancing disaster response capabilities and the need for strategic considerations in resource allocation and international exposure.

Overall Reflection and Suggestions

Based on interview participant responses, critical factors for enhancing the effectiveness of disaster management training within the Armed Police Force, Nepal are identified. These factors encompass a holistic approach to training, emphasizing mindset, communication, rule implementation, technological adaptation, expertise tailored to specific disasters, motivation, geographic diversity, career advancement, policy enrichment and recognition. The key themes suggest that cultivating a positive mindset, policy enhancement and effective communication are foundational, followed by the importance of adhering to established rules and regulations for coordinated crisis response. Embracing advanced technologies, tailoring expertise to different disaster types, policy refurbishment and offering motivation through incentives contribute to the effectiveness of training. Recognizing Nepal's geographical diversity, participants propose tailored training programs specific to different regions. Linking disaster management training to career advancement and professionalism enhances individual commitment. Access to contemporary training resources and recognizing changing hazard patterns are considered essential for maintaining relevance and effectiveness. In summary, the suggested critical factors underscore the multifaceted nature of disaster management training, emphasizing adaptability, policy enrichment, and strategic alignment to ensure optimal outcomes in various disaster scenarios.

Conclusion

This study explored how policy frameworks shape the effectiveness of disaster management training within the Armed Police Force (APF), Nepal. The findings show that when policies are clear, practical and consistently implemented, they make a real difference in improving the quality and impact of training. By bringing together both quantitative results and qualitative insights, the study confirms that stronger policies are linked to better training outcomes. In simple terms, policies are not just formal documents, they actively support capacity building, preparedness and operational performance.

An important finding is that factors such as gender, age, rank, years of service and level of work do not significantly influence how participants view training effectiveness. This suggests that the training system within APF is fairly consistent and inclusive, providing similar benefits across different groups and levels of personnel.

From a broader perspective, the study helps explain how good policies translate into better practice in disaster management. It shows that well-structured and coordinated policies can strengthen institutional readiness and improve response capability. Practically, the findings highlight the need to regularly review and update policies, adopt new technologies, learn from international best practices and ensure that resources are used effectively to further strengthen disaster management capacity.

Looking ahead, future research could examine how training improvements perform over time, compare results with other security or humanitarian organizations and explore ways to integrate climate change adaptation into training systems. Overall, the study reinforces a simple but important message: effective disaster management begins with strong and well-aligned policies that connect planning with action, ultimately strengthening both institutional preparedness and national resilience.

Disclosure Statement

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