

## The Role of Militaries in Natural Disaster Management: A Systematic Review

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### Original Article

#### Abstract

**INTRODUCTION:** Large-scale natural disasters, particularly in the first hours and days, place severe pressure on civilian response capacities, and in many countries, militaries act as complementary and enabling actors. This study aimed to systematically examine the roles, capacities, outcomes, and challenges of military involvement in the natural disaster crisis management cycle.

**METHODS:** This study was conducted as a systematic review by searching scientific databases including ProQuest, PubMed, ScienceDirect, Scopus, and Web of Science, as well as SID, Noormags, and Magiran, from October 1950 to May 2025. Articles were selected based on predefined search strategies and inclusion and exclusion criteria. After screening and quality assessment, 22 eligible articles were included in the final analysis. Data were analyzed using thematic content analysis.

**FINDINGS:** The review identified 12 empirical and 10 conceptual-policy articles. Most of the evidence focused on the response phase, and only a limited number of studies addressed preparedness and recovery. No role was reported for the risk reduction phase. The most frequently reported military roles included medical and health services, logistics, search and rescue, and evacuation and transport. The key military capabilities identified included logistics, emergency medical capacity, rapid deployment, and airlift.

**CONCLUSION:** The results indicate that in natural disasters, militaries can play a key but temporary and complementary role in health-based and logistical responses and are mainly involved in the response phase. The effectiveness of this involvement depends on clearly defined roles, strengthened civil-military coordination, doctrine development, and investment in specialized training.

**Keywords:** Army; Military; Crisis management; Natural disasters.

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### Introduction

In many countries, militaries are considered as one of the most important governance capacities in natural disaster management, and in major disasters, their presence in search and rescue, evacuation and transportation of people and goods, medical services, logistical support, technical and engineering measures, and security provision has been widely reported (1-3).

Features such as organized manpower, land, sea, and air transportation networks, command and control systems, and the ability to operate in high-risk conditions have allowed armies to play a complementary and sometimes key role in saving the lives of the injured in the first hours and days after a disaster (4).

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