Disaster Deaths Are Avoidable



12 March

International Awareness Day for Avoidable Deaths (IAD4AD): Guidance for Campaigners









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Front Cover Image: 'Etegami for Disaster Victims'

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The Etegami displayed on the front cover of this document is a combination of hand-made postcards created by the survivors of the Hiroshima Landslide, which led to 74 deaths in 2014 in Asaketa and Asaminami wards. This Etegami depicts everyday objects- nature, fruits, and flowers. Through these images, victims are remembered and missed by their loved ones.

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VOLUNTARY COMMITMENTS

SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030

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1. Background and Purpose



The Avoidable Deaths Network (ADN) is launching a global campaign, declaring 12 March as the **International Awareness Day for Avoidable Deaths (IAD4AD)**. The campaign slogan for the IAD4AD is **"Disaster Deaths Are Avoidable"**, with the ultimate goal of saving lives.

Launched on 12 March 2019 at the 4th Summit of the Global Alliance of Disaster Risk Institutes (see **Figure 1** and **Figure 2**), the ADN is a dynamic global forum for experts, practitioners, researchers and organisational partners dedicated to identifying and promoting theoretical and practical solutions to reducing avoidable deaths. The ADN is based at the University of Leicester in the UK and Kansai University in Japan.



Figure 1: Launch of the Avoidable Deaths Network (ADN)

The pre-launch event for IAD4AD will take place at Kansai University on 12 March and the launch event will take place at Texpia Osaka in the city of Izumi Otsu on 13 March, 2023.

The IAD4AD will be celebrated annually. We invite and encourage individuals, communities, and organisations worldwide to celebrate this day and raise awareness of avoidable deaths that are taking place in their respective cities, towns, and villages.

We will conduct a mid-term evaluation in 2028 to take stock of this campaign. After 2033, we will drop the word '**Awareness**' and then continue to celebrate 12 March as the **International Day for Avoidable Deaths (ID4AD)**.



Figure 2: The ADN Presidents, Dr Nibedita Ray-Bennett and Dr Hideyuki Shiroshita at the Launch of ADN

Purpose

Climate-related and geophysical disasters between 1998 and 2017 led to the deaths of: "1.3 million people and left a further 4.4 billion injured, homeless, displaced or in need of emergency assistance. While the majority of fatalities were due to geophysical events, mostly earthquakes and tsunamis, 91% of all disasters were caused by floods, storms, droughts, heatwaves, and other extreme weather events" (Wallemacq and House 2018: 3).

Although deaths from the direct impact of disasters (*aka* direct disaster deaths) are recorded by the major databases, indirect disaster deaths and missing persons are currently not recorded at national and local levels. It is important that these disaster deaths are recorded and reported in order to meet the United Nations Office for Disaster Risk Reduction's (UNDRR) 'Sendai Framework for Disaster Risk Reduction 2015–2013' Global Targets, as well as several Sustainable Development Goals. It is also important to capture the voices of the survivors and the circumstances around which deaths occur so that appropriate measures can be put in place to reduce suffering and recurring damage and loss.

The purpose of this global campaign is therefore fourfold:

- To raise the visibility of disaster deaths, especially indirect disaster deaths and missing persons and capture their impact on the lives and livelihoods of the deceased family members;
- To capture the causes and circumstances that lead to disaster deaths so that context-specific interventions can be put in place to save lives (Jonkman and Kelman, 2005; Kelman, 2005; Paul, 2021);
- To promote the slogan 'Disaster Deaths Are Avoidable'. They are avoidable through preventable, amenable and risk governance measures (see Figure 3); and
- To reduce the actual number of deaths from disasters, value the number of lives saved and the saved lives.

Disaster can be natural, biological, human-made and naturally triggered technological (*aka* cascading or complex). Deaths from the direct and indirect impact of disaster (*aka* disaster deaths, and discussed in **Section 2**) are avoidable through preventable, amenable and disaster risk governance measures (**see Figure 3**).







Figure 3: Avoidable Deaths Framework

Preventative measures include (although are not limited to) public health measures, surveillance, outreach, screening, health teaching, social marketing and policy development (KSU, 2020). Amenable or treatable interventions involve reducing waits and sometimes harmful delays for both those who receive and those who give care (NAS, 2001). Both amenable and preventable measures can be enhanced through robust and effective disaster risk governance.

During the first wave of the COVID-19 pandemic, the UNDRR's Secretary-General, Ms Mami Mizutori, emphasised the importance of saving lives through effective disaster risk governance (Mizutori 2020; Alam and Ray-Bennett 2021;



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Ray-Bennett *et al.*, 2022). Disaster risk governance is "the way in which public authorities, civil servants, media, private sector, and civil society at community, national and regional levels cooperate to manage and reduce disaster and climate-related risks" (UNDP 2013, p. 1) and ensures "sufficient levels of capacity and resources are made available to prevent, prepare for, manage, and recover from disasters" (UNDP 2012, p. 1).

Despite advancements in global amenable, preventable, and disaster risk governance measures, avoidable disaster deaths continue to occur. They are most severely felt in lower-middle and low-income countries (Ray-Bennett, 2017, 2018; WMO, 2021). Please see the **Selective Facts** (Section 4).

We hope that this awareness-raising campaign leads to reducing the actual number of lives from disasters, valuing the number of lives saved, and valuing the saved lives.

2. Disaster Deaths: Terminologies



In 2015 the United Nations 'Sendai Framework for Disaster Risk Reduction 2015–2030' (hereafter, Sendai Framework) set seven global targets of which the first two targets are:

- (A) Substantially reduce global disaster mortality by 2030; and
- (B) Substantially reduce the number of affected people globally by 2030 (UN, 2015, p. 12).

After the launch of the Sendai Framework, the United Nations General Assembly established the Expert Working Group in 2017 to develop the indicators and terminologies essential for achieving these targets (UDRR, 2017). See **Table 1** for the indicators of targets A and B, and **Table 2** for the terminologies recommended by the Expert Working Group.

Table 1: Global targets A and B of the Sendai Framework

Target A			Target B	
No.	Indicators	No.	Indicators	
A-1	Number of deaths and missing persons attributed to disasters, per 100,000 population	B-1	Number of directly affected people attributed to disasters, per 100,000 population	
A-2	Number of deaths attributed to disasters, per 100,000 population	B-2	Number of injured or ill people attributed to disasters, per 100,000 population	
A-3	Number of missing persons attributed to disasters, per 100,000 population	B-3	Number of people whose damaged dwellings were attributed to disasters	
		B-4	Number of people whose destroyed dwellings were attributed to disasters	
		B-5	Number of people whose livelihoods were disrupted or destroyed, attributed to disasters	

Source: UNDRR (2017)

Table 2: Terminologies defined by the UNDRR and the Expert Working Group

Terminologies	Definitions
Death	"[] the number of people who died during the disaster, or directly after, as a direct result of the hazardous event." (p. 8)
Missing	"Number of people whose whereabouts is unknown since the hazardous event. It includes people who are presumed dead, for whom there is no physical evidence such as a body, and for which an official/ legal report has been filed with competent authorities." (p. 8)
Directly affected	"People who have suffered injury, illness or other health effects; who were evacuated, displaced, relocated; or have suffered direct damage to their livelihoods, economic, physical, social, cultural and environmental assets." (p. 18)
Indirectly affected	"People who have suffered consequences, other than or in addition to direct effects, over time due to disruption or changes in economy, critical infrastructures, basic services, commerce, work or social, health and physiological consequences." (p. 19)

Source: UNDRR (2017)

The Expert Working Group's technical guidance suggests that the data collection on **Target A** should focus on: i) location; ii) disaggregation by disability; iii) attribution to a disaster; iv) the hazard associated with a disaster; v) temporal aspects for attribution and cut-off for data collection; vi) in the case of biological hazards; vii) set of hazards; and viii) countries starting loss data collection and are yet to establish a clear legal framework for these criteria are recommended to adopt the following approach: hazard; cause of death; time-space of recommended cut-off period; sources of data (for details see UNDRR, 2017, pp. 10–12).



To understand the terminology of 'death' or 'disaster death' in detail, the Integrated Research on Disaster Risk's (IRDR, 2015) '*Guidelines on Measuring Losses from Disasters*' is invoked. This Guideline is an earlier version of the Expert Working Group's technical guidance and provides a 'conceptual framework for human and economic impacts for disaster loss accounting'. IRDR provides the number of death classification (see **Table 3**), which is subdivided to include secondary information, such as direct deaths or indirect deaths. Indirect deaths are further subdivided into indirect immediate deaths and indirect delayed deaths. The number of deaths is the sum of direct and indirect immediate deaths. The number of deaths does not include missing persons (IRDR, 2015). The definition related to 'number of deaths classification' is provided below.

Table 3: Number of deaths classification

Number of Deaths

Author of Deaths				
Direct	Indirect			
	Immediate deaths			
	Delayed deaths			

Source: adapted by the author from IRDR, 2015.

Direct deaths "are persons who died as a direct result of a disaster" or during a disaster (e.g., crushed by a building during an earthquake, or drowned in a storm surge) (IRDR, 2015, p.9).

Indirect deaths per se are not defined by IRDR (2015), instead, they are defined as 'indirect immediate deaths' (see below). As such, Combs *et al.*'s., (1999, p.1125) definition is invoked here to enlighten the readers. Indirect deaths are caused by 'unsafe or unhealthy conditions that occur because of the disaster. These conditions include the loss or disruption of essential services (e.g., power outage, hazardous roads), personal loss, and disruption of an individual's lifestyle' (Combs *et al.*, 1999, p.1125).

Indirect immediate deaths "include persons who died of other causes (within days, weeks to months depending on the peril) that were the result of the disaster occurring such as traffic accidents during wildfire evacuations" (IRDR, 2015, p.9).

Data sources used by global disaster loss databases often report direct deaths and indirect immediate deaths, but this is highly variable among the databases (IRDR, 2015). However, both IRDR's Guidelines and Expert Working Group's technical guidance do not specify the *time* for indirect immediate deaths specific to hazard classification. Direct and indirect deaths are different from one hazard to another, and in the case of an earthquake or other disaster for instance, if the death occurs *24 hours later* it is usually considered indirect immediate death (Paul, 2021).

Indirect delayed deaths "are caused by longer-term effects of a disaster and are only visible and measurable well after the disaster happened (years to decades) such as radioactive exposures after a tsunami event. These figures are less often reported by data sources. Indirect delayed deaths are not included in the registered number of deaths" (IRDR, 2015, p.9). The same is emphasised by the Expert Working Group's technical guidance in 2017 (UNDRR, 2017; Paul, 2021).

Time period: currently, there are no recommended time periods to study indirect immediate and indirect delayed deaths (IRDR, 2015; Combs *et al.*, 1999). Based on our consultations with research partners and physicians in India, ADN recommends 24 hours after to six months from the disaster event as a suitable window to study the occurrence of indirect immediate deaths. For indirect delayed deaths, ADN recommends seven months to today to study indirect delayed deaths. Based on this time period, we encourage participants and observers to raise awareness of avoidable disaster deaths on the day for International Awareness Day for Avoidable Deaths.

Furthermore, we encourage the campaigners to raise awareness of direct and indirect immediate deaths and indirect delayed deaths and missing persons. Currently, there is a need to capture human stories of missing person/s and their debilitating impact on the deceased family members and community. Wherever possible, we encourage the campaigners to capture the voices of the deceased or missing persons' family members.



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¹ Recognising the difficulties of assessing the full range of all affected people (direct and indirect), the Expert Working Group recommended the use of an indicator that would estimate "directly affected" as more feasible than collecting data on indirectly affected (UNDRR, 2017, pp. 19–20; Ray-Bennett *et al.*, 2022).



3. Causes and Circumstances



To reduce disaster deaths, accurate measurement of deaths caused by disaster events is essential. Typically, considerations around such measurement include the attribution of death from exposure to a hazard and the temporal relationship between the hazard event and death (UNDRR, 2017; Goswami, 2022; Ray-Bennett, *forthcoming*). The health sector relies on specific information, relating to the 'cause of death' and risk of death from exposure to disasters, to effectively plan rapid emergency responses that can save lives and reduce premature mortality before, during and after a disaster (UNDRR, 2017; Goswami, 2022; Jonkman and Kelman, 2005).

According to Paul (2021), the term 'cause of death' loosely refers to the medical cause of death (e.g., trauma, drowning, or being hit by moving debris) and a death certificate specifies the exact medical cause of each disaster-induced fatality. However, in many low-and high-and middle-income countries death certificate is not issued or are overly delayed (Paul, 2021; Ray-Bennett, 2018). For instance, in India, most deaths (9 million each year) take place at home with no medical attention, and sharp differences exist in the actual causes of deaths that occur in hospitals compared to those that occur at home (Gomes *et al.*, 2017).

Disaster deaths, as such, are often not recorded in time by the national government disaster database as well as the emergency database on disaster loss and damage generated by the UNDRR's DesInventar or CRED's Emergency-Database (EM-DAT). They do not fully represent the actual loss of lives. Furthermore, when death certificates are issued, the likely cause is often not attributed to the direct impact of the disaster (Paul, 2021). There are many reasons for this and the most important one is ex gratia compensation that a deceased family member is entitled to receive from the national government (Ray-Bennett, 2017, 2018). Therefore, missing data or silencing of disaster death data is not uncommon at local and national levels.

Another way to understand the cause of death is through the lens of 'circumstances' (Jonkman and Kelman, 2005) that lead to disaster deaths in a resource-poor context. Circumstances of death largely address: i) mechanism (direct vs. indirect deaths); ii) location of deaths (indoor vs. outdoor, and on-scene vs. hospital); iii) activity at the time of death, the timing of death (day vs. night); iv) whether the deceased person was aware of the disaster, and whether s/he attempted to take safety measures; v) disaggregation of circumstances of deaths (Paul, 2021).

The International Awareness Day for Avoidable Deaths is aimed at raising awareness of the 'causes' as well as 'circumstances' that lead to direct deaths, indirect immediate deaths, indirect delayed deaths and missing persons from the impact of disasters. Understanding the causes and circumstances of deaths and of missing persons is vital to promoting context-specific evidence-based interventions to reduce avoidable disaster deaths. By doing so, the lens of 'causes and circumstances' can become a **catalyst for systemic change** for sustainable development.

Also, we encourage campaigners to shine a light on the challenges of capturing disaster deaths at local and national levels and identify the levers to overcome them to facilitate better reporting and recording of disaster losses. These qualitative and context-specific narratives are likely to contribute to the UNDRR-Bonn Office's latest initiative on 'Loss and Damage Technical Expert Forum 2022: Tracking of hazardous events and disaster losses and damage database'.

4. Relevance of This Global Campaign



Since the conception of the ADN in 2019, the author interviews two technical experts annually from the risk, crisis, disaster and development sectors in order to gain insight. These interviews especially focus on one pertinent question: Why is it important to reduce avoidable disaster deaths and the number of people affected by disasters? Excerpts of three interviews are provided below. This section also addresses two new questions: How can International Awareness Day for Avoidable Deaths become a catalyst for systemic change?; and Who is responsible to reducing avoidable disaster deaths? Let us first focus on the first question.

Why is it important to reduce avoidable disaster deaths and the number of people affected by disasters?

According to Dr Manu Gupta, the Founder and Director of Seeds-India and recipient of the UNDRR's 'Sasakawa Award 2022':

"Each life is a treasure. Each life that can be saved from a preventable disaster ought to be saved. It is our combined responsibility." (Interview conducted in 2019)

According to Professor Michael Petterson, an expert in Geology and International Development and Associate Dean of Strategic Planning, Faculty of Health and Environmental Science, Auckland University of Technology, New Zealand:

"Morally, to reduce all forms of suffering in this world. Practically, to allow many countries and regions to maintain progress without being regularly knocked back through disasters. And, in terms of the human spirit, to further engender collaboration, co-operation and human sharing." (Interview conducted in 2021)

According to Dr Albrecht Beck, the Founder and Director of Prepared International; a member of the United Nations Disaster Assessment and Coordination (UNDAC); and a civil expert for Population Movements and Mass Evacuations for NATO:

"We have the moral responsibility to strive for a world where no one is faced with the horrors during and following disasters. We have the skills, knowledge, and tools to prevent, reduce, and adapt to the effects of disasters. Choosing to use these capacities to reduce human suffering and mortality is not so much a choice, but a moral obligation. It defines who we strive to be as a collective, global society where no one should be left behind. This responsibility is felt even more strongly in relation to man-made disasters and the effects of climate change. We have created monumental impacts with our actions, and thus it is also our responsibility to do everything we can to minimize, reduce, and adapt to these impacts. It is especially important to do this for the most vulnerable who feel the worse effects, but who do not have the capacity to protect themselves. If you are a real disaster manager, this will be close to your heart, and drives you any single day!" (Interview conducted in 2022) Reducing disaster deaths is a relatively new scientific field within the realm of the UN's disaster risk reduction (DRR) framework (UN, 2015; Ray-Bennett, 2017, 2018; Green *et al.*, 2019; Ray-Bennett *et al.*, 2022). Reducing disaster deaths gained traction in 2015 after the declaration of the first two global targets by the Sendai Framework – mentioned above. Reducing disaster deaths is also a cross-cutting issue for the UN's Sustainable Development Goals (SDGs), especially Goals 3 (Good Health and Well-Being: 3.1–3.5), 11 (Make Communities and Cities Resilient and Sustainable: 11.5), and 16 (Promote Peace, Justice and Strong Institutions: 16.1). This global campaign would directly contribute towards achieving the Sendai Framework's first two Targets at the interface with three SDGs because it has the potential to bring the 'causes and circumstances' of avoidable disaster deaths to the forefront.

Also, this global campaign will capture human stories of losing loved ones (direct, indirect and missing) so that lessons can be learned, disaster management practices can be strengthened at local and national levels. Furthermore, a better understanding of the causes and circumstances of avoidable disaster deaths can become a **catalyst for systemic change** at national and local levels.

How can International Awareness Day for Avoidable Deaths become a catalyst for systemic change?

It is argued that this can be achieved by adopting the lens of systems approach, violence and violation of justice. A detailed discussion of these approaches can be found in Ray-Bennett's monograph 'Avoidable Deaths: A Systems Failure Approach to Disaster Risk Management' (2018). A brief discussion of this is produced below.

Reducing disaster deaths merits a systems approach or to see the bigger picture (Ray-Bennett, 2018). This is because disaster risk management is a conglomeration of different professional groupings and actors designed for specific tasks, functions and goals. These actors and organisations work in interface with technology (e.g., early warning systems) and it is important to understand this. In this context, the decision to save lives is distributed across a number of actors or responders (e.g., primary, secondary and tertiary) and organisations (e.g., search and rescue, public health, accident and emergency, ambulance and defence agencies) before, during and after a disaster. Understanding the interdependencies of these actors and organisations at local and national levels and leveraging them can lead to systems change and in doing so, maximise the potential to reduce avoidable disaster deaths.

Although disaster deaths are declining the number of people affected by disasters is increasing at an alarming rate (please see the section on **Selective Key Facts**). Whilst conducting the 'Regional Network for First Responders' project in the Caribbean region in 2022, the ADN team reviewed the emergencies database (EM-DAT) which listed 25 countries of the Caribbean region. The review covered 20 years of a dataset (2001 to 2020). The findings revealed that the number of people affected by disasters (either injured, affected, and/or homeless) has doubled when it is compared with the two periods 2001 to 2005 and 2016 to 2020 (**Target B**) (Ray-Bennett and Coetzee, 2021). This is a cause for concern as the affected people are being pushed into poverty, ill health, and homelessness, including indirect deaths. Haiti is a case in point (Ray-Bennett and Coetzee, 2021).





In India, whilst conducting the project entitled 'Exploring the Feasibility and Value of Pioneering Partnerships to Reduce Avoidable Snakebite Deaths', the ADN team found that the burden of snakebite deaths is largely carried by the poor and Particularly Vulnerable Tribal Groups (PVTGs). To understand the differential vulnerability of certain groups of people who are most at risk of avoidable disaster deaths and/or being affected by disasters, the lens of 'event violence' and 'violation of justice' provide a vantage point (Ray-Bennett, 2017, 2018; Ray-Bennett and Shiroshita, 2019).

Event violence occurs because of pre-existing vulnerabilities that exist in the form of class, gender, caste, race (Bradby, 1996; Bradshaw and Fordham, 2013; Cockburn, 2004; IHRR, 2014), and the structures and processes of neo-liberal financial institutions in the developing nations (Roberts, 2008). Societal and financial structures and processes often perpetuate existing vulnerabilities (Galtung, 1969; Roberts, 2008; Ray-Bennett, 2009). Organisations (both governmental and non-governmental) which manage and mitigate disaster risks often contribute to these vulnerabilities either by overlooking pre-existing vulnerabilities or not taking appropriate action to reduce them. These pre-existing vulnerabilities exacerbate the impact of disasters and violence by causing human loss, injury and injustice for the deceased (Ray-Bennett, 2018).

In this vein, disaster deaths are also a case for violation of justice (Ray-Bennett, 2018). In the event of disasters, justice is denied to those women, men, and children who would have otherwise lived a long life and accomplished life (Sen, 2009). Here the disaster becomes a case of injustice because human deaths could have been prevented by undertaking preventable, amenable and effective governance actions (Ray-Bennett, 2018; Ray-Bennett *forthcoming*), but the relevant actors and organisations have failed to protect precious lives (Arendt, 1970; Farmer, 2004). In this light, the lens of event violence offers agency to the deceased rather than victimhood (Ray-Bennett, 2017, 2018). When human deaths are construed as event violence it offers hope for resolution by suggesting the appropriate preventive or amenable governance measures that might be required. Furthermore, the lens of event violence should empower every citizen in this world to exercise their right to be saved and protected by the government, 2017, 2018).

We hope that this global campaign of International Awareness Day for Avoidable Deaths becomes a vehicle to redress justice at local and national levels and a catalyst for systemic change. It is indeed our moral obligation to reduce avoidable disaster deaths wherever possible and most importantly

where 'intolerable injustices' are prevalent. Intolerable injustice requires an 'overwhelming priority' without "requiring the search for a consensus on what a perfectly just society would look like" (Sen, 2009, p. 21). It requires urgent interventions to restore justice so that lives can be saved, for instance, children dying from hunger or starvation in the aftermath of a disaster, or from the want of safe drinking water – among other necessities. Dr Manu Gupta explains this succinctly in simple words:



"Each life is a treasure. Each life that can be saved from preventable disaster ought to be saved".



Who is responsible for reducing avoidable disaster deaths and people affected by disasters?

DISASTER DEATHS ARE AVOIDABLE

First and foremost, national governments are responsible for reducing avoidable disaster deaths and event violence. However, this argument is not applicable in a non-democratic set-up and is currently a blind spot in the Sendai Framework (Ray-Bennett *et al.*, 2022; Petterson and Ray-Bennett, 2018). In addition to the national governments, the Sendai Framework identifies the role of 'non-State stakeholders' who can "play an important role as enablers in providing support to States in accordance with national policies, laws, and regulations in the implementation of this Framework at local, national, regional and global levels" (UN, 2015, p.19/25).

The non-State stakeholders include civil society, volunteers, voluntary work organisations, community-based organisations (among others) who can "provide specific knowledge and pragmatic guidance in the context of the development and implementation of normative frameworks, standards and plans for disaster risk reduction" (UN, 2015, p.19/25).

The ADN is very proud to say that in 2021, ADN was invited by the United Nations Office for Disaster Risk Reduction - Kobe Office to join the **Voluntary Commitment Platform for Sendai Framework** for Targets A and B: https://sendaicommitments.undrr.org/commitments/20211123_001

We will use the Voluntary Commitment Platform along with ADN's outlets to showcase the impactful work undertaken by the advocates of this global campaign.

Therefore, we urge both State and non-State actors to embrace this global campaign to reduce avoidable disaster deaths and injuries to achieve sustainable development.



Credit: © Alois Hirschmugl

5. Selective Key Facts



This section provides some key facts related to direct deaths, indirect deaths and causes and circumstances that lead to disaster deaths in the low-and middle-income countries.

- Climate-related and geophysical disasters between 1998 and 2017 led to the deaths of: "1.3 million people and left a further 4.4 billion injured, homeless, displaced or in need of emergency assistance. While the majority of fatalities were due to geophysical events, mostly earthquakes and tsunamis, 91% of all disasters were caused by floods, storms, droughts, heatwaves and other extreme weather events" (Wallemacq and House, 2018: 3)
- According to the World Meteorological Organisation's (WMO, 2021) latest Atlas of Mortality and Economic Losses 1970–2019: the number of [direct] disaster deaths is declining despite the increase in the number of disasters in time; losses, especially economic losses, due to disasters are increasing largely in high-income countries; and most disaster-related deaths are occurring in lower-middle and lowincome countries.
- Although data on indirect disaster deaths are a rarity, in Japan, it was found that there were 50 direct deaths and 212 indirect deaths in the Kumamoto Earthquake in 2016 and 13 direct deaths and 224 indirect deaths in flooding in 2018 (Japan Times, 2019). Although direct disaster deaths are declining, it is important to capture the number of indirect disaster deaths and their 'causes and circumstances' around those deaths (Ray-Bennett *et al.*, 2022).
- Storm surges are the main cause of direct death during a cyclone/ hurricane/typhoon disaster due to drowning. Roughly, half of all deaths in the United States from tropical cyclones are due to storm surges (Paul, 2021). Drowning was the largest cause of death when Hurricane Katrina hit in 2005 (Paul, 2021).
- Flood-related disasters increasingly affect millions of people globally due to the escalating adverse impacts of climate change, and drowning is the leading cause of [direct] death during floods (WHO, 202).
- Snakebites were the largest cause of indirect deaths in the 2007 floods in Bangladesh (Paul, 2021, quoted in Alirol *et al.*, 2010). A most recent study in India found that the majority of deaths occur in rural areas (94%) and at home and half of all deaths occurred in June–September during the southwest monsoon seasons (Suraweera *et al.*, 2020). This season is notorious for flooding in the sub-continent.
- The latest World Bank Group (WBG, 2021) Climate Risk Country Files projected that even under lower emissions pathways with the Paris Climate Agreement, nearly all Asian countries face an increase in the frequency of extreme river flows. This has severe implications for snakes because they are connected to the environment. Ray-Bennett's (2009) ethnographic research in the village of Tarasahi in Odisha, India found that snakes appear everywhere during the time of floods, and they take abode in dry places and on the roofs and doors because the flood water enters snake holes. Floods, therefore, increase the

likelihood of snake-human interaction and exposure to snakebites (Ray-Bennett, 2009). According to Paul (2021, p.92) "snakebite is a more common cause of flood deaths in developing countries, while it is rare in developed countries".



 Infectious diseases account for one-third of indirect flood-related deaths in developing countries (Paul, 2021). The majority of indirect flood deaths are caused by waterborne diseases such as diarrhoea. cholera, malaria, and respiratory illnesses (e.g., cough, sneezing, and sore throat). These deaths generally occur after a flood recedes when both children and the elderly are more at risk of death from waterborne and respiratory diseases than are other people. These diseases are caused or exacerbated by a lack of nutrition and pure drinking water, by the unsafe ways drinking water is stored and handled by poor hygiene, and often by the partial and/or total deterioration of sewage and sanitation facilities (Paul, 2021).



Russell's viper (Daboia russelii) on branch of tree. Venomous snake living in South Asia. © 2019 jaroslava V/Shutterstock.

6. About This Guidance

This guidance is meant to help inspire and plan activities and events, to celebrate the International Awareness Day for Avoidable Deaths on 12 March.

It provides some key messages that the ADN community, including the Regional Coordinators, Organisational Partners, Advisors, Affiliates, Networking and Research Partners and new enthusiasts and observers (aka campaigners or advocates), can amplify and offer ideas about the types of activities and events that can be developed by all sectors (but especially at the national/local level), to utilise this day to its full potential (WHO, 2021).

How Can I use International Awareness Day for Avoidable Deaths in My Setting?

Consider International Awareness Day for Avoidable Deaths as an opportunity to advance avoidable disaster death prevention messaging and action, relevant to your local, national or regional context.

ADN's Regional Coordinators, Organisational Partners, Advisors, Affiliates and new followers will have different priorities, based on their varied contexts and settings, but consider using International Awareness Day for Avoidable Deaths to do any or all of the following:

- Draw attention to the global scale of avoidable disaster deaths (direct, indirect, missing);
- Draw attention to your national, or local scale of avoidable disaster deaths and people affected by disasters;

 Draw attention to the causes and circumstances of avoidable disaster deaths at national or local scale;



- Draw attention to the challenges and levers for reporting and recording disaster deaths at global, national or local levels;
- Start, or continue conversations around different mechanisms required to reduce avoidable disaster deaths (e.g., that it requires systems thinking; and map and identify the key stakeholders that are responsible for reducing avoidable disaster deaths at global, national or local levels);
- Start, or continue capturing the voices of the deceased family members who have lost their loved ones in disasters and their impact on livelihoods;
- Start, or continue conversations on the lessons that can be learned to reduce avoidable disaster deaths at global, national or local levels;
- Start, or continue conversations on preventative measures to reduce avoidable disaster deaths at global, national or local levels;
- Start, or continue conversations on amenable or timely measures to reduce avoidable disaster deaths at global, national or local levels;
- Start, or continue conversations on how to improve coordination, communication and collaboration for effective risk governance to reduce avoidable disaster deaths at global, national or local levels;
- Generate awareness and action on measures and tracking systems recommended by UNDRR to reduce disaster deaths by 2030;
- Governments, with support from civil society, academia, the private sector and the international community, are all encouraged to plan activities or events to mark International Awareness Day for Avoidable Deaths;
- Non-governmental organisations, with or without support from governmental organisations are all encouraged to plan activities or events to mark International Awareness Day for Avoidable Deaths;
- Schools, colleges, universities and departments are all encouraged to plan activities or events to mark International Awareness Day for Avoidable Deaths.

The International Awareness Day for Avoidable Deaths is a unique opportunity to make progress on reducing avoidable disaster deaths and the number of people affected by disasters in low/lower-and middle-income countries.

The International Awareness Day for Avoidable Deaths is a unique opportunity to stop event violence occurring during and after disasters.

7. Organising your Activities and Messaging



Reducing avoidable disaster deaths requires a systems approach, one that involves all the relevant key stakeholders at local, national, regional and global levels. Reducing avoidable disaster deaths is achievable because solutions (both theoretical and practical) exist.

It is important that the advocates for reducing avoidable disaster deaths promote these approaches or say the same things. For this, we have provided **13 key global messages** for the campaigners for the purpose of consistent communication. These global messages are dynamic and will be adjusted and changed over time. Also, we are conscious that some of these global messages will require adjustments at national and local levels to meet the need for vernacular languages.

13 Key Global Messages

- 1. The first International Day for Avoidable Deaths will be observed on Sunday and Monday, 12 and 13 March 2023.
- 2. The Day, and the Sendai Framework for Disaster Risk Reduction, offer a unique opportunity to draw attention to the issue of reducing avoidable disaster deaths and encourage action to avert and avoid disaster deaths and injuries.
- 3. Disaster deaths are avoidable.
- **4.** Disaster deaths are avoidable through preventable, amenable and risk governance measures.
- 5. Globally, direct disaster deaths are declining despite an increase in climate-related hazards. However, the number of indirect disaster deaths and the number of affected people by disasters are increasing. It is important to understand the 'causes and circumstances' of indirect disaster deaths to promote interventions that can save lives.
- 6. The recommended time period to capture indirect immediate deaths is after 24 hours to six months from the disaster event; and seven months to today for indirect delayed deaths.
- 7. Lower-middle and low-income countries carry a high burden of avoidable disaster deaths.
- **8.** The high burden of avoidable disaster deaths is largely carried by the poor, vulnerable and marginalised sections of society.
- **9.** Avoidable disaster deaths are event violence. Event violence ought to be stopped at any cost.
- **10.** Reducing avoidable disaster deaths is an opportunity for state and non-state actors to redress justice.
- **11.** We can all take action to reduce avoidable disaster deaths.
- **12.** Every life is a treasure. Every life is precious.
- **13.** International Awareness Day for Avoidable Deaths can reduce the actual number of lives from disaster, value the number of lives saved, and value the saved lives.

Planning Activities



We can all make a meaningful contribution to International Awareness Day for Avoidable Deaths. Consider focusing your activity on raising the profile of avoidable disaster deaths through local or national media, or social media, or other forms of outlets.

Please be mindful to remain consistent with the **13 key global messages** recommended by ADN (see above).

Activities and events marking International Awareness Day for Avoidable Deaths can take place at local, national and regional levels. These may include seminars, webinars, campaign launches, and press conferences (WHO, 2021).

Many could benefit from invited guest speakers for seminars, webinars and campaign launches from different sectors at national and local levels. The ADN's opinion survey and interviews conducted at the UNDRR's Sixth Session of the Global Platform for Disaster Risk Reduction in 2019, in Geneva, revealed that achieving Sendai Targets A and B will require engaging with six key sectors: health, climate change, poverty/human security, energy security, housing, and critical infrastructure (Ray-Bennett *et al.*, 2022). We encourage you to engage with these sectors, invite speakers from these sectors, organise round table talks or conferences with the actors of these sectors. UNDRR, UNDP, regional organisations (e.g., CDEMA, SAARC, ICIMOD) and national and state-level disaster management or mitigation authorities can facilitate the multisectoral engagement. The UN, regional, and state-level disaster managers can also act as guest speakers for seminars and webinars.

For in-person events, a few ideas and suggestions are provided below. Also, for further ideas

please see Section 6: How can I use International Awareness Day for Avoidable Deaths in my setting? Please be mindful of national and local COVID-19 protocols and mobility restrictions for in-person events.

By policy makers:

- Use the UN's Sendai Framework and Sustainable Development Goals as a basis for discussion for (virtual) high-level policy dialogues, roundtables or seminars to define or redefine a country's approach to reducing avoidable disaster deaths. Other complementary documents that can be used are: WHO's Snakebite Envenoming Strategy for Prevention and Control, UN Resolution and WHO Global Report on Drowning and Implementation, and WHO's Health Emergency and Disaster Risk Management Framework. These documents work at the interface with Sendai Framework and the Sustainable Development Goals;
- Launch of new strategies and plans of action, launch of new reports or publications related to avoidable disaster deaths;
- The enactment or enforcement of new or existing disaster death prevention legislation, regulations, policies or procedures;
- Issuance and/or revision of avoidable disaster deaths relevant national planning guidance for local administrations; (adapted from WHO, 2022).

By and for the public:

 Campaigns to raise awareness of existing avoidable disaster deaths reduction, and any gaps in disaster management policy or legislation;



- Dissemination of information materials related to such campaigns;
- School and higher-education institutions initiatives, including the provision of reducing avoidable disaster deaths messaging appropriate to the local context;
- Public workshops and other education-oriented activities;
- Ceremonies dedicated to those lost and missing in disasters; (adapted from WHO, 2021)

With and through the media:

- 'Press conferences;
- Radio or television interviews or televised debates of talk shows;
- Letters to the Editor in the print media;
- Special newspaper supplements;
- Social media posts including a countdown to the day, case studies, images and facts;
- Other efforts drawing the attention of the media to new avoidable disaster deaths data, reports, stories and initiatives' (WHO, 2021, p.12)

Preparing your communications

Make your communications relevant and local – as illustrated in this section (**Key global Messages**). Try to use national or local data and research, where available. As mentioned earlier, try to raise the visibility of avoidable disaster deaths by capturing the voices of the deceased family members and the impact of losing loved ones.

The ADN has launched a dedicated website for this global campaign. The webpage will be updated regularly. So, check frequently to stay up to date.

IAD4AD website: https://iad4ad.avoidable-deaths.net/

8. Cultural Assets

The ADN team has developed a few cultural assets ready for use to mark the day. The cultural assets consist of:

- Guidance for Campaigners (Full Version)
- Two graphics: 'Disaster Deaths Are Avoidable'
- Digital tile: 'International Awareness Day for Avoidable Deaths, 12 March, #avoidabledeathsday'
- Dynamic Toolkit, consisting of:

i) a tool to capture human stories of disaster deaths;

ii) a tool to map stakeholders responsible to reduce disaster deaths at local and national levels.

More tools will be added to this Toolkit as the campaign progresses. Therefore, this is a living/dynamic Toolkit.

You can download the assets and use them to mark the day.



Social Media Handle

It is recommended **#avoidabledeathsday** is used as a common term for all social media posts.

Consistency enables the public and the Avoidable Deaths Network community to find and amplify messages.

Avoidable Deaths Network:

@Avoidabledeathsnetwork

UN Office for Disaster Risk Reduction:

@UNDRR

Institute for Environmental Futures:

#LeicEnvFutures #CitizensOfChange #ResearchCitizens



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