



THE UN OFFICE FOR  
DISASTER RISK REDUCTION  
PRIVATE SECTOR ALLIANCE  
FOR DISASTER RESILIENT  
SOCIETIES (ARISE)

ARISE  
COMMUNICATION  
TOOLKIT



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# RISK IS EVERYONE'S BUSINESS

**arise**

PRIVATE SECTOR ALLIANCE FOR DISASTER RESILIENT SOCIETIES

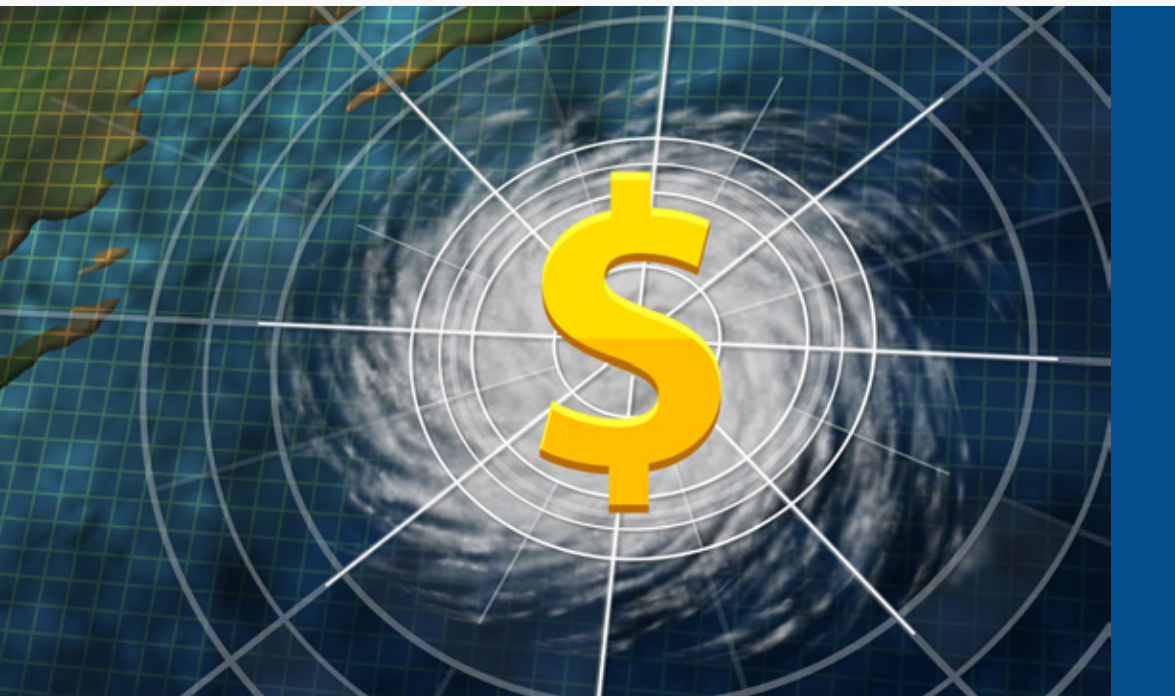


**Every risk is a business risk.  
Even when a risk or disaster  
is not caused by business, it  
will always impact business**

# RISK IS EVERYONE'S BUSINESS

**E**very risk is a business risk. Even when a risk or disaster is not caused by business, it will always impact business.

Disasters curtail economic growth by damaging capital stock, including housing, productive assets and public and private infrastructure (direct loss), interrupt economic activities (in-direct loss), and worsen fiscal balance and debt sustainability (macro-economic impact). It has long been known that SMEs suffer from disasters; even in Europe, estimates show that between 40-60% do not recover after a disaster hit. But big business also feels the effects of rising disaster losses and impacts.



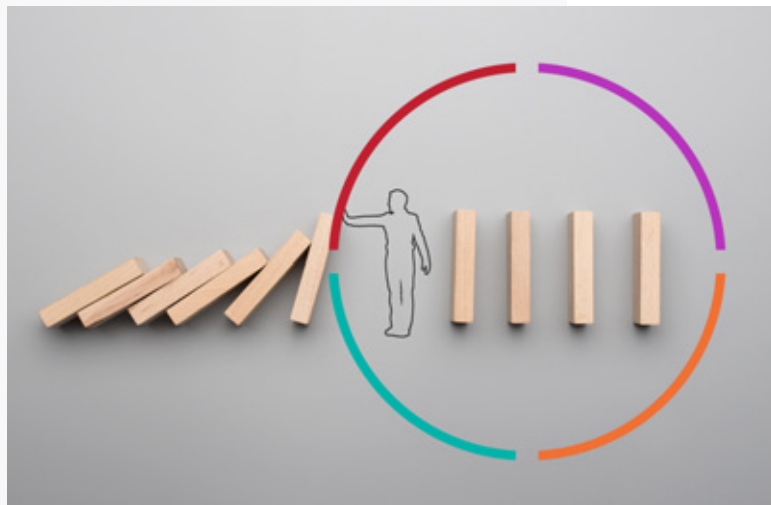
In recent years, annual economic losses from earthquakes, tsunamis, cyclones and flooding have been estimated at \$US520 billion globally. For 2019 this figure is likely to have been far surpassed, as estimated losses from the wildfires in Australia alone are over US\$110 million, and up to US\$2.5 billion in terms of economic impact<sup>1</sup>. In the Caribbean, climate change is

estimated to contribute an additional \$US1.4 billion to the expected average annual losses from cyclone wind damage (source: GAR15). Countries without the resources to buffer against these losses face financing gaps. Furthermore, it is estimated that by 2050 the urban population exposed to cyclones will increase from 310 million to 680 million people, while exposure to major earthquake risk will increase from 370 million to 870 million people. Exposure of urban assets to sea level rise and flooding could reach US\$35 trillion by 2070; 10 times more than the current levels<sup>2</sup>.

However, not all impacts are felt equally: the impact is particularly strong in heavily indebted middle-income countries, as well as in Least Developed Countries, where low commodity prices and financial shocks restrain growth rates below the 7 per cent needed to achieve the Sustainable Development Goals (SDGs). For small island developing States (SIDS), average annual losses to disasters is equivalent to almost 20 per cent of their total social expenditure. Sustainable development, therefore, cannot be attained without disaster risk reduction to manage risks and to mitigate losses.

Resilient infrastructure is crucial as it underpins economic performance and quality of life. In this setting, ensuring that future infrastructure investments, estimated at US\$90 trillion annually, will not drive nor create new risks, but rather contribute to reducing disaster risk in applying a risk-informed investment approach is critical for a prosperous future for us all.

The business sector is changing and must be engaged. The Taskforce on Climate Related Financial Disclosure (TCFD), created by Bank of England



Governor Mark Carney, is increasingly focusing on how to reduce and address physical climate risks. Businesses across the globe are starting to assess their exposure to climate risk, integrating sustainability and risk concerns into their corporate strategies. This is in response to encouragement by regulators and Central Banks supporting a shift towards more risk-adjusted investment decisions, supported by the United Nations engaging in enabling the business sector.

Real opportunity and tangible benefits exist in delivering resilient investment: risk-informed investment makes business sense, as annual investments of \$US6 billion in disaster risk management could generate benefits in terms of risk reduction of \$US360 billion (GAR15). Such annual investments in disaster risk reduction represent only 0.1 per cent of the estimated \$US6 trillion per year that will have to be invested globally in infrastructure by 2030<sup>3</sup>. Eradicating extreme poverty and achieving the SDGs requires that disaster risk reduction be integrated in core social, economic and development planning.

Integrating disaster risk considerations into investment decisions is the most cost-effective way to reduce risk. Future-proofing our development, whether we have a small corner store, or operate a multi-national is essential towards protecting gains made towards sustainable development.

Building on its engagement with business leaders since 2010, the UN Office for Disaster Risk Reduction (UNDRR) established ARISE, the Private Sector Alliance for Disaster Resilient Societies in 2015. Since then, more than 21 national and regional networks have come on board, with interest rapidly growing in all regions.

ARISE supports you- the private sector- in reducing your exposure to climate and disaster risk, align with upcoming new regulatory requirement, supporting you in implementing resilience and sustainability into your business strategy and fulfilling your corporate responsibility and with this ensure long-term risk-adjusted returns.

We hope you find this communication toolkit helpful. It sets out the case for risk-proofing our businesses and societies and details some of the communication activities that ARISE organizes that you can contribute to, or pick-up and activate in your network and community.



## **Mami Mizutori**

Special Representative of the UN Secretary-General  
for Disaster Risk Reduction



# I. LET'S TALK ABOUT RISK!



## Changing risk in a changing world.

**T**he world is changing – rapidly, and in ways we cannot always predict. The interactions between climate change trends, ecosystem fragility, disease outbreaks, rapid urbanization, fueled by the interconnectivity of communications, trade, financial systems and politics means that shocks, stresses and crisis reverberate globally. Disasters are occurring more often, lasting longer and hitting harder and becoming more and more expensive. Recent bushfires in Australia are likely to exceed the US\$4.4billion record set by bushfire related loss in 2009.<sup>4</sup> Tourism has been affected, poor air quality has had direct impact on local economies, as well as in other countries, with people unable to work, insurance claims have strained the industry, with some areas becoming uninsurable.

The list goes on, resulting in profound rethinking by public and private sector leaders on how we live and do business. Climate change and consumer pressure are seen as pushing a fundamental reshaping of finance as well as shifting business priorities from short-term profit to long-term purpose, responsibility and sustainable returns.

Risk is increasingly systemic, with hazards and risks interlinking having far-reaching impacts beyond what we experienced in the past. In an increasingly connected and globalized world, nothing about risk is siloed. We must think about risk in multiple dimensions, at multiple scales and with multiple impacts.

We have not yet been able to escape the vicious cycle of disaster – respond- repair- repeat. As a global development system, we spend 20 times the amount on recovery than we do on prevention. And whilst the current model of development has delivered prosperity to hundreds of millions, it has also – in many instances- exacerbated inequality, undermining innovation, social cohesion and economic growth. And it has come at a very high costs: pushing the planet beyond its natural boundaries.

The unprecedented confluence of climate and ecological breakdown dominated the World Economic Forum’s 2019 Global Risks Report which identified extreme weather events, failure of climate adaptation, biodiversity loss, major natural disasters and human-made damage as the most prominent business risks. Industry leaders are listening and taking up leadership – BlackRocks’ CEO Larry Fink highlighted in his 2020 annual letter to client CEOs that ‘climate risk is financial risk’ and called for business leadership in a profound reassessment of risk and asset values, aligned with its corporate responsibility towards all people to promote long-term value.

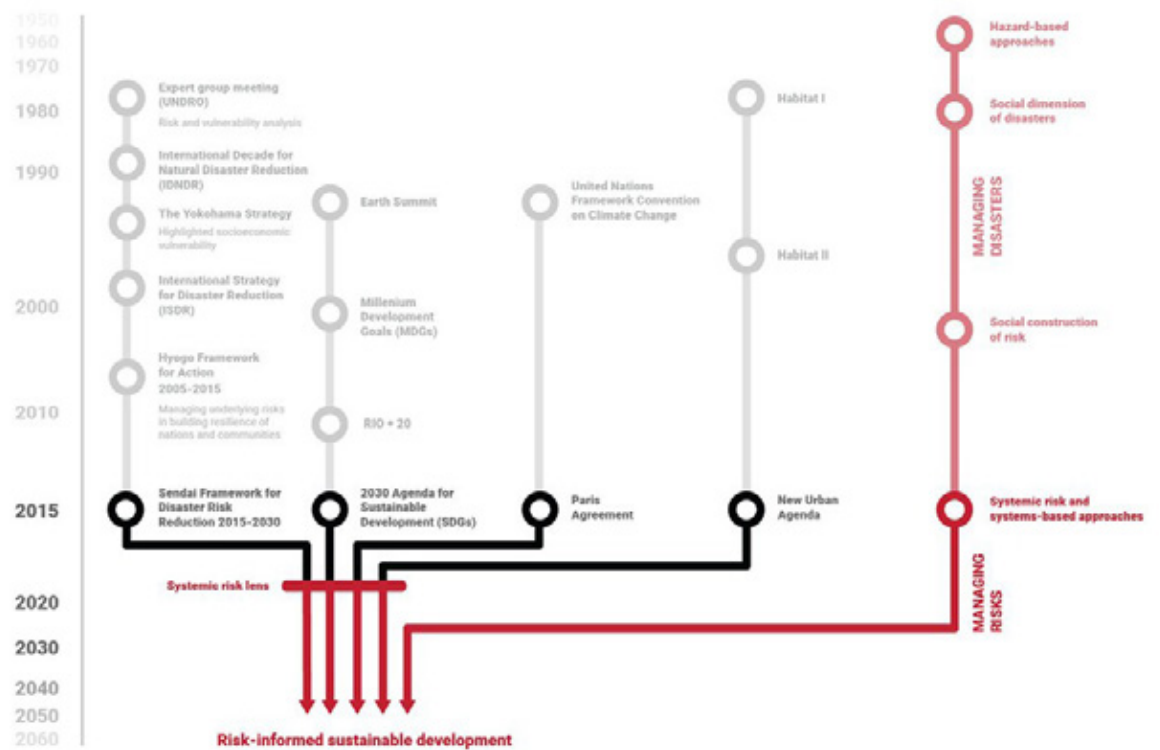


Hurricane Maria, which struck Puerto Rico in 2017, destroyed houses, flood streets, displaced thousands and caused the largest blackout in US history. The national and global health system was also impacted. A medical supply company which was producing most of the world's global supply of intravenous bags couldn't maintain production. As a result, the global cost of IV bags went up 600% and hospitals around the globe faced critical shortage. The national health system ran short of critical medication to treat diabetes, cancer and heart conditions.

The culprit or root cause of this systemic impact was two-fold. Decades of chronic underinvestment in critical infrastructure, in this case the electricity grid, were one major driver. But in addition, a study published in 2019, analyzing Puerto Rico's hurricane history finds 2017's Maria had the highest average rainfall of the 129 storms to have struck the island in the past 60 years. A storm of Maria's magnitude is nearly five times more likely to form now than during the 1950s, an increase due largely to the effects of human-induced warming, according to the study's authors. (Source: Science Daily 2019)







In this context, there is also a clear opportunity for the business community.

## 2. RISK AND THE PRIVATE SECTOR:

Over the past ten years, disasters have dramatically impacted communities, global development and prosperity: more than 1.5 billion people were affected by total economic losses of more than \$1.3 trillion (UN). The exposure of persons and assets in all countries increased faster than vulnerability decreased, generating new risks combined with a steady rise in overall disaster-related losses and damage.

If development and economic growth are not risk informed, they are not sustainable and can undermine efforts to build resilience.

## Why should the private sector care about risk reduction?

In most economies, 70-85 percent of overall investment is made by the private sector, including annual institutional investments worth over USD 80 trillion globally. An estimated 420 to 510 million micro- to small- medium-sized enterprises (MSMEs) account for more than two-thirds of all jobs and are an essential job creation engine.

There is a clear need for mainstreaming sustainability across risk management, as environmental and climate risks are currently not always adequately taken into account by the financial sector. The increase in weather-related natural disasters means that insurance companies need to prepare for higher costs. Banks will also be exposed to greater losses due to the lower profitability of companies most exposed to climate change or highly dependent on dwindling natural resources. The rapidly rising annual weather-related disasters are a worrying trend for the public and private sector alike; e.g. close to 50% of the exposure of Euro area banks to risk is directly or indirectly linked to risks stemming from climate change.

Risk is a concern for big and small business alike. MSMEs are essential to economic growth, innovation, job creation, and social integration, and an integral part of global supply chains, both as buyers and suppliers.

- An estimated 25% of businesses do not re-open following a disaster
- 80% of companies that do not recover from a disaster within one month are likely to go out of business
- 75% of companies without business continuity plans fail within three years of a disaster<sup>5</sup>

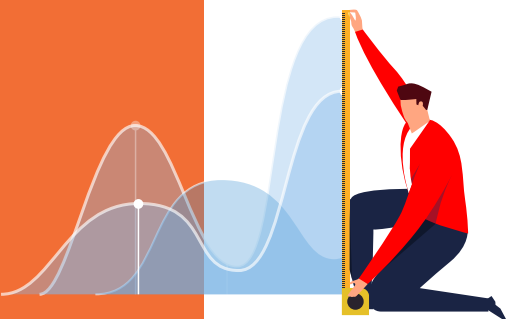


Between 40-60% of SME do not recover from a disaster. Next to damaging national economies and community prosperity, this will also have long-term effects on the global economy as many large global businesses rely on MSMEs as partners and suppliers. Supply chain risk is directly related to the capacity of MSMEs to manage their disaster risks. Given that the most frequent disaster risks faced by MSMEs are related to utilities such as power, water, transport and telecommunications; interdependence also exists between disaster risk management in the public sector and supply chain risk. On top of ensuring that individual entities are actively understanding and reducing their risk, we must enable the MSME sector and associated business practices so that they are ahead of the game, well positioned to maximize business opportunities through thorough risk planning and preparation.

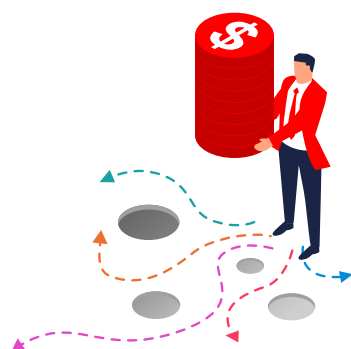
## THE BENEFITS OF WORKING WITH MSMEs:

- MSMEs' resilience to disaster and climate risks determines the recovery of local and national markets and the wellbeing of their surrounding communities;
- The resilience of MSMEs has a clear impact on national and local political and social stability, given their role as job creators, link to local economies and their contribution to social cohesion;
- In a globalized marketplace with international supply chains, MSME resilience is also a critical element for the stability of global markets and economies and connecting supply chains
- MSMEs can be the test-bed for innovation and product development for resilience as managing risks and realizing opportunities lead to new business models, new products and new markets.

## TO REALIZE THESE BENEFITS, THERE IS A NEED TO:



Reassess the vulnerability of assets and investment decisions,



Reorient capital flows towards resilient sustainable investment,



Better manage financial risks and foster transparency and long-termism in financial and economic activity



However, whilst businesses and their advisors and fiduciaries are generally concerned about a wide range of day-to-day corporate risks, such as enterprise risk, corporate governance, regulatory and operational risk, information and security risk, more needs to be done to systematically integrate risk of natural hazards into corporate strategies and action.

## What role can the private sector play to increase business and community resilience?

- **Business owners** must ensure that business and investment decisions are risk- and opportunity- informed. This can be done through systematic risk assessment, integration of climate and disaster risk into corporate strategies, management tasks and fiduciary duties and reward systems. This requires the development of appropriate business risk metrics, data sets, understanding risks and risks and opportunity assessments. For SMEs, this means going beyond developing business continuity plans and starting to apply a longer-term, holistic perspective to risks in integrating them into business models and investment decisions.
- For **financial sector companies**, there are opportunities to engage through the implementation of the G20 Task Force on Climate Related disclosures and EU Capital Market Union Action Plan on Sustainable Financing.
- **ARISE members** should lobby for a broader focus on climate and disaster risk, and the creation of enabling business environments to implement these through closer collaboration between the private sector, policy makers and regulators.
- The **business sector** as a whole should be aware of, and engage in, the discussions linked to Target (e) of the Sendai Framework, requiring countries to establish national and local DRR strategies and plans. In this way, business can stay ahead of the game and lead effective resilience building for sustainable development to increase competitive advantage and thrive in the face of multiple risks.

# 3. WHY ARISE?



**A**RISE, the Private Sector Alliance for Disaster Resilient Societies, is a network of private sector entities led by the UN Office for Disaster Risk Reduction (UNDRR). Members voluntarily commit to support and implement the Sendai Framework, aligned with the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs), Paris Climate Agreement, New Urban Agenda, and Agenda for Humanity. In doing so, members advocate for risk-informed development and preparation by encouraging and supporting the private and public sectors to put in place policies and practices to reduce disaster risk and losses. ARISE mobilizes and facilitates the private sector to carry out risk-informed investments and to engage in business practices that build resilience, prevent social and economic losses and enhance recovery from disasters, in line with the Sendai Framework.



Building risk-resilient communities will only be possible through a radical shift in thinking and behavior change of the private and public sector alike – in developed and developing countries. The Sendai Framework is clear: it calls for an all-of-society approach and stressing the mutual dependence of all stakeholders. The private sector is a critical partner in bringing about this change: through the supporting risk-informed business investment, and in the development of risk-sensitive regulatory and institutional frameworks. As the main employer and an integral part of all communities, the private sector could be a major force in catalyzing behavioural change in society at large.





## Who and what is ARISE?

ARISE is a private sector initiative founded and convened by UNDRR that works to build a resilient, prosperous future where fewer lives are lost to disasters, capital assets and investments are risk informed and infrastructure is resilient to natural and man-made hazards.

ARISE is made up of a global network of national networks that advocate for risk-informed development by supporting the private sector to put in place policies and practices to reduce disaster risk and loss.

ARISE seeks to create risk-resilient societies by promoting and supporting the integration of disaster risk into business management strategies and investment decisions.

## ARISE TAGLINE

# RISK-RESILIENT BUSINESSES FOR STRONGER COMMUNITIES



ARISE is committed to combining the intellectual know-how and capital assets of the private sector with the public sector and other stakeholders' knowledge, outreach and resources, so that risk reduction strategies and solutions will be developed and implemented more efficiently and effectively to achieve the Sendai Framework by 2030.

ARISE members engage in capacity development and education of the private sector about risk, and in the development of required policies, standards, tools and regulations to reduce disaster risks at the national and local level.

## ARISE members make five commitments to:



1. **Raise awareness:** of disaster risk reduction and the benefits of private sector mobilization



2. **Build influence:** to ensure that spheres of expertise can be used to drive change



3. **Share knowledge:** so that experience and good practice builds cohesion



4. **Catalyse innovation:** to develop relevant and impactful risk-informed business strategies



5. **Support implementation:** to help the private sector contribute to achieving the Sendai Framework targets



# WHY BELONG TO THE ARISE NETWORK?

Belonging the ARISE network brings the following benefits to businesses:

- **Networking** with leading global institutions that promote the prevention and reduction of disaster risk
- **Access to the technical assistance and guidance** of the United Nations.
- **Increase competitiveness** through access to a **portfolio of supporting tools and programs** to identify market opportunities and build resilient, forward-thinking companies
- Ability to inform strategies and participate in activities to **generate resilient environments** through collaborative networks.
- Opportunity to **cohesively interact and influence public policy** in relation to risk reduction and sustainable business investment and development
- **Advocate for strategic investment** in disaster risk reduction projects for greater positive impact and sustainability.



# 4. KEY MESSAGES

**T**hese key messages form the basis for ARISE's communication. They will be regularly updated and will be complemented by specific message threads as and when necessary.

## Private sector is starting to assess risks and opportunities



- Since the Task Force on Climate-related Financial Disclosures (TCFD) published its recommendations in 2017 that companies should disclose climate-related risks and opportunities in their mainstream (i.e., public) annual financial filings, over 930 organizations across a range of sectors have agreed to implement the TCFD recommendations, representing a market capitalization of over \$11 trillion<sup>6</sup>.

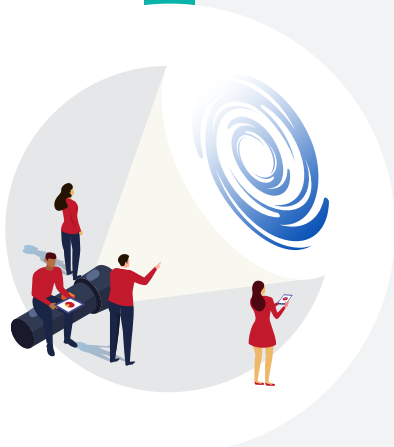
- The focus of the discussions is shifting to include physical risks of climate change through climate adaptation and disaster risk management. Understanding climate- and disaster related risks and opportunities and how they change over time can enable companies to realize their corporate goals, through working with key stakeholders to embed resilience across the whole value chain. However, companies need to take a holistic approach to include wider environmental risks, technological risks and importantly understand the cascading, complex nature of risks and systemic risks.

- Thorough risk and opportunity assessment can help to realize the triple bottom line win: people, planet and profit, through identifying



changing demands, new markets and new products; sustainable business models simply make sense in an increasingly resource-constrained world.

- Regulators are increasingly identifying climate risk as a financial risk. Central Banks as guardians of both financial and price stability are discussing options to adapt regulatory frameworks and practices to address the multifaceted risks posed by climate change. Increased climate risk disclosure and classification standards will help financial institutions and investors better assess their climate-related exposures, improve stress testing for environmental risks and help regulators better gauge system-wide risks.
- Companies and industry leaders need help in implementing and operationalizing risk-informed investment, including findable, accessible, interoperable and reusable (FAIR) data<sup>7</sup>, capacity building, focused business-relevant guidance and closer collaboration with policy makers and regulators.



## Extreme weather events are on the rise.

- Over the last twenty years, the overwhelming majority (90%) of disasters have been caused by floods, storms, heatwaves and other weather-related extreme events.
- During this time, weather-related disasters claimed over 606,000 lives, with an additional 4.1 billion people injured, left homeless or in need of emergency assistance - adding to the burden of an already over-stretched humanitarian system and jeopardizing the progress made in sustainable development.



- Under a changing climate we will face new combinations of extreme weather events. While ‘we can’t say with 100% certainty that Hurricane Dorian is a ‘climate change event’, we can say that the likelihood is very high. We can say that the energy from the hurricane comes from the warm ocean, and if that ocean gets warmer, we must expect more energy in Hurricanes’<sup>8</sup>

### **Climate change is key risk driver and risk multiplier.**

- Disasters are exacting an ever-rising toll in terms of the human cost. In 2017 disasters caused by natural hazards resulted in around 60% of total internal displacement worldwide, affecting 18.8 million people in 135 countries. Hurricane Dorian that devastated the Bahamas, where 70,000 people were thrust into homelessness almost overnight.
- In Europe, wildfires have burned more land in the first part of 2019 than in the whole of 2018, according to the European Commission. Heat waves in June and July 2019 caused nearly 1,500 additional deaths in France, and across the whole of Europe, where all-time high temperatures were recorded in Belgium, Germany, Luxembourg and the Netherlands, amongst other countries.
- Disasters cost the global economy US\$ 520 billion annually. The trend of economic losses is increasing; for example, in 2018, severe droughts affected large areas of Europe, resulting in widespread losses in agriculture and forestry. This drought produced an overall loss of around US\$ 3.9bn (€3.3bn).



## Nothing sets back development like a disaster

- We know that decades of sustainable development gains can be wiped out overnight when disaster strikes.
- 68.5% of all economic losses in the period 2005–2017 were attributed to extensive risk events, as was the persistent erosion of development assets such as schools, health facilities, roads, houses, critical infrastructure,
- Disaster risk reduction can help us build infrastructure that can withstand such shocks, minimize economic costs and lives lost.



## Investing in risk reduction and building resilience saves more than lives. It also makes good financial sense

- Annual investments of \$6 billion in disaster risk management could generate benefits in terms of risk reduction of \$360 billion. Such investments represent only 0.1% of the estimated \$6 trillion per year that will have to be invested in infrastructure by 2030.
- DRR investments can unlock development potential by bolstering economic activity and producing economic, social and environmental co-benefits.
- Risk informed investment is not just about leadership for the public good but is smart economic investment.
- When a comprehensive approach to risk and opportunity assessment is undertaken, there is space for forward-looking planning, long-term capital investment, innovation and entrepreneurship.



## We have a global blueprint for action – the Sendai Framework for Disaster Risk Reduction 2015-2030

- Analysis in 2017 estimated that if all natural hazard-related disasters could be prevented in the next year, the number of people living in extreme poverty (less than \$1.90 per day) would fall by 26 million<sup>9</sup>.
- Disaster losses undermine efforts to eradicate poverty and to achieve the other Sustainable Development Goals in countries which are falling behind in achieving the Sustainable Development Goals (SDGs)
- We need to accelerate implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030, the global plan to reduce disaster losses by reducing existing levels of risk, avoiding the creation of new risk and managing the residual risks.
- Strengthening disaster risk governance is necessary to deliver the triple bottom line of securing people, planet and profits.



# 5. COMMUNICATION ACTIVITIES:

## 5.1 Communication objectives:

Four objectives guide ARISE's communication activities.

1. **Advocacy:** Advance the case for disaster risk reduction (DRR) by the private sector so that all stakeholders are convinced with the need for coordinated, urgent, systematic action
2. **Influence:** Improve awareness of ARISE and its role in catalyzing and realizing efficient and impactful DRR action for the private sector, including through the implementation of the Sendai Framework so that interest, participation and investment are increased
3. **Engage:** Create opportunities for collaboration, leveraging and knowledge sharing around DRR initiatives so that policies and activities are streamlined, harmonized and contribute to shared goals

4. **Change: Reduce the impact of disaster** through supporting the implementation of the Sendai Framework and developing targeted, participatory advocacy campaigns and driving opportunity creation and innovation for the private sector, so that risks are reduced and resilience is delivered, in key vulnerable populations, locations and sectors.

## 5.2 Audiences:

ARISE has a range of diverse audiences. These audiences require consistent, coherent, relevant messaging. In all of ARISE's communication output, the master narrative around DDR and resilience building must be tailored to a suite of diverse audiences, understanding what each audience currently believes, what they need to believe and how to provide that message.

Messages must move beyond setting out the facts to presenting a call to action: to access information, share information, persuade others etc.

### ARISE's primary target audience is:

- C-suite level executives (CEOs, directors, managers) in small to medium size enterprises in vulnerable settings
- Industry leaders
- Business and finance leaders

### ARISE's secondary target audience is:

- Policy makers and regulatory bodies who set private sector and industry policy
- Business and industry media

## 5.3 Activities: The 4cs approach:

The ARISE communication plan follows UNDRR's four-prong communication approach:

1. **Content** delivering multi-channel, story-driven content packages
2. **Campaigns** developing 360-degree campaigns that can be implemented by ARISE and its members
3. **Channels** growing influence through our own & others' channels
4. **Communities** building a network of influencers who bring about change



## 1. Content

Content can take many shapes and forms. ARISE will utilize a content package approach, where different elements make up a comprehensive package, and communication assets can go live on a range of channels.

Whilst content will primarily be digital for social channels, where possible, ARISE will move beyond one-off tweets and posts, instead following the 'WEF' approach, where social content is anchored in research or agenda-setting longer form pieces. This builds credibility and ensures that content is not just opinion driven. This is very important in a partnership or network environment where different bodies in different locations need to tell the same story.

ARISE will choose three to four key topics each year that it will build content packages around. These could be milestone driven (i.e. 2021 is the year of infrastructure) or thematic (doing business in the face of the climate emergency).

## Each topic will be realized through:

- **research or agenda-setting piece:** on a particular theme, or to time with a particular activity/conference/event. This provides the expertise that is one of UNDRR's core values and ensures that we are outputting robust information.
- **briefing pack:** key messages are developed for each topic/theme and form the basis for all released messages.
- **social assets:** a series of tweets, social cards, animation or small film will be produced.
- **media engagement:** may be a press release, a briefing, exclusive interview, op ed, media trip.

## Content tone:

- **Facts and figures:** most of what we tell should be grounded in facts and make strong financial/economic sense. It should be told through stories and examples so that people not only remember, but re-tell.
- **Using different people to tell the story is important.** We want to activate C-suite executives to talk about their experiences with DRR and how it paid off: putting a personal face on a professional argument.
- **Using strong visual language:** infographics make complex topics easy to understand, and are shareable.
- **Strong, compelling calls to action.** We want to make it easy for people to get involved in sharing content, making them feel part of the network, and with something to offer.





## 2. CHANNELS

Where we deliver content is described as our ‘channels’. We have a mix of owned (UNDRR or network hosted and branded) and non-owned channels. Our channels include the mainstream (broadcast media), and in today’s communication context, social channels, which are the big extenders of reach to direct target audiences.

### *Owned channels*

We will develop pre-planned content calendars that set out the messaging and assets associated (Tweets, social cards, infographics, films). These will be housed online, using Trello, and made available across the ARISE network, so that different networks and chapters can see what is planned and download visual assets and either post as is, or translate for their audience. We will concentrate primarily on LinkedIn, Twitter and Facebook. Global level content will be shared on UNDRR’s corporate channels with the hashtag #ARISEglobal. Subject to dedicated resources within the Secretariat, ARISE should communicate on owned channels at the global level. In addition, each network will be encouraged to develop their own national feed, generating their own original and context-specific content, whilst using ARISE’s centrally-generated, corporate content.



ARISE will work with PreventionWeb (UNDRR's disaster risk reduction knowledge exchange platform) to build a bespoke range of business-relevant content that sits on [www.preventionweb.org](http://www.preventionweb.org). PreventionWeb has more than 100,000 unique users/month. ARISE will therefore benefit from cross-channel promotion with a well-established channel and user group.

#### *Leveraged channels*

ARISE will identify a range of influencers and their channels and seek to build relationships so that it is able to leverage other opportunities to spread relevant content. These might include other UN or multi-lateral agencies such as the World Bank, UNDP and initiatives started by the UN, such as the Global Compact; global influence bodies such as the World Economic Forum or Insu-Resilience etc.

*\* for more information on and examples of digital content, please see Appendix B.*

## 3. Campaigns

ARISE will support the annual Sendai Seven campaign. This is an annual campaign, developed by UNDRR which unpacks and profiles one/year of each of the Sendai Targets. In 2020, UNDRR is focusing on Target (e): developing national and local DRR strategies, in 2021 the focus will be on Target (f): substantially enhance international cooperation to developing countries. UNDRR will support ARISE to target the private sector to lobby their national and local governments, asking them to deliver on the public good and develop and implement DRR strategies.

UNDRR will work with ARISE to develop a private-sector relevant campaign that runs predominantly on UNDRR and ARISE partners' social channels.

ARISE networks may also identify separate campaign opportunities throughout the year and develop regional or national campaigns to draw attention to specific topics.

## 4. Community

ARISE will publish a **quarterly newsletter**, primarily featuring ARISE member-initiated content, curated by UNDRR. The newsletter will feature the following information categories:

- **News round-up:** two or three stories from partners around the world
- **Spotlight on:** more information and links to a hot topic, could be a recent event, call for proposals, or a story about how the network contributed to an outcome, event or process
- **Did you know?** Infographic about ARISE or DRR more widely
- **In depth:** An in-depth profile about one of the partners
- **In the pipeline/coming up next:** A quick look calendar of all the events for the next month or so

The **ARISE website** is currently being developed. This will be an external facing site, built using DRUPAL- a content management system that can be updated by trained ARISE members. It will include news and update categories, links through to other relevant sites, and the ability for members to update the ARISE network on their events and activities.

UNDRR has provided ARISE with an **online community working group space** on PreventionWeb. This free-to-use online environment allows ARISE members to connect via message boards and in forums on any topics they choose to initiate. It allows ARISE members to share and work on documents



(toolkits, scorecards etc) in group settings, send messages and keep in contact with other members.

The ARISE website will provide the ability for networks and chapters to link directly through to UNDRR's **Voluntary Commitment website** where they will be able to register their commitment to deliver on the Sendai Framework. This provides profile for ARISE members (an annual report is published, and Voluntary Commitment updates provided to UNDRR donor and support groups regularly).

The website will provide the primary space to promote resources and tools developed by ARISE members that directly contribute to implementation of the Sendai Framework. PreventionWeb provides an access point to also reach the DRR community more widely. Where appropriate, the Secretariat may also submit joint work with UNDRR for consideration for [undrr.org](http://undrr.org) and its subsidiary channels via UNDRR's Communications team.



# APPENDIX A:

## RISK DEFINITIONS AS PER SENDAI FRAMEWORK

What is risk?



Risk is the probability of an outcome having a negative effect on people, systems or assets. Risk is a function of the combined impact of hazards and the people or assets exposed to those hazards, and the vulnerability of those exposed elements.

# RISK = HAZARD X EXPOSURE X VULNERABILITY

Put simply, if you think about a house, then a hazard might be a flood, the house's exposure might be that it is built on a riverbank, and its vulnerability is that it is made of mud.

Ultimately, risk is the result of decisions that we make (and sometimes, decisions that are made for us). We make decisions daily about risk and the hazards to which we expose ourselves: will I drive over the speed limit, will I eat another piece of cake, will I take out insurance cover this year...where will I build that school/factory/dam/dyke? How much will I invest in disease surveillance? How should my society organize and care for vulnerable people and assets?

## What is disaster risk?

UNDRR defines 'disaster' as a **serious disruption of community function due to hazardous events, where the effects test or exceed the capacity of people and places to cope using their own resources.**

Disaster risk is the likelihood of loss of life, injury or destruction and damage from a disaster in a given period.

There is no such thing as a natural disaster. Nothing about disaster is natural. Hazards- like earthquakes, tsunamis, floods are natural hazards, but they only become disasters when they interact with people, places and systems negatively.

And hazards are not all natural. Hazards can be manmade (nuclear war) or biological (SARS). A recent category of risk that has emerged is called NATECH: where a flood destroys a power station, which in turn means that businesses have no power to operate.

Not all disasters appear overnight; in fact, we know that many disasters are the result of long-term processes in which risk is present years or decades before the disaster occurs. Risks in social environments create communities with high exposure and vulnerabilities to disasters- like growing popula-

tions in countries with small land mass forcing people to live in unsafe areas, like near the sea, or in flood zones.

Many risks arise due to underlying risk drivers such as unequal economic development, poorly planned/managed urban and regional development, the decline of regulatory ecosystem services, inequality, weak governance, and weak local capacities –including poor capacity of the private sector to make risk-informed investments.

## Building risk-resilient communities

From the perspective of the Sendai Framework, resilience is defined as the ability of a system, community or society exposed to a threat to resist, absorb, adapt, transform and recover from its effects in a timely and efficient manner.



**Risk-resilient communities** understand risks and how to reduce and responding to them; minimizing the loss of life and the effects on livelihoods, property, infrastructure, economic activities and the environment.

Critically, resilience is moving beyond just ‘bouncing back’ to using risk to transform systems, and outcomes for the better.

## APPENDIX B:

### Additional messaging in relation to Sendai Framework Targets (a) – (g)

The following messages are aligned to the seven Sendai Framework Targets.

#### ARISE TARGET SPECIFIC MESSAGES<sup>10</sup>:





# Target (a) – Reduce global disaster mortality

## Facts:

- Disaster mortality is closely correlated with income and the quality of governance. Since 1990 almost 90% of mortality recorded in major internationally reported disasters has occurred in low and middle income countries<sup>11</sup>.
- Faced with similar numbers of people exposed and hazards of the same severity, lower income regions and countries with weaker governance can expect higher mortality rates by several orders of magnitude.
- Disaster fatalities appear to be influenced much more by socioeconomic vulnerability and exposure, than by the hazard itself.
- Particular attention needs to be paid to ensure that people living with disabilities, women and girls, older persons are included in strategic plans for disaster risk management as they often suffer disproportionately in disaster events.
- Disaster risk reduction - including early warning systems, impact-based weather forecasting, disaster preparedness - has helped to reduce the possibility of large-scale loss of life from floods, storms and heat waves.

## Target (a) Talking Points

- Of the 1.35 million people killed by natural hazards between 1996 and 2015, more than half died in earthquakes and tsunamis (749,000), and the rest in weather and climate related hazards which have more than doubled over the past 40 years. Floods, storms and extreme temperatures are the main direct causes of loss of life after earthquakes. Flood mortality fell to 57,000 lives lost between 2006 and 2015 from 93,000 in the previous decade<sup>12</sup>.
- Pollution is the largest environmental cause of disease and death in the world today, responsible for an estimated 9 million premature deaths in 2015. 92% of all pollution-related mortality is seen in low-income and middle-income countries.<sup>13</sup>

- Particular attention must be paid to vulnerable groups e.g. a disproportionately high number of older people died in Hurricane Katrina, New Orleans, in 2005, and in the 2003 heatwaves in Europe.
- Success stories from Bangladesh, Chile, India, the Philippines and other countries show that timely and effective warning and communication coupled with risk information and a prepared population significantly reduces mortality.

## Target (b) – Reduce the number of affected people globally

### Facts:

- Population growth and economic development means that more people are in harm's way than 50 years ago in earthquake zones, flood plains, coastlines, dry lands and other high-risk areas increasing the risk that a natural hazard can become a catastrophe<sup>14</sup>.
- More people are affected by extreme weather events than any other type of natural hazard; floods, storms and drought are responsible for 95% of disaster-affected people<sup>15</sup>.
- More than half the world population live in cities for the first time in human history, investing in urban resilience is key to reducing the numbers of people affected by disasters<sup>16</sup>.

- Disaster-affected persons are disproportionately drawn from the marginalized and poorer segments of society, often obliged by circumstances to live in hazardous locations.
- Disaster-affected persons are often marginalized socially because of gender, disability, age, ethnicity or religion and not included in disaster management planning for their community or neighborhood.
- Disaster-affected persons are often marginalized politically because those with political power disregard their voice.

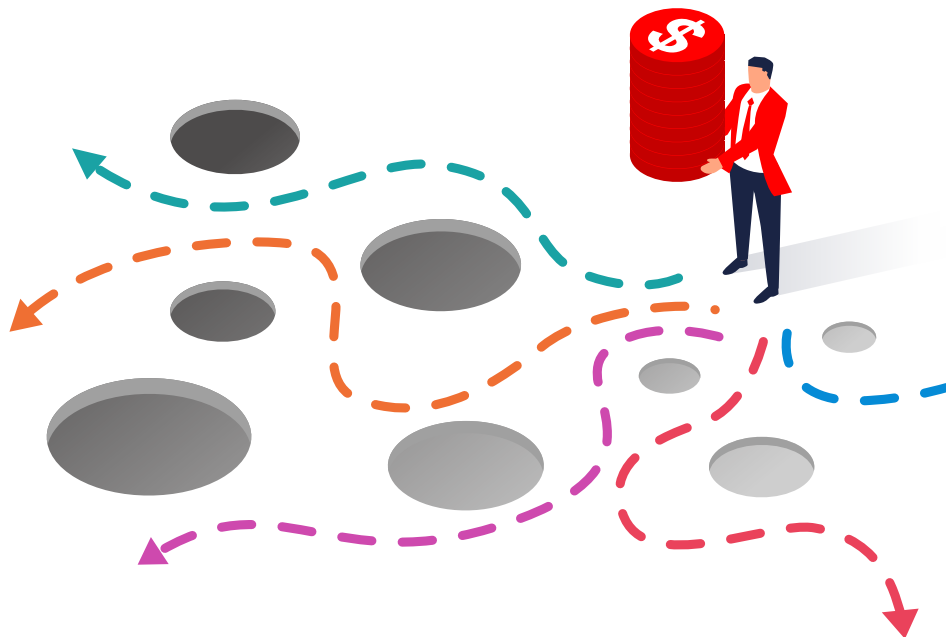
## Target (b) Talking Points

- Disasters force 26 million people into poverty every year<sup>17</sup>.
- By 2030, up to 325 million extremely poor people will be living in the 49 most hazard-prone countries<sup>18</sup>.
- Nearly 1/2 of the world's population — more than 3 billion people — live on less than \$2.50 a day. More than 1.3 billion live in extreme poverty — less than \$1.25 a day. 1 billion children worldwide are living in poverty<sup>19</sup>.
- More than 750 million people lack adequate access to clean drinking water<sup>20</sup>.
- Major internationally reported floods affected 2.3 billion people between 1995 and 2015; followed by drought, 1.1 billion; storms, 660 million; extreme temperatures, 94 million; and landslides & wildfires, 8 million. Earthquakes, 120 million (1994-2013)<sup>21</sup>.
- Drought affected more than one billion people between 1994 and 2013, or 25% of the global total.<sup>22</sup>

## Target (c) – Reduce direct disaster economic loss in relation to GDP

### Facts

- If it's not risk informed, it is not sustainable and if it is not sustainable, it has a human cost.
- Increasing exposure of people and economic assets has been the major cause of long-term increases in economic loss from disasters and shows that the economic incentives for location in many hazard-prone areas continue to outweigh the perceived disaster risks.
- While absolute economic loss is concentrated in higher income countries, in relative terms it is a far greater problem for low-income countries.
- Expressed as a proportion of social expenditure, expected annual losses in low-income countries are five times higher than in high-income countries. The countries with the greatest need to invest in social development are those most challenged by disaster risk.



- Investment in disaster risk reduction generally represents a large saving in terms of avoided losses and reconstruction costs with cost benefit ratios ranging from 3:1 to 15:1 or higher in some cases<sup>23</sup>.
- Integrating disaster risk reduction into investment decisions is the most cost-effective way to reduce risk.
- Investing in disaster risk reduction is a precondition for developing sustainably in a changing climate.
- If risk reduction can be included explicitly in national development and climate adaptation plans and budgets, all parts of government are then able to program risk reduction actions and investments.



## Target (c) – Talking Points

- Direct economic losses from disasters such as earthquakes, tsunamis, cyclones and flooding are now reaching an average of US\$250 billion to US\$300 billion<sup>24</sup>.
- The World Bank estimates that disasters cost the global economy US\$520 billion annually.
- In developing countries, the agriculture sector absorbs about 22 percent of the total damage and losses caused by natural hazards<sup>25</sup>.
- Since 1980 economic loss due to floods has increased by over 160% and to tropical cyclones by 265% in OECD countries<sup>26</sup>.
- The proportion of global GDP exposed to tropical cyclones has increased from 3.6% to 4.3% since 1970<sup>27</sup>.
- Globally, US\$71 trillion of assets are exposed to one-in-250-year earthquakes.<sup>28</sup>

- Poorer countries experience higher economic losses in relation to the size of their economies<sup>29</sup>.
- Disaster risk is increasing fastest in low- and lower-middle income countries with rapidly growing economies. For many countries, the risk of losing wealth in weather-related disasters is growing faster than GDP per capita.
- Internationally reported figures: Total direct losses in 40 low and middle income countries amount to US\$305 billion over the last 30 years; of these more than 30% were not internationally reported.

## Target (d) – Reduce disaster damage to critical infrastructure and disruption of basic services

### Facts

- It is currently estimated that US\$90 trillion will have to be invested in infrastructure (urban, land-use and energy systems) by 2030. This amounts to an average of US\$6 trillion per year over the next 15 years.<sup>30</sup>
- Additional investment for a transition to low-carbon infrastructure is estimated at around US\$4 trillion in total or another US\$270 billion per year<sup>31</sup> (ibid.). If these investments are not made in a risk-sensitive way, the global AAL (annual average losses) will continue to increase, even without taking into account likely increases in hazard due to climate change and other factors.
- In many countries this increase in risk could make the difference between achieving sustainable development or not.
- If indirect benefits of reducing risks are factored in, the BCR (benefit to cost ratio) of corrective investments may be more attractive. Typical BCRs for prospective disaster risk management would seem to lie in a range from 3:1 to 15:1 and a broad-based estimate of 4:1 has been suggested in order to give an order of magnitude of the potential benefits of making future investments in a risk-sensitive manner.<sup>32</sup>

## Target (d) – Talking points

- You can evacuate people but housing, schools, health facilities, public utilities, roads and infrastructure cannot be “evacuated” and, if not structurally resistant, they are damaged or destroyed.
- The adoption of hazard resistant building standards, planning and environmental regulations and the overall strengthening of risk governance through institutions and systems, protect people from the risk of vulnerable infrastructure.
- Weak implementation and enforcement mechanisms are common problems in countries where most urban development is informal.
- When critical infrastructure fails, businesses experience indirect losses, as production, distribution and supply chains are interrupted; consequently, production, output and throughput are reduced.
- It is estimated that US\$90 trillion will have to be invested in infrastructure (urban, land-use and energy systems) by 2030; if this investment is risk-sensitive, it is an opportunity to avoid the creation of new risk and future losses.<sup>33</sup>

## Target (e) – Increase the number of countries with national and local disaster risk reduction strategies

### Facts

- Every day, people around the world lose their lives and livelihoods because of natural hazard-related disasters. Too many people are living in contexts in which states do not provide the necessary protections by failing to invest in well-known mitigation or prevention measures, and are unsupported in their efforts to prepare for recurring hazards.
- Often, the contexts in which the impact of disasters are most acutely felt are also affected by violence, active conflict, ineffective governance systems and state fragility.

## Target (e) – Talking Points

- National and local strategies for disaster risk reduction need to address the most common risk drivers including risk governance, poverty, environmental degradation, rapid urbanization and climate change.
- National and local strategies for disaster risk reduction need to be all inclusive, gender sensitive and ensure engagement with potentially vulnerable groups whose experience can add value including women and girls, youth, people living with disabilities, older persons and indigenous groups.
- National and local strategies for disaster risk reduction should be guided by a multi-hazard approach, a national disaster loss data base, national hazard and risk profiles and maps.
- Efforts to reduce disaster risk, adapt to climate change and eradicate



poverty must be aligned as the three are inextricably linked.

- Better management, mitigation and deployment of early warnings could save more lives in future.
- Better flood control for poorer communities at high risk of recurrent



flooding needs to be outlined clearly in national and local strategies as more people are affected by flooding than any other hazard.

- Effective low-cost solutions exist to counteract flooding, including afforestation, floodplain zoning, embankments, better warnings and restoration of wetlands.
- Reducing the size of drought-vulnerable populations should be a global priority in national and local plans given the effectiveness of early warnings and the fact that one billion people have been affected over the last twenty years.

## **Target (f) – Substantially enhance international cooperation to developing countries**

### **Facts**

- Each State has the primary responsibility to prevent and reduce disaster risk, and the efforts of developing countries to do so can be enhanced through the provision of sustainable international cooperation.
- In addressing economic disparity and disparity in technological innovation and research capacity among countries, it is crucial to enhance technology transfer.
- Least developed countries, SIDS, landlocked developing countries and African countries, as well as middle-income countries facing specific challenges need enhanced support through bilateral and multilateral channels, through enhanced technical and financial support and technology transfer on concessional and
- More investment is required to manage risk before a crisis hits; at present for every US\$1,000 spent on emergency assistance, only US\$237 is spent on disaster risk management.<sup>34</sup>

## Target (f) – Talking Points

- Working in coordination between sectors under an international guidance framework, allows those involved to see a greater result for their environment and of course company or organization.
- ARISE allows companies to understand the scope and impacts that good risk management provides to the business and community.
- Each country must be clear that the economic losses suffered because of poor disaster risk management undermine our efforts to achieve the 17 Sustainable Development Goals. It is necessary act in a coordinated way to achieve them.

## Target (g) – Increase the availability of and access to multi-hazard early warning systems

### Facts

- Early warnings have helped to reduce the possibility of mega-disasters in which hundreds of thousands of lives are lost.
- Great progress has been made in the science and technology behind meteorological services, satellite earth observations, seismic alerts, and a spreading culture of disaster risk management and improved understanding of disaster risk;
- Many developing countries, including least developed countries (LDCs), small island developing states (SIDS), and landlocked developing countries (LLDCs), have not benefited from advances in the science, tech-

nology and governance behind early warning systems. The resulting societal benefits of early warning systems have therefore been spread unevenly across regions, countries and communities<sup>35</sup>.

- A multi-hazard approach to early warning systems has been shown to be effective in dealing with multiple, sometimes concurrent, hazards, and can provide economies of scale and sustainability of the system as a whole.

## Target (g) – Talking Points

- A multi-hazard approach helps to bridge the gap between actions on disasters generally, and on climate change in particular. One of the clear benefits of a multi-hazard approach to early warnings is the better integration of disaster risk reduction and climate change adaptation.
- The Climate Risk Early Warning Systems or (CREWS) initiative, a partnership of WMO<sup>36</sup>, the World Bank and UNDRR, announced by France in 2015, is intended to strengthen end-to-end multi-hazard early warning systems in LDCs.
- According to WMO, over 80% of the 48 LDCs and many SIDS have only a basic early warning system. Weather observations networks are inadequate in many African countries. Thanks to the CREWS initiative, Burkina Faso, Mali and Democratic Republic of Congo will be able to upgrade their national meteorological and hydrological service forecast capacities.



# APPENDIX C:

## ARISE GOES DIGITAL

### General Overview

- ARISE must connect through Social Media, channel where our targets are.
- We aim to have a strong presence in:
  - o Facebook
  - o Twitter
  - o LinkedIn

# Insights

The kinds of content we post are part of how people perceive ARISE, as such, we need to speak the language the platform users can readily understand. A stronger and cleaner aesthetic can help people better identify us.



## AUDIENCE PROFILES

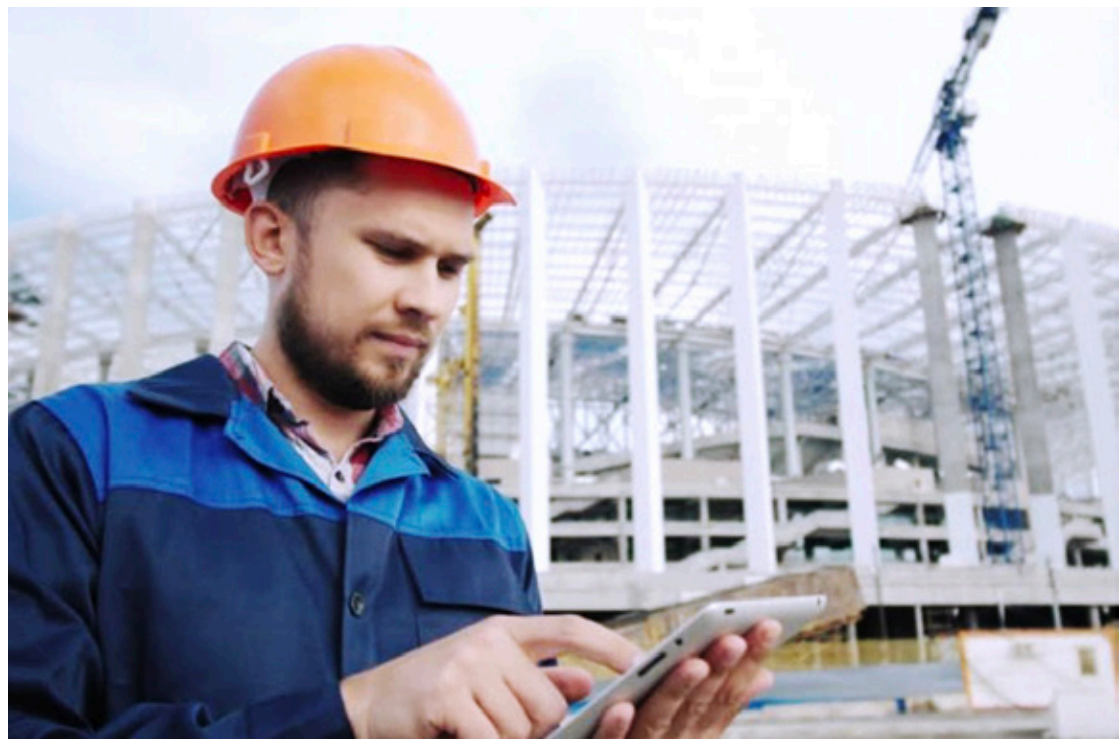
### #1: Ben.

Ben is the CFO of the local branch from an international business. He worries about the reputation of his business and its long-term development, but sees the world through facts and figures. Positive Cost-Benefit relationships are at the core of his vision. He's a bit square and old fashioned in some respects, but can easily grasp concepts of finance and can be convinced when presented with good financial prospective.



## #2: Al.

Al is a Senior Manager in a national construction company, in a place prone to natural disasters. As a now old millennial, he worries about the impact of his company's actions and the stability of his work. At the core of his vision is the human side of his operation, and worries deeply about the safety of his colleagues and is always looking for information on the best business practices to follow.



## #3: Kat.

Kat is a journalist and columnist at a national paper's financial section. She scrutinizes business practices and writes in an accessible way to the masses. Recently, she has started to understand that businesses do not exist in a vacuum and has been looking into the way they impact the community around them to hold them accountable, but is still open to recognize when a business does well.



## Audience profiles

### Knowing our audience:

- C-Suite level executives: CEOs / Directors / Managers / Leaders
- High level employees
- Industry leaders
- Business and finance opinion leaders

### Grounding our conversation:

- Cost-Benefit
  - Facts&Figures speech
- Cost of prevention vs Cost of relief
- Social Responsibility
  - Sustainability
  - Resilience
- Community
- Advice



## HOW ARISE TALKS ON SOCIAL MEDIA



Expert, yet approachable, ARISE's digital team is comprised of people who understand the importance of the private sector and its impact on the communities surrounding them. They can make complex social issues and financial concepts easy to understand, and are knowledgeable enough to understand and explain how problems that do not seem business related affect companies.

### EXAMPLE:

Investment in disaster risk reduction represents a large saving in terms of avoided losses and reconstruction costs with cost benefit ratios up to 15:1. Learn how to prepare yourself. Subscribe to our newsletter:

<http://bit.ly/PreventionNetwork>



## GOOD PRACTICE FOR NETWORK SOCIAL CHANNELS:

### Content Calendar

- Three weekly posts at 10:00 am across all our channels are proposed. Their content is dependent on our communication pillars, agreed upon the needs of our information output.
- A monthly content proposal will be sent to ARISE's internal team for approval and further publication.
- Aside from regular content, we would create content for special dates and events, relevant to our conversation, like memorials and anniversaries. This to give us digital presence in important conversations.
- Special content that falls under our regular posting days would take the place of that day's post.

### Tone

- Facts & Figures. Our conversation focuses on how effective Disaster Risk Prevention and Reduction are to business. Most of what we tell in fact based and financially backed.
- Establish Disaster Risk Prevention and Reduction as a Leadership skill; even when the risk or disaster is not business caused, it is always business related.
- Every Risk is a business risk. We need to be clear that businesses thrive in a prosperous environment, and part of that is recognizing the importance of responding to the disaster risk proneness of the



communities around them, with a focus on resilient development and sustainable business practices.

- Get C-Suite executives talking about their experiences with disaster response and disaster risk reduction on Social Media (LinkedIn, Twitter), preferably in a personal way.
- Strong visual language. Infographics make complex topics easy to understand, which many users find more compelling to share.
- Talk to employees as well. If employees are able to take better disaster risk reduction or disaster response decisions, it makes a compelling argument for employers to join ARISE.
- Content variety. People tend to pay more attention to feeds that offer them a wider range of media; having written, visual and audiovisual content can help capture a broader and more diverse audience.
- Strong, brief call to actions. Part of an effective communications strategy is making it easier for people to get involved.
- Use language people already use. By using their same terms, when they first encounter the content, it already feels familiar.
- Frame the impact of disaster as the result of lack of resilience and prevention. We need, not only to tell them why risk prevention strategies are important, but to show them it. Have them know what happens when they don't have a plan to respond to disasters. In case of disaster, switch communications to reduce disaster risk within the emergency and recovery phase. The most searched terms that come after disasters are indications for relief, it is necessary to start positioning risk prevention as a factor that supports vulnerability.



# APPENDIX D:

## USE OF THE ARISE LOGO

The ARISE logo, and its subsidiary regional logos, have been developed for the exclusive use of ARISE members to recognise global efforts towards a common goal. It is therefore, essential that the logo is used in a way that promotes and disseminates the ARISE brand while adhering to good practice and upholding the reputation of ARISE, its members and the United Nations Office for Disaster Risk Reduction.

As a project associated with the United Nations, material published under the ARISE brand must be sure to uphold the UN core values.

**PLEASE NOTE: The UN and UNDRR logos must NOT be used by members of the ARISE network.**

## **The following guidelines should be followed when using the ARISE logo:**

1. The ARISE logo and its regional subsidiary logos can only be used by members of ARISE and by UNDRR as the Secretariat of the Network.
2. The ARISE logo is designed to promote activities of the network members and therefore, should not be used alongside corporate logos to suggest promotion of the company itself.
3. The ARISE logo should only be used for fundraising or commercial purposes within the context of the ARISE Action Plan and with expressed permission from the Secretariat.
4. The use of the ARISE logo does not imply the endorsement of the United Nations or the other ARISE members of the entity, its products, services or activities.
5. The ARISE logo may not be reproduced for the purpose of self-promotion, or for obtaining any personal financial gain.
6. When used alongside the logo of a partner organization, care should be taken to ensure that the ARISE logo is given equal prominence through positioning and size. It should only take a secondary placing in cases where ARISE is the supporting or secondary partner

Any queries or concerns about the use of the ARISE logo should be sent to the ARISE Secretariat.



# Notes

1 — <https://www.accuweather.com/en/business/australia-wildfire-economic-damages-and-losses-to-reach-110-billion/657235>; <https://disasterphilanthropy.org/disaster/2019-australian-wildfires/>

2 — R. J. Nicholls and others, “Ranking port cities with high exposure and vulnerability to climate extremes: exposure estimates”, OECD Environment Working Papers, No. 1 (OECD, 2008).

3 — Making Development Sustainable: The Future of Disaster Risk Management, Global Assessment Report on Disaster Risk Reduction 2015 (UNISDR, 2015).

4 — <https://www.theguardian.com/australia-news/2020/jan/08/economic-impact-of-australias-bushfires-set-to-exceed-44bn-cost-of-black-saturday> accessed 10/01/2020

5 — Facts taken from 2011 UNDRR ‘doing business’ brochure

6 — Up to December 2019; TCFD Knowledge Hub: <https://www.fsb-tcfd.org/tcfd-supporters/>

7 — UNDRR 2019 GAR

8 — (Professor Sir David King, former Chief Scientific Adviser to the UK Govt, <https://www.bbc.co.uk/news/science-environment-49689018>, retrieved 16/09/2019)

9 — Shockwaves WB report

10 — UNDRR


11 — IDDR2017

12 — Poverty & Death: Disaster mortality 1996-2015 (UNDRR)

13 — The Lancet Commission on pollution and public health.

14 — The human cost of natural disasters: a global perspective Report by the CENTRE FOR RESEARCH ON THE EPIDEMIOLOGY OF DISASTERS (CRED)

15 — Economic losses and displacement should drive disaster risk reduction efforts by UNITED NATIONS NEWS CENTRE (UNNC)

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- 17 — The World Bank
- 18 — Disaster Recovery: Challenges and Lessons Report
- 19 — United Nations Development Programme. "Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience." Human Development Report, 2014. Web Accessed February 25, 2015.
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- 23 — International Federation of Red Cross And Red Crescent Societies
- 24 — UNISDR, 2015a
- 25 — Food and Agriculture Organization of the United Nations
- 26 — "Dams safety, as part of Disaster Risk Reduction" (UNDP)
- 27 — Global Assessment Report on Disaster Risk Reduction 2011
- 28 — Global Assessment Report on Disaster Risk Reduction 2013
- 29 — World Economic Situation and Prospects 2018
- 30 — Global Commission on the Economy and Climate, 2014
- 31 — Global Assessment Report on Disaster Risk Reduction 2015
- 32 — Global Assessment Report on Disaster Risk Reduction 2015
- 33 — <https://newclimateeconomy.report/2016/>
- 34 — ODI consultation paper prepared for WHS Summit
- 35 — The International Network for Multi-Hazard Early Warning System (INMHEWS) 2018
- 36 — World Meteorological Organization





# arise

PRIVATE SECTOR ALLIANCE FOR DISASTER RESILIENT SOCIETIES

