10 YEARS

CBRN Centres of Excellence

An initiative of the European Union

Strengthening disaster management strategies through multi-stakeholder partnerships

Wednesday 14 October 2020 (9am Jakarta)

R. Alexander Hamilton – Regional Coordinator for South East Asia

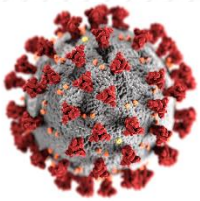
Funded by the European Union

With the support of UNICRI United Nations Interregional Crime and Justice Research Institute

A global initiative to mitigate Chemical, Biological, Radiological and Nuclear (CBRN) risks and strengthen all-hazards security governance in Partner Countries of the European Union (EU) following a voluntary and demand-driven approach

- Funded by the EU
- Jointly implemented by the EU and the United Nations Interregional Crime and Justice Research Institute (UNICRI)

All-hazards approach: Fundamentally multi-stakeholder



Pandemics

Industrial accidents

CBRN terrorism

Contingencies

- Natural
- Accidental
- Criminal

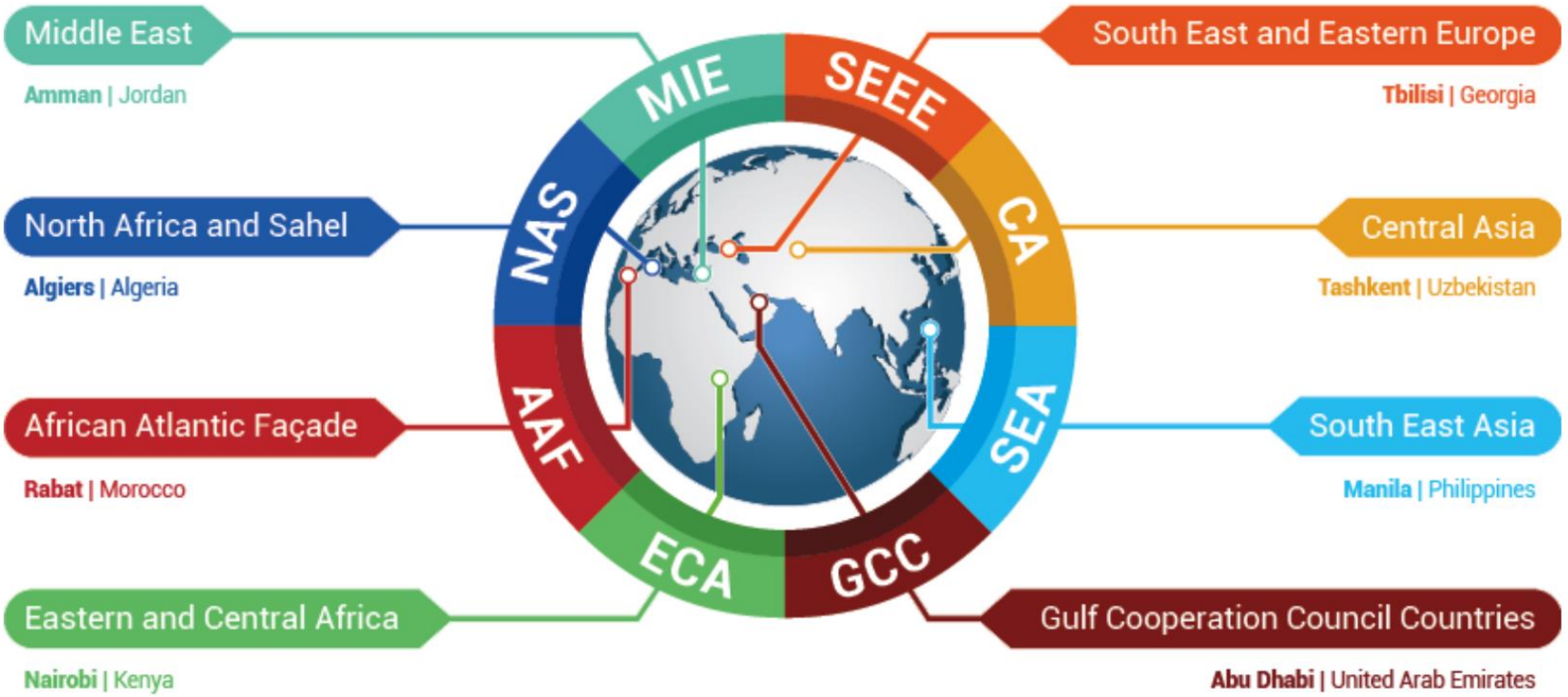
Capabilities

- Prevention
- Detection
- Preparedness and response

Cooperation

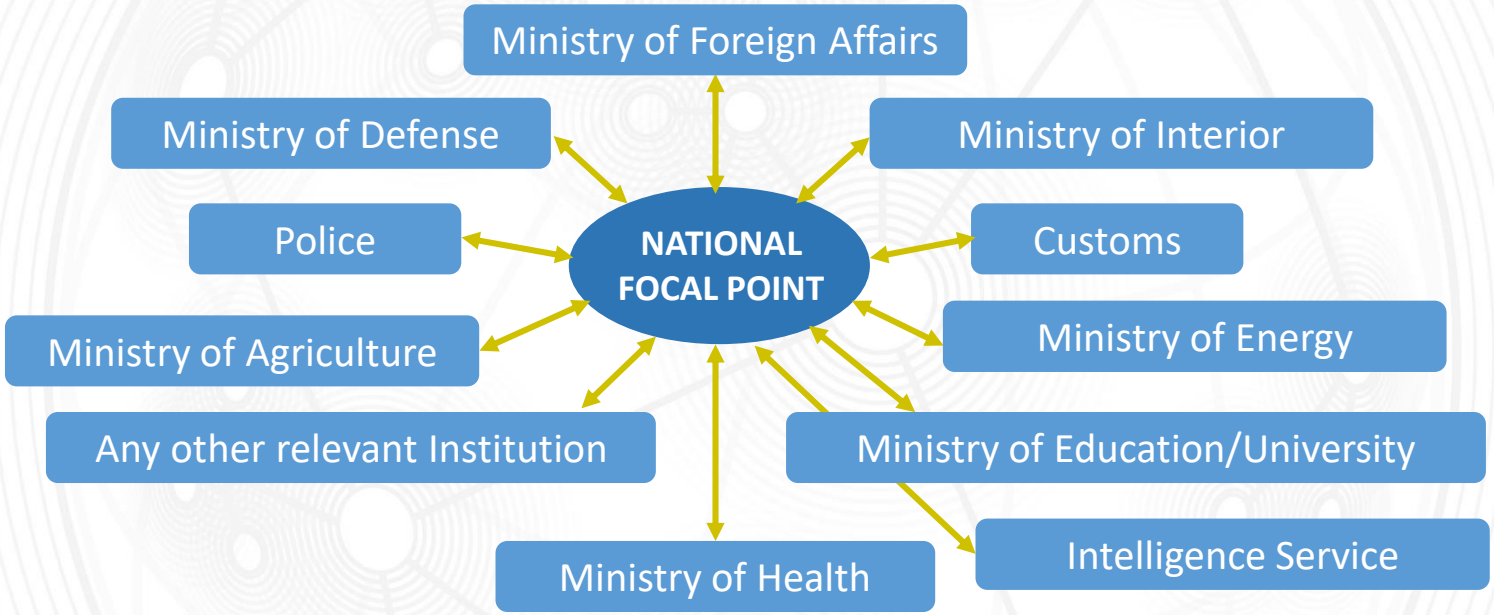
- National
- Regional
- International

61 Partner Countries grouped around 8 Regions, each facilitated by a Regional Secretariat



South East Asia Region: 10 CoE Partner Countries

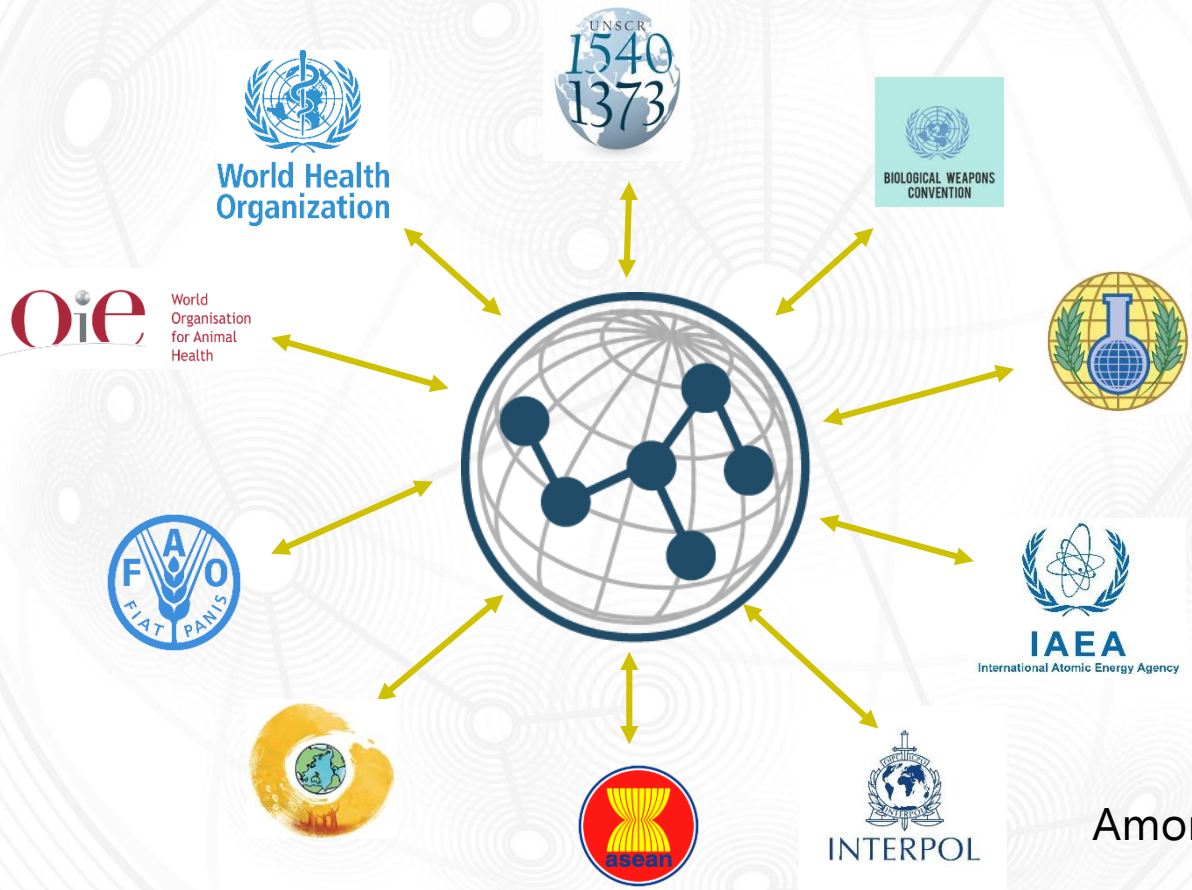
Each Partner Country is represented by a National Focal Point and an inter-ministerial CBRN National Team



Responsible for assessing national needs ⇨ National and Regional Action Plans

Participate in tailored regional projects ⇨ trainings, table-top and real-time exercises, etc.

Cooperation with international and regional partners to share knowledge and mitigate cross-cutting global risks



Among many others…

Regional Secretariat Webinar Series on COVID-19

Thank you!

R. Alexander Hamilton

alexander.hamilton@un.org

Regional Coordinator for South East Asia

For more information on the CBRN CoE, please visit:

www.crbn-coe.eu

Partnerships with multi-stakeholders and role of universities

A new approach for disaster risk management after COVID 19

Takako Izumi

Associate Profess of Tohoku University, Director of the APRU Multi-Hazards Program

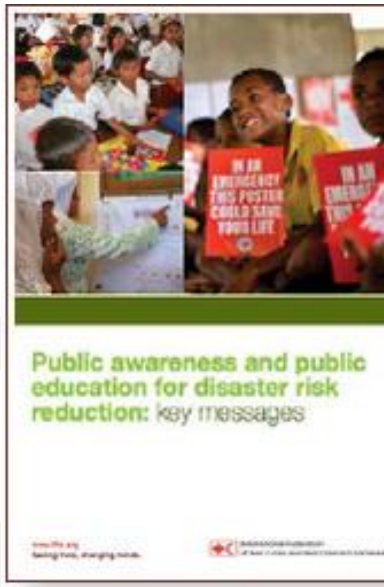
Session 1 (30 Sep):Understanding and addressing different types of disaster risks

- Focused on chemical, radiological, and CBRNe
- Chemical (Process safety management)
- Nuclear (Public awareness and public education for DRR – to communicate its risks to everyone, earthquake and nuclear plants)
- CBRNe (all agency approach, communications are important. No need to address all the hazards, but based on thorough assessment, hazards and risks need to be addressed in the local context)

Session 1: 30 Sep

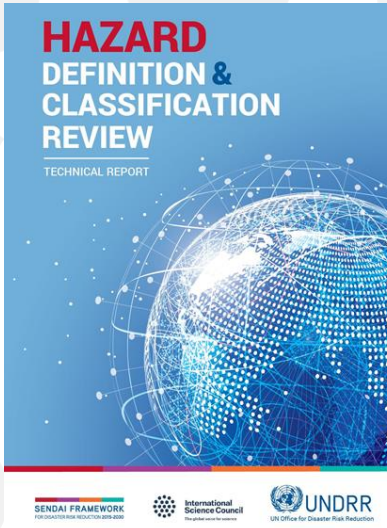
The fist session on youtube: https://www.youtube.com/watch?v=h0-j2GDhM7Q&feature=youtu.be

Definition of hazards



- Sendai Framework for DRR: framework will apply to the risks caused by natural or manmade hazards as well as related environmental, technological and biological hazards and risks.

- Hazard definition and classification review: includes the list of 302 hazards with 8 categories which will be a baseline of knowledge on hazards that can be used to engage various stakeholders.



- IFRC public awareness and public education for DRR: Addressing the needs for all hazards household and family disaster planning. The priorities: earthquakes, floods, cyclones, wildfires, pandemics, and drought. Next group: storms, release of chemical, biological, radiological materials, landslides, tsunami, volcanic eruption, cold and heat waves, climate change

- Words into Action Guidelines: Implementation Guide for Man-made and Technological Hazards:

  - Man-made: induced by human activities

  - Chemical, nuclear and radiological hazards: originated from technological or industrial conditions, dangerous procedures, infrastructure failures or specific human activities

Words into Action Guidelines: Implementation Guide for Man-made and Technological Hazards

"The number and magnitude of man-made disasters has risen worldwide since the 1970s and they continue to increase in bot frequency and impact on human wellbeing and national economies."

"There is a need to address man-made hazards by strengthening national and local disaster management plans to include these hazards and by raising awareness of their risks and impacts"

Challenges of Higher Educational Institutions in Preparedness

Challenges and need for disaster risk management on campus

Why is it important for universities to consider the risks of both natural and man-made hazards?

Universities normally keep dangerous chemicals, discharge of gas, experiment waste liquid, high pressure gas, explosives, radiation, poisonous substances etc. Once any accidents happen, the damage may reach outside of campus and it will threaten communities' safety.

Major issues on campus

- The office in charge of natural *hazards (Office for promotion of disaster countermeasure)* man-made incidents *(Office for environmental conservation and research safety)* are different.
- Each department has their own manual/plan and hardly shared.
- The information on the incidents occurred in each department are not shared unless it is a serious incident.
- Once a serious incident happened, the chain of command is not clear.
- Manuals developed by each department has different contents, i.e., some more focus on preparedness/how to mange dangerous chemicals and not mention about how to respond when emergency happens.

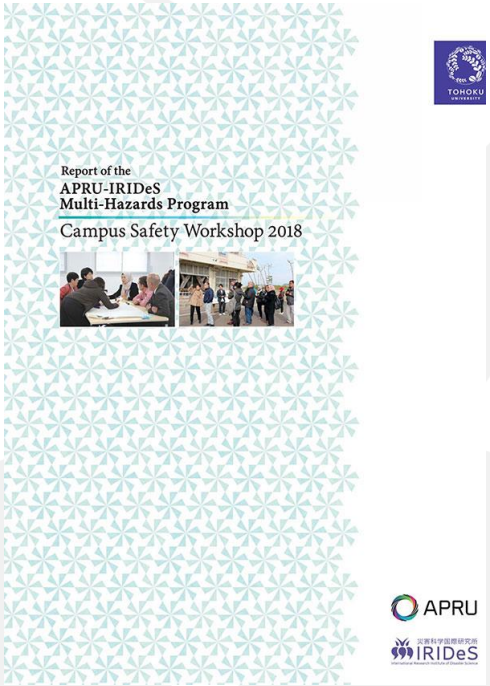
Role of higher education in DRR: APRU Campus Safety Program

- APRU (Association of Pacific Rim Universities) comprises 56 member universities in the Pacific Rim where is a very disaster prone region.

- A campus safety is crucial as universities hold a larger number of students, faculty, staff than lower schools.

Preparedness checklist

1. Policy/governance
2. Risk management
3. Physical infrastructure
4. Awareness training/education
5. Physical/psychological aid
6. Academic continuity



http://aprumh.irides.tohoku.ac.jp/app-def/S-102/apru/activities/campus-safety/campus-safety-workshop/2018-campus-safety-workshop

Minimum preparedness checklist

Category	No.	Evaluation criteria
1：Policy/governance	1.1	The university has a disaster emergency plan (communication, electricity backup, emergency structure) and BCP that target various types of hazards.
	1.2	Staff and faculty are familiar with the plan and understand how to act in case of emergencies. The plan needs to be simulated with the involvement of senior managers.
	1.3	The plan is reviewed and updated each year.
	1.4	The university sets up a disaster counter measure office once a disaster restrikes.
	1.5	A disaster emergency drill is conducted at least once a year.
	1.6	A safety confirmation plan of students, staff and faculty is put in place.
	1.7	The university has developed an evacuation plan to accommodate students and staff.
	1.8	The necessary support (both financial and technical) to strengthen the preparedness for future disasters and mitigate the risks such as development of a BCP is provided to departments and institutes under universities.
	1.9	An early warning is issued if necessary and possible.
2: Risk management	2.1	A risk assessment is conducted and updated regularly, at least annually.
	2.2	Mitigation/risk reduction/preparedness plan is developed.
	2.3	Based on the plan, mitigation measures are put in place.
	2.4	Emergency supplies (food, water, blanket etc) are always available.
	2.5	All the measures are regularly checked whether they are still effective or not.
	2.6	Signage boards to alert dangerous zones or ongoing construction works need to be set up.

3: Physical infrastructure	3.1	Buildings have earthquake resistance structure.
	3.2	Buildings are facilitated by drainage, electricity, fire alarm system, sprinkler and fire extinguisher etc.
	3.3	Maintenance work is periodically conducted in buildings.
	3.4	Building inspection takes place regularly.
	3.5	The critical information in case of emergencies such as evacuation routes and emergency assembly points are shared with students, faculty, and staff. Ideally, these facilities have the signage.
	3.6	IT recovery plan is developed. It is necessary for staff to be trained on cyber security.
	3.7	Technological tools such as satellite/mobile emergency phones, alarms, and drones are put in place. Staff needs to be trained on how to use these emergency tools regularly.
4: Awareness training/education	4.1	An orientation on a disaster emergency and preparedness plan is conducted to freshman students for various types of hazards.
	4.2	Special guidance to foreign student is available.
	4.3	Safety protocol for the students abroad is given prior to their departure.
	4.4	A disaster emergency drill is conducted under each department/institutions.
	4.5	Awareness raising program including understanding hazard-map and trainings for students, staff, faculty, DRR leader in campus such as on CPR is conducted.
	4.6	Information materials on the past disasters, emergency plan etc are distributed.
5: Physical/ psychological aid	5.1	There is a hotline in place for students, staff, faculty when they need physical and psychosocial support during and after emergencies .
	5.2	There is a prior agreement with local government, organizations and other universities on collaboration on mutual support in case of emergencies including volunteer registration.
6: Academic continuity	6.1	A guideline that determine if, when, and for how long the university need to suspend classes and postpone or cancel events and research activities, and that explains their alternatives exists.
	6.2	Students, faculty, and staff are familiar with a different mode of education in case of emergencies.
	6.3	The trainings/information on various educational tools such as online lecturing are provided to faculty. A guideline and manual on different educational tools/modes is also available.
	6.4	There is immediate support to students and faculty for giving/receiving online classes such as stable internet access.
	6.5	The support to international students to ensure they can continue to make normal progress in a full course of study is provided.

The challenge is that most of traditional DRR networks do not have members from areas of different and broaden types of hazards such as societal, biological or technological. Inclusion of experts on these less traditional hazards can be crucial *(Hazard Definition and Classification Review, 2020)*

- This webinar series to provide an opportunity to get to know the experts of different hazards, especially non traditional.
- CBRNe-Natech Asian Disaster Risk Initiative (developed after the discussion of APRU Multi-Hazards Campus Safety Workshop)

SESSION 3: Developing innovative tools and approaches for disaster preparedness and response

Wednesday 28 October

(led by CBRNe-Natech Asian Disaster Risk Initiative)

Thank you for your attention.

http://aprumh.irides.tohoku.ac.jp/

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APRU Multi-Hazard Webinar Series

13 OCTOBER
INTERNATIONAL DAY
FOR DISASTER RISK REDUCTION

An inclusive approach to disaster risk governance

For Risk-informed Sustainable Development

14 October 2020

@animesh00

@UNDRR_AsiaPac

#ItsAllAboutGovernance

UNDRR
UN Office for Disaster Risk Reduction

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

30 Years of Disaster Impact

- *Globally:* 20,000 disasters, 2.7 million deaths and 6 billion affected
- *Asia-Pacific:* Most disaster prone region in the world – 45% of disasters, 70% of mortality and 90% of affected population
- **The year 2020 so far (as of end-July) in Asia-Pacific**
  - 50% of disasters; 64% of mortality and 88% of affected population
  - Estimated two disasters per day; 65 deaths per week; 110,000 affected per day
  - Floods and Tropical/other storms most frequent; 65% of mortality – most of the intensive events in 2020
  - Landslides, volcanic eruption, wildfire, etc.
  - Dual impact of disasters and COVID-19

Source: Biju Boro/ AFP

Source: Str/Xinhua

Source: Julian Bluett/AAP
Data source: Computed from EMDAT

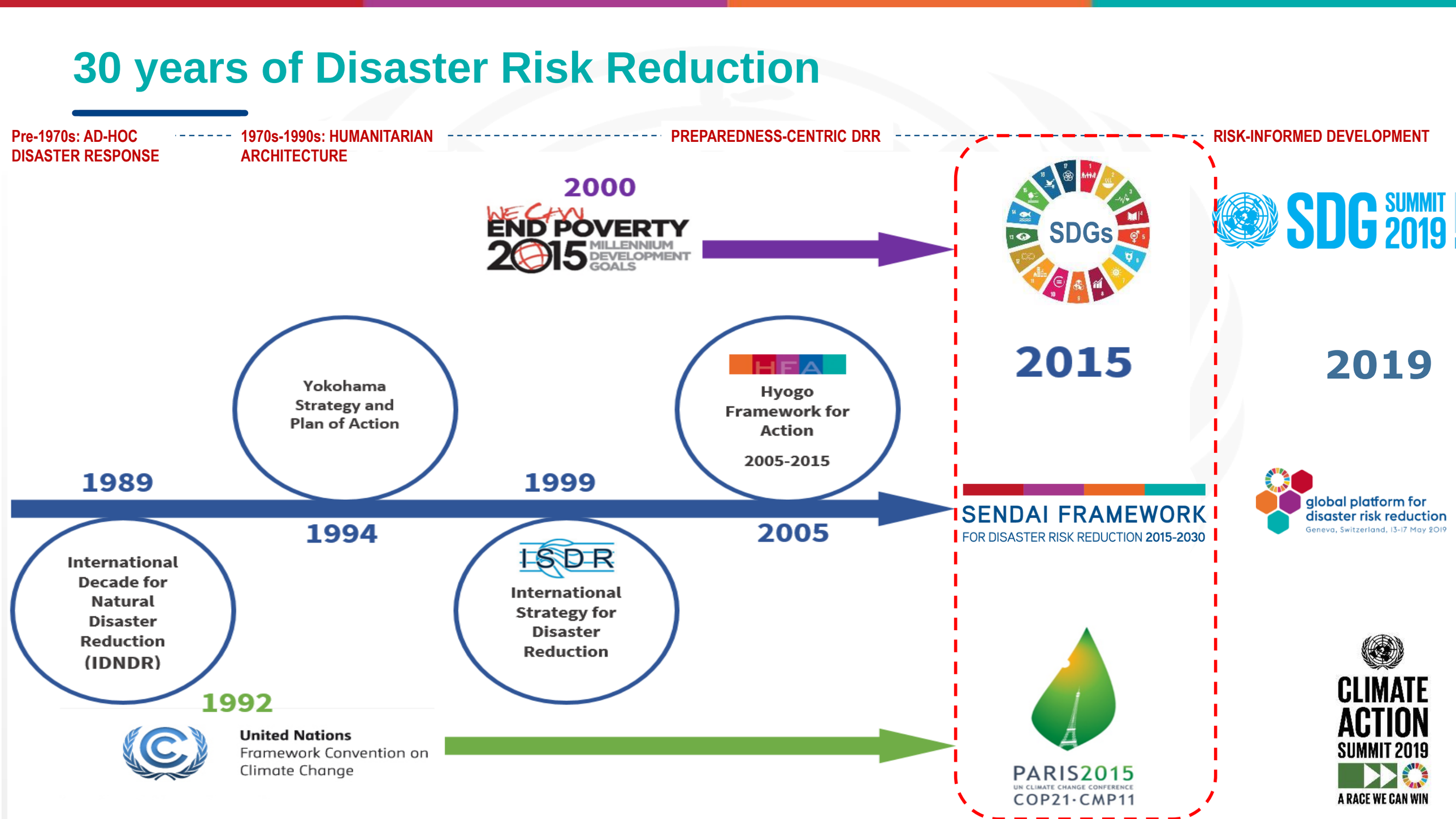
30 years of Disaster Risk Reduction

Pre-1970s: AD-HOC DISASTER RESPONSE

1970s-1990s: HUMANITARIAN ARCHITECTURE

PREPAREDNESS-CENTRIC DRR

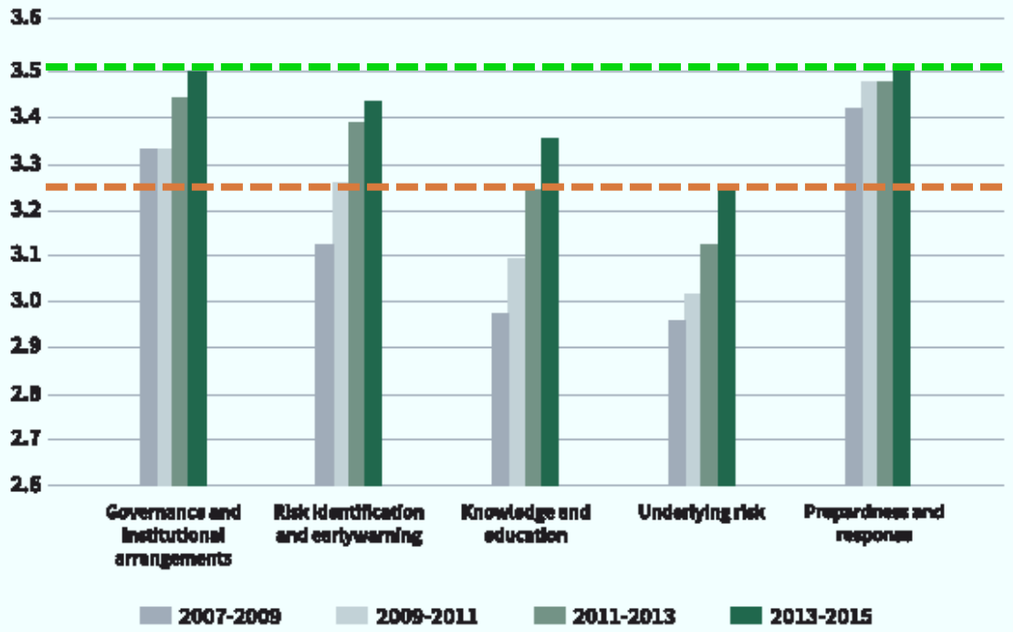
RISK-INFORMED DEVELOPMENT



30 years of Progress and Achievements

- A structured dialogue on disaster risk reduction: From global to local
- Structured institutional structures on disaster risk management – Dedicated government institution and identified Focal Points
- DRM policies, strategies and plans, and legislation

- Officialization of data (Sendai Framework / SDG reporting)
- New actors and stakeholders
- Guidance for implementation, innovative tools and instruments

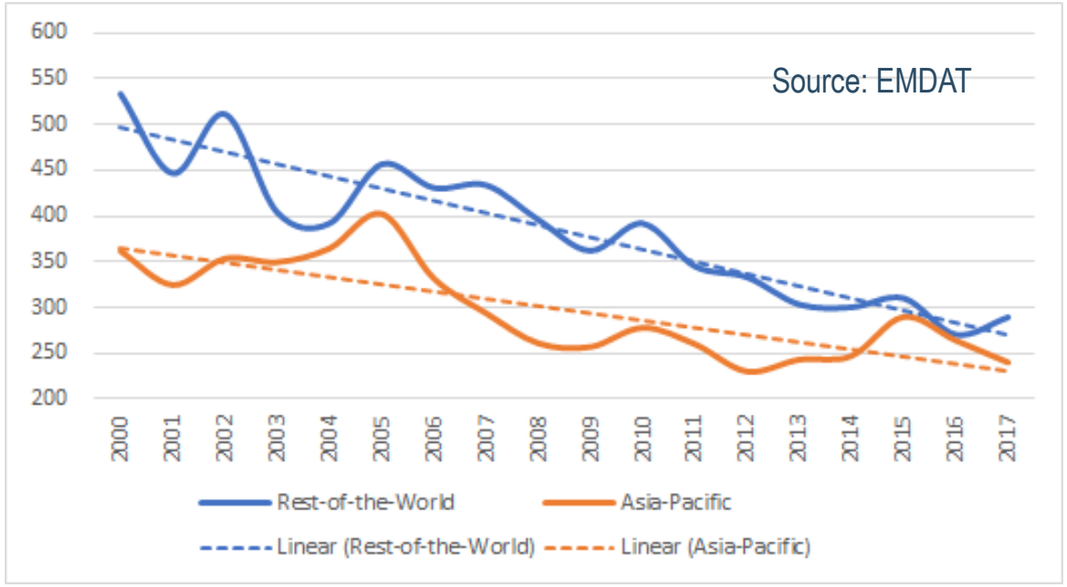


Source: UNDRR

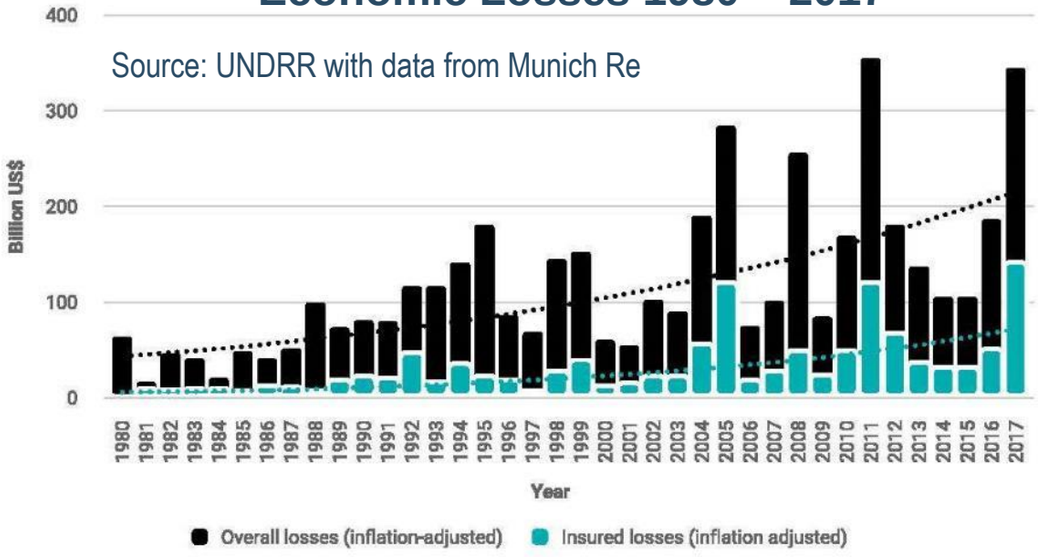
- High progress in governance and preparedness mechanisms
- Low progress in addressing underlying risks

Result

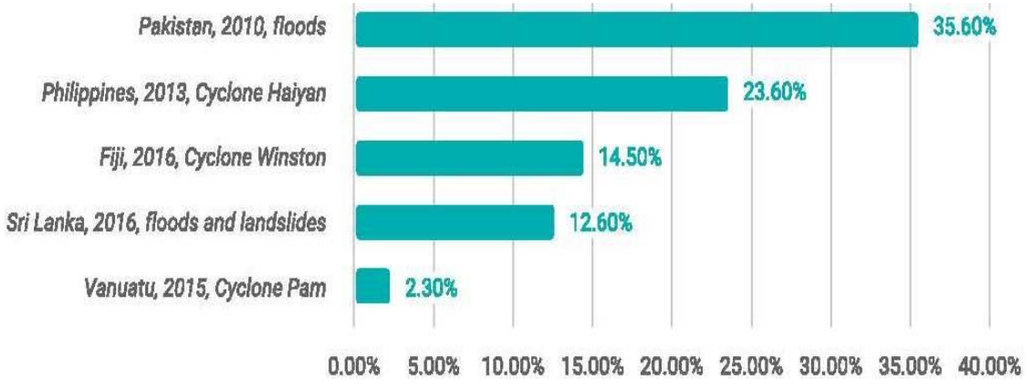
Disaster-Induced Mortality



Economic Losses 1980 – 2017



Proportion of people falling into poverty from selected disasters



Source: ESCAP 2017

Disasters are resulting in **annual consumption losses of US$520 billion** and pushing **26 million people into poverty** every year.

World Bank 2016

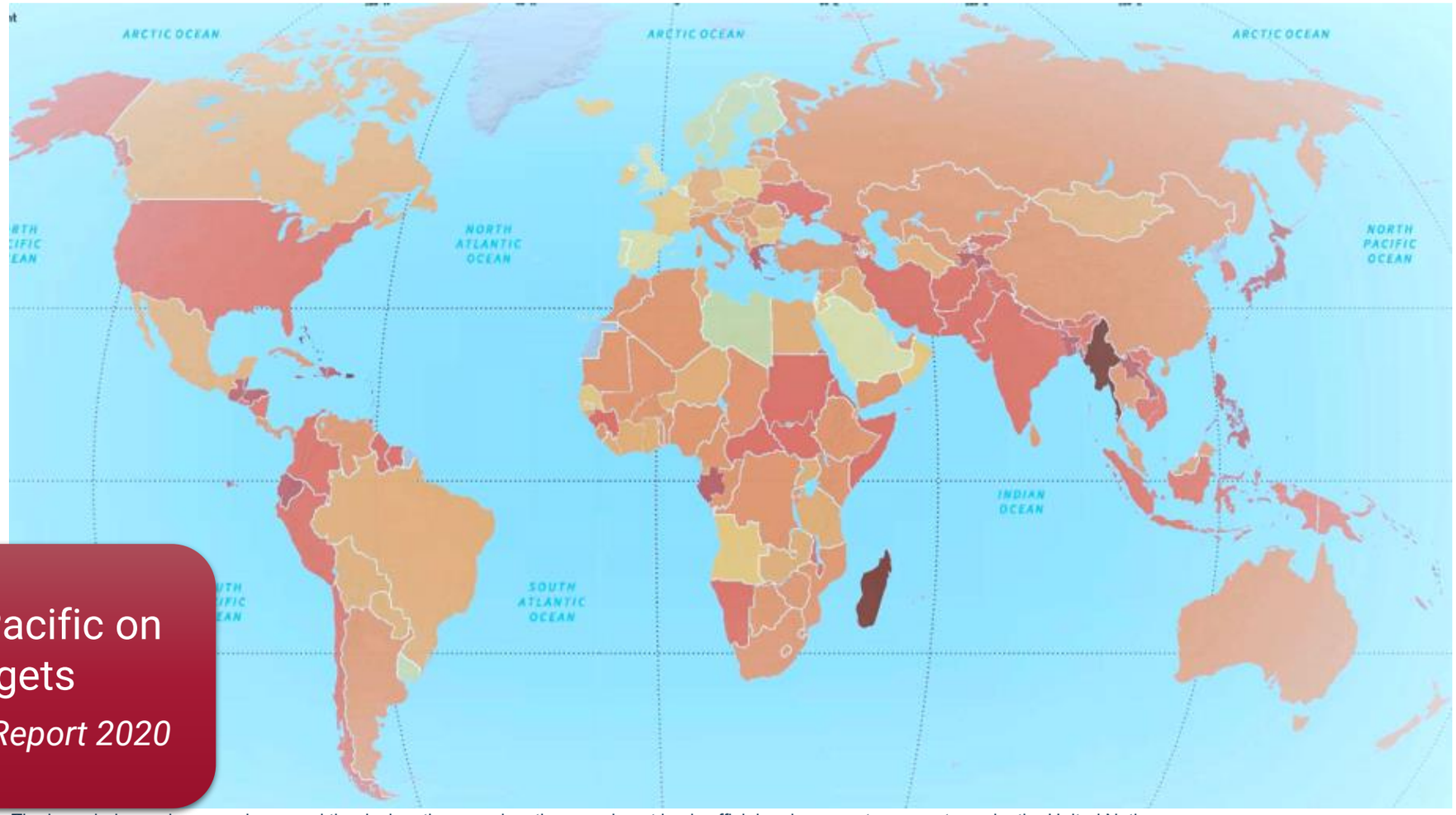
Implications on Sustainable Development

- Capital investments (e.g. infrastructure) and social expenditures (e.g. health and education) required to mitigate disaster risk
- However, potential disaster losses will erode these investments
- Risk-blind investments will create further risks

Decelerating trends in Asia-Pacific on disaster-related SDG targets

- Asia and the Pacific SDG Progress Report 2020

Disaster risk constraints on the potential for sustainable development

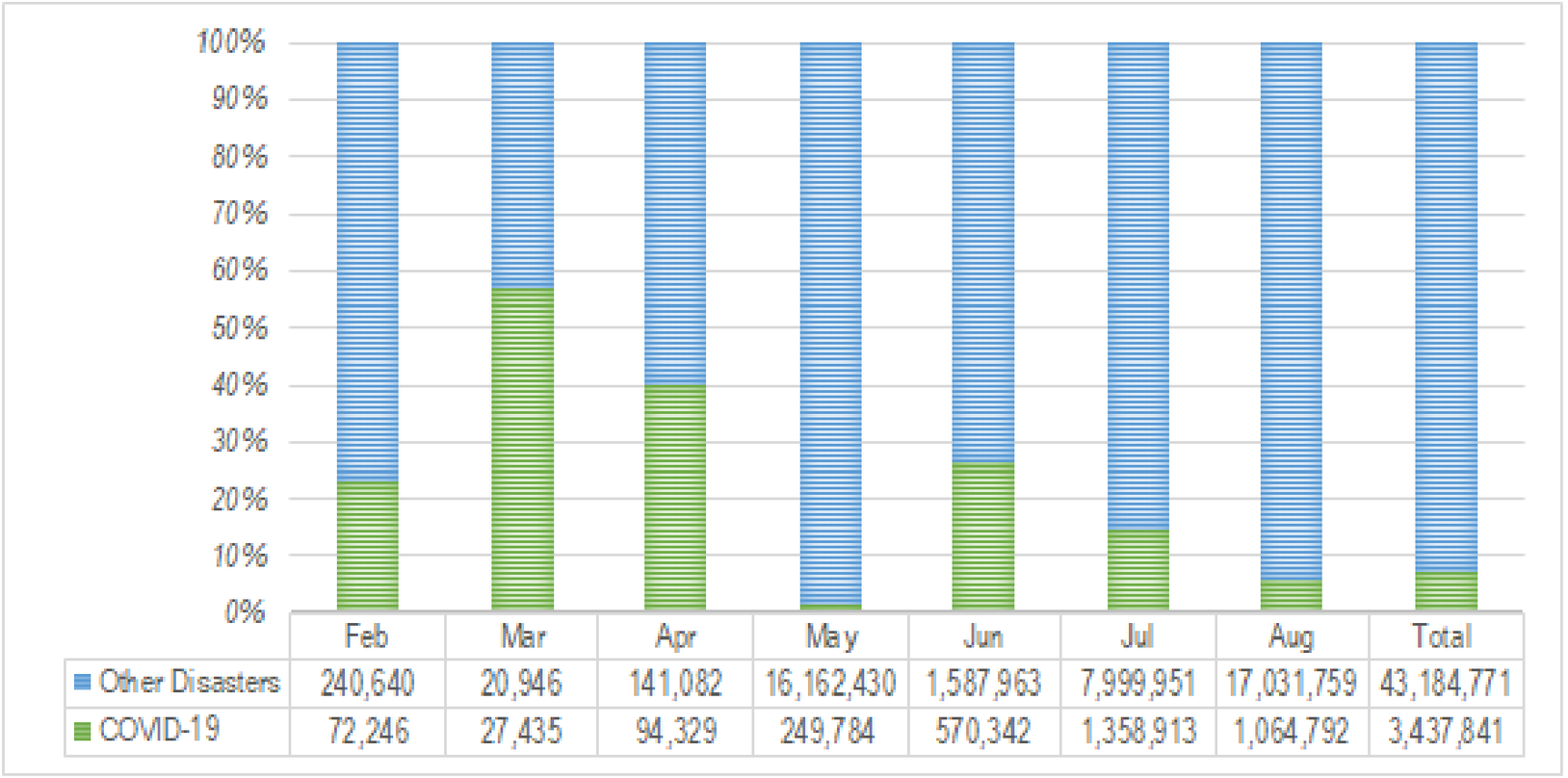


The boundaries and names shown and the designations used on the map do not imply official endorsement or acceptance by the United Nations.

Source: UNDRR

COVID-19: The Duality of Disasters

Number of People Infected by COVID-19 and Affected by Other Disasters in Asia-Pacific



	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
Other Disasters	240,640	20,946	141,082	16,162,430	1,587,963	7,999,951	17,031,759	43,184,771
COVID-19	72,246	27,435	94,329	249,784	570,342	1,358,913	1,064,792	3,437,841

Source: Computed from WHO Situation Reports and EMDAT-CRED

Major disasters in SE Asia:

- Floods/Flash Flood (Indonesia)
- Landslides (Myanmar)
- Volcanic ash (Philippines)
- Tropical cyclones (Philippines, Thailand)

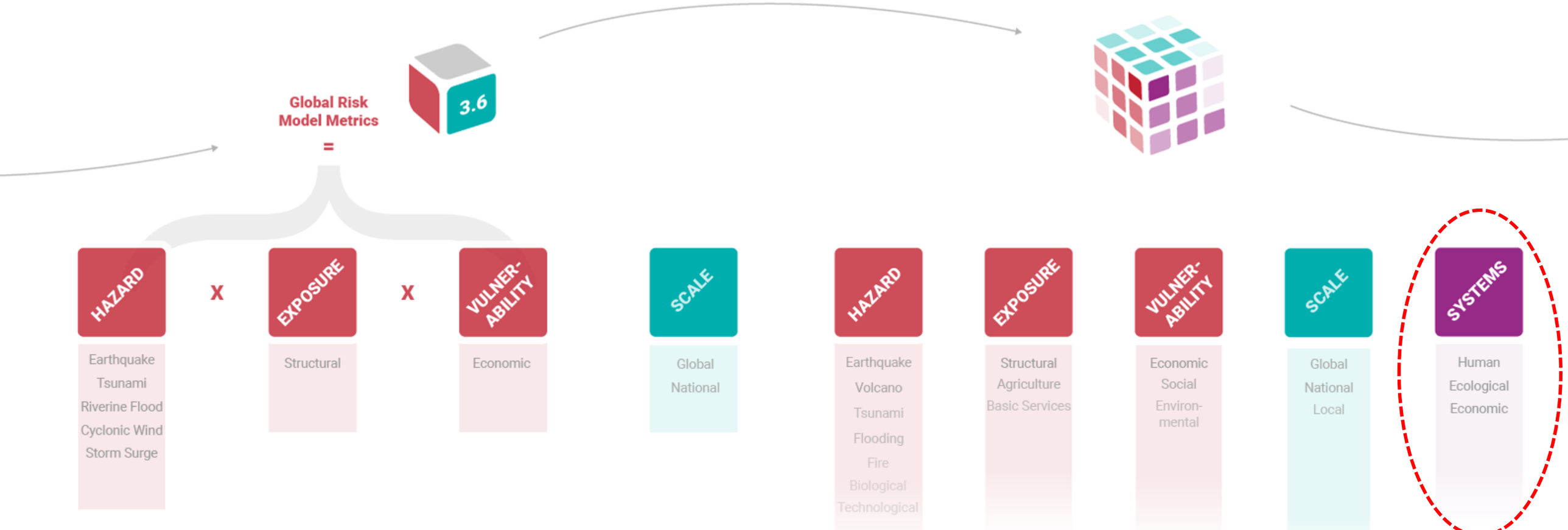
Rising inequality

- Differential impact of disasters: The vulnerability focus
- **Multidimensional understanding of vulnerability**
  - Vulnerability is also dynamic: **Equity, poverty, inclusion** – all being fundamental development challenges contributing to vulnerability [GAR 2019]
- **Increasing inequality in Asia-Pacific**
  - Each disaster in the region leads to a 0.13-point increase in the Gini coefficient [APDR 2017]
- **Poverty and Exclusion**
  - In decision-making
  - In programme benefits
  - Exacerbated by disasters; esp. recurrent and protracted events [Disasters cause the near poor – those living on between $1.90 and $3.10 per day – to fall into poverty]
  - Intergenerational impact on children [increase in drop-out rates; lowering employability]
- People at risk of disasters are consistently ignored when it comes to making decisions about disaster prevention in their own communities [GNDR 2020]

A Changing Metrics of Risk

GAR Global Assessment Report on Disaster Risk Reduction 2019

- We can no longer use the past as a reliable indicator of the future: Need for adaptive, anticipatory planning that seeks to identify the **drivers of risk**
- **Changing risk metrics**



SDGs & Disaster Risk Reduction

- DRR contributes to the achievement of SDGs
- Lack of or reversal in DRR progress can constrain the achievement of SDGs
- Greater coherence through coherent monitoring

addressing vulnerability

turning the vulnerable into agents of change

Stakeholder Engagement: Organised Groups

Science & Technology

AP-STAAG
Asia-Pacific Science, Technology and Academia Advisory Group
SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

Civil Society

ADRRN

Gender & Women

Gender Stakeholder Group

Children & Youth

UN Major Group for Children & Youth

Local Authorities

UCLG ASPAC
United Cities and Local Governments Asia Pacific

Private Sector

arise
PRIVATE SECTOR ALLIANCE FOR DISASTER RESILIENT SOCIETIES

Red Cross & Red Crescent

IFRC

Media

ABU Asia-Pacific Broadcasting Union

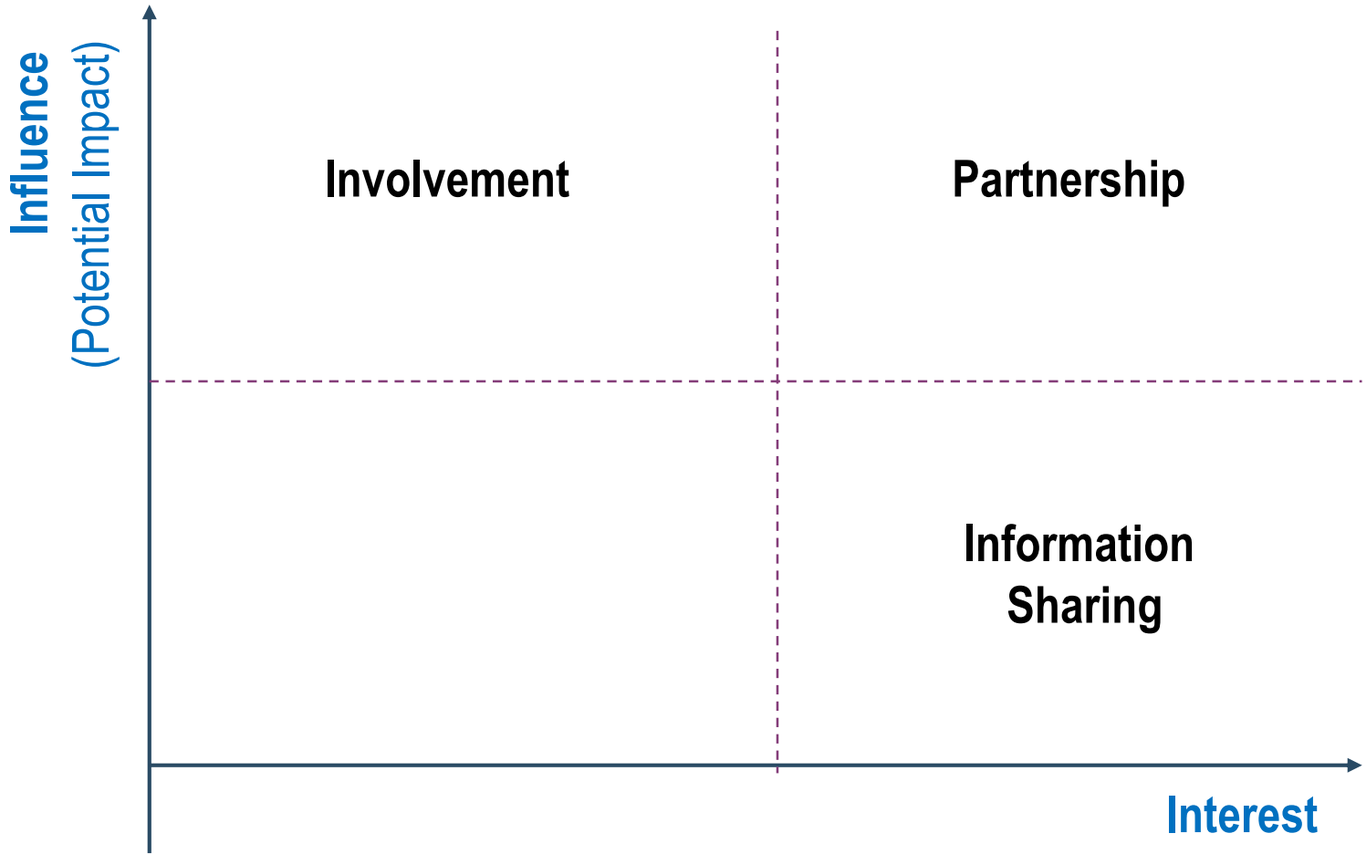
Persons with Disabilities

Disability inclusive DRR Network

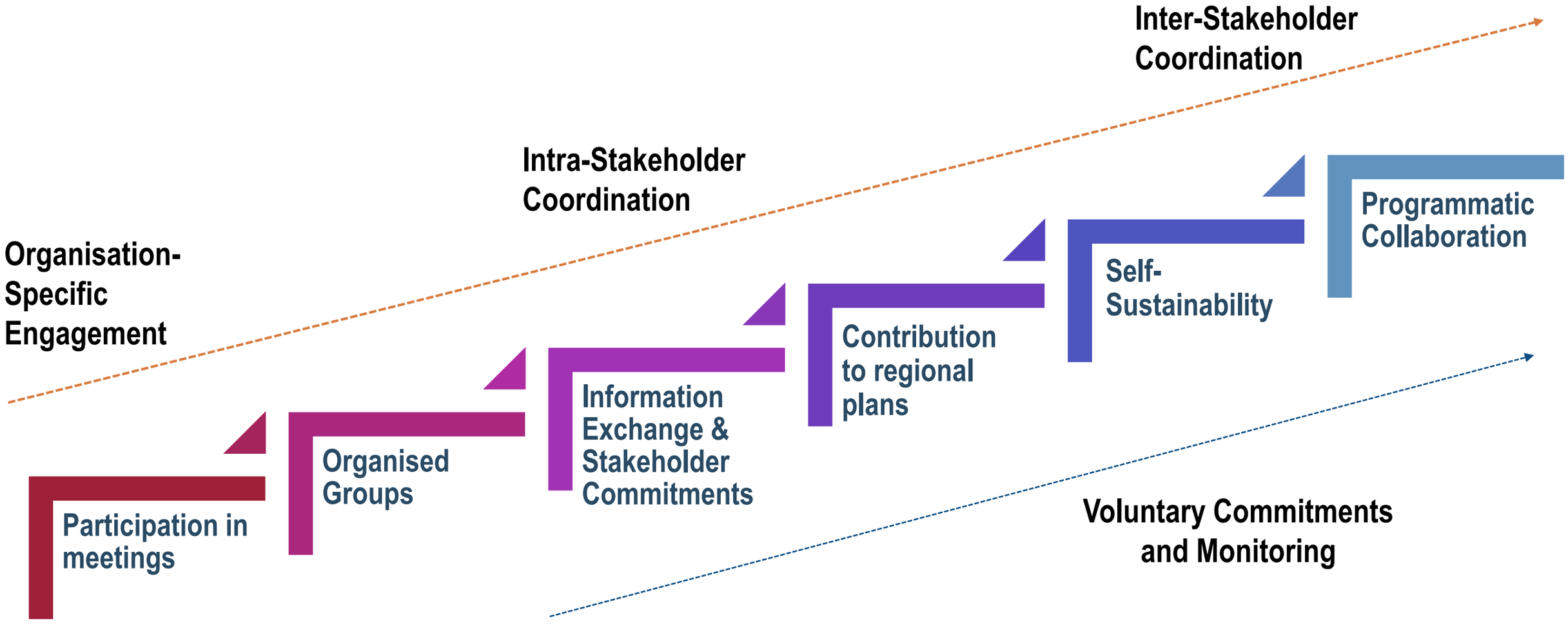
Others

- Older Persons
- Community Practitioners
- Indigenous Peoples
- Parliamentarians
- Farmers

Mapping Stakeholder Engagement: Building Relevant Strategies

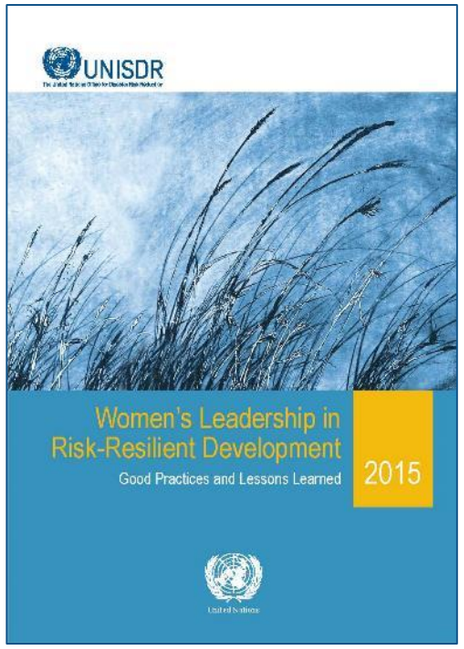


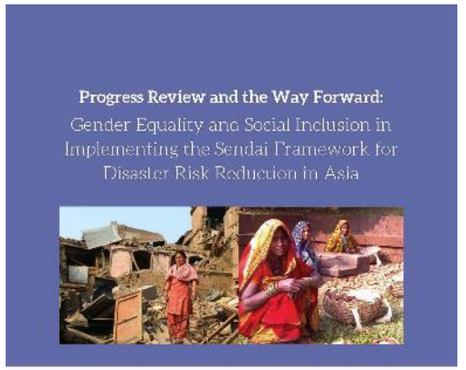
Scales of Engagement

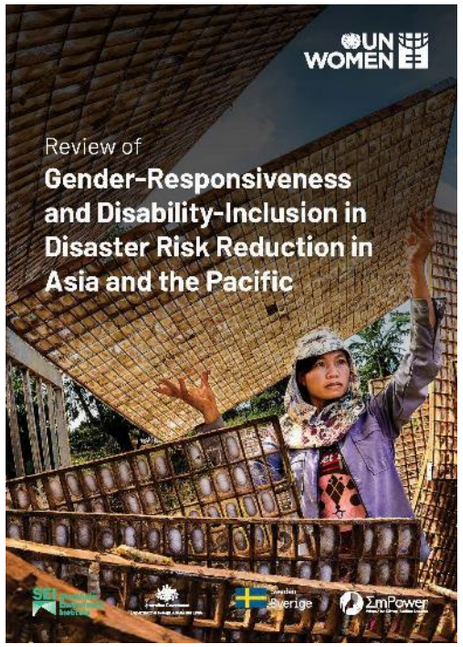


Example: Women and Gender Stakeholder Group

- **Strengthen Sex, Age and Disability Disaggregated** (SADD) disaster data and their use to ensure inclusive and informed to disaster risk management policies and activities
- **Promote and Support gender-sensitive and -responsive DRR actions - promoting** women's leadership in understanding and reducing disaster risk







Addressing the Gender Inequality of Risk and Promoting Community Resilience

[GIR Programme]

UN-WOMEN

Women's International Network on Disaster Risk Reduction in Asia Pacific

[WIN-DRR]

UNDRR

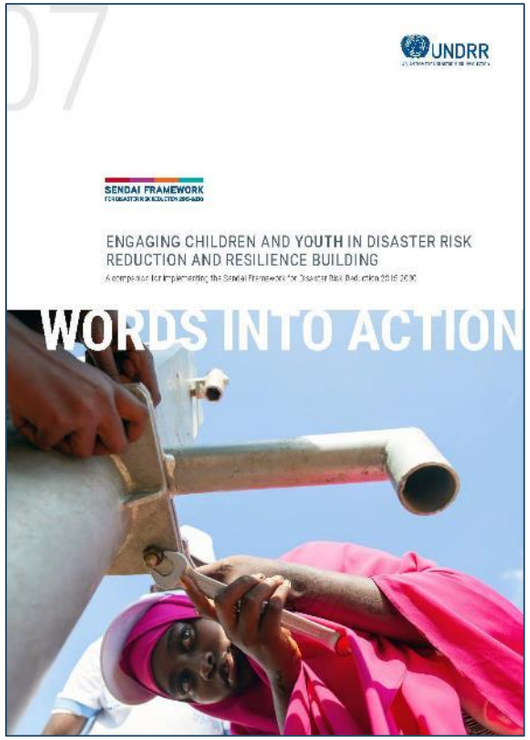
Example: Children and Youth Stakeholder Group

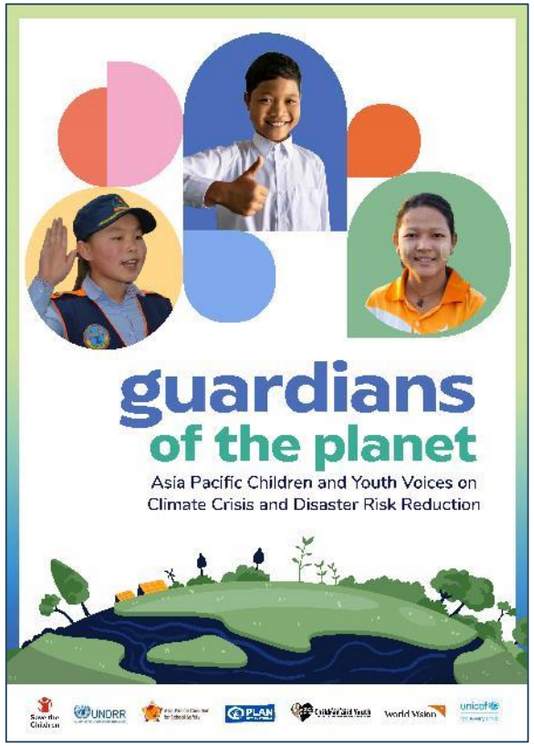
- **Develop inclusive DRR policies and plans** for involving girls, boys and youth in the design, implementation and monitoring
- **Ensure evidence-based advocacy**
- **Promote innovation for disaster risk reduction** with and for children and youth

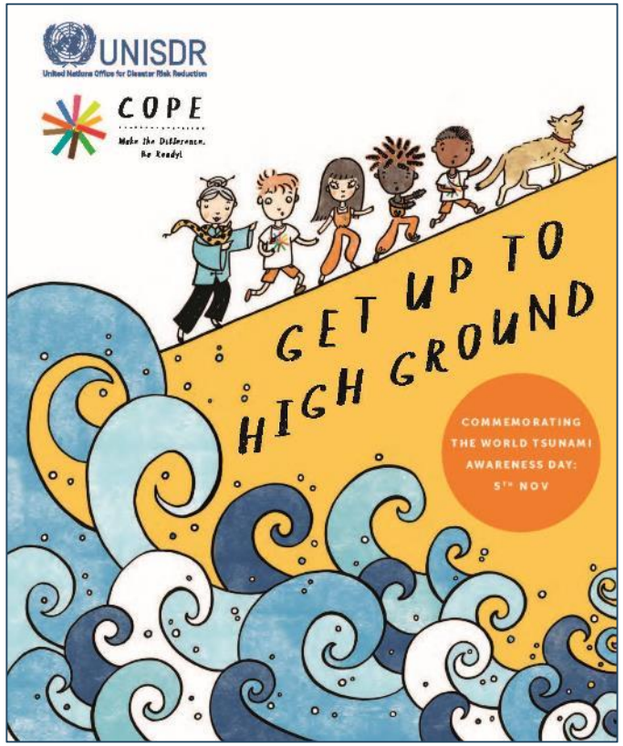
UN Major Group for Children & Youth

UN Major Group for Children and Youth
the space for children and youth in the United Nations

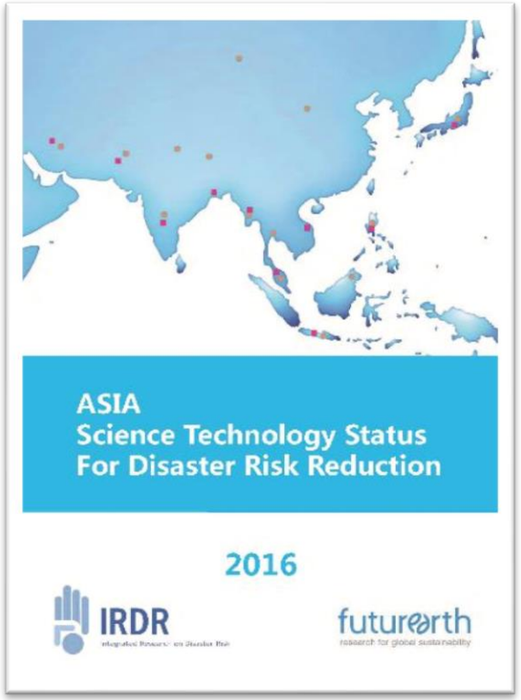
Inspire





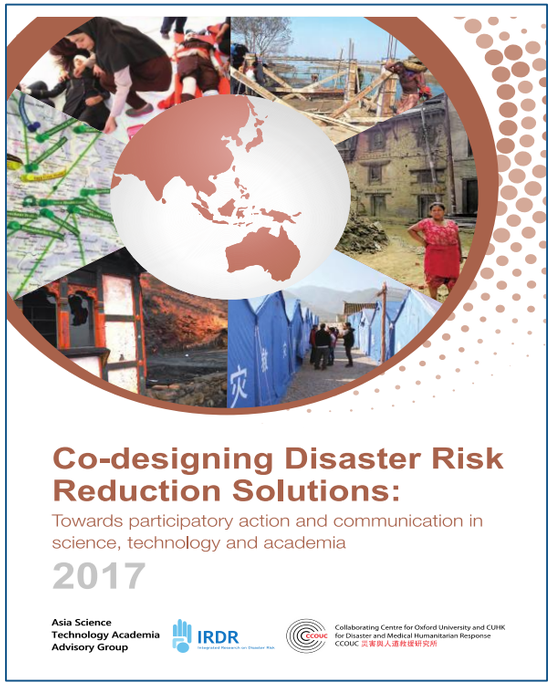


Example: Science & Technology Stakeholder Group



1st Asia S&T Conference on Disaster Risk Reduction, 2016. Bangkok, Thailand

11 countries
28 examples of application of science



Global Platform in Cancun 2017

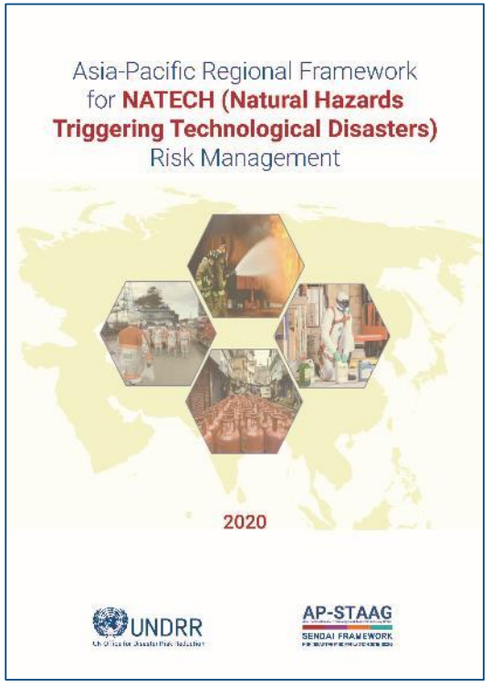
14 countries
40 examples of co-designing solutions

2nd Asia S&T Conference on Disaster Risk Reduction, 2018 Beijing, China

12 countries
25 examples of S-T actions

3rd Asia-Pacific S&T Conference on Disaster Risk Reduction, 2020
Kuala Lumpur, Malaysia; Virtual

14 countries
24 examples of co-designing solutions



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FOR DISASTER RISK REDUCTION 2015-2030

Stakeholder-to-Stakeholder Collaboration

Asia-Pacific Ministerial Conferences on Disaster Risk Reduction

Asia-Pacific Partnership for Disaster Risk Reduction

Global Platforms for Disaster Risk Reduction

Stakeholder Engagement Mechanism

VOLUNTARY COMMITMENTS

SENDAI FRAMEWORK

FOR DISASTER RISK REDUCTION 2015-2030

COVID-19 RESPONSE

- SME Toolkit
- Integrating biological hazards into DRR Strategies

SUSTAINABLE DEVELOPMENT GOALS

COVID-19 RESPONSE

Thank you

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UNDRR
UN Office for Disaster Risk Reduction

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

NBC UNIT of IDN ARMY ENGINEERS RESPONSE to COVID-19 PANDEMIC

Roles, Functions, and Lessons Learned in Multi Agencies Response

presented by

ROBERT ERYANTO TUMANGGOR

NBC Staff Officer of IDN Army Engineers Corps

APRU Multi-Hazards Webinar Series:
A new approach for disaster risk management after COVID-19
(Session II) - Strengthening disaster management strategies through multi-stakeholder partnerships

SCOPE

- NBC Unit at Glance
- The Involvement in Covid-19 Pandemic Response
- The Challenges
- Lessons Learned

NBC UNIT at GLANCE

- **ESTABLISHED : 1991 (NBC UNIT of IDN ARMY ENG)**
- **MAIN TASK :** TO PROVIDE ENGINEER SUPPORT IN CBRN PROTECTION
- **ORGANIZATIONAL CHART:**

SMALLEST UNIT : **PLATOON SIZE**
CONSIST of :
- RECCON TEAM
- DECON TEAM
- EVAC & DISPOSAL TEAM

- **EQUIPMENTS:**


PERSONAL PROTECTIVE EQUIPMENTS


CBRN RECCON EQUIPMENTS


DECON SOLUTIONS & EQUIPMENTS


EVAC & DISPOSAL EQUIPMENTS
Pediatric Airway
Adult Airway
Removable drug box
I.V. Pouches
O2
CAUTION
RADIOACTIVE MATERIAL

The INVOLVEMENT in COVID 19 – PANDEMIC RESPONSE

NATUNA ISLAND QUARANTINE

- **PERSONEL**
  24 Pax of NBC Unit
- **DEPLOYED:**
  1 PEB 2020
- **TASKs:**
  - Decontamination
  - Infectious Waste Disposal
  - Zoning Area & Controlling Cross Contamination
- **DURATION:**
  14 Days
- **INFECTED PERSONEL**
  Nil

SEBARU ISLAND QUARANTINE

- **PERSONEL**
  24 Pax of NBC Unit
- **DEPLOYED:**
  26 PEB 2020
- **TASKs:**
  - Decontamination
  - Infectious Waste Disposal
  - Zoning Area & Controlling Cross Contamination
- **DURATION:**
  14 Days
- **INFECTED PERSONEL**
  Nil

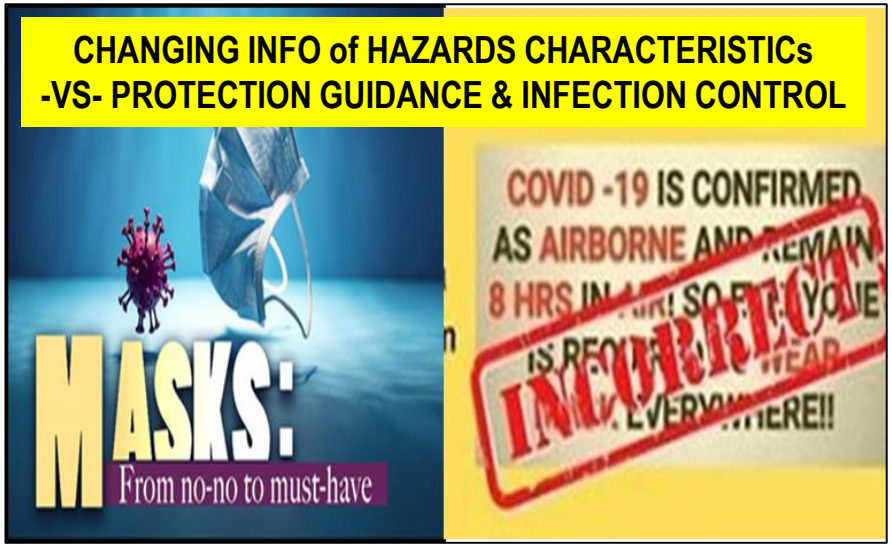
KEMAYORAN-JAKARTA & GALANG ISLAND COVID-19 HOSPITALS

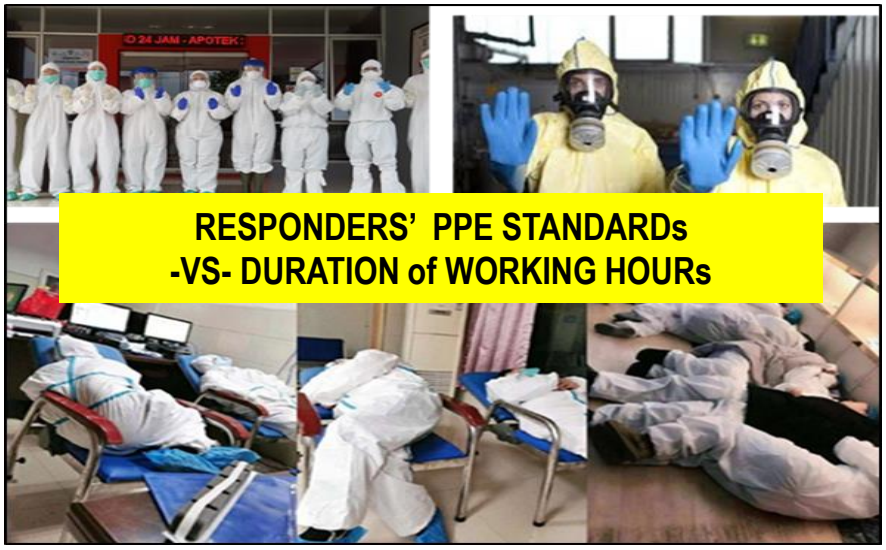
- **PERSONEL**
  60 Pax of NBC Unit
- **DEPLOYED:**
  Since 23 MARCH 2020
  up to day
- **MAIN TASK:**
  - Decontamination
  - Infectious Waste Disposal
  - Zoning Area & Controlling Cross Contamination
- **DURATION:**
  Rotated Per 2 Months
- **INFECTED PERSONEL :**
  Nil

THE CHALLENGES

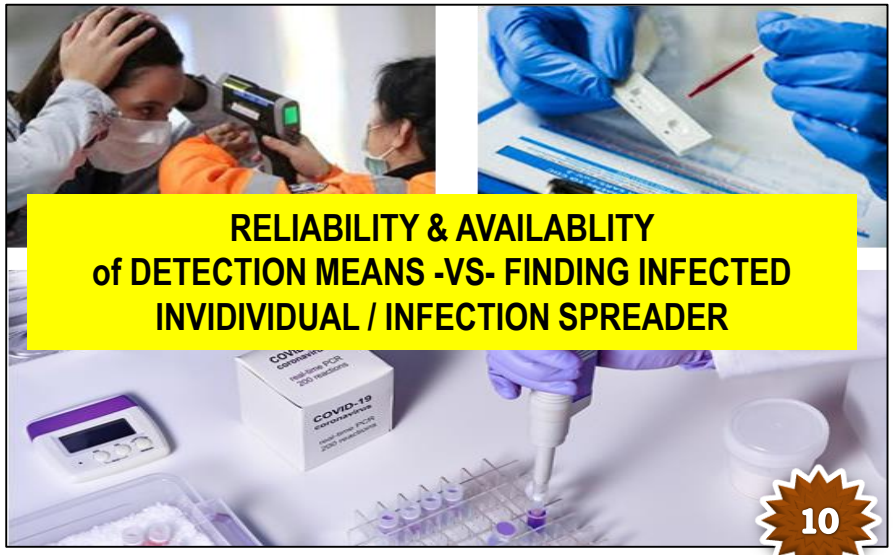
EQUIPMENT DIMENSION -VS- RAPID MOBILIZATION

CHANGING INFO of HAZARDS CHARACTERISTICs
-VS- PROTECTION GUIDANCE & INFECTION CONTROL





RESPONDERS' PPE STANDARDs
-VS- DURATION of WORKING HOURs



RELIABILITY & AVAILABLITY
of DETECTION MEANS -VS- FINDING INFECTED
INVIDIVIDUAL / INFECTION SPREADER

DISINFECTION HAZARD -VS- MICRO DROPLET & FOMITE CONTAINED SARS-COV2 IN PUBLIC SPACE

EMERGENCY SITUATION -VS- VARIOUS EMERGENCY CALL NUMBERS

LIMITED IMPLEMENTATION of HAZARD AREA ZONING SYSTEM for HANDLING INFECTED/ CONTAMINATED TARGET or PROTECTING FACILITY

LESSON LEARNED

- **EPIDEMIC/PANDEMIC DISSASTER** : HEALTH CRISIS → CBRN CRISIS
- **NATECH DISSASTER** : CBRN CRISIS → HEALTH CRISIS

- **PRIORITY of TASKS** : - LIVE SAVINGS,
  - PROTECTION of PEOPLE/COMMUNITY & ENVIRONMENT from THE HAZARD and ITS IMPACTs

- **HAZARD PROTECTION** : IMPORTANT to UNDERSTAND TYPES of HAZARDS and ROUTES of EXPOSURES

- **LOCAL RESPONDERS** : THE MAIN KEYs TO CONTAIN THE HAZARD & TO MINIMIZE THE IMPACTS

- **MULTI AGENCIES RESPONSE:**

- **Requirement** : Rapid, Massive, & Integrated Responses
- **Build On** : Communication, Cooperation, Collaboration, Command & Control
- **On the Location** : Units' Interoperability and Familiarity about Hazard Area Zoning System for Contamination/Infection Control

- **NATECH DISSASTER / CBRN INCIDENT PREPAREDNESS:**
  - CBRN HAZARD PREDICTION MODELs and MAPPING RESOURCEs
  - SINGLE INTEGRATED EMERGENCY CALL NUMBER
  - STANDARIZATION in CBRN EQUIPMENTs, TECHNIQUEs & RESPONSE PROCEDUREs:
    - ✓ Hazard Early Warning and Notification System
    - ✓ Individual Protective Equipment (Donning/Doffing)
    - ✓ Detection / Identification
    - ✓ Decontamination (Personnel, Material, Building, Field)
    - ✓ Medical Supports & Treatments
    - ✓ Transportation and Disposal of Contaminated Remains and Hazardous & Toxic Wastes
  - AVAILABILITY of CBRN EQUIPMENTS and STOCKPILES
  - WIDER CBRN HAZARD AWARENESS & TRAINING/EXERCISEs PROGRAMs for DIFFERENT TARGETED AUDIENCES
  - NATIONAL (GOVT & NON GOVT ORGZ) -REGIONAL-INTERNATIONAL COOPERATION IN RESEARCH, TRAININGs, & EXERCISEs

CLOSING

TO BUILD A SUFFICIENT NATIONAL CAPACITY and CAPABILITY FOR RESPONDING TO NATECH (CBRN) DISSASTERS WILL TAKE TIMES and REQUIRE PROPER BUDGET ALLOCATIONs and ENDURING SUPPORTs FROM ALL RELATED STAKEHOLDERS

HOWEVER , FAILURE TO DO SO, THOSE EVENTS CAN QUICKLY OVERWHELM THE INFRASTRUCTURE AND CAPABILITY OF THE RESPONDERS AND HAVE THE POTENTIAL TO DESTABILIZE GOVERNMENTS, CREATE CONDITIONS THAT EXACERBATE VIOLENCE OR PROMOTE TERRORISM.

THANK YOU.