



Avoidable Deaths Network

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# **Annual Report**

August 2021 - July 2022

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## **Table of Contents**

Introduction to ADN Members and Activities	1
ADN's Activities and Achievements for 2021/2022	4
ADN's Projects: At a glance	21
Published Research Outputs	23
Conferences, Seminars, Workshops and Presentations	26
Press, Media and Impact	27
Annex 1: List of our Organisational Partners	28
Annex 2: A Year of Learning at the Avoidable Deaths Network	29

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## Introduction to ADN Members and Activities

This report documents the activities undertaken by the **members** of the Avoidable Deaths Network (ADN) from 1 August 2021 to 31 July 2022. Members consist of ADN's Core Team, Advisory Board, Regional Coordinators, and interns.

The ADN was launched on 12 March 2019 at the 4<sup>th</sup> Summit of the Global Alliance of Disaster Research Institutes (GADRI) in Kyoto, Japan. This third report covers the activities of the last 12 months (1 August 2021-31 July 2022).

**Our purpose** (*why we exist*): To help policymakers and practitioners make better decisions to save lives and reduce injuries for sustainable development.

**Our vision** (*what we want to achieve by 2030*): To be recognised as global leaders in avoidable deaths for impactful research, solution, and services.

**Strategic areas:** To achieve our vision by 2030, we focus on two interrelated areas.

1. Promoting a global community for avoidable deaths.
2. Promoting research, networking and knowledge exchange.

To achieve these strategic areas, although not limited to, ADN conducts eight activities discussed below. The previous report focused on six activities. This is because we have had two major milestones to achieve our vision. As such, it was essential to align our activities with the milestones

**First milestone:** On 22 November 2021, Dr Nibedita Ray-Bennett received an invitation from Yuki Matsuoka, Head, United Nations Disaster Risk Reduction (UNDRR) Office in Japan, to showcase ADN at the Sendai Framework Voluntary Commitments (VC) platform. The VC platform provides an opportunity to:

- Inform the public about our work;
- Facilitate learning and collaboration by knowing who is doing what and where; and
- Motivate others, share updates and highlight good practices related to Sendai Framework's Targets A and B.

In order to align with the VC Platform Commitments, the existing ADN activities were updated on 1 January 2022 in consultation with ADN's Advisor, Mr Steve Glovinsky. ADN's webpage on UNDRR's VC platform can be viewed through this link: [https://sendaicommitments.undrr.org/commitments/20211123\\_001](https://sendaicommitments.undrr.org/commitments/20211123_001)

**Second milestone:** ADN is part of the University of Leicester's newly established Research Institute for Environmental Futures' research challenge theme 'Climate Change Adaptation and Disaster Risk Reduction'. Dr Nibedita Ray-Bennett is the founding lead for this research challenge and is also part of the governing management board. The Research Institute for Environmental Futures is directed by Professor Heiko Balzter and was approved on 17 December 2021 after a rigorous selection process. The Research Institute complements Leicester's research strengths in Schools and Departments and will be the catalyst for driving inter-disciplinary research across the University.

## **ADN Members**

As of 31 July 2022, the ADN's core team consisted of twelve members. This included: two founding Presidents, Dr Nibedita S. Ray-Bennett at the University of Leicester and Dr Hideyuki Shiroshita at Kansai University; the founding Operation's Manager, Ms Denise Corsel at the University of Leicester; the Editorial Manager, Dr Madhulika Sahoo at Kalahandi University; the Media and Communications Officer, Mr Matt Merry; the ADN Administrator, Mr Shahidul Hoque; the Administrative Coordinators, Mr Alexander Skinner at the Foreign, Commonwealth and Development Office and Mr Julian Coetzee at the University of Leicester; the Information and Networking Coordinator, Ms Lauren Macleod at the University of Leicester; the Production Coordinator, Ms Racheal M. Nantume at the University of Leicester; the ADN Hub India Advisor, Ms Nimisha Goswami at the University of Leicester; and the ADN Hub India Project Coordinator, Ms Rwittambhara Kashyap at the Tata Institute of Social Sciences-Assam.

On 31 July 2022, the ADN consisted of 16 multi-disciplinary world-renowned Advisory Board Members from nine different countries (please see *Table 1*).

**Table 1: List of ADN Advisory Board Members**

<b>Date of Joining</b>	<b>Name</b>	<b>Country</b>
March 2019	Professor Heiko Balzter	UK
March 2019	Professor Peter Jackson	UK
March 2019	Professor Norio Okada	Japan
March 2019	Dr Ambika Prasad Nanda	India
March 2019	Mr Mihir R. Bhatt	India
March 2019	Ms Aditi Ghosh	Thailand/India
March 2019	Ms Patience Andrew	Nigeria
March 2019	Ms Magda Stepanyan	Netherlands
March 2019	Mr Hamdou Wane	Senegal
March 2019	Ms Cecilia Aipria	Ethiopia
July 2019	Professor Daniel Ladley	UK
January 2020	Mr Steve Glovinsky	USA
February 2021	Mr David Wales	UK
February 2021	Professor Michael G Petterson	UK
July 2021	Mr Mohammed Ali Said Albadi	Oman
April 2022	Dr Tony Moore	UK/Turkey

The role of Regional Coordinator runs for two years. As of 31 July 2021, the ADN had 21 Regional Coordinators from 14 different countries for the two-year term (2021-2023) (please see **Table 2**).

**Table 2: List of ADN Regional Coordinators**

Date of Joining	Name	Country
March 2019	Mr Daniel Mendez	Belize
March 2019	Dr Azukaego Nnaji	Nigeria
March 2019	Mr Samuel Akera	Kenya
March 2019	Ms Pamela Komujuni-Kalule	Uganda
March 2019	Dr Sophie Hebden	UK
March 2019	Dr Christian Morgner	UK
March 2019	Mr Bede Wilson	Australia
March 2019	Dr Edris Alam	Bangladesh
March 2019	Mr Krishna Clarke	St. Vincent and the Grenadines
March 2019	Mr Dillip Pattanaik	India
March 2019	Ms Madhulika Sahoo	India
April 2019	Dr Fatima Akter	Bangladesh
April 2019	Dr Holmes Paez	Colombia
April 2019	Dr Yazidhi Bamutaze	Uganda
March 2021	Ms Shaiza Khawaja	Pakistan
March 2021	Ms Anuradha	India
March 2021	Dr Radhanath Tripathy	India
April 2021	Khadijeh Norouzi Khatiri	Iran
April 2021	Dr Netrananda Sahu	India
April 2021	Dr Inshah Malik	Afghanistan
Dec 2021	Mr K.G. Mahendra Jagath	Sri Lanka

Between 1 August 2021 and 31 July 2022, ADN had nineteen interns from eight different countries.

As of 31 July 2022, the total number of ADN Members was 650, which is more than double the previous year's membership (in July 2021 there were 372 ADN members). This includes: 12 Core Team, 16 Advisory Board Members, 21 Regional Coordinators, 21 Organisational Partners and 583 Affiliates. Please see **Annex 1** for a list of ADN's Organisational Partners. The ADN members have grown organically.

## **ADN's Activities and Achievements for 2021/2022**

To achieve the ADN's purpose, six activities were undertaken and their updates were provided in the previous two reports:

- 1) Hosting an open space to share, discuss and disseminate international, national, regional, and local news, research and innovative solutions to avoidable deaths.
- 2) Organising and facilitating conferences and webinars on avoidable deaths to foster trans-disciplinary ideas and solutions.
- 3) Promoting state and non-state collaboration through North-South, South-South and triangular cooperation in order to advance the agenda of avoidable deaths.
- 4) Advocating the agenda of mainstreaming avoidable deaths at the heart of all disaster and development activities in low-and middle-income countries.
- 5) Publishing an annual newsletter.
- 6) Actively soliciting and securing private and public funds to promote the above activities.

These activities were updated on 1 January 2022 to align with the UNDRR's VC Platform Commitments. The details of the new activities are as follows:

- 1) Foster trans-disciplinary ideas, partnerships and solutions to reduce avoidable disaster deaths and people affected by disasters for sustainable development in low-and middle-income countries, through knowledge exchange events (conferences, symposiums and webinars).
- 2) Raise visibility and awareness of the Sendai Framework's first two targets, through publications, and knowledge exchange events.
- 3) Develop capacities of disaster responders and other stakeholders, through continuing professional development courses, knowledge exchange events and an information repository.
- 4) Develop lifesaving tools, kits, interventions, innovative technologies, governance models and theories to reduce the burden of maternal mortality, snakebite mortality, drowning mortality during disasters, and tsunami mortality through evidence-based pioneering research on hazards, exposures, vulnerability and risks.
- 5) Strengthen connections between disaster responders, through leveraging existing and promoting novel networking platforms.
- 6) Nurture future leaders for Avoidable Deaths and improve their leadership and employability skills, through expert mentoring and engaging interns for activities related to 1-5.
- 7) Publishing a Newsletter and Bulletins for knowledge exchange; and
- 8) Actively soliciting and securing private and public funds to promote the above activities.

**Activity 1: Foster trans-disciplinary ideas, partnerships and solutions to reduce avoidable disaster deaths and people affected by disasters for sustainable development in low-and middle-income countries, through knowledge exchange events (conferences, symposia and webinars).**

### **Symposium**

The ADN organised and delivered its debut Symposium on 10 December 2021 entitled '*Integrating Disaster Risk management with Emergency Services and Defence to Reduce Avoidable Disaster Deaths*' in the Caribbean region in collaboration with Leicester's students from the MSc in Risk, Crisis and Disaster Management, and Crisis Management and organisational partners, Disaster Medical Assistance Team, Prepared International, Shared Aim, and Gannon Emergency Solutions. The regional partners included: Rights Insight, the Caribbean Development Bank, the Caribbean Association of Fire Chiefs, Barbados Fire Services, and Regional Security System.

This high-profile transdisciplinary Symposium brought together 15 speakers representing the emergency services (viz. fire and rescue, police, civilian), defence (viz. navy, army and civilian), researchers, UNDRR, UNDP, Caribbean Disaster and Emergency Management Agency (CDEMA) and the Caribbean Development Bank.

The keynote speakers for this event were: Ms Mami Mizutori, the Special Representative of the United Nations Secretary-General for Disaster Risk Reduction (DRR) and Head of the United Nations Office for DRR, and Ms Elizabeth Riley, the Executive Director of the Caribbean Disaster Emergency Management Agency (CDEMA). The Symposium was viewed by more than 500 people.

We received inspiring feedback from the participants:

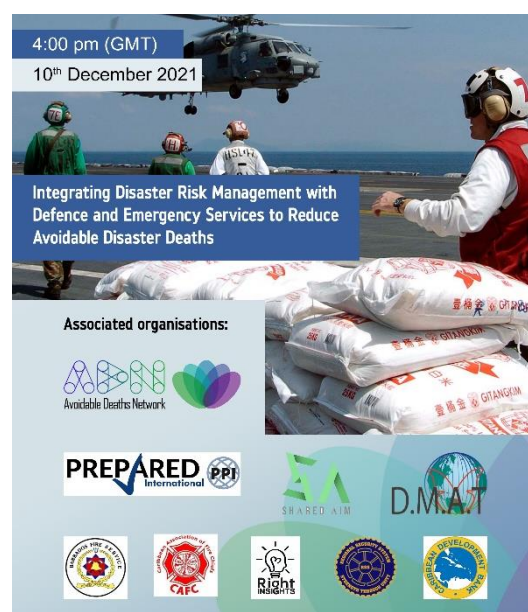
*"History being made by bringing the emergency services and defence together in the Caribbean region"*

*"It was a phenomenal Symposium".*

### **Special Session Webinars**

The ADN's Core Team in collaboration with Regional Coordinators, Organisational Partners and Advisors organised four virtual Special Sessions in Iran, the Caribbean, Switzerland, and the UK (please see **Table 3**). The Special Session on Avoidable Deaths was launched on 4<sup>th</sup> December 2020 at the 'International Conference on Geographical Science for Resilient Communities, Ecosystems and Livelihoods under Global Environmental Change' organised by Makerere University in Kampala, Uganda.

**Figure 1: Flyer of the ADN Symposium**



The Special Sessions are knowledge exchange and engagement webinars delivered virtually to the public for free with the aim of raising awareness on the concept of avoidable deaths and their avoidance through theoretical and practical solutions, or both. The Special Sessions also raise knowledge and awareness on those deaths that are often not in the mainstream agenda of policy makers, practitioners, and even academia. World-class researchers, experts and practitioners are invited to speak at the Special Sessions. Further details of the Special Sessions can be found through this weblink: <https://www.avoidable-deaths.net/adn-special-sessions/>

**Table 3: Special Sessions (SS) 2021-2022**

<b>Date</b>	<b>Title of Special Session</b>	<b>Facilitating Organisation</b>	<b>Impact</b>
25 Jul 2022	World Drowning Prevention Day: The Future of Drowning Risk in the Context of COVID-19 and Climate Change	Royal National Lifeboat Institution (RNLI) and WHO	<p>The session welcomed seven speakers. The total number of participants registered for this event was 48.</p> <p>A before-and-after survey regarding level of confidence and knowledge of the topics (5-level Likert scale) was conducted:</p> <p>Before (n=10): 60.0% participants rated positive.</p> <p>After (n=9): 77.8% participants rated positive.</p> <p>After the SS some of the participants said:</p> <p><i>'Thanks a lot – interesting topic!'</i></p> <p><i>'Very clearly said that the leading cause of unintentional injury with temperature increase is drowning'.</i></p> <p>Feedback for our Future Leaders (ADN's Junior Champions):</p> <p><i>'Great to see more work from Uganda!'</i></p> <p><i>'An amazing boy! Well done to him!'</i></p> <p><i>'Thanks to our future leaders – excellent contribution – great engagement!'</i></p>
04 May 2022	Avoidable Deaths: Anticipatory Framework to Reduce Disaster Deaths	United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)	<p>The session welcomed five speakers and 48 participants. The total number of participants registered for this event was 122.</p> <p>A before-and-after survey regarding level of confidence and knowledge of the topics (5-level Likert scale) was conducted:</p> <p>Before (n=30): 26.7% participants rated positive.</p> <p>After (n=16): 68.6% participants rated positive.</p>
25 Mar 2022	Exclusion and Avoidable Disaster Deaths	ADN Regional Coordinators for the Caribbean	<p>The session welcomed four speakers and the total number of participants registered for this event was 81.</p>



			<p>Due to a technical problem, a before-and-after survey could not be conducted for this SS.</p> <p>After the SS some of the participants said:</p> <p><i>'Thanks, ADN, for organising this Special Session on exclusion. We need to speak about it more and more, making the invisible, visible!'</i></p> <p><i>'It's a very happy effort to see the collaboration going on. Thank you!'</i></p>
28 Jan 2022	Reducing Avoidable Disaster Deaths through Effective Mitigation and Response	University of Tehran's School of Environment, Iran	<p>The session welcomed five speakers and the total number of participants registered for this event was 132.</p> <p>A before-and-after survey regarding level of confidence and knowledge of the topics (5-level Likert scale) was conducted:</p> <p>Before (n=20): 35.0% participants rated positive.</p> <p>After (n=21): 71.4% participants rated positive.</p>

Although some of the participants experience technical challenges in completing the Special Sessions' poll surveys we have had more 106 responses and world class 19 speakers. Before and after each of the Special Sessions, the participants were asked to answer questions about their level of confidence and knowledge of the topics covered in the Special Session using an online poll system. The questions were asked using a 5-level Likert scale, where 1 = not at all confident, and 5 = very confident. The results showed a significant increase in the proportion of positive responses (very confident and moderately confident) after Special Sessions (see **Table 3**). It can be concluded that the Special Sessions provided expert knowledge related to avoidable deaths to the participants. The increase in the overall percentage of positive responses after the sessions and the fact that no one responded "not at all confident" for the sessions suggest that the Special Sessions were meaningful, regardless of the level of participant's experience.

Please see **Error! Reference source not found.** for the flyers of the four Special Sessions. For more details on the Special Sessions, please view this weblink: <https://www.avoidable-deaths.net/adn-special-sessions/>



**Figure 2: Flyers of the ADN Special Sessions**

### Consultations with Stakeholders

As part of the research project 'Exploring the Feasibility and Value of a Regional Network for First Responders (RN4FR) to Reduce Avoidable Disaster Deaths in the Caribbean Region' (in short RN4FR) the ADN Core Team organised three two-hour virtual consultations from 14 to

16 June 2022. The first day of consultation was for humanitarian organisations, followed by the emergency services on the second day and defence agencies on the third. A total of 31 participants from 10 different countries attended the consultations. Of these 10 countries, the majority of the participants (93%) were from Caribbean countries. The three-day virtual consultations focused on exploring three questions: **i)** What are the capacity gaps to providing first responders from [humanitarian organisations/emergency services/defence agencies], and what challenges do they face in addressing them?; **ii)** How can communication, coordination, and collaboration (“3Cs”) be improved for first response among humanitarian organisations, emergency services and defence agencies?; and **iii)** How, if at all, could a knowledge network connecting all first responders address these capacity gaps and “3C” constraints and challenges for avoidable disaster deaths?

### ***Stakeholders Workshop***

As part of the research project RN4FR the ADN Core Team organised a Stakeholder’s Workshop on 27 June 2022. The Stakeholder’s Workshop welcomed the opinions of the regional level organisations, Caribbean Disaster Emergency Management Agency, Regional Security System and Pan American Health Organisation, on the following question: What steps need to be taken to create and sustain a Regional Network for First Responders (RN4FR)? The opinions gathered from the speakers and attendees will contribute towards the roadmap to create, launch and sustain an RN4FR in the Caribbean region.

### ***Meetings with Stakeholders***

Dr Nibedita Ray-Bennett, accompanied by Mr Steve Glovinsky (ADN’s Advisor and Founder of PeerConnect), Mr Alexander Skinner (ADN’s Administrator and Second Secretary Communications, Climate and Public Diplomacy, Foreign, Commonwealth & Development Office (FCDO)), Mr Krishna Clarke (ADN’s Regional Coordinator – Barbados, and Research Analyst, Caribbean Development Bank) and Ms Keisha Linton (Regional Security System), met with more than 18 key stakeholders in Bridgetown, Barbados from 4 to 6 July 2022.

**Activity 2: Raise visibility and awareness of the Sendai Framework's first two targets (A&B), through publications, and knowledge exchange events.**

***Knowledge exchange events***

See Activity 1 above.

***Publications related to Sendai Framework's first two targets by the core team***

- Ray-Bennett, N.S., Clarke, K., and Mendez, D. (2022, *forthcoming*) Sendai Framework's Global Targets A and B: Opinions from the Global Platform for Disaster Risk Reduction's Ignite Stage 2019. *International Journal for Disaster Risk Science* (in Press).
- UNDRR (2022) *Sendai Framework Voluntary Commitments Synthesis and Analysis Report* Available online: <https://lnkd.in/dUNmvZnd> ADN is cited p, 98 e-page 113.
- Ray-Bennett, N.S. Coetzee, J. (2021) 'Disaster Trends, Deaths and People Affected in the Caribbean Region Over 20 Years', *ADN Newsletter* (3). Available online <https://www.avoidable-deaths.net/adn-newsletter/>
- Shiroshita, H. (2021) 'School Pupils in Osaka are Champions for Avoidable Deaths from Tsunamis', *ADN Newsletter* (3). Available online: <https://www.avoidable-deaths.net/adn-newsletter/>

***Engagements with external organisations to raise awareness of Sendai Frameworks first two targets*** See Activity 1 and the section on 'Conferences, Seminars, Workshops and Presentations'.

Through the Symposium, Special Sessions, and Stakeholders Workshop and Consultations ADN has engaged with more than 674 people between 1 August 2021 and 31 July 2022.

The ADN has four social media outlets to disseminate international, national, regional, and local news, research and innovative solutions to avoidable deaths. The media outlets are: Facebook, LinkedIn, Twitter and a dedicated website. Two to three posts per week are disseminated on these media outlets.

On 31 July 2022 ADN had attracted 566 followers and 542 likes on Facebook from more than 48 countries (of which 32.1% are female and 67.9% are male). This was an increase of 48 followers in the past year. On Twitter, ADN had attracted 576 followers. This was an increase of 60 followers in the past year. On LinkedIn, ADN had attracted 459 followers. This was an increase of 307 followers in the past year.

On ADN's website there is a dedicated section on Resources, which consists of: i) Repository of COVID-19 Information; ii) ADN Newsletter; iii) ADN Publications and Materials; iv) Relevant Publications; v) Ongoing and Past Projects; and vi) Videos and Podcasts.

ADN is a member of Partnership for Maternal, Newborn and Child Health (PMNCH).

On 29 June 2022 ADN signed an agreement to 'further cooperate for the framework of the HEUREKA Project – 'Civil Protection Knowledge Partnership Middle East'.

On 1 December 2021, Dr Nibedita Ray-Bennett launched a new consultancy research project on 'Understanding the impact of climate change on drowning risk in Bangladesh and Tanzania'. Funded by the Royal National Lifeboat Institution (RNLI) this is a collaborative

research project between the University of East Anglia's (UEA) Water Security Research Centre, Climate UEA, and ADN. The project was led by Professor Roger Few from the Climate UEA.

On 7 November 2021, the ADN India Hub host and Regional Coordinator, Mr Dillip Pattanaik and Dr Nibedita Ray-Bennett presented the 'role that youths, especially the ADN's Junior Champions and Future leaders are playing in reducing the impact of the climate crisis and avoidable disaster deaths in India' at the COP26 side event entitled 'STEM for All and the Climate Crisis'.



**Activity 3: Develop capacities of disaster responders and other stakeholders, through continuing professional development (CPD) courses, knowledge exchange events and an information repository.**

***CPD***

On 17 May 2022, Dr Nibedita Ray-Bennett has submitted an Executive Programme on 'Managing Risk, Crisis and Disasters' for Operational Policy and Response Unit to the Home Office in the UK for approval.

On 23 November 2021, Mr Steve Glovinsky, specialist in organisational development and change and former UNDP representative delivered a masterclass for the ADN Interns on various elements of notetaking for professionals and practitioners, and the organisation skills required for succinct and effective documentation and report writing.

***Knowledge exchange events***

Please see the Activities 1 and 2.

***Information Repository***

The Repository of COVID-19 Information was launched on 3 April 2020 in response to the pandemic and to provide reliable information to the public. From 31 July 2021 to 31 July 2022, the Repository has had 88 pageviews. This is 489 pageviews less than last year, and it was seen that the pageviews have been declining month-by-month. Despite our best attempts to increase the utility of this Repository (e.g., by posting on the page new content every week and promoting it through ADN's social media), the demand for the Repository has decreased. This is understandable as time has moved on. Therefore, upon consideration it was decided by the ADN team that the Repository will stay live on the website for information purposes: <https://www.avoidable-deaths.net/repository-of-covid-19/>. However, it will not be actively updated any further.

**Activity 4: Develop lifesaving tools, kits, interventions, innovative technologies, governance models and theories to reduce the burden of maternal mortality, snakebite mortality, drowning mortality during disasters, and tsunami mortality through evidence-based pioneering research on hazards, exposures, vulnerability and risks.**

This is a new Activity introduced in this report. The previous and ongoing innovations of the ADN Team is outlined below.

**Avoidable Deaths Framework (ADF)** (work in progress): The aim of this research project is to capture the number of avoidable deaths from the effect of COVID-19 and economic lockdown in India (first phase), and how avoidable deaths can be reduced. The number of deaths from the effect of COVID-19 is understood through the lens of the Avoidable Deaths Framework (ADF), one that understands disaster deaths are both avoidable and unavoidable, and deaths can be avoided through three interconnected measures: amenable, preventable and disaster risk governance. The project is ongoing. For details, please check project webpage: <https://www.avoidable-deaths.net/ongoing-projects/project-avoidable-deaths-covid-report/>

**Low-budget protocol for Facility Reproductive Health Kit and Crisis Reproductive Health Kit (2021):** This project developed a protocol for two low-budget reproductive health (RH) kits.

The Facility and Crisis RH Kits are designed for the management of post-abortion complications including incomplete, septic and spontaneous abortion (before and after 12 weeks of missed period of menstruation). The former Kit is specifically designed to be used during disasters and humanitarian crises at primary, as well as secondary health facilities. The latter Kit is designed to be lightweight so that service providers can carry it to an emergency set-up (e.g., flood-cum-cyclone shelters, safe homes, and refugee camps or any temporary disaster camps).

The Kits are designed on the principle of localisation and to save women and girls lives of reproductive age during disasters and crises. For details, please check the project webpage: <https://www.avoidable-deaths.net/past-projects/project-upscaling-rhcc/>

Publication:

- Ray-Bennett, N.S., Corsel, D.M., Khan, S.T., Haseen, F., Bhuiyan, M. and Goswami, N. 2021. *Introducing Reproductive Kits for Facility and Crisis Set-Ups*. IPPF-South Asia Region Office: New Delhi. <https://www.ippfsar.org/resource/introducing-reproductive-health-kits-facility-crisis-set-bangladesh>

**Integrated intervention package RHCC** (2019) is designed to improve the quality and availability of post-abortion care during a major flood at primary health care level with the overall aim of reducing maternal mortality and morbidity (SDG3, Sendai Target A)). The RHCC has three components: i) pre-positioning of **Reproductive Health Kit** prior to flooding; ii) **Capacity building** of health workers; and iii) **Community awareness raising**. The evidence-based RHCC package was first tested in the flood-prone locale of Belkuchi in Bangladesh.

The RHCC comes with a Structured Facility Assessment Tool and a Two-Step Checklist Facility Assessment Tool. These tools are designed to assess the capacity of the facilities for

sexual and reproductive services including menstrual regulation and post-abortion care during disasters and humanitarian crises. For details, please check the project webpage: <https://www.avoidable-deaths.net/2019/06/11/project-improving-the-quality-and-availability-of-reproductive-health-in-disasters/>. Publications related to RHCC are:

- Ray-Bennett, N.S., Corsel, D., Goswami, N. and Bhuiyan, M. 2021. 'RHCC Intervention: Strengthening the delivery and coverage of sexual and reproductive health care during floods in Bangladesh' *International Journal of Human Rights in Healthcare*, 14(4): 327-347 <https://doi.org/10.1108/IJHRH-11-2020-0098>
- Ray-Bennett, N.S., Corsel, D., Goswami, N. and Ghosh, A. 2019. 'Understanding reproductive health challenges during a flood: Insights from Belkuchi Upazila, Bangladesh', *Gates Open Research* 2019(3): 788. <http://dx.doi.org/10.12688/gatesopenres.12920.2>
- Ray-Bennett, N.S., Corsel, D., Goswami, N. and Jackson, P. 2019. 'Challenges and opportunities around reproductive health during a flood: Insight from Belkuchi upazila, Bangladesh'. Contributing Paper to *Global Assessment Report (GAR) 2019*.
- Ray-Bennett, N.S., Corsel, D.M. and Goswami, N. 2019. *Exploring the Challenges and Opportunities Around Reproductive Health in Disasters in Belkuchi Upazila, Bangladesh*. IPPF Publication: London. <https://www.ippf.org/resource/improving-quality-and-availability-post-abortion-care-humanitarian-crisis>
- Ray-Bennett, N.S., Corsel, D.M. and Goswami, N. 2019. *RHCC: Facilitating Opportunities for Reproductive Health Care during a Flood in Bangladesh*. IPPF Publication: London. <https://www.ippf.org/sites/default/files/201904/IPPF%20Innovation%20Policy%20Brief%20PAC.pdf>
- Ray-Bennett, N.S., Corsel, D.M. and Goswami, N. 2019. *RHCC: Improving the Quality of Post Abortion Care during Floods in Belkuchi, Bangladesh*. IPPF Publication: London. [https://www.ippf.org/sites/default/files/20104/IPPF%20Innovation%20Policy%20Brief%20RHCC%20Approach\\_0.pdf](https://www.ippf.org/sites/default/files/20104/IPPF%20Innovation%20Policy%20Brief%20RHCC%20Approach_0.pdf)
- Ray-Bennett, N.S., Corsel, D.M. and Goswami, N. 2019. *What do I do If I experience Complications After Receiving Post Abortion Care*, IEC Poster, IPPF Publication: London. (English and Bengali). <https://www.ippf.org/sites/default/files/201904/IPPF%20Innovation%20Policy%20Brief%20PAC.pdf>

**Systems Failure Approach (2018):** The research monograph *Avoidable Deaths* presents systems failure as an analytical tool to explain why deaths occur in disasters and how they may be reduced. Deaths in disasters are a complex problem because the decisions that save lives during disasters sit across different actors and organisations at different levels—local, national, regional and global. The disaster management system, in this context, is a conglomeration of different professional groupings and actors designed for specific tasks and goals. It is also a system that is highly reliant on technology. Actors within this system adopt different frames of reference. As such, weak forms of organisation between the actors could potentially lead to systems failure. These failures have not been fully examined by risk and vulnerability specialists. Underpinned by the theories of justice, systems, risk and crisis management, the analytical tool of systems failure brings these elements to the forefront. More concretely, this is understood through the problems of coordination, communication and the conflicting world views of the relevant actors and organisations with regard to the generation



and dissemination of early warning information. The advantage of this analytical tool is assessed in the context of two disasters: the Super-Cyclone of 1999 and Cyclone Phailin of 2013 in Odisha, India. The systems failure approach demonstrates that deaths in disasters are socio-technical failures, and that it is by rectifying systems failures and promoting systems alignment that deaths can be prevented. Publications related to systems failure are:

- Coetzee, J. and McLeod, L. (2022) 'The Key Role of Women in Preventing Disaster Related Avoidable Deaths', *Intersectionality of Women Led Disaster Preparedness and Resilience*, 197: Southasiadisasters.net. <https://reliefweb.int/report/india/intersectionality-women-led-disaster-preparedness-and-resilience-southasiadisastersnet>
- Ray-Bennett, N.S. and Shiroshita, H. 2019. Disasters, Deaths and the Sendai Framework's Target One: A Case for Systems Failure in Hiroshima Landslide 2014, Japan. *Disaster Prevention and Management*, 28 (6): 764-785 <https://doi.org/10.1108/DPM-09-2019-0302>
- Ray-Bennett, N.S. and Shiroshita, H. 2019. Disasters, Deaths and the Sendai Framework's Target One: A Case for Systems Failure in Hiroshima Landslide 2014, Japan. Contributing Paper to *Global Assessment Report (GAR) 2019*. [https://www.preventionweb.net/files/66627\\_f424finalnibeditas.raybennettdisast.pdf](https://www.preventionweb.net/files/66627_f424finalnibeditas.raybennettdisast.pdf)
- Ray-Bennett, N.S. 2018. *Avoidable Deaths: A Systems Failure Approach to Disaster Risk Management*. Springer Nature: Switzerland. Environmental Hazard Series. <https://link.springer.com/book/10.1007/978-3-319-66951-9>
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**Activity 5: Strengthen connections between disaster responders, through leveraging existing and promoting novel networking platforms.**

***Projects that aim to promote novel networking platform/s***

- **‘Exploring the Feasibility and Value of a Regional Network for First Responders (RN4FR) to Reduce Avoidable Disaster Deaths in the Caribbean Region’ (April-August, 2022)** This project is led by Dr Nibedita Ray-Bennett in collaboration with Mr Errol Maynard (Caribbean Association of Fire Chiefs and Barbados Fire Services (CAFC&BFS)), Professor Peter Jackson (School of Business/University of Leicester), Dr Albrecht Beck (Founder and Director, Prepared International (PPI)), Professor Alois Hirschmugl (Technical Director, Disaster Management Advice and Training (DMAT) Consulting KG), Mr Steve Glovinsky (Founder and President, PeerConnect), Mr David Wales (Shared Aim - UK), Dr Hideyuki Shiroshita (Kansai University, Avoidable Deaths Network (ADN) President), Mr Daniel Mendez (ADN Regional Coordinator-Belize), Mr Krishna Clarke (ADN Regional Coordinator-Barbados, Research Analyst at the Caribbean Development Bank), Mr Alexander Skinner (ADN Administrator, Second Sect. Communications, Climate and Public Diplomacy, the Foreign, Commonwealth & Development Office, Copenhagen) and Ms Keisha Linton (Regional Security System). Project webpage: <https://www.avoidable-deaths.net/ongoing-projects/project-regional-network-for-first-responders-in-the-caribbean/>
- **‘Understanding the causes and circumstances leading to avoidable deaths in the mining sector in Brazil and Papua New Guinea’ (2022- current)** This is a scoping project led by Dr Nibedita Ray-Bennett and Professor Gawen Jenkins for the Institute of Environmental Futures, University of Leicester.

***Projects that aim to leverage existing networking platform/s***

- **‘HEUREKA Project – Civil Protection Knowledge Partnership Middle East’ (2022)** This network is led by ADN’s Organisational Partners Professor Alois Hirschmugl (Disaster Management Assistance Team) and Dr Albrecht Beck (Prepared International) in the Middle East. Project webpage: <https://heureka-project.eu/wp/>
- **‘Eastern Belt Network-India’ (2020- ongoing)** This network building project is led by Dr Nibedita Ray-Bennett and Mr Alex Skinner and ADN’s Interns/Future Leaders, Srashta Chowdhury (University of North Bengal), Riwittambhara Kashyap (Tata Institute of Social Sciences – Assam), Satyajit Barik (NIIS Institution of Information Science & Management, Odisha), Biswajit Paul (University of North Bengal) and Meharaj Bano (Vellore Institute of Technology). Project webpage: <https://www.avoidable-deaths.net/ongoing-projects/project-eastern-belt-network/>

**Activity 6: Nurture future leaders for avoidable deaths and improve their leadership and employability skills, through expert mentoring and engaging Interns for activities related to 1-5.**

This is a new Activity introduced in this report. The previous and ongoing activities of our leaders for avoidable deaths are outlined below.

**Leaders for avoidable deaths**

Leaders for avoidable deaths are of two types: Junior Champions (10-17 years of age) and Future Leaders (18 years of age and above). They join ADN as interns and dedicate 4-7 hours each week in a specific project. The aims of these activities are: i) to promote social consciousness amongst leaders for avoidable deaths by involving them in various disaster risk reduction, health and development projects, knowledge exchanges and engagement activities; ii) to equip them with confidence, knowledge, experience and belief that they can be agents for change, and that they can make the planet a better place to live; and iii) to give opportunities to the youths and leaders (current and future) in relation to activity (i) especially from socio-economically challenged circumstances.

**Junior Champions**

- **'COVID-19 Helpline Services in India' (July-October 2020)** 14 Junior Champions supplied by Doers, an NGO from Himachal Pradesh, and NIIS Institute in Odisha took part in the project called Covid-19 Helpline Services in India. The Junior Champions identified helpline services available to the public in 36 Indian states and Union Territories, developed a comprehensive report and then disseminated it throughout India. The aim of this project was to save lives from mental health challenges and suicides due to the impact of COVID-19 and economic lockdown in India during the first phase of the pandemic. Project webpage: <https://www.avoidable-deaths.net/ongoing-projects/project-covid-19-helplines/>
- **Junior Champions in Hama Elementary School, Japan (April 2014-ongoing):** The 5<sup>th</sup> grade children of Hama Elementary School in the Central part of Osaka are producing Information, Education and Communication (IEC) materials and magazines for tsunami warnings and raising awareness and preparedness through simulation exercises and drills with "at risk" community to create a culture of preparedness for tsunamis. Project webpage: <https://www.avoidable-deaths.net/ongoing-projects/project-school-pupils-in-osaka-are-champions-for-avoidable-deaths-from-tsunamis/>
- **ADN UK Junior Champion (April 2020-current):** Miss Asha Ray Bennett (13 years of age) based in the UK, joined ADN two years ago. On 8 April 2022, Asha Ray-Bennett raised £25 for ADN by selling cupcakes in her neighbourhood's street sale.
- **ADN India Junior Champion (April 2020-current):** Master Arkoneil Ghosh (13 years of age) based in Mumbai, India joined ADN two years ago. He writes blogs for ADN and recently he produced a poster on the event of the WHO's World Drowning Prevention Day (WDPD), 25 July. The poster is titled: 10 Ways to Prevent Drowning Deaths and can be viewed through this link: <https://www.avoidable-deaths.net/adn-special-sessions/special-session-july-2022/>

After his participation at the WDPD, Arkoneil said:

*"I would like to express my gratitude to ADN for giving me such a wonderful platform. I cannot thank you all enough for this opportunity. I would look forward to a long-time association with ADN."* (26 July 2022).

## **Future Leaders**

Between 1 August 2021 and 31 July 2022, ADN had 19 Interns from eight different countries.

- **Symposium on ‘Integrating Disaster Risk Management with Emergency Services and Defence to Reduce Avoidable Disaster Deaths’ (10 December 2021):** From June to December 2021, 13 Interns (out of 19) from six different countries took part in organising and delivering this Symposium. Details of the Interns can be viewed through the Symposium webpage: <https://www.avoidable-deaths.net/events-2/symposium/> Three of these Interns formally joined the ADN Operations team in January 2022, one as a Production Coordinator, and two as Administrators. A longer testament of an Intern, Lauren McLeod who progressed to an Operations team member and Research Administrator on ‘A Year of Learning at the Avoidable Deaths Network’ is provided in **Annex 2**.
- **‘Eastern Belt Project - India’ (April 2020- ongoing):** The project began with one Future Leader, Ms Rwitambhara Kashyap based in Assam, India from April 2020. Six Interns worked on this project between 2021-2022. The project is currently led by Rwitambarah and Alex Skinner. Details of the Interns can be viewed through the project webpage: <https://www.avoidable-deaths.net/ongoing-projects/project-eastern-belt-network/>
- **Exploring the Feasibility and Value of a Regional Network for First Responders (RN4FR) to Reduce Avoidable Disaster Deaths in the Caribbean Region’ (April-August 2022):** This project has two Interns from Nigeria and Pakistan. Details of the Interns can be viewed through the project webpage: <https://www.avoidable-deaths.net/ongoing-projects/project-regional-network-for-first-responders-in-the-caribbean/>
- **World Drowning Prevention Day (WDPD): The Future of Drowning Risk in the Context of COVID-19 and Climate Change (26 July 2022):** Two interns took part. Mr. Nadeem Zahid Choudhury, an undergraduate student from the School of Planning and Architecture in Vijayawada, India, joined ADN for his Summer Internship for a month (June 2022) as a graphic designer. Ms Rachael Nantume, an intern as well as Production Coordinator of AND based in Uganda and currently pursuing her MSc in Risk, Crisis and Disaster Management at the University of Leicester, presented a poster based on her MSc dissertation project findings. Rachael’s research is funded by the Commonwealth Scholarship Commission in the UK’s ‘Distance Learning Scholarship’. The poster called ‘Avoiding Drowning Injury Deaths through the Occupational Health and Safety Act, 2006’ can be viewed through this weblink: <https://www.avoidable-deaths.net/and-special-sessions/special-session-july-2022/>
- **Sexual and Reproductive Health Services in Remote and Hard to Reach (H2R) Areas of Bangladesh (July 2022 – June 2023):** Mr David Cowie, a new Intern based in Scotland, currently studying MSc student in Risk, Crisis and Disaster Management at the University of Leicester joined ADN on 1 July 2022 for this new research project. Detail of the Intern can be found through this weblink: <https://www.avoidable-deaths.net/our-team/>

## Activity 7: Publishing Newsletter and Bulletins

- ADN Newsletter (Issue 3, ISSN 2435-2608) on 23 December 2021: <https://us3.campaign-archive.com/?u=57a8b7c75024b99d52df7a23b&id=3622181275>
- ADN Spring Bulletin on 14 January 2022 <https://us3.campaign-archive.com/?u=57a8b7c75024b99d52df7a23b&id=55ce459044>
- ADN Summer-Winter Bulletin on 23 July 2022: <https://us3.campaign-archive.com/?u=57a8b7c75024b99d52df7a23b&id=8b5ac07b2f>

### **Activity 8: Actively soliciting and securing private and public funds to promote the above activities.**

The ADN Core Team led by Dr Nibedita Ray-Bennett submitted six grant applications to various funders in the UK and Bangladesh. Four grant applications have been successful. Therefore, the success rate for grant submission has been 66%.

Dr Nibedita Ray-Bennett also submitted two applications to UNDRR for the Global Platform

#### ***Successful Grant Awards (including contract research, research consultancy)***

- Project title: *Exploring the Feasibility and Value of a Regional Network for First Responders (RN4FR) to Reduce Avoidable Disaster Deaths in the Caribbean Region.* Funded by the University of Leicester Knowledge Exchange, Impact and Proof of Concept (KEICPOC) Fund. 18 February 2022. PI: Dr Nibedita Ray-Bennett
- Project title: *Sexual and Reproductive Health Services in Remote and Hard to Reach (H2R) Areas of Bangladesh.* Funded by the Government of the People's Republic of Bangladesh's National Institute of Population Research and Training (NIPORT). 22 May 2022. PI in the UK: Dr Nibedita Ray-Bennett. PI in Bangladesh: Dr Altaf Hossain (BAPSA)
- Project title: *After COP26 Virtual Research Fellows.* Funded Leicester Institute for Advanced Studies (LIAS) February-July 2022. Host/Mentor: Dr Nibedita Ray-Bennett. COP26 Research Fellow: Dr Yazidhi Bamutaze (ADN Regional Coordinator, Makerere University, Uganda).
- Project title: *Institute for Environmental Futures (IEF) at the University of Leicester.* Funded by the University of Leicester. 22 December 2021. Co-I and Founding Research Challenge Lead and Governing Board Member: Dr Nibedita Ray-Bennett. PI/Director: Professor Heiko Balzter (University of Leicester).
- Project title: *Understanding the impact of climate change on drowning risk in Bangladesh and Tanzania.* Funded by Royal National Lifeboat Institution (RNLI). 20 October 2022. Co-I: Dr Nibedita Ray-Bennett. PI: Professor Roger Few (University of East Anglia).

#### ***Unsuccessful Grants***

- Project title: *COP 26 and Loss and Damage: An Exploratory Inquiry, After COP26 Virtual Research Fellows.* Submitted to Leicester Institute for Advanced Studies (LIAS). 30 January 2022. Host/Mentor: Dr Nibedita Ray-Bennett. COP26 Research Fellow: Dr Rasul Golam (ICIMOD)
- Project Title: *Exploring Methodological Advances to Estimate Indirect Disaster Deaths (IDea) for the Centenary Studentships Project Proposal.* Submitted to the University of Leicester. 9 January 2022. Investigators: Dr Nibedita Ray-Bennett and Professor Heiko Balzter.

#### ***Unsuccessful Public Engagement Bids***

- Title of the side event: *Nine Ways to Reduce Avoidable Disaster Deaths for Sustainable Development.* 4 January 2022. Submitted by Dr Nibedita Ray-Bennett to UNDRR's GP2022 Side Event Applications, Indonesia.
- Title of the Ignite Stage: *Understanding Six Key Terminologies Related to Disaster Deaths.* 31 January 2022. Submitted by Dr Nibedita Ray-Bennett to UNDRR's. Ignite Stage Call for Proposals Guidance note for participants, Indonesia.



## ADN's Projects: At a glance

From 1 August 2021 to 31 July 2022, the ADN team has been working on eight projects. Two of the projects have been concluded, while six are ongoing. Please see **Table 4** for the details of the project. For further details please visit the following link on ADN's website: <http://www.avoidable-deaths.net/ongoing-projects/>

**Table 4: ADN's 2021-2022 Projects**

Dates	Project Title	Project Aim/s	Status
July 2022 – June 2023	Sexual and Reproductive Health Services in Remote and Hard to Reach (H2R) Areas of Bangladesh	To increase access to SRH services for menstrual regulation and post abortion care in disaster prone H2R health facilities of Bangladesh. Project page:  <a href="https://www.avoidable-deaths.net/ongoing-projects/project-sexual-and-reproductive-health-services-in-remote-and-hard-to-reach-h2r-areas-of-bangladesh/">https://www.avoidable-deaths.net/ongoing-projects/project-sexual-and-reproductive-health-services-in-remote-and-hard-to-reach-h2r-areas-of-bangladesh/</a>	Ongoing-inception phase
March – August 2022	Exploring the Feasibility and Value of a Regional Network for First Responders (RN4FR) to Reduce Avoidable Disaster Deaths in the Caribbean Region	To identify capacity gaps and coordination opportunities for organisations providing first responders in the Caribbean region in order to shorten response times and ensures a well-coordinated relief effort to reduce avoidable disaster deaths. Project page: <a href="https://www.avoidable-deaths.net/ongoing-projects/project-regional-network-for-first-responders-in-the-caribbean/">https://www.avoidable-deaths.net/ongoing-projects/project-regional-network-for-first-responders-in-the-caribbean/</a>	Ongoing – writing up phase
December 2021 – March 2022	Understanding the impact of climate change on drowning risk in Bangladesh and Tanzania	To review the literature that identifies and discusses the weather-related impacts of climate change in Bangladesh and Tanzania in the 21st century, and determine the most likely implications for shifts in drowning risk and implications for Royal National Lifeboat Institutions' International programmes in these two countries.  Project webpage: <a href="https://www.avoidable-deaths.net/past-projects/project-drowning-risk-in-bangladesh-and-tanzania/">https://www.avoidable-deaths.net/past-projects/project-drowning-risk-in-bangladesh-and-tanzania/</a>	Complete  An Analysis Report has been submitted to the funder RNLI
2020 – ongoing	School Pupils in Osaka are Champions for Avoidable Deaths from Tsunamis	To reduce avoidable tsunami deaths by engaging with school pupils and “at risk” community and raise awareness on tsunami prediction, and create a culture of preparedness by producing Information, Education and Communication (IEC) materials, magazines and continuous exercises and drills.  Project webpage: <a href="https://www.avoidable-deaths.net/ongoing-projects/project-school-pupils-in-osaka-are-champions-for-avoidable-deaths-from-tsunamis/">https://www.avoidable-deaths.net/ongoing-projects/project-school-pupils-in-osaka-are-champions-for-avoidable-deaths-from-tsunamis/</a>	Ongoing

April 2020 – ongoing	Eastern Belt Network – India	<p>To identify and map the number of colleges and universities that offer programmes related to risk, crisis, disaster management, development, and avoidable deaths in the 10 eastern states of India and explore the feasibility of developing a network/alliance of these colleges and universities for avoidable deaths, disaster risk reduction and sustainable development</p> <p>Project webpage: <a href="https://www.avoidable-deaths.net/ongoing-projects/project-eastern-belt-network/">https://www.avoidable-deaths.net/ongoing-projects/project-eastern-belt-network/</a></p>	Ongoing – data analysis phase
April 2020 - ongoing	Social Distancing: Cross-Cultural Perspectives from Bangladesh, India, Japan and the UK	To explore how social distancing is being defined, perceived and practiced by national governments and households during the COVID-19 pandemic in Bangladesh, India, Japan and the UK	Ongoing-writing up phase
April 2020 – ongoing	Avoidable Deaths from the Effect of the COVID-19 and Lockdown in India	<p>To study the number of avoidable deaths from the effect of COVID-19 and economic lockdown using the novel Avoidable Deaths Framework (ADF).</p> <p>Project webpage: <a href="https://www.avoidable-deaths.net/ongoing-projects/project-avoidable-deaths-covid-report/">https://www.avoidable-deaths.net/ongoing-projects/project-avoidable-deaths-covid-report/</a></p>	Ongoing-data analysis and writing up phase
March 2021 – July 2022	Meals on Wheels	<p>To reduce avoidable deaths from nutritional crisis and starvation amongst the tribal community of Kandamahal district in Odisha who have been the hardest hit by the impact of economic lockdown through the ‘Meals on Wheels’ initiative. The project was delayed due to COVID-19 social mobility restrictions in 2021.</p> <p>Project webpage: <a href="https://www.avoidable-deaths.net/past-projects/project-meals-on-wheels/">https://www.avoidable-deaths.net/past-projects/project-meals-on-wheels/</a></p>	Complete



## Published Research Outputs

A small selection of peer reviewed publications of ADN's Core Team and active Regional Coordinators in Bangladesh, India, Japan, Uganda and UK are presented below.

### Journal Articles

- Al Manum, A., Islam, ARMT, Alam, E., Paul, S.C., Alam, and G.M.M. (2022) 'Assessing Riverbank erosion and livelihood resilience using traditional approaches in northern Bangladesh', *Sustainability*, 14 (2348). <https://doi.org/10.3390/su14042348>
- Al Manum, A., Roy, S., Islam, ARMT, Alam, G.M.M., Alam, E., Paul, S.C., Sattar, M.A., Mallick, J. (2021) 'Smallholder Farmers' Perceived Climate-Related Risk, Impact, and Their Choices of Sustainable Adaptation Strategies', *Sustainability*, 3(21):11922. <https://doi.org/10.3390/su132111922>
- Alam, E. (2022) 'Enhancing the policing response to COVID-19 with media engagement: The United Arab Emirates experience', *Policing: A Journal of Policy and Practice*. Doi.org/10.1093/police/paac012
- Alam, E., Khan, M.S., Salam, R. (2022) 'Vulnerability assessment based on household views from the Dammar Char in South – Eastern Bangladesh', *Natural Hazards*. <https://doi.org/10.1007/s11069-022-05302-1>
- Alam, E., Mallick, B. (2022) 'Climate change perceptions, impacts and adaptation practices of fishers in southeast Bangladesh coast', *International Journal of Climate Change Strategies and Management*, 14 (2): 191-211. <https://doi.org/10.1108/IJCCSM-02-2021-0019>
- Alam, E., Rahman, KA., Hriody, A-K., E. (2022) 'Public Confidence in COVID-19 prevention and response in Bangladesh', *Frontiers in Public Health*, 9: 783726. <https://doi.org/10.3389/fpubh.2021.783726>
- Bamutaze, Y., Meadows, M. E., Mwanjalolo, M., & Musinguzi, P. (2021). Effect of land use systems and topographical attributes on the condition of surface soil physicochemical properties in a highland catchment of the Lake Victoria Basin, Uganda. *CATENA*, 203, 105343. <https://doi.org/10.1016/j.catena.2021.105343>
- Bamutaze, Y., Mukwaya, P, Oyama, S, Nadhomi, D, and Nsemire, P (2021). Intersecting RUSLE modelled and farmers perceived soil erosion risk in the conservation domain on mountain Elgon in Uganda. *Applied Geography* (126). <https://doi.org/10.1016/j.apgeog.2020.102366>.
- Chellappa, A. S., Sahoo, M., & Sahoo, S. (2022). Gender inequality infiltrates the in silico modelling world. *Nature Computational Science*, 1-2.
- Modugno, S., Johnson, S.C.M., Borrelli, P., Alam, E., Bezak, N., Balzter, H. (2022) 'Analysis of human exposure to landslides with a GIS multiscale approach', *Natural Hazards*. <https://doi.org/10.1007/s11069-021-05186-7>
- Morgner, C. and Hiren, P. (2021) 'Understanding ethnicity and residential fires from the perspective of cultural values and practices: A case study of Leicester, United Kingdom', *Fire Safety Journal*, 125: 103384.
- Patel, H., and Morgner, C. (2021) 'Reimagining engagement with ethnic minority communities', *Fire Magazine*, 50: 40-42.
- Rahman, M.M., Nabila, I.A., Sakib, M.S., Silvia, N.J., Galib, M.A., Shobuj, I., Hasan, L., Chisty, M.A., Alam, E., Islam, A.R.M.T. (2022) 'Knowledge, attitude, and practices towards lightning in Bangladesh', *Sustainability*, 14: 448. <https://doi.org/10.3390/su14010448>

- Rahman, M.N., Rony, M.R.H., Jannat, F.A., Pal, S.C., Islam, M.S., Alam, E., Islam, A.R.M.T. (2021) 'Impact of urbanization on urban heat island intensity in Major districts of Bangladesh using remote sensing and geo-spatial tools', *Climate Journal*. <https://doi.org/10.3390/cli10010003>
- Ray-Bennett, N.S., Clarke, K., and Mendez, D. (2022, *forthcoming*) Sendai Framework's Global Targets A and B: Opinions from the Global Platform for Disaster Risk Reduction's Ignite Stage 2019. *International Journal for Disaster Risk Science* (in Press).
- Sahoo, M., and Pradhan, J. (2021) 'Adaptation and Acculturation: Resettling displaced tribal communities from wildlife sanctuaries in India', *Migration Letters*, 18(3), 237-259. <https://doi.org/10.33182/ml.v18i3.877>
- Sahoo, M., and Pradhan, J. (2021) 'Reproductive Healthcare Beliefs and Behaviours Among Displaced Tribal Communities in Odisha and Chhattisgarh: An Analysis Using Health Belief Model', *Journal of the Anthropological Survey of India*, 70(1), 87-102.
- Sahoo, M., and Pradhan, J. (2021) 'Using three delay model to understand the social factors responsible for neonatal deaths among displaced tribal communities in India', *Journal of immigrant and minority health*, 23(2), 265-277. <https://doi.org/10.1007/s10903-020-00990-y>
- Shiroshita, H. (2021) 'Learning about Disaster Risk Reduction as Never-ending Implementation of Disaster Risk Reduction', *Municipal Problems*, 112(9), pp.4-9. (published in Japanese)
- Shiroshita, H., Hayashi, T., Kono, K., and Okumura, Y. (2022) 'Disaster Learning Programme for Elementary School Pupils Through Developing Tsunami Augmented Reality and its Demonstration in the School District', *Naniwa-Osaka Studies*, 4: 1-12. (published in Japanese)
- Sufi, F., Alam, E., and Alsulami, M. (2022) 'A new decision support system for analysing factors of tornado related deaths in Bangladesh', *Sustainability*, 14 (2348). <https://doi.org/10.3390/su14042348>
- Yamori, K., Iio, Y., & Shiroshita, H. (2022) 'Open Science in Seismology: The Role of Citizen Science in the Transition from Seismic Observatory to Science Museum', *Journal of Integrated Disaster Risk Management*, 12(1): 1-23. <https://doi.org/10.5595/001c.35742>

## Books

- Morgner, C. (2021) Multiculturalism and Fire-Incidents: Possible Applications to the Polish Context [in polish], in Kaźmierczak, Danuta (ed.) VUCA WORLD – Competencies for Emergency Services, Krakow: Libron Press.
- Sahoo, M., Jeyavelu S., and Kurane, A. (2022, *forthcoming*). Ethnographic Research in Social Sciences, Sage Publisher' (In press).
- Sahoo, M. (2022). Refugees and sustainable development goals an insight. In S Irudaya Rajan (Eds), Handbook of Refugees in India, Routledge publisher.

## Reports

- Few R., Omasete, J., Geere, Jo-A, and **Ray-Bennett, N.S.** (2022) Final Report: Climate change and drowning risk in Bangladesh and Tanzania and the implications for RNLI programmes. Submitted to RNLI, Poole, UK. [Unpublished]

- Few R., Omasete, J., Geere, Jo-A, and Ray-Bennett, N.S. (2021) Inception Report: Understanding the impact of climate change on drowning risk in Bangladesh and Tanzania. Submitted to RNLI, Poole, UK [Unpublished].
- Few R., Omasete, J., Geere, Jo-A, and Ray-Bennett, N.S. (2021) Collation of Existing Literature Report: Understanding the impact of climate change on drowning risk in Bangladesh and Tanzania. Submitted to RNLI, Poole, UK [Unpublished].
- Avoidable Deaths Network. (2021) *Symposium on Integrating Disaster Risk Management with Emergency Services and Defence to Reduce Avoidable Disaster Deaths*. Avoidable Deaths Network Publication: Leicester. <https://www.avoidable-deaths.net/wp-content/uploads/2022/02/Symposium-Report-FINAL.pdf>
- Ray-Bennett, N.S. Corsel, D. Shiroshita, H. and Hoque, S. (2021) *Annual Report: August 2020 – July 2021*. Avoidable Deaths Network Publication: Leicester. <https://www.avoidable-deaths.net/wp-content/uploads/2021/11/ADN-Annual-Report-FINAL-12.11.21.pdf>

### **Research Brief**

- Ray-Bennett, N.S., Shiroshita, H., Clarke, K., Skinner, A., and MacLeod, L. (2022) Exploring the Feasibility and Value of a Regional Network for First Responders (RN4FR) to Reduce Avoidable Disaster Deaths in the Caribbean Region: Findings of Online Questionnaire and Virtual Consultations. Produced for key stakeholders who attended the Stakeholder's Workshop on 27 June 2022.

### **Posters**

- Manahil, A and Avoidable Deaths Network. (2022) *ADN 2021 Highlights Poster*. <https://www.avoidable-deaths.net/wp-content/uploads/2022/05/2021-posters-combined.jpg>
- Ghosh, A and Avoidable Deaths Network. (2022) *10 Ways to Prevent Drowning Deaths*. <https://www.avoidable-deaths.net/wp-content/uploads/2022/07/poster.jpg>
- Nantume, R. Ray-Bennett, N.S. and Macleod, L. (2022) *Avoiding Drowning Injury and Deaths in Uganda through the Occupational Health and Safety Act 2006*. <https://www.avoidable-deaths.net/wp-content/uploads/2022/07/Racheal-Nantume-Poster-Final-reduced-size.jpg>

## Conferences, Seminars, Workshops and Presentations

### *Invited keynote addresses/lectures/speeches*

- 'Role of ADN's Junior and Future Leaders in Climate Change and Disaster Risk Reduction': presented by Dr Nibedita Ray-Bennett and Mr Dillip Pattanaik, 7 November 2021 COP26 side event entitled STEM for All and the Climate Crisis.
- 'Avoidable Deaths from the Impact of COVID-19 and Economic Lockdown in India': presented by Dr Nibedita Ray Bennett, 23 November 2021, 2<sup>nd</sup> webinar on *Climate Change and Pandemic Challenges in the Middle East* hosted by HEUREKA – Civil Protection Knowledge Platform
- 'Main message from COP26 for my research and teaching and any call to action: Expert panel', presented by Dr Nibedita Ray-Bennett, 19 January 2022, University of Leicester's Institute for Advanced Studies and Centre for Environment and Sustainability.
- 'Introducing Avoidable Deaths Framework for Surabaya City's Earthquake Resilience Project: A special guest address', presented by Dr Nibedita Ray-Bennett, 9 February 2022, Mott MacDonald, UN Habitat and Foreign, Commonwealth and Development Office, Jakarta.

## Press, Media and Impact

- On Friday 22 July 2022, *Barbados Today* featured an article entitled '*University Researchers Meet Disaster Responders in Barbados*' for the research project Regional Network for First Responders (RN4FR). <https://barbadostoday.bb/2022/07/22/university-researchers-meet-disaster-responders-in-barbados/>
- On 1 December 2021, two ADN Regional Coordinators for the Caribbean Region, Mr. Daniel Mendez and Mr. Krishna Clark and an ADN Project Collaborator Mr. Errol Maynard (Caribbean Association of Fire Chiefs/ Barbados Fire Service) were interviewed by Ms. Shayla Murrell of the Barbados Government Information Service (GIS). The interviews were aired on the Caribbean Broadcasting Corporation (CBC) and the Voice of Barbados (VOB), and GIS Soundcloud. The interviews were to raise the profile of the 2021 Symposium, *Integrating Disaster Risk Management with Emergency Services and Defence to Reduce Avoidable Disaster Deaths*. The interview can be heard through this link: <https://soundcloud.com/gisbarbados/insiders-report-advancing-the-avoidable-deaths-agenda>
- On 22 November 2021, ADN was invited by Yuki Matsuoka, Head, UNDRR Office Japan, to showcase ADN on the Sendai Framework Voluntary Commitments (VC) platform. ADN's webpage on UNDRR VC: [https://sendaicommitments.undrr.org/commitments/20211123\\_001](https://sendaicommitments.undrr.org/commitments/20211123_001)
- ADN is cited in the UNDRR's recent Sendai Framework Voluntary Commitments Synthesis and Analysis Report (2022, p. 98 e-page 113). The report can be read here: <https://lnkd.in/dUNmvZnd>

## Annex 1: List of our Organisational Partners

Date of Joining	Name	Country
12/03/2019	India	All India Disaster Mitigation Institute
12/03/2019	India	Orissa State Volunteers and Social Workers Association
12/03/2019	Egypt, India and Myanmar	MARS Practitioners Network: Mainstreaming Adaptation, Resilience and Sustainability into Development and daily life
12/03/2019	Belize	Right Insights
12/03/2019	Thailand	Equal Asia Foundation
12/03/2019	Uganda	Department of Geography, Geo-Informatics and Climatic Sciences, Makerere University (Uganda)
19/03/2019	India	Doers
21/03/2019	UK	Northumbria Disaster and Development Society
05/04/2019	Uganda	Africa Disaster Reduction Research and Emergency Missions [ADRREM] (Uganda)
02/05/2019	Uganda	Transformative Projects Services Ltd
22/05/2019	Ghana	Disaster Resilience Network Ghana
27/05/2019	Uganda	Livelihood Improvement Program of Uganda (LIPRO Uganda)
08/11/2019	Bangladesh	Data Management Aid
17/12/2019	India	Samanvay Fraternity Service Society
18/12/2019	India	Resilience Innovation Knowledge Academy
20/12/2019	Bangladesh	Disaster and Development Organisation (DADO)
26/12/2019	India	Confederation of Risk Reduction Professionals
04/01/2020	Bangladesh	Association for Community Development
12/01/2020	Bangladesh	Assistance for Safe Community (ASC)
14/01/2020	Belize	Right Insights
15/01/2020	Bangladesh	Department of Social Science, Dhaka College
07/04/2020	Netherlands	Interpoint BV
23/04/2020	Uganda	Makerere University, School of Public Health Resilient Africa Network
16/07/2020	India	The International Emergency Management Society - India Chapter
28/09/2020	Uganda	SAF (Shine Africa Foundation)-Teso
19/11/2020	Pakistan	Center for Disaster Management, University of Management and Technology
01/12/2020	India	Alchemist Research and Data Analysis
04/12/2020	Congo	Notre Voix
13/01/2021	Nigeria	Disaster Alert
22/01/2021	India	Pearlss 4 Development
03/02/2021	Nigeria	National Emergency Management Volunteer (NEMA)
05/02/2021	Nigeria	Decapolis Community Development Centers
02/03/2021	India	Youth for Resilient Community
21/05/2021	Uganda	Union of Community Development Volunteers (UCDV)
10/12/2021	Austria	Disaster Management Assistance Team (DMAT)
10/12/2021	Germany	Prepared International (PPI)

## **Annex 2: A Year of Learning at the Avoidable Deaths Network**

by Lauren Macleod

My year with the ADN has continuously provided me with new and challenging learning opportunities. Starting out as an intern, my leadership and administrative abilities were quickly developed, graduating me to *Information and Network Coordinator*, a permanent position within the Operations team. Through planning the 2021 Symposium on *Integrating Disaster Risk Management with Emergency Services and Defence to Reduce Avoidable Disaster Deaths* and managing regular webinars such as the *Special Session on Avoidable Deaths: Anticipatory Framework to Reduce Disaster Deaths* as part of the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) Humanitarian Networks and Partnerships Week (HNPW) 2022; I worked with an international team of remote volunteers, coordinated esteemed disaster risk professionals and scholars, and honed my writing skills through reports, newsletters and bulletins. I developed the ability to lead virtual meetings and produce descriptive yet concise minutes. Working with the ADN has enabled me to develop my leadership, administration, and information management skills.

In March 2022, I was invited to join the ADN's project entitled *Exploring the Feasibility and Value of a Regional Network for First Responders (RN4FR) to Reduce Avoidable Disaster Deaths in the Caribbean Region*, as a Research Administrator. Supporting the Principal Investigator (PI), Dr Nibedita Ray-Bennett, we were awarded funding from the University of Leicester's Knowledge Exchange, Impact and Proof of Concept (KEIPOC) Fund. Through working with international Collaborators, Convenors and Stakeholders, I have fostered relationships with practitioners, scholars, and policy makers from twenty countries in the Caribbean who work in Defence, Emergency Services, Humanitarian Organisations and Critical Support Organisations. I have developed my ability to plan and execute meetings and high-level virtual events; recruit participants for data collection; and collect qualitative data through an online Questionnaire, three virtual Consultations and a virtual Stakeholder's Workshop. Working alongside expert data analysts, I have had the opportunity to listen and learn from their knowledge and skills. I worked collaboratively with the PI, the ADN Regional Coordinator for Barbados, Mr. Krishna Clarke and the Disaster Management & Humanitarian Assistance Officer at the Regional Security Systems (RSS), Ms. Keisha Linton, to organise a 3-day research trip to Barbados inclusive of a hybrid Stakeholder's Meeting and 1-1 Meetings with key stakeholders, namely the Caribbean Disaster Emergency Management Agency (CDEMA), RSS, Caribbean Association of Fire Chiefs (CAFC), Caribbean Development Bank (CDB), UK Foreign, Commonwealth and Development Office (FCDO), Barbados Red Cross Society, United Nations Development Programme (UNDP), and the Queen Elizabeth Hospital Emergency Ambulance Service. The project finished with the writing and dissemination of a press release to Barbados national news outlets and assisting with the writing of the project progress report.

The project has been an intensive period of learning and reflection, undertaking new and interesting administrative, research and event management activities. I seek to further develop my skills with ADN with future projects and events.