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IMAGE ESSAY

# Exploring the role of internationally educated nurses in disaster nursing: The HEAL model

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## Abstract

Natural disasters continue to pose serious threats, causing significant damage and loss of life. The involvement of Filipino internationally educated nurses (IENs) has become increasingly important for effectively managing and responding to such crises. Although the healthcare industry plays a central role in disaster management, the specific contributions of IENs in this context have not been thoroughly examined. Additionally, the environmental implications of IEN recruitment point to the significance of their engagement in climate mitigation. Leveraging the HEAL Model—Help, Educate, Act, and Lead—IENs play crucial roles in training officials, educating peers, leading environmental initiatives, and advocating for policy changes. Their collaboration with volunteers during disaster situations underscores their effectiveness. The IENs, in collaboration with volunteers, bring substantial contributions to disaster nursing and are showcased through the HEAL Model, signifying their potential for enhancing disaster response and climate action endeavors.

**Key words:** climate change, disaster nursing, disaster policy, foreign nurses, internationally educated nurses

## INTRODUCTION

Natural disasters pose persistent threats, causing widespread devastation and loss of life. The involvement of internationally educated nurses (IENs) has emerged as a vital asset in managing and responding to such crises. Although the healthcare industry holds a crucial role in disaster management, the distinct contributions of IENs remain underexplored. Recent work by Cubelo (2023a) underscored the critical engagement of IENs from the Global South, such as the Philippines, Kenya, Zambia, India, Vietnam, and Myanmar, who have migrated to Finland. Their involvement spans community activism

and mitigation strategies in the face of climate-related issues.

Furthermore, Cubelo (2023a) highlighted the carbon emissions linked to the recruitment of IENs, primarily due to long-haul flights associated with migration. Additionally, Cubelo (2020) estimates that approximately 10,000 Filipino nurses are present in the Nordic Region, some of whom might lack the complete qualifications to work as Registered Nurses (Cubelo, 2023b; Cubelo, Langari, Jokiniemi, & Turunen, 2023), having entered through family reunification or work permits. Unfortunately, these nurses often find themselves excluded from community activism and mitigation endeavors aimed at combating the profound impacts of climate change.

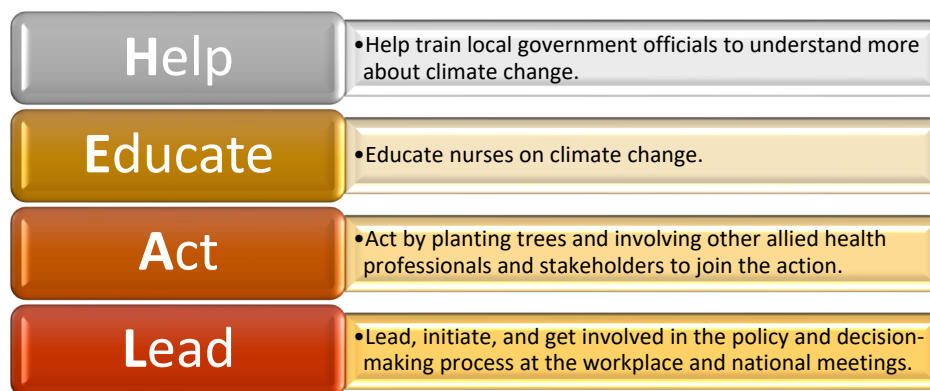
Addressing climate change is a global imperative with significant implications for health care, particularly in disaster nursing. Within this context, the roles of IENs in disaster nursing and climate action can be effectively understood through the HEAL Model – Help, Educate, Act, and Lead (Figure 1). This paper describes how

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**Figure 1** The HEAL Model (help, educate, act and lead) is used as a tool to mitigate the drastic effects of climate change.

IENs' engagement with disaster nursing aligns with the principles of the HEAL Model and outlines their contributions toward mitigating disasters in the context of climate change.

## FRAMEWORK OF THE MODEL

Scientific evidence, such as the Intergovernmental Panel on Climate Change (Intergovernmental Panel on Climate Change (IPCC), 2023), consistently links the increasing severity of disasters to human-induced climate change. In this context, nurses, as frontline healthcare professionals, engage in disaster response, community education, and policy advocacy, emphasizing their integral role in addressing both immediate disaster consequences and the broader climate crisis (International Council of Nurses (ICN), 2022). However, nurses lack the knowledge, education, and preparation (Tiitta, McDermott-Levy, Turunen, Jaakkola & Kuosmanen, 2021; Leffers & Butterfield, 2018), even though nurses are active in helping people during disasters induced by climate change.

The HEAL Model serves as a framework through which to view IENs' roles and responsibilities in disaster nursing, especially in the context of climate action. However, it is essential to clarify that the HEAL Model is a hypothetical framework proposed within the context of this discussion and does not currently exist as an established or formally recognized model within the scientific or academic domain. The purpose of presenting the HEAL Model in this discussion is to provide a structured approach to understanding the roles and contributions of IENs in disaster nursing and climate action, emphasizing Help, Educate, Act, and Lead as essential components of their involvement.

The IENs hold Bachelor of Science in Nursing degrees acquired in their home countries, are duly Registered Nurses, and have undergone training in emergency and disaster nursing during their studies before migrating to the Nordic countries. These nurses are anticipated to be proficient in collaborating, negotiating, and educating volunteers, aligning with the requisites of the HEAL Model.

## INTERNATIONALLY EDUCATED NURSES AND THE HEAL MODEL: NAVIGATING DISASTER NURSING

The HEAL Model and the roles of IENs and volunteers in disasters are interconnected. The IENs, guided by the HEAL Model, align with volunteer needs during emergency disasters. In the *Help* component, IENs' collaboration with local authorities mirrors their support to disaster response volunteers, fostering a more coordinated approach to disaster relief.

Similarly, the *Educate* aspect is vital, with IENs extending their guidance to volunteers who often lack specialized disaster nursing knowledge. The IENs bridge this knowledge gap, ensuring a cohesive response addressing immediate healthcare needs and long-term recovery.

The *Act and Lead* components reinforce IENs' leadership in policy discussions and environmental initiatives, directly influencing disaster response. Volunteers benefit from IENs' expertise, working together to enact meaningful change and provide comprehensive health care during disasters. This mutual relationship between IENs and volunteers, rooted in the HEAL Model, showcases their collective impact on resilient communities facing climate-related challenges.

## IENS' ROLES IN DISASTER NURSING THROUGH THE HEAL MODEL

### Help: Collaborative training and volunteer engagement

The *Help* component emphasizes IENS' efforts in training local government officials and authorities, fostering a deeper comprehension of climate change's healthcare implications. Despite potential feelings of insignificance in the face of a growing climate crisis and limited governmental guidance, health professionals must recognize the impact of their past successes in addressing global pandemics (Kotcher et al., 2021), such as small-pox and polio. The researchers' personal experiences reveal instances where IENS have collaborated with local government officials, enhancing social responsibilities among government entities during disaster operations, often in conjunction with volunteers. As depicted in Figure 2, volunteers of civil societies during a typhoon in the Philippines showcased their contributions to disaster response by carrying goods for distribution.

### Educate: Empowering through knowledge

The *Educate* facet highlights IENS' roles in educating fellow healthcare professionals about climate change. By integrating climate education into nursing curricula and raising awareness through campaigns, IENS contribute significantly (Cubelo, 2023a). Concrete initiatives, like the "Nurse-a-Tree" project in Ireland, demonstrate their impact (Greenbelt Ltd., 2021). Figure 3 shows IEN's participation in the CleanMed Europe Conference,

sharing experiences on the impact of educational awareness in fighting climate change.

*The NAT project was established in early 2021, inspired by the CleanMed conference and the Filipino nurses working in Finland. "Nurse A Tree is partnering with Green Belt" who will provide professional forestry expertise (Greenbelt Ltd., 2021).*

### Act: Collaborative environmental initiatives

The 'Act' component emphasizes the IENS' active engagement in environmental initiatives. IENS collaborate with other allied health professionals and stakeholders to initiate actions that mitigate the effects of climate change.



**Figure 2** Volunteers assisting with disaster response coordination along with local residents during a typhoon in the Philippines.

## How nurses can take climate action: Presenting the Nurses Climate Challenge

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Floro Cubelo, PhD Candidate, MPH, BSN, RN



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**Figure 3** An example of an IEN public presentation about how they can assist with tackling climate change at the CleanMed Europe Conference.

After comprehending the intention and nature of the tree planting drive, which aims to offset carbon dioxide footprints caused by long-haul flights, the Department of Environment and Natural Resources (DENR) in the Philippines responded to the collaborative efforts with the Filipino Nurses Association in the Nordic Region.

Figure 4 shows a collaborative effort between civil society volunteers and IENs in planting trees and participating in coastal clean-up activities, highlighting their dedication to environmental sustainability and resilience. Health professionals should also lead by example by decarbonizing their practices and advocating for decarbonization within healthcare systems (Kotcher *et al.*, 2021). Below was also the excerpt from the IENs’ letter to two high-ranking officials in the Philippine military, aimed at helping them engage their officials to join the act of saving the planet.



**Figure 4** Civil society volunteers assisting with a coastal clean-up in collaboration with the Filipino Nurses Association in the Nordic Region.

*Government agencies such as yours are effective agents in proving solidarity and international collaboration to protect the interests of our planet and the tenets of the future generation. In relation to this, we want to sincerely cooperate with you in our future activities through tree planting and coastal clean-up drives.*

Goodman and Douquet (2020) stated in a report that although planting and preserving trees is insufficient to sufficiently reduce carbon dioxide levels, the military can contribute to addressing climate change by expanding tree planting and protection programs and establishing a stronger link between environmental security and national security, leveraging their logistical capabilities for this mission.

**Lead: Advocacy and policy influence**

The ‘Lead’ component underscores the IENs’ involvement in policy and decision-making processes, both at the workplace and at national healthcare meetings. IENs actively participate in policy discussions, advocating for climate change policies and integrating climate considerations into healthcare systems. By initiating and influencing policy changes, IENs play a vital role in promoting climate-resilient health care. As an IEN, the primary author successfully proposed two courses, namely “Sustainable Nursing Practice” and “Nursing in International and Global Health,” to higher education management, and their implementation was approved. Table 1 indicates the course content of two elective courses from the Oulu University of Applied Sciences, approved in 2021 by higher education management in response to addressing issues to do with climate change and disaster nursing during the coronavirus disease 2019 (COVID-19) pandemic.

In a study by Kotcher *et al.* (2021), the public expressed a sense of responsibility to educate both the

**Table 1** Two courses addressing issues to do with climate change and disaster nursing, offered at the Oulu University of Applied Sciences approved by the institution’s management

Sustainable Nursing Practice (5 ECTS)	Nursing in International and Global Health (5 ECTS)
Course Content	Course Content
<ul style="list-style-type: none"> <li>● Six attributes of sustainability in nursing</li> <li>● Hazardous exposures to nurses in healthcare facilities</li> <li>● Pharmaceutical waste and reducing medicine waste</li> <li>● United Nation’s sustainable development goals (SDG): SDG 3, SDG 6 and SDG 17</li> <li>● Relationship of climate change to mental health, respiratory diseases and cardiovascular diseases</li> <li>● International organizations involving nurses that deal with climate change</li> </ul>	<ul style="list-style-type: none"> <li>● Nursing roles in 21st-century health systems</li> <li>● Universal health coverage</li> <li>● International nurse migration and mobility</li> <li>● Disaster nursing</li> <li>● Local and international nursing organizations</li> <li>● Advanced nurse practitioners/Clinical nurse specialists in Europe</li> <li>● Role of nurses in climate change, antimicrobial resistance and conflict situations</li> <li>● Governance and leadership in nursing</li> </ul>
European Credit Transfer and Accumulation System (ECTS)	

public and policymakers about climate change. Furthermore, health professionals should bring the health effects of climate change to the public's and policymakers' attention and actively encourage national and global leaders to strengthen their commitments to address climate change (Kotcher et al. 2021). In addition, IENs can participate in the formulation or implementation of both upstream and downstream policy guidelines. For upstream policies, IENs need to understand why constant natural disasters occur in the Philippines and examine the root cause (Leffers & Butterfield, 2018). For downstream policies, emphasis should be placed on climate adaptation, disaster response, and the significance of nursing workforce preparation (Leffers & Butterfield, 2018).

## CONCLUSION

Through the lens of the HEAL Model, this exploration of IENs' roles in disaster nursing and climate action reveals their multifaceted contributions. Their involvement in training, education, environmental initiatives, and policy discussions contributes significantly to climate-resilient healthcare systems. Their personal experiences exemplify the importance of their roles in disaster nursing amid climate change.

Further research and collaboration are needed to enhance understanding, identify barriers, and amplify IENs' roles in climate action. By recognizing the potential of the HEAL model and empowering IENs, healthcare systems can be better prepared to address the complex health challenges posed by climate change.

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## DISCLOSURE

The authors have no conflicts of interest to declare.

## AUTHORS' CONTRIBUTIONS

Floro Cubelo undertook the design of the HEAL Model and was responsible for drafting and revising the manuscript. Katherine Perez Luckmann and Cristal

Tolosa Warburg made significant contributions to the conceptualization and selection of images. All authors approve the manuscript for publication.

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