



**HELP-GWP PAN ASIA CONSULTATION ON
DRAFT PRINCIPLES ON
ADDRESSING WATER-RELATED DISASTER RISK REDUCTION
(DRR) DURING COVID-19 PANDEMIC**

30 July 2020

Important Information

1. Every participant must choose their **language channel** (English or Russian)
2. Once you have chosen, please also **mute other audio** to have 100% dedicated language channel (other wise you will hear 80% of your language channel and 20% for the other language channel)
3. For Polling application, we will use **Menti Meter**. Please kindly prepare your handphone to join the poll. Please go to your browser and type: www.menti.com and insert the code: **77 65 20** or you can use your browser in your laptop (handphone is recommended)



Welcome Remarks

House Keeping Rules

1. This online workshop will be recorded.
2. Please mute your audio when moderator and resource persons are speaking/presenting. You can unmute your audio or will be invited to unmute your audio by the moderator or host when requested to speak.
3. Please change your Zoom ID to this format: Name - Country
4. Please choose the channel you wish to listen to. For **English** channel, please select **channel 1**. For **Russian** channel, please select **channel 2**
5. Please keep your video on, unless you are experiencing low internet connection.
6. Please stay during the whole duration of the event

HELP-GWP PAN ASIA CONSULTATION ON DRAFT PRINCIPLES ON ADDRESSING WATER-RELATED DISASTER RISK REDUCTION (DRR) DURING COVID-19 PANDEMIC

Background

As climate variability and change have increased the occurrence of disasters such as cyclones, floods and droughts in Asia region, governments in the region have begun to increase their priority on the disaster risk reduction efforts. Many efforts are being made to build capacity, influence policies and develop strategies to better equip member states to prevent and address disaster. Given the need and importance of paying attention to water-related disasters, the High-level Experts and Leaders Panel on Water and Disasters (HELP), drafted 'principles on investment and financing for water related disaster risk reduction', which was launched during the 8th World Water Forum in Brazil. Building on a cooperation between the Global Water Partnership (GWP), the HELP and MLIT, Japan, several sessions on DRR were organized in late 2018 and early 2019 in several regions with the main objective to consult on investment and financing for water related-disaster risk reduction principles. The principles were widely accepted.

In early 2020, World Health Organization (WHO) announced global pandemic of Coronavirus disease known as Covid-19, making all countries in the whole world to focus their attention to combat the disease. Not a single country is prepared to face the challenges brought by Covid-19. On one hand, countries with poor public health and emergency response system, and water governance are impacted the most by the pandemic. On the other hand, disasters are not waiting for the pandemic to stop, making the risk becoming significantly higher. The risk from pandemic and the natural disaster, particularly water-related disaster, has created a term called "Twin Risks".

Rising to the occasion, HELP is currently developing draft principle to address water-related DRR during COVID-19. HELP would like to conduct an online ground-truthing consultation, connecting several regions of GWP within Asia, particularly with a focus to gain practical insights to how such principle can be implemented on the ground. DRR actions with special attention to the current pandemic situation will protect disaster-affected areas from becoming epicenter of pandemic explosion and swiftly recover from disasters. The Principles are a set of practical advice urgently given to leaders and both managers of DRR and those of COVID-19 to better address water-related disasters that may occur even tomorrow under the pandemics. The Principles are made to address water-related disasters but most of the items are applicable to the other types of disasters.

This regional online consultation on draft principles on addressing water-related disaster risk reduction during Covid-19 pandemic is co-organized by High Level Experts and Leaders Panel on Water and Disaster (HELP), Global Water Partnership, and will be supported by National Graduate Institute for Policy Studies (GRIPS).

HELP-GWP PAN ASIA CONSULTATION ON DRAFT PRINCIPLES ON ADDRESSING WATER-RELATED DISASTER RISK REDUCTION (DRR) DURING COVID-19 PANDEMIC

Objectives	<p>The purpose of this consultation is to discuss and gain insights on how to practically implement key suggestions proposed in the HELP Principle to Address Water-related Disaster Risk Reduction under Covid-19 Pandemic. Asia region now faces monsoon season. The consultation also aims exchanges among decision-makers, experts and practitioners in Asia region on how they can be better prepared for co-occurring disasters on water and health. Suggestions coming through this discussion engaging practitioners, will also provide inputs to the draft principles, allowing these principles to serve as the practical guidance for decision-makers and practitioners in their effort to reduce risk from water- related disaster during covid-19 pandemic.</p>
Targeted Participants	<p>The targeted participants are GWP partners, as well as key representatives from institutions that plan, make decisions and practice actions on water-related disaster under the pandemic. Water-related line ministries (Health, Public Works, Agriculture, Environment, Industry), National Disaster Management agency, Ministry of Finance, Ministry of Trade and Ministry of Planning are among the key representatives that have direct influence on the water-related disaster risk reduction and pandemic in each country. It is important for these related ministries to be fully informed about the Principles to ensure effective future follow up in each respective country. Other key participants are the representatives of GWP Southeast Asia, South Asia, China and CACENA Country Water Partnerships.</p> <p>Note: Estimated number of participants: 50-80 people from Asian region</p>

Dr. Zelina Zaiton Ibrahim – Moderator



- Dr Zelina binti Zaiton Ibrahim has over 35 years' experience as an academician at Universiti Putra Malaysia, with expertise in water quality, estuarine and coastal processes.
- She has been Alternate Steering Committee member for Malaysia Country Water Partnership to the Global Water Partnership South East Asia over the past 6 years.
- She is currently a Coordinating Lead Author for Chapter 16:Key risks across sectors and regions of the Working Group II Contribution to the IPCC Sixth Assessment Report, since February 2018.



Opening Remarks:
Chairman GWPSEA
Dr. Inthavy Akkharath

Dr. Inthavy Akkharath




- Director General, Department of Water Resources, Ministry of Natural Resources and Environment, Lao-PDR
- Chairman of Global Water Partnership for Southeast Asia
- Chair of ASEAN Water Resources Management Working Group



**Keynote Speech:
Minister of Public Works and Housing Republic of
Indonesia
Vice Chairman of High-level Experts and Leaders Panel**

His Excellency Mr. Basuki Hadimuljono
Minister of Public Works and Housing, Republic of Indonesia
Vice Chairman of High-level Experts and Leaders Panel





Keynote Speech: The Draft Principles and Its Urgency

Professor Kenzo Hiroki

Coordinator of High-level Experts and Leaders Panel (HELP) on Water-related DDR

Professor Kenzo Hiroki



- Professor of National Graduate Institute of Policy Studies (GRIPS) and Coordinator of High-level Experts and Leaders Panel on Water and Disasters (HELP)
- Member, Executive Board of International Lake Environment Committee (ILEC), Bureau Member of OECD High-level Risk Forum
- Member of International Advisory Committee, Sichuan University, China.
- Former Member and Vice Chair of GWP Steering Committee, and Chair of GWP Selection Committee.
- Prof. Hiroki has been engaged, globally and nationally for over 39 years, in field engineering and designing, research and development, budgeting and financing, and policy formulation and legislation in the sectors of water and sanitation, integrated water resources management, and particularly water and disasters.
- The positions he held include:
 - Vice Secretary-General of the 3rd World Water Forum
 - Head of Secretariat, Secretary-General's Advisory Board on Water and Sanitation (UNSGAB) of the United Nations, New York
 - Director for Innovation, Science and Technology, Cabinet Office
 - Director of Water Resources Management, MLIT
 - Vice President of College of Land, Infrastructure, Transport and Tourism (CLIT).



- High-level Experts and Leaders Panel on Water and Disasters (HELP)-

Principles to Address Water-related Disaster Risk Reduction under the COVID-19 Pandemic

Kenzo Hiroki, Professor, GRIPS and HELP Coordinator

Disaster Risk Reduction under COVID-19

The Message of HELP to Leaders

- In the current COVID-19 environment, immediate attention has been placed on mitigating COVID-19 infections and treating those who become ill.**
- However, the threats of water-related disasters remain as imminent now as before COVID-19.**
- Implementation of DRR strategies and pre-emptive actions that factor in the current pandemic are needed to protect areas impacted by water-related disasters from also becoming new epicenters of the pandemic.**

Water-related Disasters in the last one month (June-July), 2020



Floods in Fubei, China in June



Floods in Assam, India in June



Floods in Poland in June



Tornados in New Zealand in June



Floods in Nigeria in June



Cyclones in Southern Brazil in June

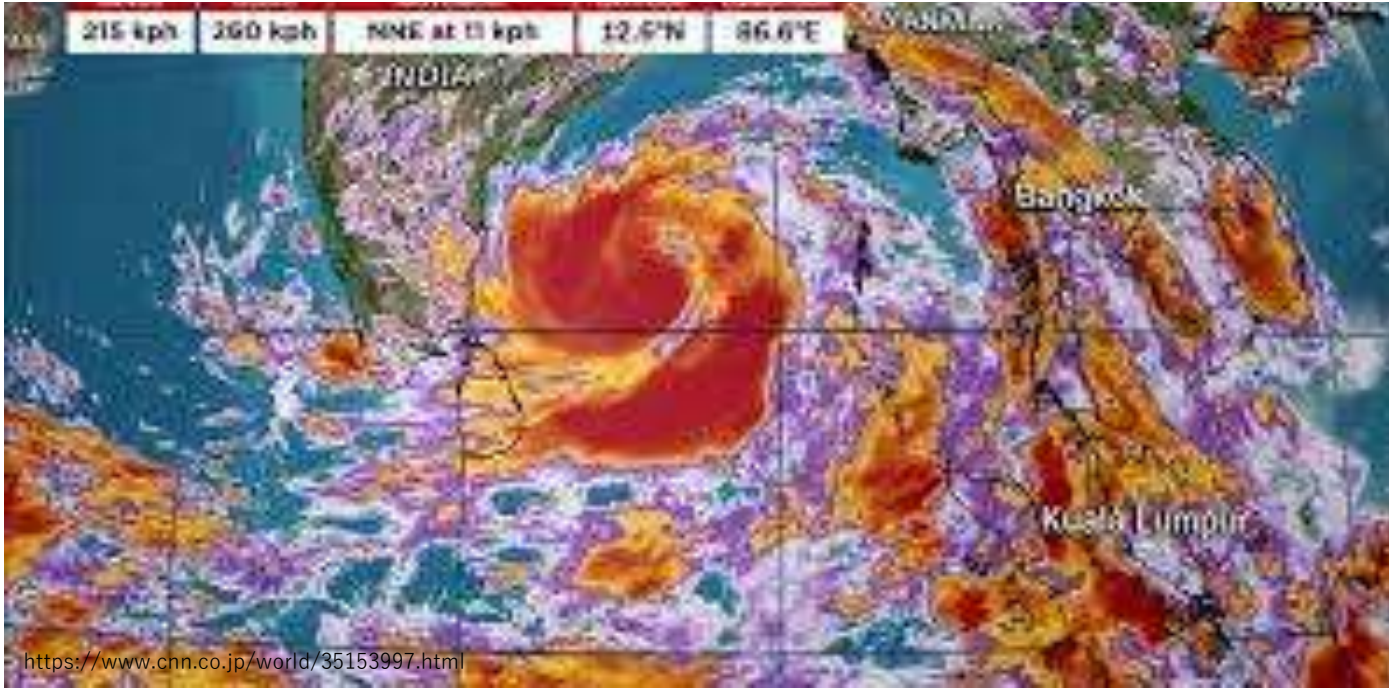


Storm in New England, U.S.A.



Heavy rain in Southern Japan in July

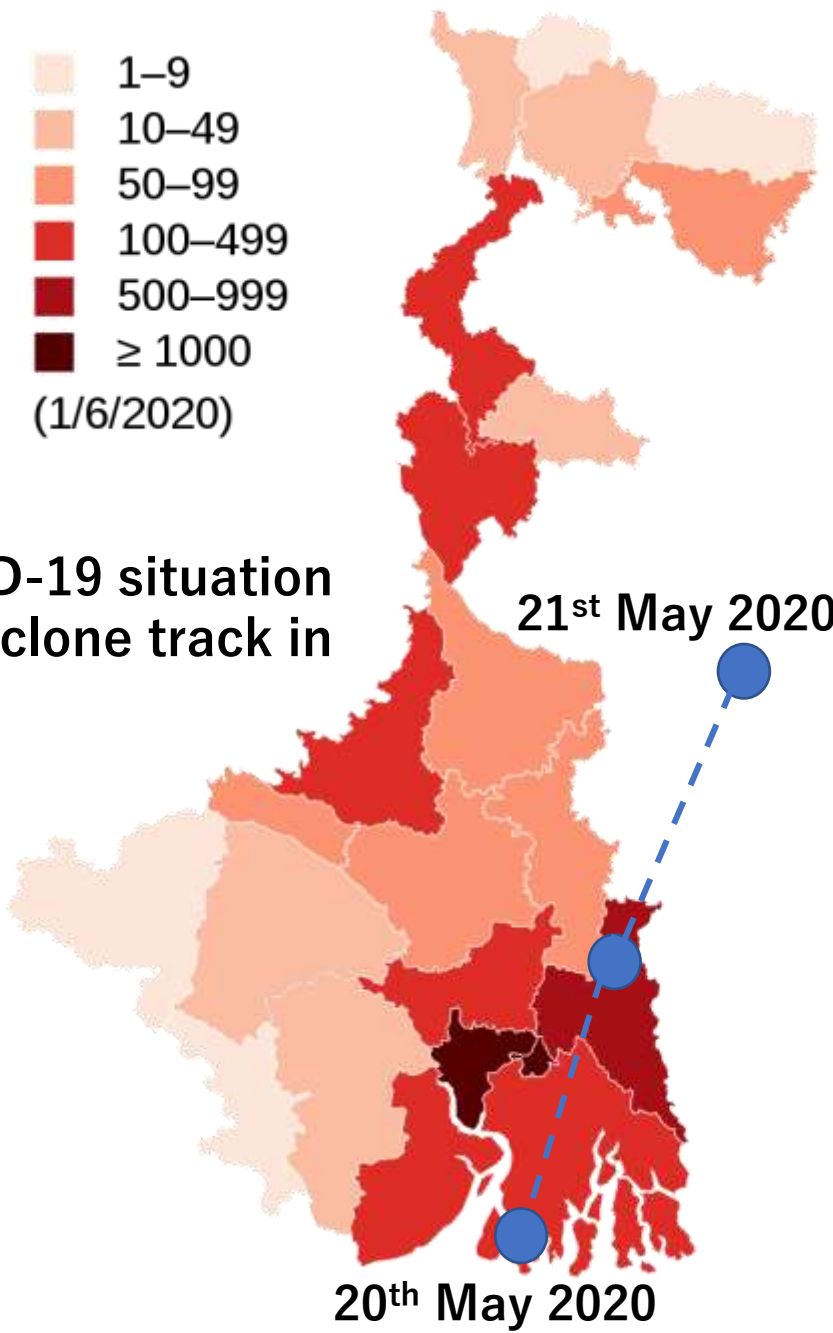
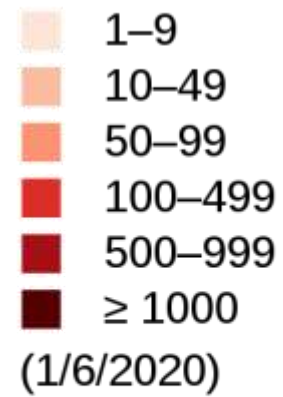
Cyclone Amphan, 16th-21st May 2020



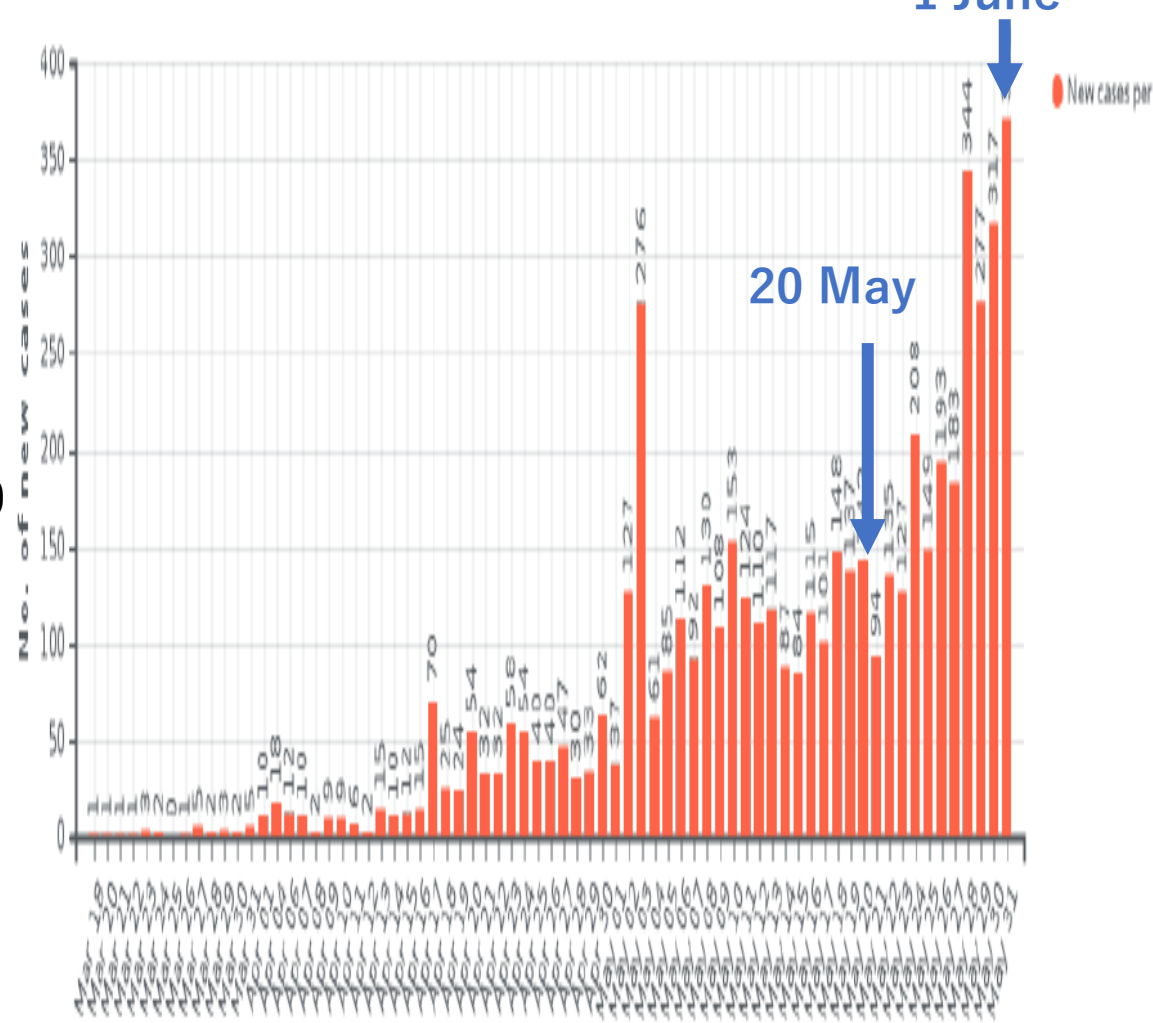
<https://healthpolicy-watch.org/cyclone-amphan-relief-efforts-ramp-up/>



<https://healthpolicy-watch.org/cyclone-amphan-relief-efforts-ramp-up/>



Daily new cases

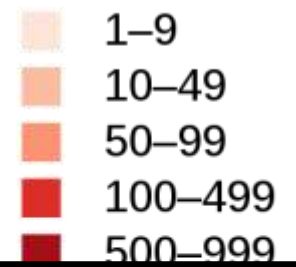


Overlap map of COVID-19 situation dashboard and the cyclone track in West Bengal, India



Daily new COVID-19 cases in West Bengal, India (21st March – 1st June)

Epidemic of COVID-19 and Cyclone Amphan in West Bengal, India

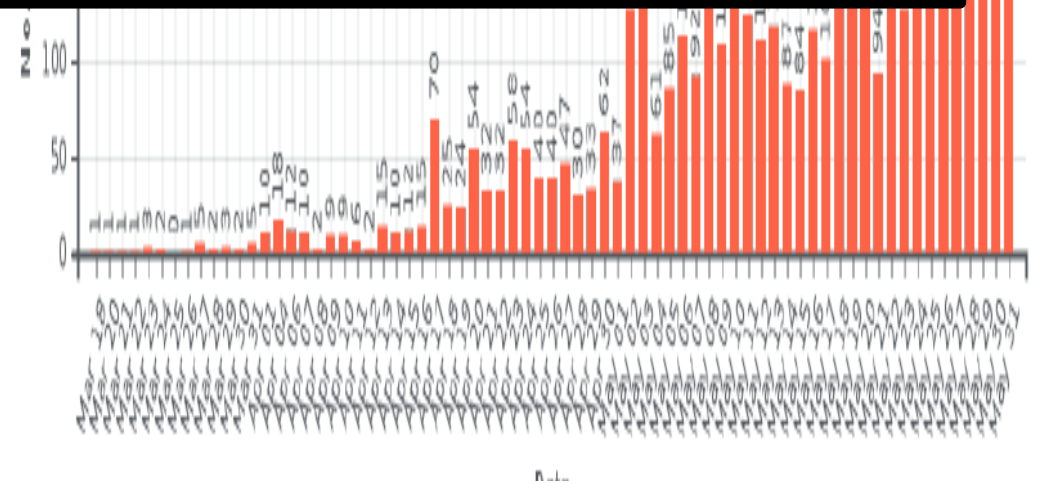
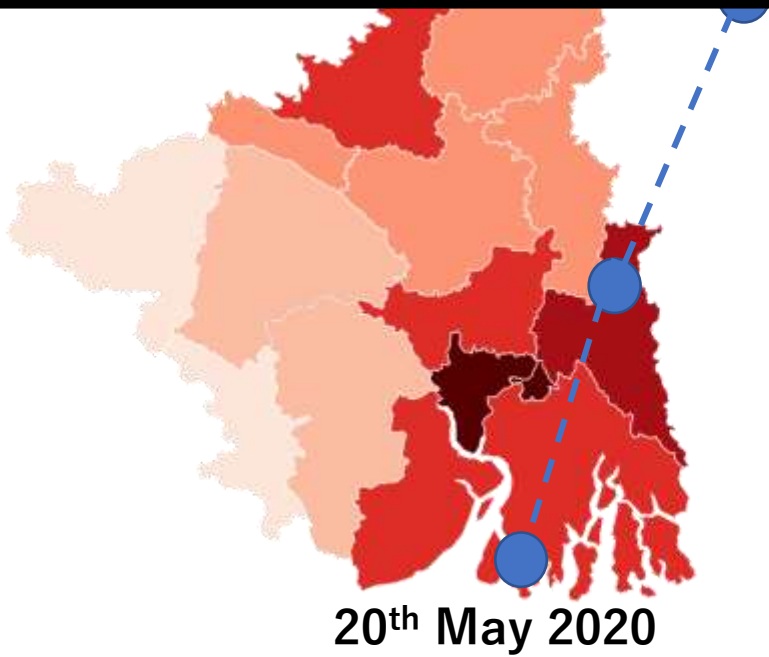


Daily new cases



What actions should we take to avoid the Twin Catastrophe?

Overlap dashboards
West Bengal, India



Daily new COVID-19 cases in West Bengal, India (21st March – 1st June)

Epidemic of COVID-19 and Cyclone Amphan in West Bengal, India



Principles to Address Water-related Disaster Risk Reduction (DRR) under the COVID-19 Pandemic

- Launched on May 29th, 2020 -

The Principles are action-oriented guidelines:

- ✓ created with participation of experts from member states, the UN agencies, International organizations, IFIs, Civil Society, and Research Institutions;**
- ✓ to support leaders, DRR officials & stakeholders, and citizens to better prepare and cope with water-related disasters under the COVID-19 pandemic;**
- ✓ in the format of practical and on-target bullet points which are ready for immediate use in countries and fields, and applicable to all types of disasters including water-related ones**

PRINCIPLE 1: ENHANCE LEADERS' AWARENESS ON DISASTER RISK REDUCTION (DRR) IN THE PANDEMIC

Leaders should :

- Be aware that water-related disasters are imminent in countries and cities while they are under COVID-19 pandemic. Although situations in areas affected by both disasters and pandemics can be complicated and confusing, step by step decision making and actions will help. Although tasks may look too immense and complicated, avoid giving up.
- Ensure integrating disaster and pandemic risk management strategies and actions. Bring together joint teams of DRR and COVID-19 experts to provide advice based on their ongoing dialogue and integrated advice. Make critical decisions by consulting them.
- If a water-related disaster happens, maintain or recover as quickly as possible basic services such as power, transport, water and hygiene to prevent spread of disease and cumulative effects of co-occurring disasters, including protecting essential medical and DRR personnel.

PRINCIPLE 2: INTEGRATE ACTIONS ON RISK MANAGEMENT OF DISASTERS AND PANDEMICS

- Fully include the health sector into the integrated risk management system.
- Quickly share and learn from the recent cases of heavy rains, floods, hurricanes and tornados that have occurred under COVID-19 situations.
- Provide hazard maps and DRR advice to hospitals and health facilities before disasters strike. Create overlapping maps of disaster/COVID-19 affected areas and facilities.
- Review and improve existing early-warning and evacuation systems so that they meet requirement for both safe evacuation and prevention of infection by COVID-19. Conduct joint risk awareness campaigns of DRR and COVID-19.
- Activate existing youth groups for DRR to call for solidarity and collaboration to contain spread of COVID-19 as behavior of young people are decisive element in controlling the decease.

PRINCIPLE 3: PROVIDE CLEAN WATER, SANITATION, AND HYGIENE SUSTAINABLY BEFORE, DURING AND AFTER DISASTERS

- Be aware that natural hazards often lead to disruptions in water availability which could affect COVID-19 mitigation efforts.
- In regions with acute water scarcity, disasters may affect the implementation of hand washing, waste management and other practices meant to prevent human-to-human transmission of the COVID-19 virus. Specific attention must be paid to risks caused by droughts since water scarcity may hinder efforts to contain sanitary crises.
- Consider using non-contaminated alternative sources including water harvesting, and the reuse of wastewater to prevent collateral hazards of disaster and pandemic. The DRR plans of water service providers should include the effects of not only natural hazards but also pandemics.

PRINCIPLE 4: PROTECT DISASTER MANAGEMENT STAKEHOLDERS FROM THREAT OF COVID-19

- Educate and build strategically the capacity of DRR stakeholders about COVID-19. For example, use advice leaflets, provision of webinar, and more. Include social distancing instructions in DRR activities in manuals and daily check list.
- Make sure that DRR stakeholders including volunteers are equipped with standard COVID-19 protections such as masks, when engaged in disaster preparedness/prevention/recovery activities. If possible, stockpile those as well as COVID-19 personal protection equipment (PPE) for use at highly infectious cases.
- Balance the need for swift disaster prevention/recovery and for avoiding disease transmission between COVID-19 affected areas and less affected ones through travel of DRR stakeholders, including volunteers.



Actions of US Army Coops of Engineers and on DRR and COVID-19

Continue to **DELIVER** the mission under COVID-19

- Essential staff are at posts
- Health safety precautions are taken
- Consistent w/ **HELP Principle 2, 4**

Respond to **MITIGATE** COVID-19 impacts

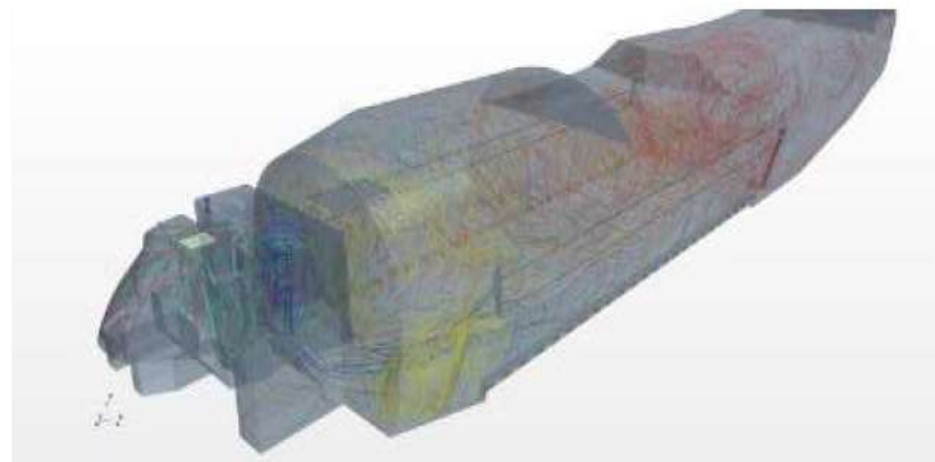
- Identification and construction of ACF
- COVID-19 modeling for response planning
- Overall U.S. military support to FEMA and others (3-S)
- Consistent w/ **HELP Principle 1, 4, 5**

PLAN and **PREPARE** for DRR scenarios under COVID-19

- Task Forces incorporate COVID-19 in preparation
- Development of Table-Top DRR exercise
- Consistent with **HELP Principles 1, 2, 3, 8**



1,000-bed makeshift field hospital erected to treat coronavirus patients at the Javits Convention Center in New York City.



Example of a modelling airflow dispersion from a supercomputer

PRINCIPLE 5: PROTECT SCARCE MEDICAL RESOURCES FROM DISASTER IMPACT

- Avoid designating hospitals and medical facilities as places for evacuation. Remove those buildings and
- facilities from designated evacuation places in hazard maps and DRR plans.
- **Prioritize protection of medical staff, facilities, and equipment from disaster impact by:**
 - Moving essential power generation equipment to safe areas from water-related disasters (flooding, etc.) and provision of auxiliary power supply equipment to hospitals, health posts and medical facilities. Moving essential medical equipment and materials to upper floors at early stage.
 - **Early dispatching of disaster management personnel to hospitals, health posts and medical facilities to ensure communication of appropriate DRR advice,**
 - **Creating evacuation plans for patients and medical staff, taking infectious zones into consideration**
 - **Prioritizing provision of water, sanitation and hygiene to hospitals, health posts and medical facilities if water supply and sanitation services are disrupted due to disasters.**

PRINCIPLE 6: PROTECT DISASTER EVACUEES FROM THREAT OF COVID-19

- **Immediately create or revise evacuation plans that include adapted shelters to assure social distancing, hygiene facilitation, and good sheltering procedures.**
- Ensure proper ventilation of evacuation buildings/facilities to prevent cluster infection. Identify additional buildings and spaces for shelters that may be needed to meet specific needs for protection of evacuees from COVID-19 such as social distancing and separate spaces for self-quarantine patients.
- Promote vertical evacuation as the priority methods of evacuation whenever and wherever possible. Discuss with local community on earlier evacuation to increased number of higher buildings, shelters, and spaces to avoid congestion of evacuees.
- **Identify and plan early evacuation and care for the most vulnerable,** with social inclusion approach, from the compound hazards, e.g., seniors, handicapped, pregnant women, and patients with chronic deceases.
- Provide ample clean water, soap, sanitary goods, and sanitary pads for evacuees.
- **Prevent any COVID-19 related discrimination to and among evacuees.**
- Advise citizens to include masks, wipes, soaps, towels, and thermometers in evacuation kits prior to disasters.

PRINCIPLE 6: PROTECT DISASTER EVACUEES FROM THREAT OF COVID-19

Disaster evacuation with social distancing under COVID-19



An evacuation center in Shibecha Town, Eastern Hokkaido, where an evacuation order was issued due to heavy rain.

(March 11th, 2020)

(From: <https://www.youtube.com/watch?v=ix3MUdwmluo>)

Carton box bed and cardboard partition



Creating a safer evacuation space under COVID-19 with a cardboard bed and partitions.

(In Higashine City, Yamagata at an evacuation drill on June 23rd, 2020)
(From: <https://digital.asahi.com/articles/photo/AS20200623004395.html>)

PRINCIPLE 7: PROTECT COVID-19 PATIENTS FROM THREAT OF DISASTERS

- Ensure that DRR and COVID-19 are given integrated top priority: avoid risks that directly endanger human life.
- Understand and take concerted actions for COVID-19 mitigations based on medical control principles of infectious diseases. These medical principles include: 1) Eliminate the source of infection; 2) Cut off the transmission route; 3) Protect the vulnerable groups.
- Create protection plans for COVID-19 patients in self-quarantine or designated facilities that include: means of communication and messages; evacuation plans to disaster-safe quarantine facilities, and medical support after evacuation.

PRINCIPLE 8: DEVELOP SPECIALIZED EVACUATION GUIDANCE FOR CITIES AND AREAS UNDER COVID-19 LOCK-DOWN

- Give special early warning to the locked down areas to ensure effective evacuation and safety assurance against disasters and prevent panic actions.
- Create contingency emergency evacuation plans for lock-down situations to prevent panics and enhanced spread of the infection. Disaster response plans based on a time-line format that includes lifting specific restrictions in specific areas need to be considered.

PRINCIPLE 9: FINANCE DRR ACTIONS UNDER COVID-19 EFFECTIVELY TO AVOID ECONOMIC CATASTROPHE

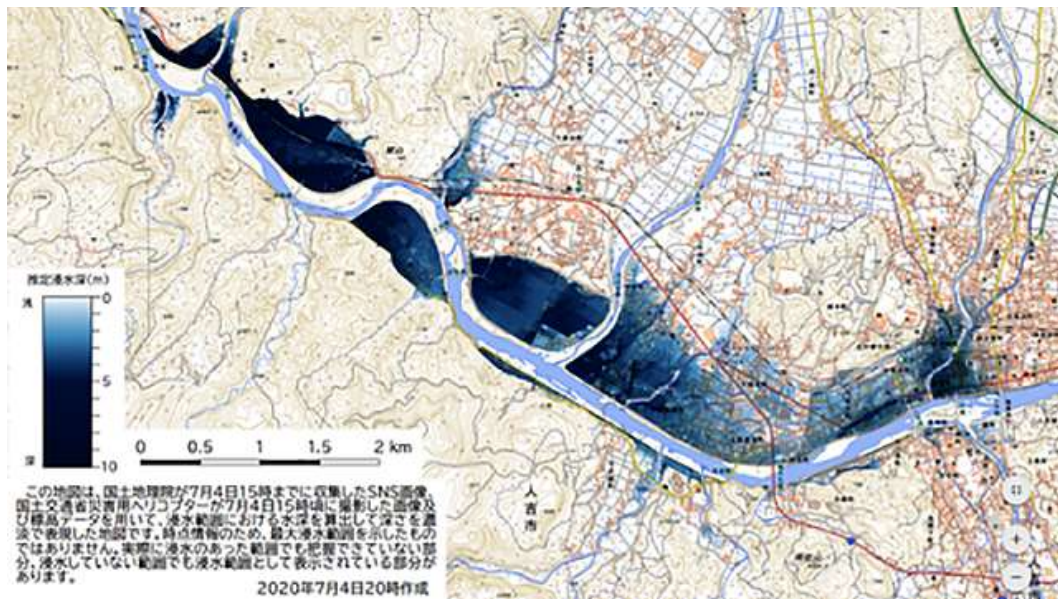
- Fully fund the pandemic finance appeal while at the same time having a contingency budget and funds to address disaster and climate-related risks, keeping in mind that compound hazards may cause irreparable economic catastrophe.
- Ensure flexible funding and disbursement that enable DRR players to plan and respond to rapidly emerging and changing multiple risks under COVID-19 situation.
- Encourage digital payment mechanism in DRR transactions through telephone-based digital currency payment and digital currencies to prevent spread of COVID-19 through contact infection.

PRINCIPLE 10: STRENGTHEN GLOBAL SOLIDARITY AND INTERNATIONAL COOPERATION TO COPE WITH THESE CO-OCCURRING CHALLENGES TOWARDS BUILDING OUR WORLD BACK BETTER

- When a mega-disaster occurs, share accurate and timely information on the disaster and its impact with the international community in transparent and accountable manners on a regular basis, to provide global trust to governance and the economy of the affected country.
- If necessary, prepare to facilitate international DRR and humanitarian assistance personnel and equipment. Countries should pre-consider and plan facilitation arrangements such as visa issuance, quarantine clearance and customs clearance and protocols for safe assistance during the pandemic. Dispatched teams should be equipped with protection kits.
- Map risks from many perspectives and work in a collaborative, trans-boundary way since hazards do not respect borders or politics.
- Extend international support to low- and middle-income countries that are struggling to cope with the outbreak recognizing that all need to attend first and foremost to the safety and well-being of their own country's citizens.
- Start recovery planning now to build our world back better. National and local governments must factor in biological hazards and risks in their national and local disaster risk reduction strategies (Sendai Framework Target (e)).

PRINCIPLE 10 (1): Sharing accurate and timely information on disasters and their impact

Heavy Rain Disaster in Kumamoto, Japan on July 4th-, 2020



Heavy Rain Disaster in Kumamoto, Japan on July 5th, 2020



この地図は、国土地理院が7月4日
国土交通省災害用ヘリコプターが
び標高データを用いて、浸水範囲に
淡で表現した地図です。時点情報
ではありません。実際に浸水のあ
つ分、浸水していない範囲でも浸水
があります。



Heavy Rain Disaster in Kumamoto, Japan on July 4th

- 340mm-415mm of rainfall in 12 hours
- Up-to 9 meter-deep inundation in Hitoyoshi City
- 62 dead or missing as of July 7th



Disaster Response under COVID-19 in Hitoyoshi City, Kumamoto, Japan (July 5th, 2020)

Allotment of evacuation space taking social-distance into consideration



Health check before entry into a shelter



Ex-ante DRR drills by a hospital worked



Setting-up evacuation cubicles for families

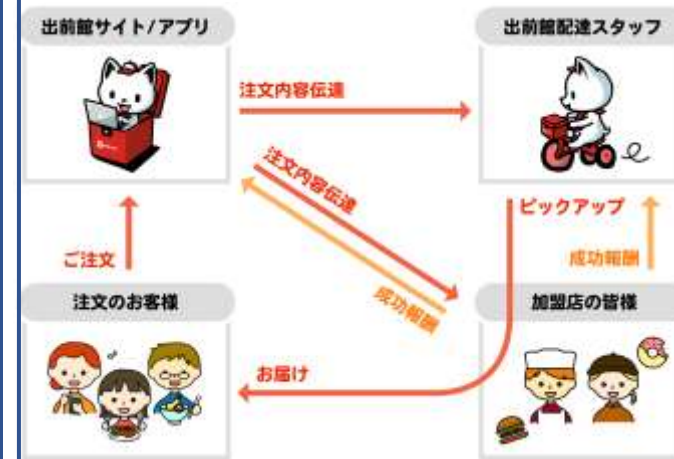


Calling for donation of masks, goggles, towels, disposable gloves, alcohol disinfectants, and plastic sheets



- 募集している物資(全て新品に限る)
- ①使い捨てマスク
 - ②アルコール消毒液
 - ③タオル(バスタオル)
 - ④作業用ゴーグル
 - ⑤作業用ゴム手袋
 - ⑥ブルーシート

Free provision of food by a delivery company



-Sharing lessons and good practices to better address water-related disasters under COVID-19 -

International Online Conference to Address Water-related DRR under COVID-19, Thursday, 20 August 2020

Central Europe 8:30 am-10:45 am (CEST, UTC+2), Seoul/Tokyo 3:30 pm-5:45 p, (KST/JST, UTC+9)

☐ Opening

- Opening remarks by Dr. Han Seung-soo, HELP Chair and Former Prime Minister of the Republic of Korea
- Welcome remarks by Mr. Masatsugu Asakawa, President of ADB, and other Co-organizers

☐ Keynote Speeches

- H.E. Mr. Angel Gurría, Secretary-General of the Organization of Economic Cooperation and Development
- H.E. Dr. Danilo Türk, Former President of the Republic of Slovenia, Chair of the Global High-Level Panel on Water and Peace and Lead Political Advisor of the Geneva Water Hub

☐ Scientific Omnibus Presentation

☐ High-level Panel: “Building the World Back Better by Addressing Water and DRR under COVID-19”

- Mr. Basuki Hadimuljono, Minister of Public Works and Housing, Republic of Indonesia
- Ms. Cora van Nieuwenhuizen, Minister of Infrastructure and Water Management, Kingdom of the Netherlands (tbc)
- Mr. Ilkka Salmi, Director for Disaster Preparedness and Prevention, DG ECHO, European Commission
- Dr. Shinichi Kitaoka, President, Japan International Cooperation Agency (JICA)
- Mr. Bambang Susantono, Vice President for Knowledge Management and Sustainable Development, Asian Development Bank
- Ms. Catarina de Albuquerque, Chief Executive Officer, Sanitation and Water for All
- Other high-level representative from UN/International Organization/Civil Society

Thank you

<https://www.wateranddisaster.org/>

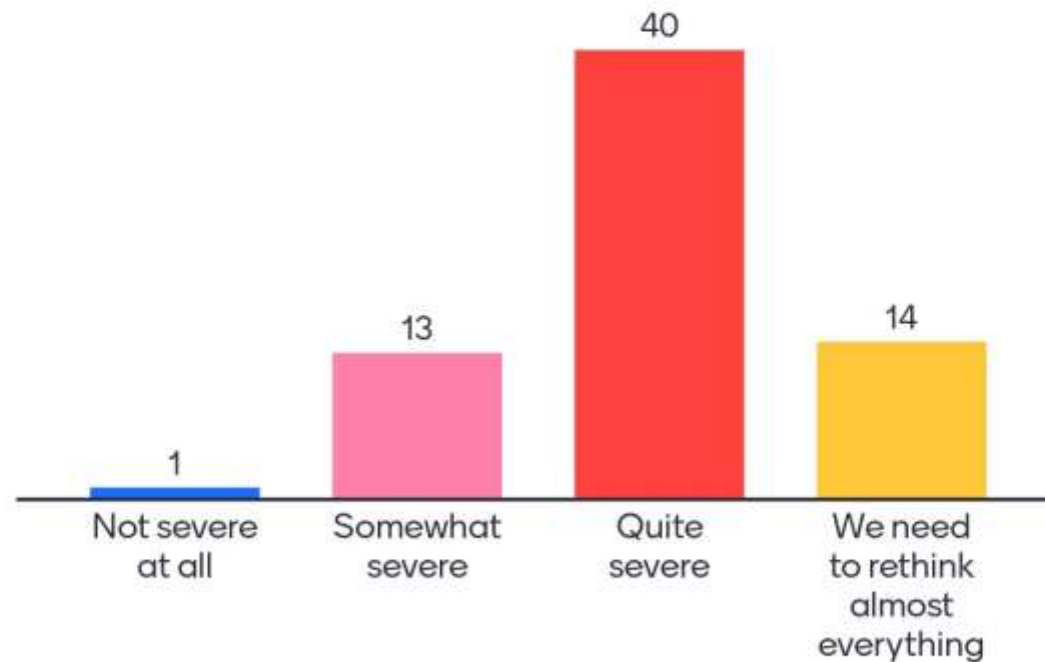


Check-in:
Understanding the knowledge in the room





Please use your handphone or **click the link in the chat box** to go to menti meter.

1. On your browser, type: **www.menti.com**
2. Put in the code: **77 65 20**
3. Direct link:
<https://www.menti.com/v2pb1vyc7i>
4. Please answer the survey

In your opinion, how severe is the impact of Covid-19 pandemic to the water-related disaster risk reduction efforts and management?



Please vote on the existing questions

- 1st  How to make high preparedness in water-related disaster risk reduction and emergency response to be set as one of the main development foundations?
- 2nd  What are the initial steps at country level for these principles to be adopted and implemented?
- 3rd  If we want to build back better, what would be the basic things that the government must do or have in place first in term of Disaster Risk Reduction?
- 4th  Who should adopt the principles (the government, community, and private sector)? How to ensure the adoption are inclusive?





Perspectives on the draft principles

Basja Jantowski



- Has over 15 years' experience working in water stewardship, integrated water resources management, soil and water conservation and WASH as consultant, trainer and manager in European, African and Asian countries.
- She holds a Master's Degree in Physical Geography, specialized in Hydrology, Soil and Water and Land Degradation, from the University of Utrecht, The Netherlands and brings in years of working in international development and water. From leading implementation of WASH projects in remote areas in Ethiopia and Nepal to providing strategic advice to major companies on water within their operations and supply chains in Indonesia.
- Since 2016, she has been working in Indonesia and currently works as **Program Director** for Yayasan Aliansi Wali Sumber Daya Air Indonesia (AWS Indonesia) managing the organisation and driving good water stewardship and the International Alliance for Water Stewardship (www.a4ws.org) Standard uptake in Indonesia.



AHEAD OF THE CURVE

BUILDING COMPANY RESILIENCE ON WATER UNDER COVID-19

Basja Jantowski

Program Director AWS Indonesia (Yayasan Aliansi Wali Sumber Daya Air Indonesia)

basja@a4ws.org

DRR & IMPACT ON BUSINESSES



- Extent of structural damage to the economy and impacts on businesses
- Growing political pressure for new regulations and legislation, often to protect domestic economy
- Effects on government policies, supply chains, investment decisions and consumer behaviour
- Companies (we all) need to re-imagine and re-design
- This requires investment and most importantly : ability to adapt

DEFINITION OF WATER STEWARDSHIP

The use of water that is:

- socially & culturally equitable,
- environmentally sustainable and
- economically beneficial



Achieved through a **stakeholder-inclusive process** that involves **site and catchment-based actions**.



GOOD WATER GOVERNANCE



SUSTAINABLE WATER BALANCE



GOOD WATER QUALITY STATUS



IMPORTANT WATER-RELATED AREAS



SAFE WATER, SANITATION AND HYGIENE FOR ALL (WASH)



ALLIANCE FOR WATER STEWARDSHIP



WASH & BUSINESS RESIL

- WASH as preventive power and long-term impact
- Adaptive management and business resilience



HELP GUIDELINES & BUSINESSES



Integrate	Principle 2: Integrate actions on risk management of disasters and pandemic
Provide	Principle 3: Provide clean water, sanitation, and hygiene sustainably during and after disasters
Finance	Principle 9: Finance DRR actions under COVID-19 effectively to avoid economic disaster



WASH
4 WORK



AHEAD OF THE CURVE

BUILDING COMPANY RESILIENCE ON WATER UNDER COVID-19

Basja Jantowski

Program Director AWS Indonesia (Yayasan Aliansi Wali Sumber Daya Air Indonesia)

basja@a4ws.org

Dr. Alexander Mindorashvili

- Georgian Focal point for “Water & Health Protocol
- Academician of the Academy of prophylaxes medicine of Georgia
- Working for the Ministry of environment protection and agriculture of Georgia
- Member of Global Water Partnership of CACENA
- Former Chief of Sanitary & Epidemiology Service of Georgia

**First experience in fighting against
COVID-19 pandemic in Georgia**

Dr. Alexander Mindorashvili

PhD. Professor.

**Academician of the Academy of prophylaxes medicine of
Georgia**

**The Ministry of environment protection and agriculture of
Georgia**

30 July 2020

GEORGIA



Subject of the presentation:

- 1. The status of equal provision of access to water resources and sanitation in Georgia**
- 2. Georgia's experience in fighting against new coronavirus COVID-19**

BRIEF DESCRIPTION OF FEATURES OF WATER RESOURCES AND WATER SUPPLY OF POPULATION OF GEORGIA

- Georgia is abundant with water resources which cover 10.9% of the country's area.
- However, due to uneven distribution of water resources in East Georgia, the issue of water supply remains acute.
- Some 450-500 mln. m³ of water is consumed annually for house-keeping and drinking purposes, 90% of which is used by urban and 10% - by rural population.
- Despite abundance of water resources, overall water consumption level does not exceed 35-40%.
- Over 95% of population have access to improved water sources.
- However, in rural area only 30% is connected to centralized water sources through gravity water supply.

The status of provision of equal access to water and sanitation in Georgia

- Improving the status of equal access to water and sanitation is one of the acute problems nowadays.
- On that basis, the country set clear goals in water supply, sanitation and hygiene. Policies are implemented to support these efforts.

A number of strategies and programs were developed to this end, including:

- Social and economic development strategy for Georgia – “Georgia -2020”.
- Social and economic development of each region for 2014-2021.
- Agricultural development strategy in Georgia for the period 2015-2020.
- Action plan of the strategy of agricultural development in Georgia 2018-2020
- National strategy of rural development in Georgia in 2017-2020.
- Strategic plan for development of statistics accounting for agricultural and environment protection activities in Georgia in 2016-2020
- and others.

these documents cover the following issues:

- Not only necessary efforts to address sustainable use of natural resources including water, but also measures to develop water supply and sanitation;
- Reduction of number of people with no access to water supply an appropriate sanitation;
- Necessary funding to carry out appropriate efforts etc.
- It should be noted that some construction and recovery works, scheduled in 2020 per Social and Economic Development Strategy Georgia-2020, were paused due to pandemic. However, these were resumed now, and over 30 projects are being implemented.
- Noteworthy is that, if existing pace of construction and remediation works remains, the country's population will be provided with full access to high quality water and the government program will be accomplished.

Taking into account the importance of environment legislation in Georgia's social and economic development, Georgia intends to prepare a platform for designing a set of policies to achieve such objectives as:

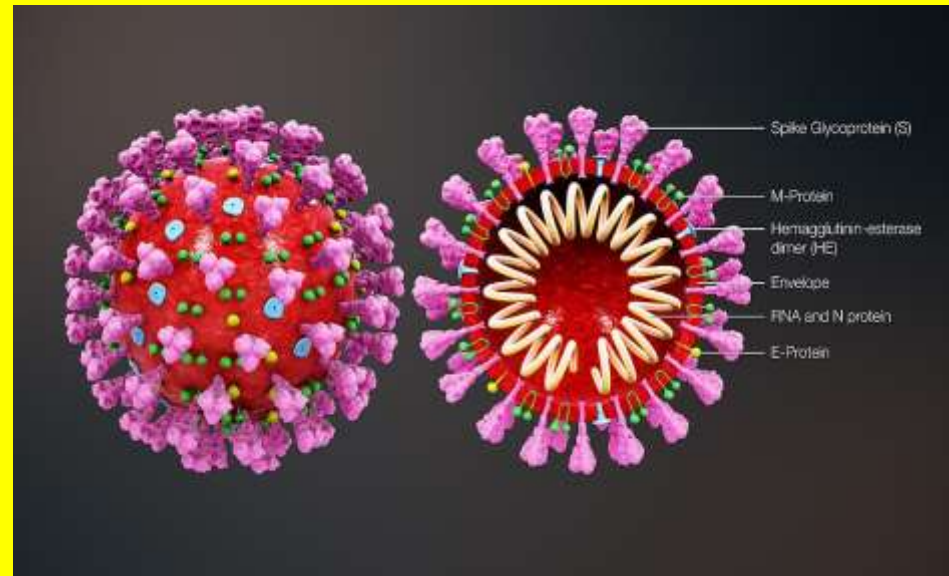
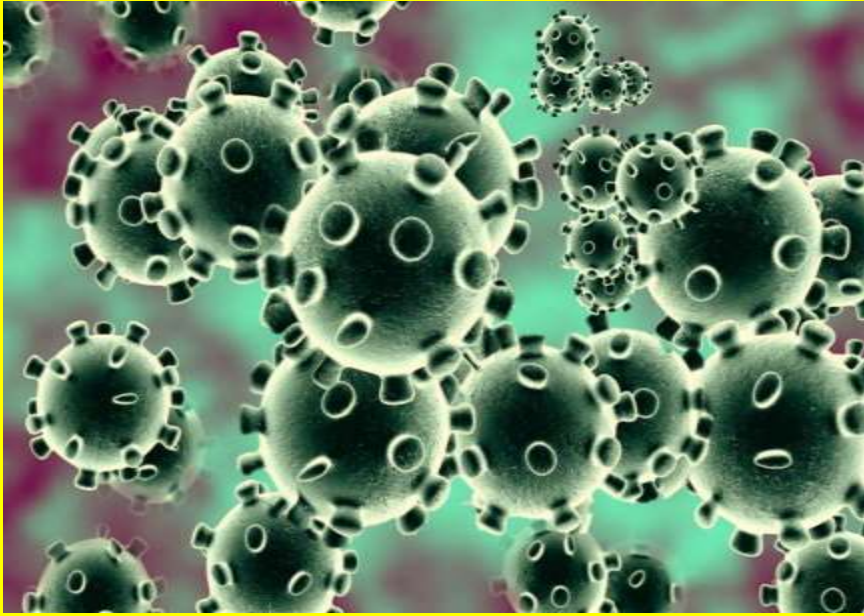
- further development of water management legislation and carrying out institutional reforms in this sphere;
 - sustainable use of water resources with climate changes taken into account;
 - provision with water of the quality complying with safety requirements and adequate sanitation; and introduction of basin management principles;
 - “water and health” protocol ratification, setting up national target indicators and their fulfillment;
 - strengthening of cross-boarder cooperation with neighboring countries and other.
-
- As mentioned above and taking into account the requirements of the agreement of association between European Union and Georgia, a new law “On Water Management” was drafted and whose introduction is expected in 2020.
 - A number of complementary laws were also drafted.

It is worth mentioning that the following documents were developed and approved:

- “Third National Program on Nature Preservation for 2017- 2021”
- Second National Action Plan on “Environment and Health for 2018-2022”
- With these documents the country committed to introduce policies and perform practical actions for creating safe environment for health of population, including sanitation. Long term priorities are set, which take into account principles and provisions of Water and Health Problems Protocol – an instrument for development of integrated strategies on water management, sanitation and health.

2. Georgia's experience in combating new coronavirus COVID-19

COVID-19



Statistics on coronavirus as of 22.07.2020 in Georgia

Georgia claims to have the smallest number of infected on SARS-CoV-2 and those deceased from pneumonia COVID-19 in Caucasus .

As of 22 July the country shows:

- Total infected – **1073**
- Fatalities – **16** - 1,5% with population of 3.7 mln.
- Recovered – **907** - 85%
- Undergoing treatment - **150** -14%
- Including serious and critical cases - 5

The actions taken by the government are portrayed by experts as:

- A good role model
- In how proactiveness can cope with spreading of the virus.

How did the events unfold?

- The first Covid-19 case was reported at the end of February
- **Government reaction followed immediately**
- Scientists on the National Health Centre took the lead to work up recommendations
- The end of February saw flights cancelled and borders closed
- Schools, universities, cultural institutions and ski resorts were closed in the beginning of March, with all public events being postponed
- The majority of hotels and restaurants did not work by the middle of March
- All public transport and personal vehicles were halted

- Emergency state was introduced on 21 March, public events and intercity commuting were prohibited.

- The emergency state was supposed to last for 20 days until Easter holiday
- Curfew was enacted during night time; no gatherings with more than three people involved were allowed.
- Police patrols watched compliance with the regulations.

Why did the actions work out well?

- Community strictly complied with the instructions
- Significant penalties for non-compliance were also conducive to the success
- All bus stops were equipped with electronic screens with “Stay Home” warning signs
- Readiness to cooperate on part of the people of Georgia, their remarkable socially responsible behavior in fulfilling all recommendations were critical in evening out the incidence curve
- **Among the overall turmoil it was the trust put in medics by both authorities as well as people that played a key part curbing the virus.**

Lifting the ban

- Majority of enterprises, shops, and restaurants already resumes their work in Georgia.
 - Wearing masks indoors and maintaining the safe distance – in public organizations, offices, shops - is compulsory.
 - Strict restrictions on social distancing and gatherings are in place.
 - No boarding is allowed in public transport without masks.
 - Sport and other events are prohibited.
-
- Despite all measures taken, we must remain prepared for any eventualities.

Проведенные мероприятия до выявленного первого подтвержденного случая нового коронавируса (COVID-19) Январь-Февраль 2020



Проведенные мероприятия после выявленного первого подтвержденного случая нового коронавируса (COVID-19) Март -2020



Проведенные мероприятия после выявленного первого подтвержденного случая нового коронавируса (COVID-19) Апрель -2020



Проведенные мероприятия после выявленного первого подтвержденного случая нового коронавируса (COVID-19) Май 2020



The above said implies that pandemic created a number of problems which closely intertwine with each other.

It is deemed necessary to identify these problems and address them comprehensively on both national as well as international levels.

Apparently in order to achieve the final outcomes, technical dialogues are to be improved, concrete mechanisms of deploying of institutional resources should be developed. This will enable decision to be made on appropriate actions.

These strategic visions usher in a way for new programs and projects in health care and environment protection. This will enable new action plans that will contribute to solving of global problems.

It is commonly known that quick achievement of the results depends on: national policies, regional plans on social and economic development and impact upon environment from activities, climate conditions etc.

Consequently, a comprehensive evaluation of future consumption of water, environment system services, scale of energy and land usage, health care resources etc. is required.

Consequently:

- **It is necessary to identify clear indicators, perform multifactor correlation analysis in order to forecast social and economic trends and effects.**
- **Develop a roadmap for decision makers in order to implement nature protection and health care initiatives.**
- **Carry out regional seminars, trainings, etc.**

We believe that such approaches will create a new platform for cooperation, which in turn will yield more tangible results.

THANKS FOR YOUR ATTENTION!

Professor Santosh Kumar

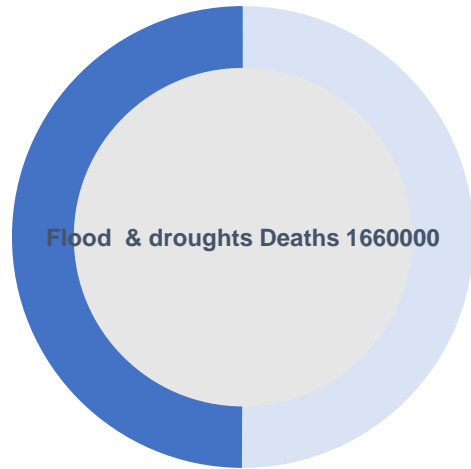


- Professor and Head of the Governance, Public Policy and Inclusive Development Department of the National Institute of Disaster Management, Ministry of Home Affairs, Govt of India .
- Director of NIDM and SAARC Disaster Management Centre
- He was working as Disaster Management Specialist in the World Bank
- More than 25 years successful experience providing strategic, institution building, public policy and strategic operations leadership in challenging situations both in multi-cultural and national environment at national and international levels for poverty & risk reduction leading to sustainable development.
- He has PhD in economics, studied Gender and Development at IDS Sussex, UK and Disaster Management in Israel.
- Specialized in Disaster and development and Hydro-meteorological disasters.
- He has been contributing in most of the international conferences of strategic importance organized by The United Nations, The World Bank and other agencies both international and national levels.
- He has also contributed in drafting and adoption of International frameworks for disaster management- Hygo Framework of Action 2010-2015 , Sendai Framework for disaster risk reduction 2015-2030 and other Global platforms as part of the Government of India delegation



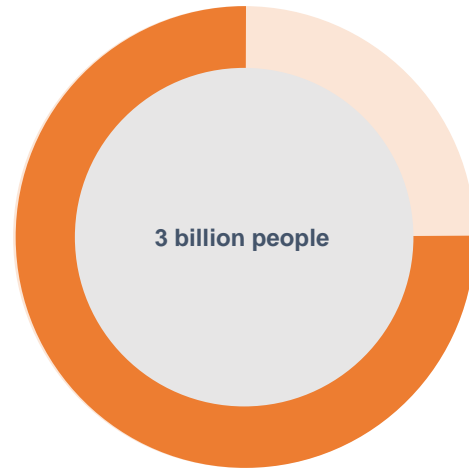
Prof Santosh Kumar
National Institute of Disaster Management
Formerly,
DIRECTOR, SAARC DM CENTRE

Water Related Disasters



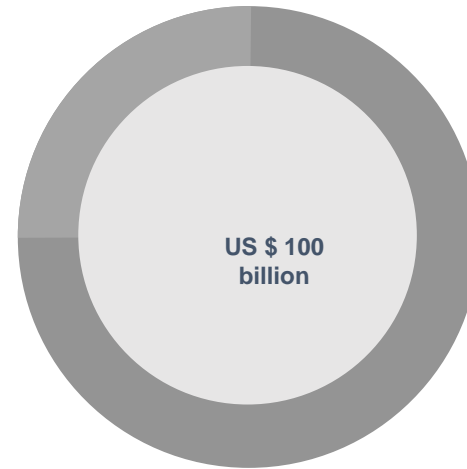
Death In 20 years

Flood & drought deaths are increasing every year



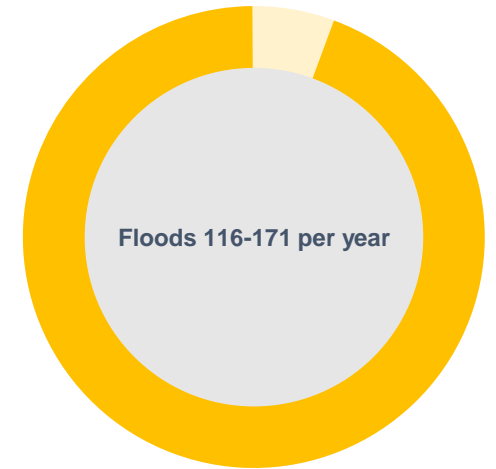
Affected by floods & drought

No of affected people are increasing every year



Economic loss

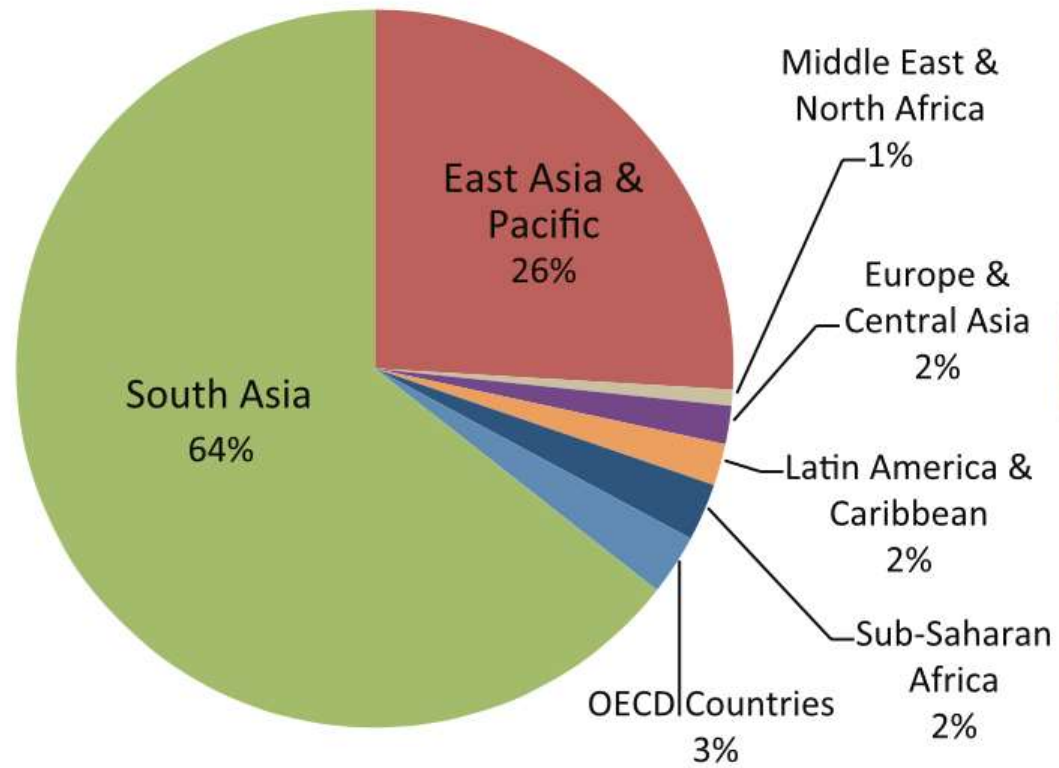
Economic loss is huge due to



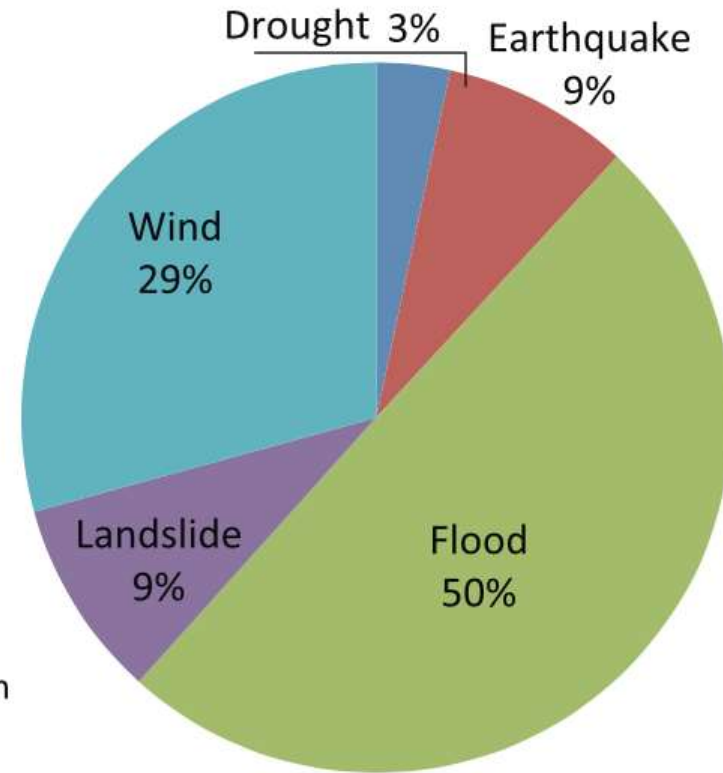
Floods

The number of floods are increasing every year

Percentage of people impacted by Flood



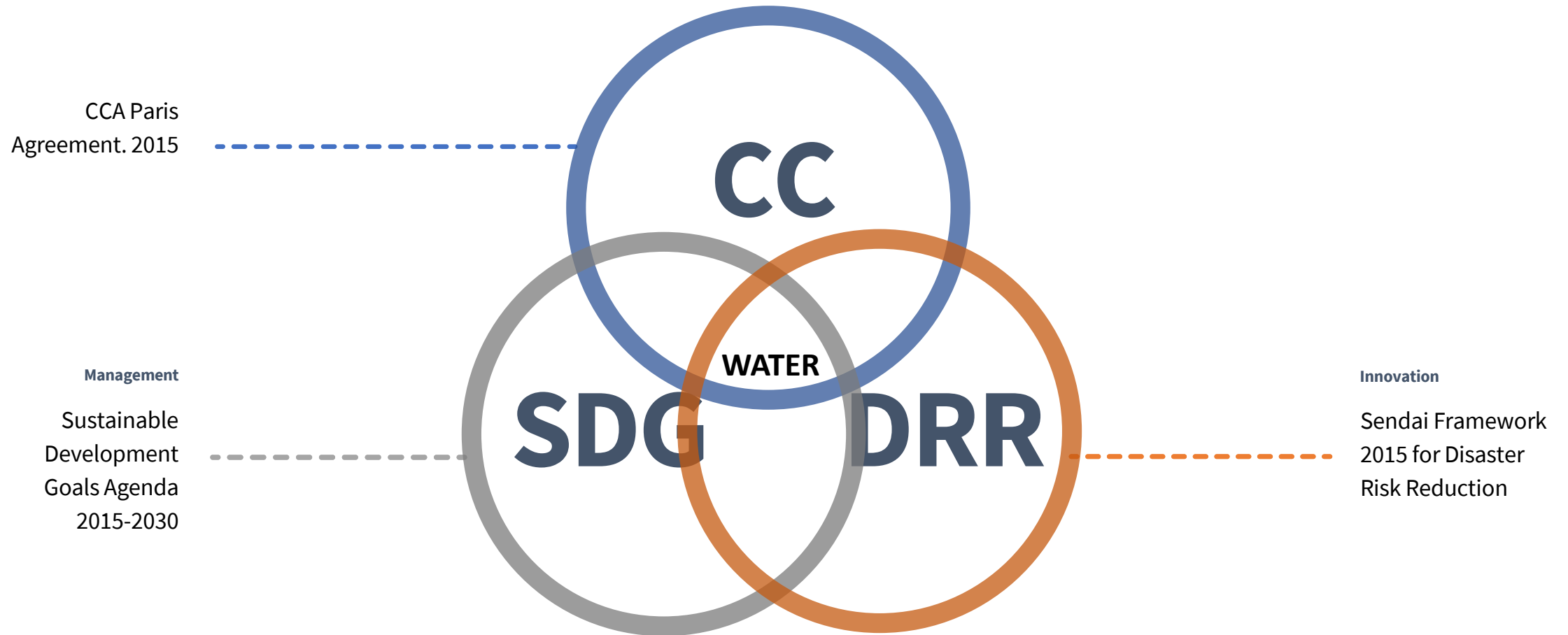
Floods as a percentage of SAR events



Source: Emergency Events Database (EM-DAT: The OFDA/CRED International Disaster Database)

Water Integrated Issues

Too Much And Too Little Water



CCA Paris Agreement. 2015

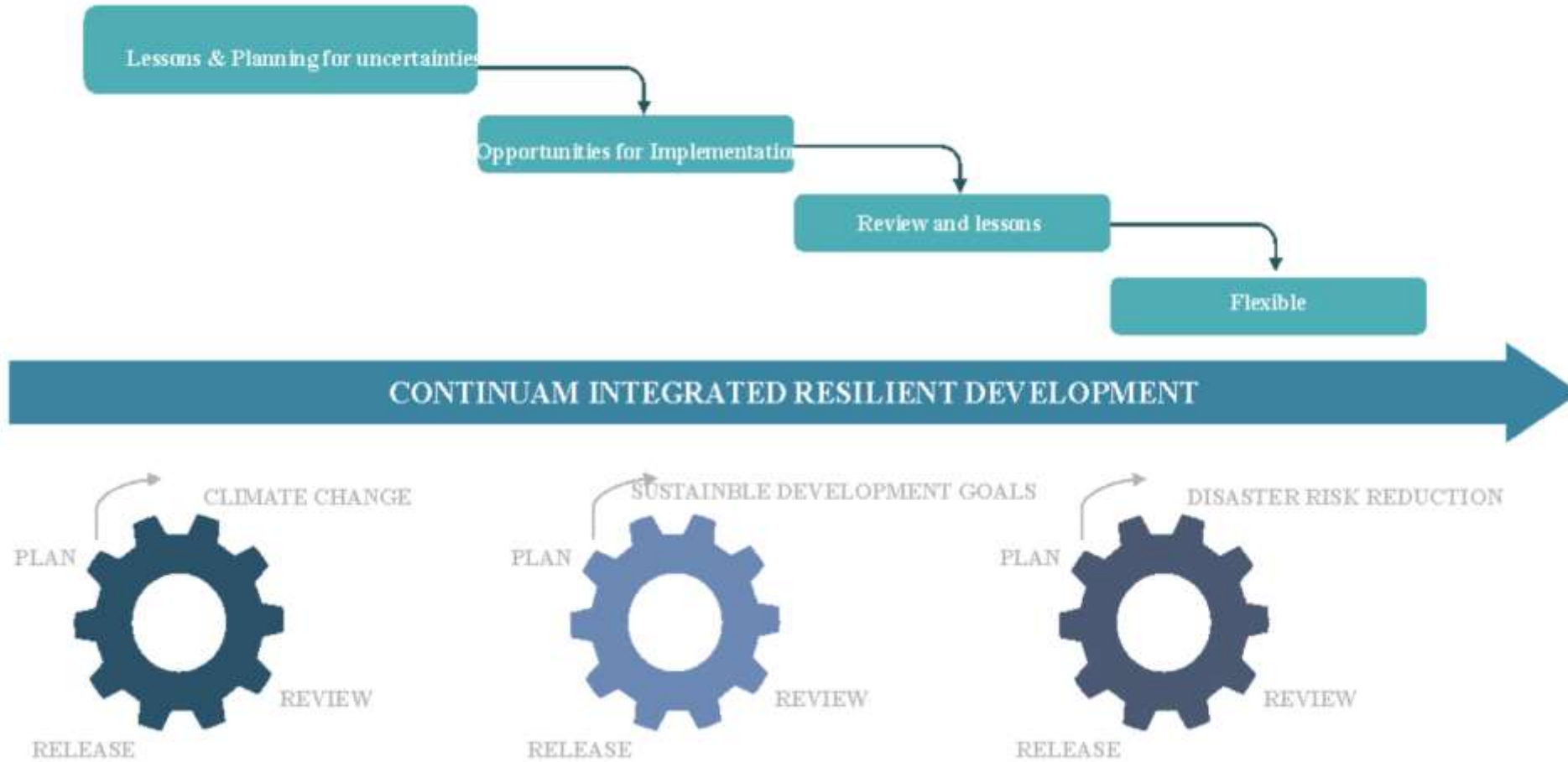
Management Sustainable Development Goals Agenda 2015-2030

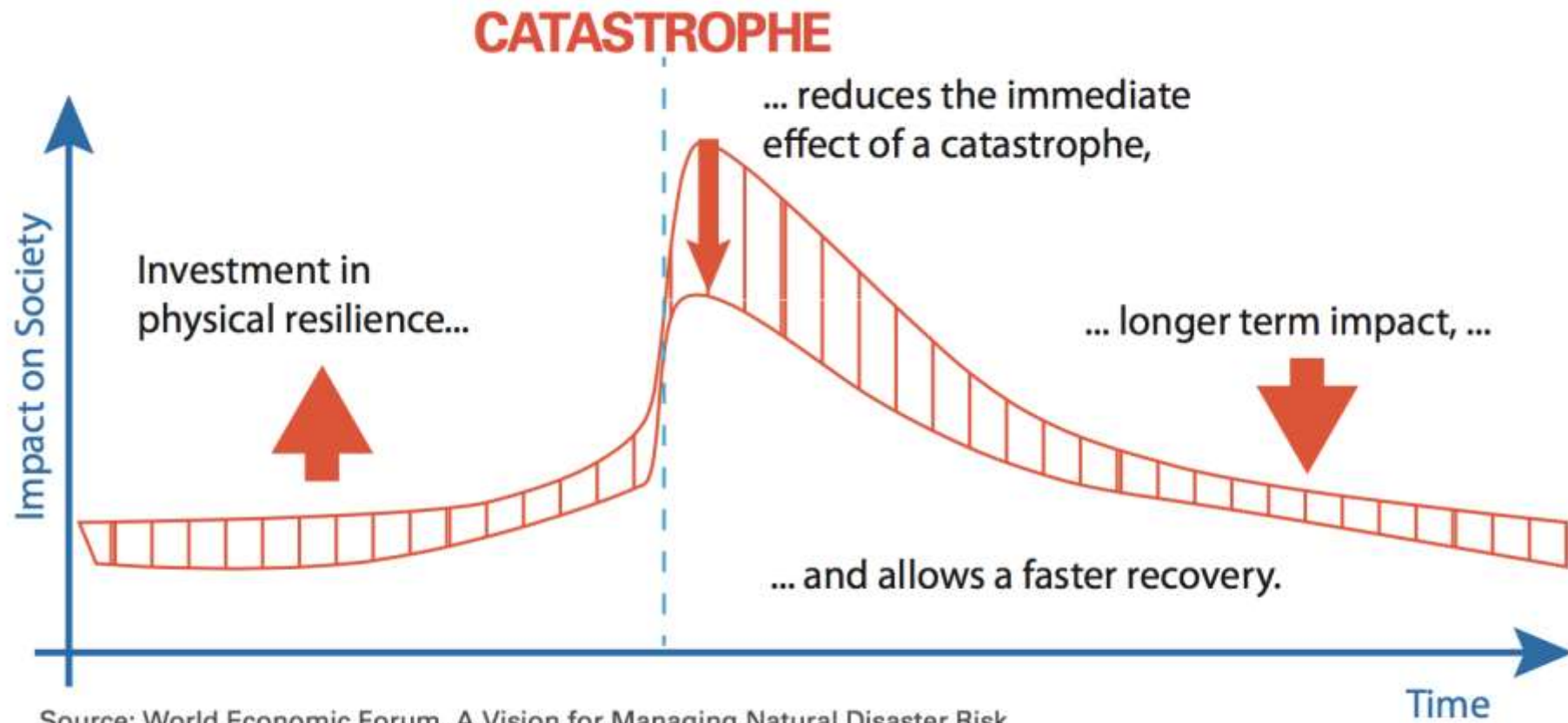
Innovation Sendai Framework 2015 for Disaster Risk Reduction

Dynamic Risk Management with Development

Crisis to Resilience

10





Source: World Economic Forum, A Vision for Managing Natural Disaster Risk

Building Financial Resilience



Thank you

Professor Sheng Jifang



- Professor, Chief Physician, Doctoral Supervisor, Director of the Department of Infectious Diseases, The First Affiliated Hospital of Zhejiang University School of Medicine, Deputy Director of the State Key Laboratory of Infectious Disease Prevention and Control.
- Professor Shen has engaged in the field of infectious diseases for more than 30 years and has accumulated rich experience in the diagnosis and treatment of infectious diseases, especially in the treatment of intracranial infections, FUO, and severe hepatitis.
- She is a member of expert team for COVID-19 prevention and control of Zhejiang Province.
- She has successfully led or participated in special projects of the People's Republic of China's 863 Program (or State High-Tech Development Plan), the People's Republic of China's 973 Program (or National Basic Research Program) and the National Natural Science Foundation of China.
- She also participated in the 11th, 12th and 13th Five-Year Science and Technology Major Projects.



Lessons from China: Hospital strategies for managing COVID-19

Jifang Sheng M.D Ph.D

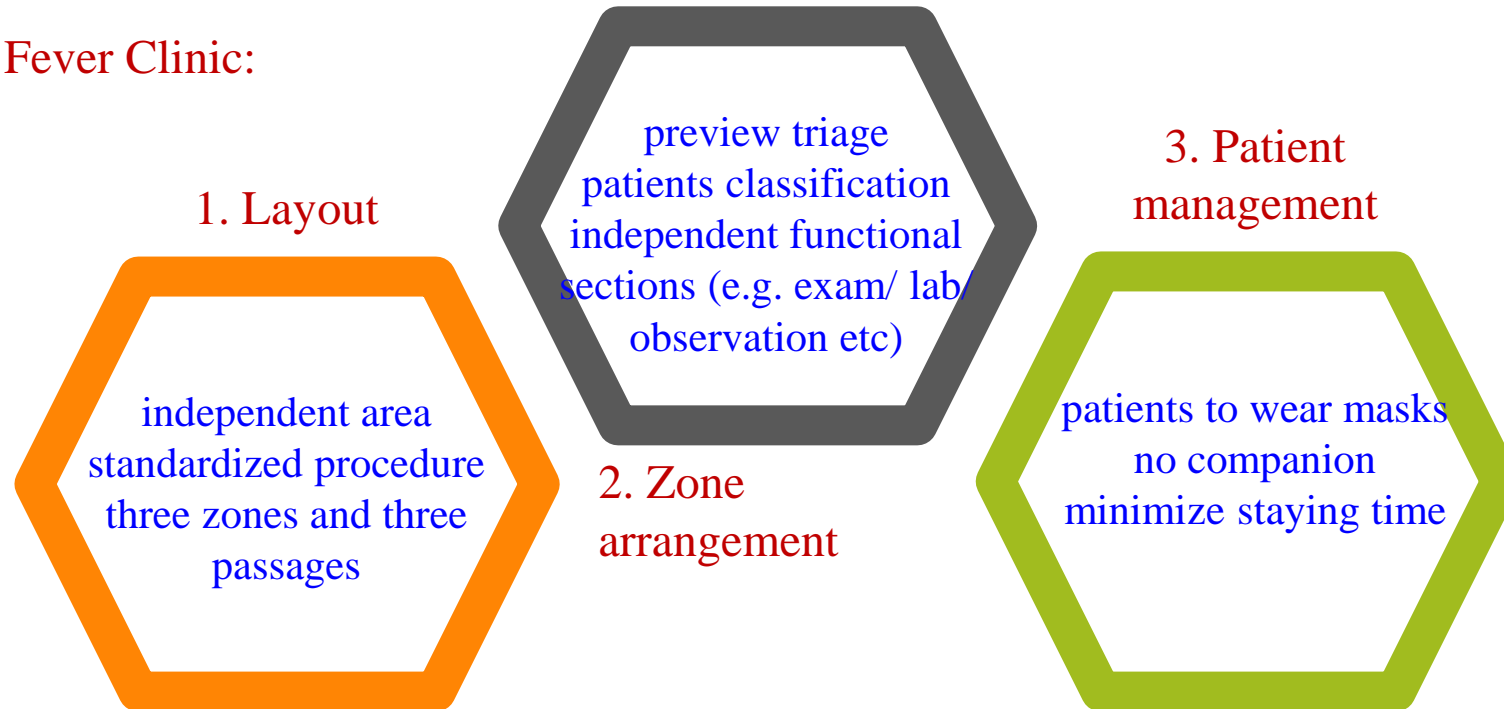
Junwei Su M.D

The First Affiliated Hospital of Zhejiang University, School of Medicine

Optimization of admission and screening process



□ Fever Clinic:



□ Transportation of patients:

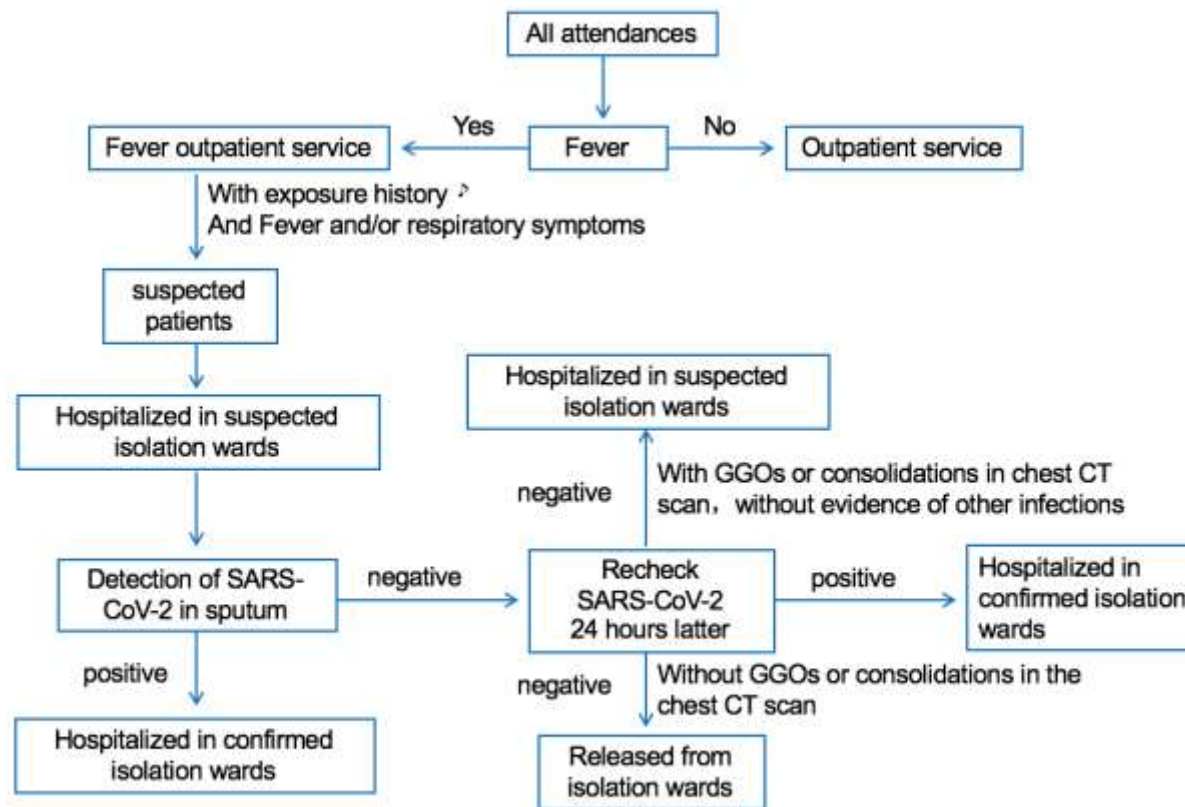
- Negative-pressure ambulances and PPE for ambulance attendants
- Ambulances would be disinfected after transportation by local CDC.



Optimization of admission and screening process



□ Procedure for patients' admission:



[∧] : contact with confirmed COVID-19 patients, travel to or be resident in Wuhan or surroundings within 14 days, or clustering occurrence



O

A Questionnaire for Patients with Fever

Epidemiology investigation
(Please mark "√" for your choice)

id



□ Procedure for p

Name:		
Address:		
Phone number:		
Name of companion:		
Phone number of companion:		
Contact with mild animals	Yes ()	No ()
Contact with fever patient		
Potential exposure history		
Travel or residence history in the epidemic areas of COVID-19 within 14 days;	Yes ()	No ()
Contact with COVID-19 patients within 14 days;	Yes ()	No ()
Contact with fever patients who had been to epidemic areas;	Yes ()	No ()
Clustering occurrence (2 or more cases with fever and/or respiratory symptoms occur at such places as homes, offices, classrooms, etc. within 2 weeks)	Yes ()	No ()

F

Symptoms investigation
(Please mark "√" for your choice)

		days	
Hospital	Duration of fever		
	Highest body temperature	°C	Unknown ()
Detailed C	Muscular stiffness	Yes ()	No ()
	Pharyngalgia	Yes ()	No ()
	Dizziness	Yes ()	No ()
	Headache	Yes ()	No ()
	Cough	Yes ()	No ()
	Expectoration	Yes ()	No ()
pos	Running nose	Yes ()	No ()
	Abdomen pain	Yes ()	No ()
Hospital	Diarrhea	Yes ()	No ()
	Vomit	Yes ()	No ()
P: contact within 14	Chest pain	Yes ()	No ()
	Chest distress	Yes ()	No ()
	Shortness of breath	Yes ()	No ()
	Urinary irritation	Yes ()	No ()
	Allergic history	Yes ()	No ()

s

in
olation

findings

Strategies evolved based on stages of epidemiologic curve



Early Stage

- ❑ Centralized management in one independent building
- ❑ One relative Department
- ❑ Limitation: out-patient in fever clinic $\leq 300/d$; Confirmed patients $\leq 5/d$; Suspect cases $\leq 10/d$; Total patients ≤ 40

Ascent Stage

- ❑ Centralized management in one independent district
- ❑ Medical works from Department of infectious disease, respiratory medicine, ICU and other departments.
- ❑ Limitation

Outbreak Stage

- ❑ Mobile cabin hospitals for mild and moderate patients
- ❑ Reconstructed regular wards for severe patients with sufficient supply of electric power and oxygen



Reconstruction of COVID-19 center





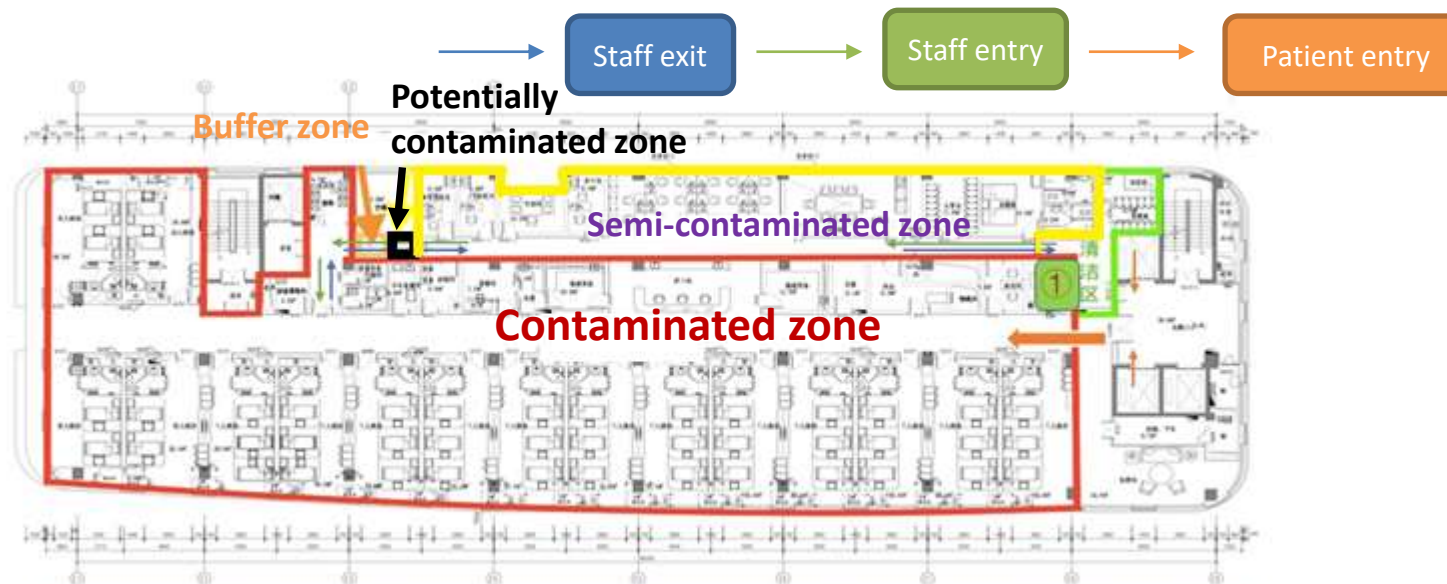
Reconstruction of isolation wards



□ Isolation wards:

Zhijiang Hospital Area: Modification and Procedures for the Infected and Isolated Wards on the 7-9th Floors of Building 3

Staff entry: From Elevator No. ① -- Clean zone (Wear surgical cap, surgical mask, protective face shields, inner gloves, protective clothing, outer gloves) – semi-contaminated zone – potentially contaminated area – buffer zone – contaminated zone (infected zone)



Staff exit: From the contaminated zone (change outer gloves) – buffer zone (remove outer gloves, protective clothing, protective face shield) – potentially contaminated zone (remove surgical mask, surgical cap and inner gloves, wash hands) – semi-contaminated zone – shower and put on clean clothes – clean area

Strategies evolved based on stages of epidemiologic curve



Early Stage

- ❑ Centralized management in one independent building
- ❑ One relative Department
- ❑ Limitation: out-patient in fever clinic $\leq 300/d$; Confirmed patients $\leq 5/d$; Suspect cases $\leq 10/d$; Total patients ≤ 40

Ascent Stage

- ❑ Centralized management in one independent district
- ❑ Medical works from Department of infectious disease, respiratory medicine, ICU and other departments.
- ❑ Limitation

Outbreak Stage

- ❑ Mobile cabin hospitals for mild and moderate patients
- ❑ Reconstructed regular wards for severe patients with sufficient supply of electric power and oxygen



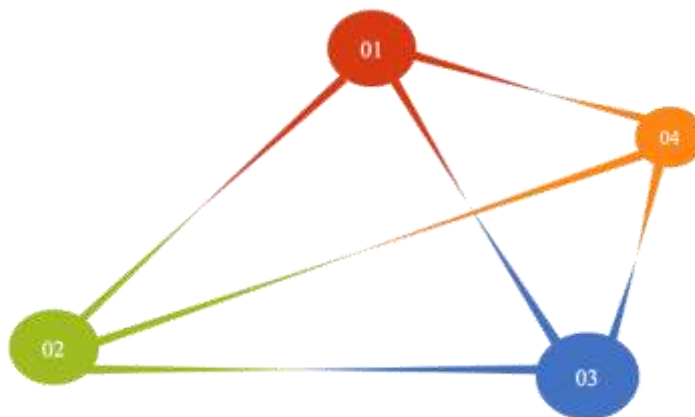
Control for non-COVID-19 patients



Transferred to local hospitals
One room-one patient

Minimize public panic

Delay non-urgent
surgeries



On-line clinic
medications delivery

Arrangement and backup of medical workers



Backup of medical workers in batches

Training of standardized procedures
Assessment for qualification

Temperature monitoring
Isolation of 14 days before exiting

Team management
Fixed members
4-6 hours/shift



Staff workflow management and training



- Before working in a fever clinic and isolation ward, staff must undergo strict training and examinations to ensure that they know how to put on and remove PPE. They must pass such examinations before being allowed to work in these wards.
- The staff should be divided into different teams. Each team should be limited to a maximum of 4 hours of working in an isolation ward. The teams shall work in the isolation wards (contaminated zones) at different times.
- Arrange treatment, examination and disinfection for each team as a group to reduce the frequency of staff moving in and out of the isolation wards.
- Before going off duty, staff must wash themselves and conduct necessary personal hygiene regimens to prevent possible infection of their respiratory tracts and mucosa.



Staff health management



- Front-line staff in the isolation areas shall live in isolation accommodation and shall not go out without permission.
- Nutritious diet shall be provided to improve the immunity of medical personnel
- Monitor and record health status of staff, conduct health monitoring for front-line staff, including body temperature and respiratory symptoms; help address any psychological and physiological problems.
- Staff with any relevant symptoms such as fever should be isolated immediately and screened with an NAT.
- After front-line staff finish their work in the isolation area and before they return to normal life, they shall first be NAT tested for SARS-CoV-2. If negative, they shall be isolated collectively at a specified area for 14 days before being discharged from medical observation.



Please feel free to contact us:

Email: zdy6616@126.com, zyinternational@163.com

Website: <http://www.zy91.com/ywsy.jhtml>

Dr. Kalithasan Kailasam



- Over 20 years of river ecosystem management experience
- Currently the River Care Programme Manager where he coordinates GEC's work on lake and river management, pollution control and environmental education programme.
- A pioneer in Civic Science and Community-based River Management in Malaysia, he has developed various river, water and solid waste management projects.
- He also developed River auditing, RIVER Ranger, SMART Ranger, FLOOD Ranger and DRH2O programme.
- Since 2002, he has consistently been appointed as advisor, trainer or panel in a variety of initiatives, committees and activities by various government departments, local authorities, private sectors and civil society.

HELP-GWP Consultation on HELP Principles in Addressing Water-related DRR during COVID-19

Community perspective:
Prevention at source

Dr Kalithasan Kailasam

(kalithasan@gec.org.my)

Manager

River Care Programme

Global Environment Centre (GEC)



GLOBAL ENVIRONMENT CENTRE (GEC)

BUILDING PARTNERSHIP FOR THE ENVIRONMENT



www.gec.org.my

- Established in 1998
- Malaysian Non-profit Organisation (Reg. no. 473058-T)
- Supports information exchange & capacity building as well as undertaking strategic projects particularly in developing countries

MISSION

- To support the protection of the environment and sustainable use of natural resources to meet local, regional and global needs, through strategic partnerships with communities and like-minded organisations.

PROGRAMMES



River Care



Forest & Coastal



Peatland



Outreach & Partnership

A. Key challenges faced in dealing with Water-related DRR/COVID-19 : Community Perspective

1. Access to latest/relevant information (rainfall/water level..)
2. Effective communication esp with rural/indigenous communities
3. Immediate clean water and food supply
4. Sanitation esp in rural/indigenous communities : water-borne disease; cleaning..
5. Community-based preparedness measures (still curative and not proactive role)
6. Legislation & Enforcement
7. Lack of financial resources; poverty
8. Proper understanding on mitigation or adaptation
9. Localised mechanism (bottom-up vs top down)
10. Limited access to indigenous community sites for support during pandemic
11. Others:
 - ❑ Unable to carried out their duty due to lockdown/movement control orders:
 - ❑ waterways monitoring; community gardens and compost piles
 - ❑ New pollutant : face mask, plastic food packaging

B. Some of the key water-related Disasters & GEC programme/action

Problem	Programme	Link
Pollution & Water supply shortage	RIVER Ranger	http://www.riverranger.my/riverranger/index.cfm
Flood	FLOOD Ranger	http://www.riverranger.my/FloodRanger/
Drought	Dr H2O	http://www.riverranger.my/drh2o/index.cfm
Slope erosion	Forest Ranger/RIVER Ranger	https://www.gec.org.my/index.cfm?&menuid=49&parentid=287
Food Security	Community garden	http://www.klriver.org/index.cfm?&menuid=34
Peat Fire	Peatland Forest Ranger	https://www.gec.org.my/index.cfm?&menuid=49&parentid=287



B1. Flood

Selangor pumps out flood waters into Langat river



Kajang folk say Saturday's flood the 'worst in five years'

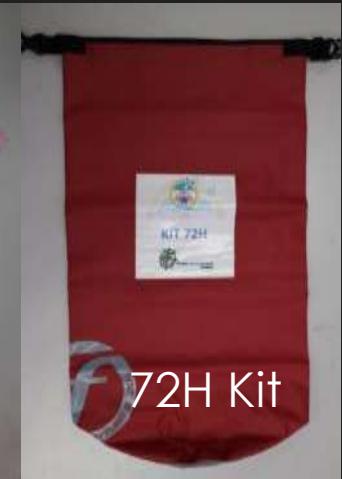


(1) FLOOD RANGER

- Preparedness : grabbag, 72H Kit, alternative water supply
- Community based flood hazard map
- Add on COVID-19 protection gear (mask, wipes, soaps, towels, thermometers, gloves, sanitisers)



Grabbag



72H Kit



Booklet: Community role in Integrated Flood Management

Town-Watching Community based hazard map & Monitoring

Komuniti Pagoh

1. Kg. Jayor (Hulu Sungai Pagoh)
2. Kg. Raja (Pertengahan Sg. Pagoh)
3. Kg. Brohol (Hilir Sg. Pagoh)

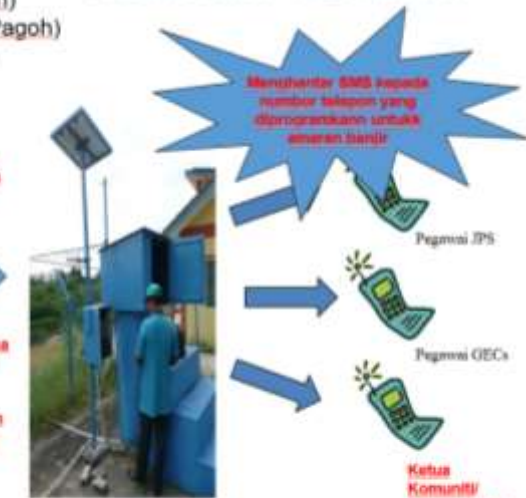
KOMUNITI & BANJIR

Pengesan data kedalaman air yang diprogramkan

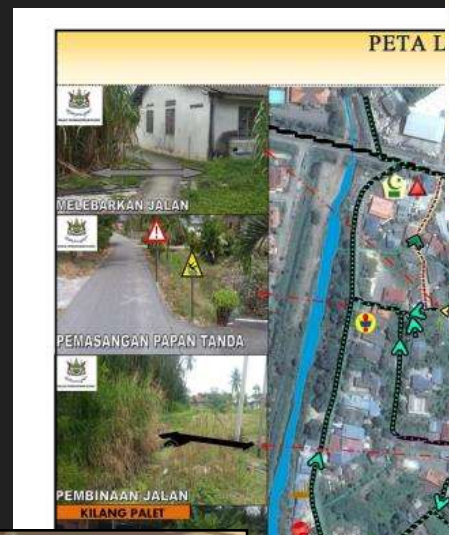


Data ketinggian air diterima melalui RTU

Data dibaca mengikut program yang dikunci dalam RTU untuk BANJIR.



Sistem ini berkebolehan untuk menggunakan 6 talian telefon dan boleh memberi amaran dalam bentuk bunyi siren dan cahaya (capable to trigger 2 level warning system Flash Light and Siren) yang merangkumi kawasan dalam jangkaan radius 10 – 20km.



PETUNJUK

LALUAN DAN PENEMPATAN SELAMAT

- PEMEMPATAN IDEHENTARA BANJIR
- LALUAN A (JEMPA JENIS KENDERAAN)
- LALUAN B (JEMPA JENIS KENDERAAN)
- LALUAN ITAMA
- LALUAN PELAN KARI / MOTORISAL
- LALUAN LEMPIY
- LOKONG BELAR
- PERUNDANGAN JALAN
- CELANGANG TAWANW
- KILANG PALET
- KIMOT AIR 10-FUTES
- JALAN BERTERAP
- JALAN TIDAK BERTERAP
- SUNGAI

HALANGAN DAN RISIKO

- BARANGAN KILANG PALET YANG TIDAK TERATUR
- KABU, KEMAMKAI BERTUNTAI
- TIANG ELEKTRIK CONDONG
- MAKUD JEMPAI PIRANG
- TORAK HL. ABUULLAH PASUK
- TANAMAN TIBU
- LALUAN MOTORISAL DAN PELAN KARI BERTERAP
- LALUAN MOTORISAL DAN PELAN KARI TIDAK BERTERAP
- LALUAN AIR

MELEBARKAN JALAN

PEMASANGAN PAPAN TANDA

KERJA-KERJA PENYELENGGARAAN

B2: Pollution & Water supply shortage

- Urban river pollution is a form of water-related disaster due to its significant and sometimes irreversible effect to drinking water supply
- Urban channelized rivers are mostly affected due to proximity to anthropogenic effects exacerbated by the lack of natural elements

River Ranger 2.0:

- River monitoring- Physical, Chemical and Biological
- Community-based solutions
- River Ranger Index (RRI) data entry on riverranger.my website for long term trend observation

BUKU LAPORAN SUNGAI RR 2.0

This is a screenshot of a report form for the River Ranger 2.0 program. It includes fields for 'Nama Sungai' (River Name), 'Masa' (Time), 'Tempat' (Location), and 'Masa' (Date). There are also checkboxes for 'Masa' and 'Tempat'. The form is titled 'BUKU LAPORAN SUNGAI RR 2.0'.

What RIVER Ranger 2.0 covers? 4R2P Approach



B3: Food Security

- Due to the pandemic, food supply anxiety was evident due anticipated uncertainty and potential shutdown of borders
- Community Gardening promoted under the GEF5 project, through the Friends of Klang River Basin (FoKRB) network, provided alternative food supply to low-income communities during the Movement Control Order (MCO) period



Mutiara Magna Community Gardens supported under ROLPOP5 and sustained under the GEF5 project (source: edgeprop.my)



AU2 & Seri Terengganu Community Gardens

C. HELP Principles: Key Barriers for implementation

A. Key barriers for implementing the principles (selected)

1. **Principle 1**: Human and financial resources may be limited
2. **Principle 4**: Outdoor requirement aspect in river monitoring was inhibited due to the lockdown orders
3. **Principle 10**: Recovery planning measures are costly due to the nature of the virus being highly infectious and not with a vaccine in sight

D. HELP Principles: Advantages

B. Advantages for implementing the principles at ground level

1. **Principle 1:** Items in the Principles of the document would be beneficial once included in national, regional and local as well community DRR plans
2. **Principle 2:**
 - i. Situation-specific webinars on keeping safe during the pandemic and practicing environmental mindfulness have received a positive reception among community members
 - ii. Concise and clear 'early warning' communication messages regarding COVID-19 via text message have been immensely beneficial to the public in keeping informed
3. **Principle 8:** 'Town watching' concept in FLOOD RANGER aids in effective evacuation when the additional safety and social distancing measures are considered
4. **Principle 9:** Digital payment mechanism through the 'Touch N Go' app, from the government aids lower income communities and also promotes contact-less payment



Thank you

'Water is Life, River is Lifeline'

kalithasan@gec.org.my

www.gec.org.my

Dr. Miho Ohara



- Senior Researcher for **International Centre for Water Hazard and Risk Management (ICHARM)**, and **Public Works Research Institute, Japan**

MANAGING WATER RELATED DRR IN TIME OF COVID-19 -EXPERIENCE FROM JAPAN-

Miho OHARA

Senior Researcher

International Centre for Water Hazard and Risk Management (ICHARM),
Public Works Research Institute, Japan,



United Nations
Educational, Scientific and
Cultural Organization



International Centre for
Water Hazard and Risk Management
under the auspices of UNESCO



Public Works Research Institute,
National Research and Development
Agency, Japan

Recent flood disasters in Japan

During 10 years from 2009 to 2018,

- Approximately 97% of the municipalities experienced one or more floods.
- More than half (56.6%) of the municipalities have been flooded more than 10 times.
- Only 2.8% of the municipalities have never suffered floods.

(by flood damage statistics in Japan)



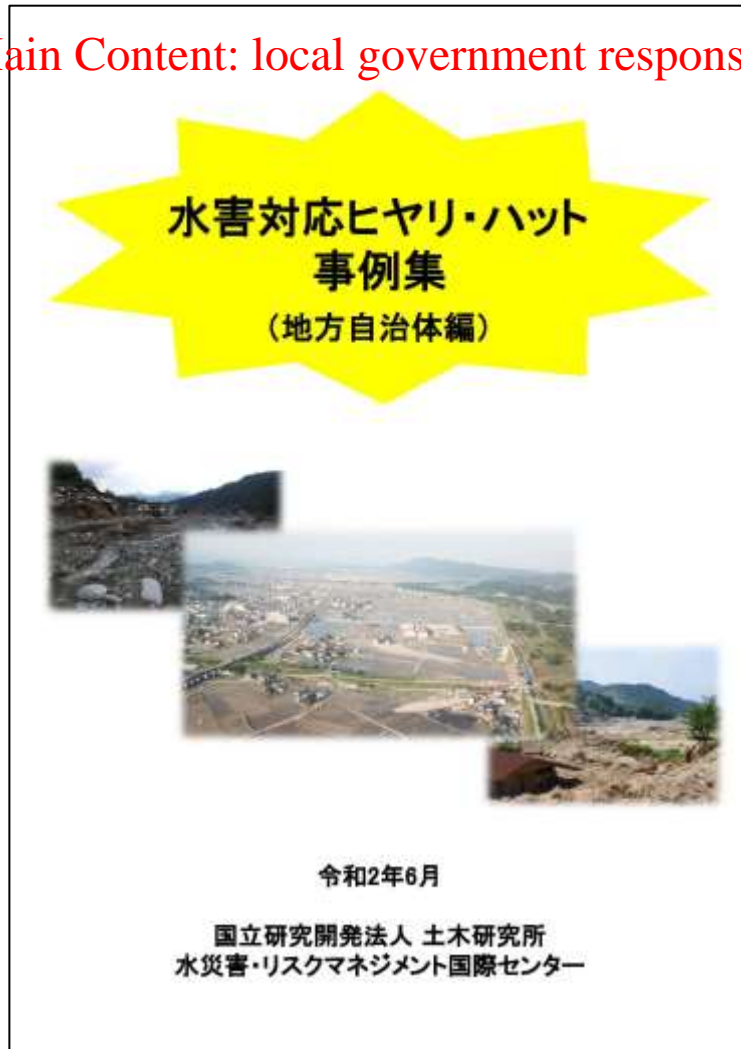
Water-related disaster risk reduction considering the prevention of COVID-19 infection is the key issue for all the municipalities in Japan.

Collection of Critical Situations during Flood Emergency Response

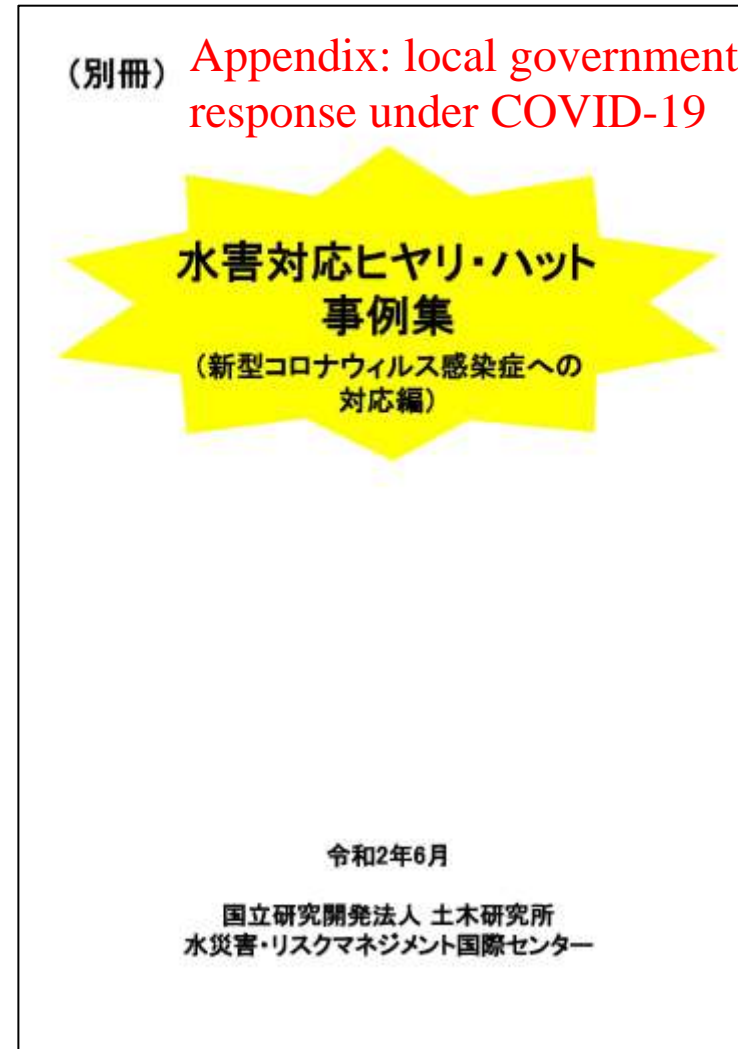
Critical Situations during flood emergency response

The situation in which local government officers panic, don't know what to do, cannot make a decision, are confused or in dilemma, etc., during an emergency response effort.

Main Content: local government response

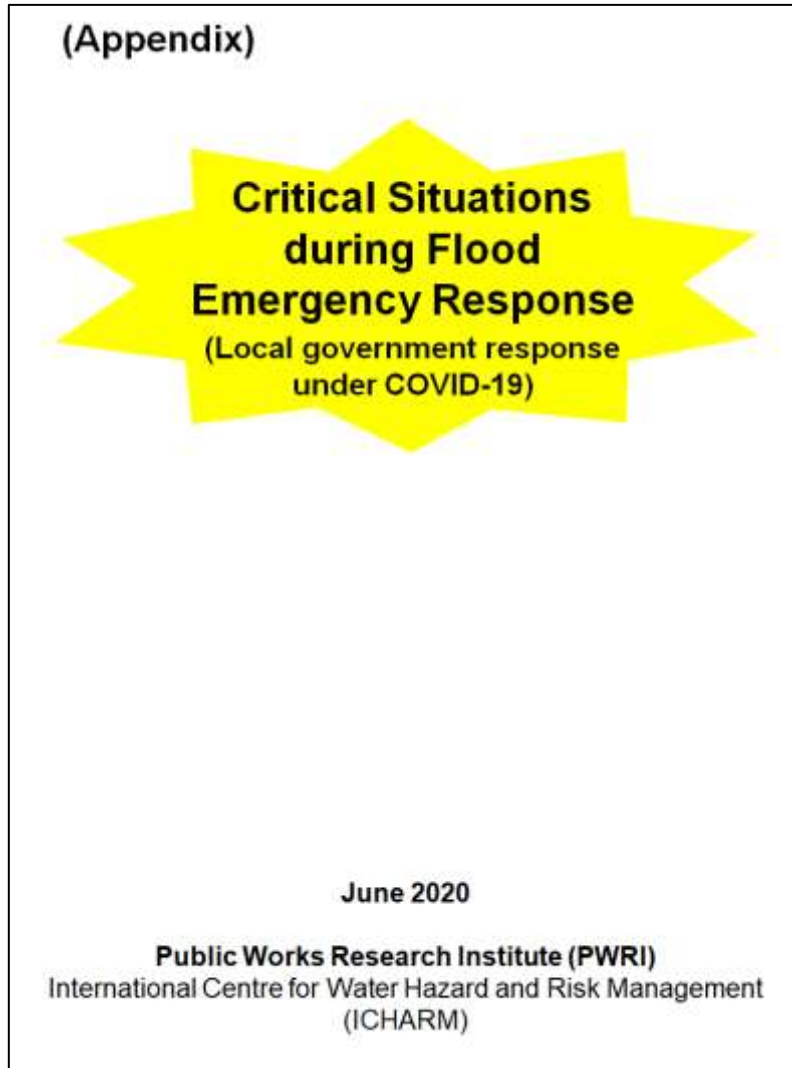


(別冊) Appendix: local government response under COVID-19

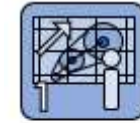


Collection of Critical Situations during Flood Emergency Response

Cover page (translated version)



8 Chapters



1 Initial Response



2 Headquarters Management



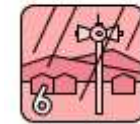
3 Structure in Government Office



4 Collecting Information



5 Collaborating with Stakeholders



6 Issuing Evacuation Advisory
(Alert Level 4), etc.



7 Transmitting Information




8 Shelters

Example 1

Example of a critical situation in “Chapter 6: Issuing Evacuation Advisory etc.”

Critical Situations in Flood Damage Response 6 Issuing Evacuation Advisory (Alert Level 4), etc.



Residents are hesitating to start evacuating because they're worried about COVID-19!

~ Residents worried about COVID-19 are hesitating to evacuate ~

Target ● Managers of designated evacuation spaces/shelters and evacuees

Critical Situation

Critical situation point With official announcements of alert level 4 evacuation advisories, residents are hesitating to start evacuation because of worries about 3Cs (closed spaces, crowded places and close-contact settings) at designated evacuation spaces/shelters.

Result There is possibility that human damage is increasing due to flooding and mudslides because residents are not evacuating.

Measures

Management Consider evacuation destinations other than conventional designated evacuation spaces/shelters

- Evacuation is about avoiding calamity. Thus, consideration must be given to finding alternative evacuation destinations, such as public facilities and hotels, because once conventional designated emergency evacuation spaces/shelters have been converted to create two-meter spaces between evacuees to prevent virus spread, evacuation capacity will be insufficient.

Management Consider areas where vertical evacuation can be encouraged

- Use inundation/flooding probability material as reference to extract out areas where flooding depth and time is minimal, and consider which could become areas where vertical evacuation can be encouraged.

Public Announcement Make the public aware of vertical evacuation and evacuation to shelters other than the designated evacuation spaces/shelters, etc.


- Make the public aware prior to the flood season that they should envisage an evacuation destination other than a conventional designated evacuation spaces/shelter, such as a friend's or relative's home. As part of that awareness, instruct the public that they need to envisage an evacuation destination that is not at risk of above-floor flooding (check inundation/flooding probability map, etc.). Also, in advance, make the public aware of areas where vertical evacuation is encouraged.

Management Consider space division at designated evacuation spaces/shelters

- Consider accommodating suspected infection cases, the elderly, the pregnant and people with underlying conditions in separate medical facilities, etc. Also, consider with managers of facilities (shelters) the feasibility of using spaces separated from the big main shelter area, including changing rooms and classrooms that exist in the shelter facility. If utilization is possible, consider specific usage methods.

Public Announcement Call on evacuees to bring their own infection prevention shelter goods

- Make residents of areas where evacuation might be necessary aware that they should bring their own infection prevention goods when evacuating.



Emergency Response Provide guidance on evacuation using space division at designated evacuation spaces/shelters

- If space division is implemented at designated shelters, as soon as evacuees arrive at the shelter entrance, calmly and securely ensure that each person/family unit is allotted a space, enabling space-divided evacuation. Also, before entry to the shelter, carry out temperature and health checks.

← Outline

← Target

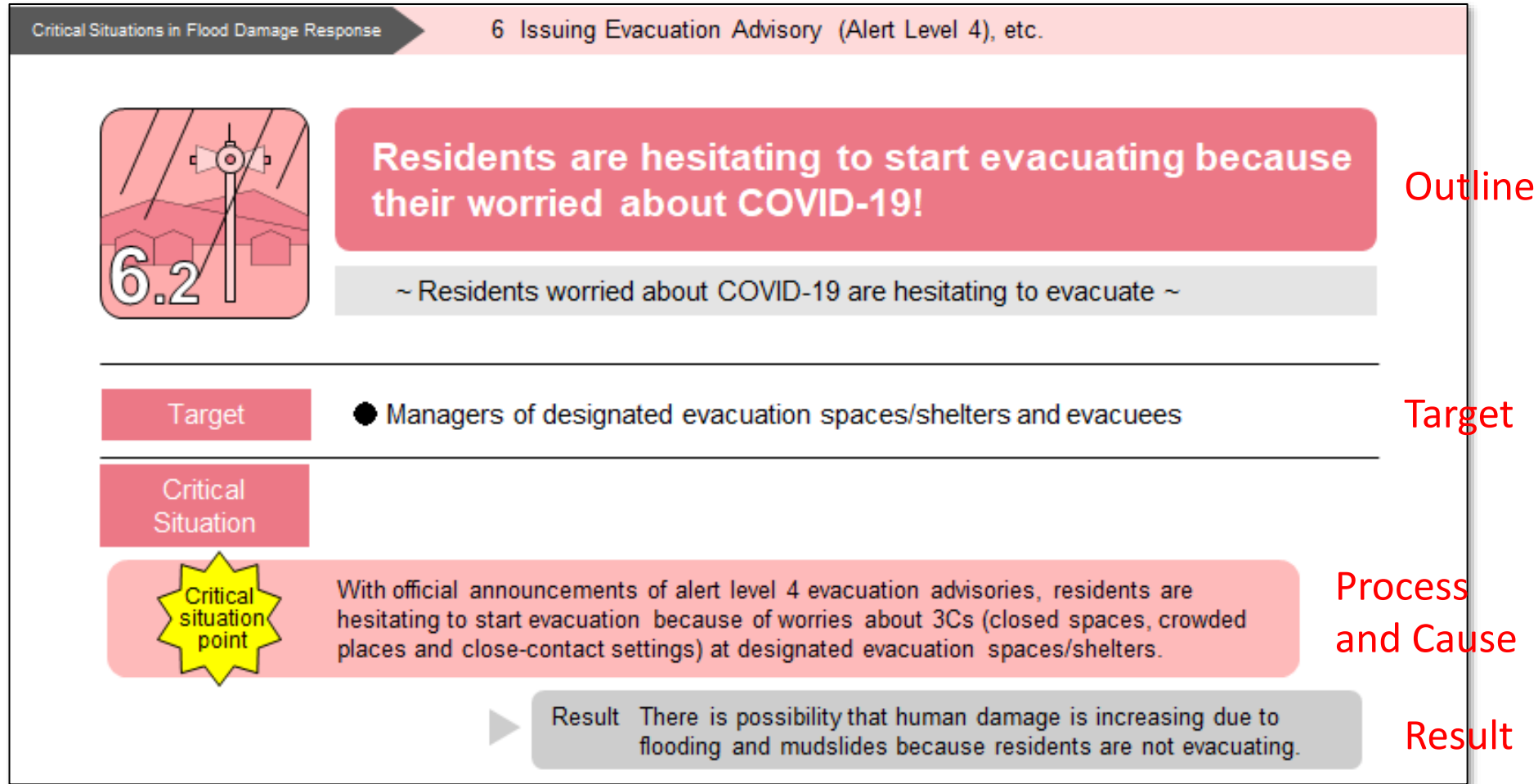
← Process and Cause

← Result

← Necessary Measures

Example 1

Example of a critical situation in “Chapter 6: Issuing Evacuation Advisory etc.”



Example 1

Example of a critical situation in “Chapter 6: Issuing Evacuation Advisor etc.”

Necessary Measures

Measures

Management

Consider evacuation destinations other than conventional designated evacuation spaces/shelters

- Evacuation is about avoiding calamity. Thus, consideration must be given to finding alternative evacuation destinations, such as public facilities and hotels, because once conventional designated emergency evacuation spaces/shelters have been converted to create two-meter spaces between evacuees to prevent virus spread, evacuation capacity will be insufficient.

Management

Consider areas where vertical evacuation can be encouraged

- Use inundation/flooding probability material as reference to extract out areas where flooding depth and time is minimal, and consider which could become areas where vertical evacuation can be encouraged.

Public Announcement

Make the public aware of vertical evacuation and evacuation to shelters other than the designated evacuation spaces/shelters, etc.

- Make the public aware prior to the flood season that they should envisage an evacuation destination other than a conventional designated evacuation spaces/shelter, such as a friend's or relative's home. As part of that awareness, instruct the public that they need to envisage an evacuation destination that is not at risk of above-floor flooding (check inundation/flooding probability map, etc.). Also, in advance, make the public aware of areas where vertical evacuation is encouraged.

Management

Consider space division at designated evacuation spaces/shelters

- Consider accommodating suspected infection cases, the elderly, the pregnant and people with underlying conditions in separate medical facilities, etc. Also, consider with managers of facilities (shelters) the feasibility of using spaces separated from the big main shelter area, including changing rooms and classrooms that exist in the shelter facility. If utilization is possible, consider specific usage methods.

Public Announcement

Call on evacuees to bring their own infection prevention shelter goods

- Make residents of areas where evacuation might be necessary aware that they should bring their own infection prevention goods when evacuating.

Emergency Response

Provide guidance on evacuation using space division at designated evacuation spaces/shelters


- If space division is implemented at designated shelters, as soon as evacuees arrive at the shelter entrance, calmly and securely ensure that each person/family unit is allotted a space, enabling space-divided evacuation. Also, before entry to the shelter, carry out temperature and health checks.



Example 2

Example of a critical situation in “Chapter 8: Shelters”

Critical Situations in Flood Damage Response 8 Shelters (designated evacuation space and shelters, etc)



It seems there was an infected person among the evacuees, but we don't know who the high-risk contacts are!

~ Difficulty in grasping who are high-risk contacts ~

Target ● Managers of designated evacuation space and shelters, etc.

Critical Situation

Critical situation point The public health center informed us that a person who had temporarily evacuated at our shelter later went on to test positive for COVID-19 at the health center. However, we have no record of an evacuee by the name given to us, so we do not know the space allocated to that person.

Result The high-risk contacts of the infected person are unknown, so evacuees become worried. Also, as the used shelter space is also unclear, the entire shelter has to be disinfected.

Outline

Target

Process
and Cause

Result

Example 2

Example of a critical situation in “Chapter 8: Shelters”

Necessary Measures

Measures

Management

Prepare a reception sheet for listing names of evacuees

- Prepare a reception sheet for recording names of evacuees in readiness for tracing people if it emerges that an evacuee tests positive at a later date, making sure that evacuees write down their names and contact details, and that you record their state of health at time of evacuation, in order to make tracing easier.

Emergency Response

Distinguish people suspected of being infected at receptions of designated emergency evacuation sites/shelters

- In disaster response, if a suspected COVID-19 case comes to the designated emergency evacuation site/shelter to evacuate regardless of advance guidance, get that person to make a self-declaration about his/her condition at the entrance reception.
- If implementing space division, record the space to be used by that evacuee and his/her state of health in the reception sheet, so that any people coming into close contact with that evacuee can be traced if necessary.

Facilities

Stockpile clinical thermometers

- If evacuation at designated emergency evacuation sites/shelters becomes prolonged, the health of evacuees may change. Therefore, stock up on clinical thermometers in order to distinguish changes in the health of evacuees. As contact from a clinical thermometer may spread the infection, it is best to use a non-contact thermometer.

Emergency Response

Make evacuees aware of the need to record their health changes

- Make evacuees aware that they should notify the shelter reception at anytime if their health changes, such as running a high temperature.



Conclusions

28 Critical Situations in 8 Chapters

Chapter	Theme	Page
1 Initial Response	1.1 Massive apprehension about having to respond to a disaster for first time in the COVID-19 pandemic	4
2 Headquarters Management	2.1 Disaster control headquarters is crowded	7
	2.2 Increased contact with non-locals, such as liaison officers from external government bodies	8
	2.3 Lack of personnel at disaster control headquarters who are knowledgeable about healthcare/welfare and infection prevention	9
3 Structure in Government Office	3.1 Phone inquiry response limited due to vertically segmented administrative system in local government office	11
4 Collecting Info	4.1 Personnel and phone lines monopolized by surge of inquiry calls	13
5 Collaborating with Stakeholder Bodies	5.1 Increased risk of infection during rescue work due to a lack of collaboration with stakeholder bodies	15
6 Issuing Alert Level 4 Evacuation Advisory, etc.	6.1 Responding to early evacuations to minimize evacuation confusion	17
	6.2 Residents worried about COVID-19 are hesitating to evacuate	18
	6.3 Delays in evacuation due to traffic jams caused by increasing numbers of evacuees using cars	19
7 Transmitting Info	7.1 Confusion in government emergency radio broadcast due to a lack of advance preparation	21
	7.2 Confusion set in when trying to send emergency update email due to lack of advance preparation	22
	7.3 Confusion in passing on information to resident foreigners	23
8 Shelters	8.1 Crowded shelters	25
	8.2 Responding to home-isolating mild COVID-19 patients who have evacuated to shelters	26
	8.3 Lack of medical supplies and infection prevention goods at shelters	27
	8.4 Growing worries about infection risks due to crowding of evacuees	28
	8.5 Due to restlessness and stress during evacuation, evacuees start to discriminate against and ostracize each other	29
	8.6 Shortage of manpower at shelters due to priority being given to infection prevention	30
	8.7 Fear of heatstroke during extremely hot periods if infection prevention is prioritized	31
	8.8 Coping with infection risks when needing to cook and serve food	32
	8.9 Dealing with visitors who may have come from other areas	33
	8.10 Difficulty in providing handwashing water at shelter due to water supply cutoff caused by flooding	34
	8.11 Difficulty in grasping who are high-risk contacts	35
	8.12 Death of evacuee suspected of COVID-19 infection	36
	8.13 Mingling of evacuees and residents at welfare facility shelter	37
	8.14 Confusion in operating welfare facility shelters	38
	8.15 Responding to aggregation and closing of shelters	39

- We assumed 28 cases of critical situations in which local government officers panic, don't know what to do, cannot make a decision, are confused or in dilemma, etc., during flood emergency response under the risk of COVID-19.
- The collection describes possible critical situations and necessary countermeasures under the plague in terms of “Facilities,” “Management,” “Public announcement” and “Emergency response.”
- We hope that this publication could provide some hints for local government officers to plan necessary countermeasures considering their needs and situations, including the prevalence of the disease among the residents.

Thank you



Q & A Session

Please use your handphone or **click the link in the chat box** to go to menti meter.

1. On your browser, type: **www.menti.com**
2. Put in the code: **77 65 20**
3. Direct link:
<https://www.menti.com/v2pb1vyc7i>
4. Please submit your questions



Key Messages



Key Messages & Summary

Summary (draft):

1. Country (government, community, private sector, etc.)
Readiness to address water-related DRR during pandemic must be built. Now is the perfect time to learn and build better preparedness.
2. Preparedness for DRR and Emergency response is crucial and should be set as one of the main development foundation.
3. We must revisit again and rethink our strategy on no-regret investment
4. Adoption of the principles is crucial, but we need to carefully design the adoption and the implementation of the principles at all level (community, local government, government, non government group, etc.)

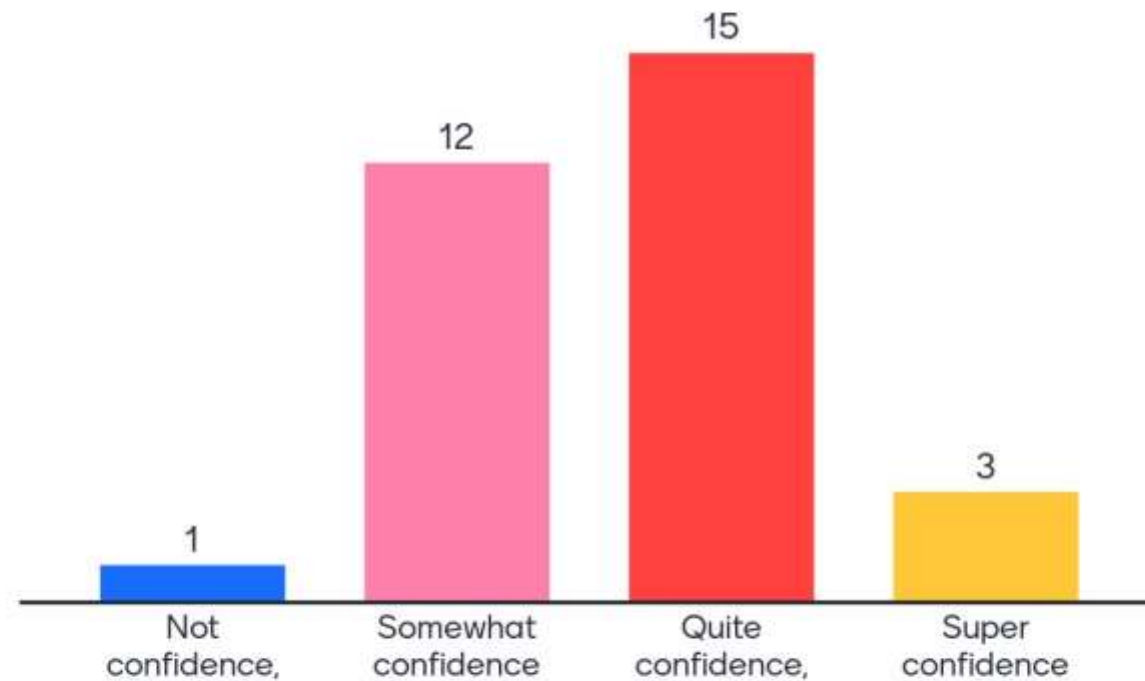


Check out Polling

Please use your handphone or **click the link in the chat box** to go to menti meter.

1. On your browser, type: **www.menti.com**
2. Put in the code: **77 65 20**
3. Direct link:
<https://www.menti.com/v2pb1vyc7i>
4. Please submit your answers

How confident are you in implementing the principles?





Way Forward & Closing

Ways forward

Today: Consultation Workshop in Asia (Summary to be distributed ASAP)

From tomorrow

- **Translation of the Principles in local languages (upon YOUR REQUEST)**
- **Use of the Principles in countries and fields (by YOU)**

August 20th

- **International Online Conference to Address Water-related DRR under COVID-19 (All participants today can register)**

Autumn:

- **Workshops in the other Regions (upon agreement by regions)**
- **Consultation to HELP Members/the UN/International Organizations on possible revision**

November: HELP16

- **To report usage of the Principles in countries and fields**
- **To discuss the Principles ver. 2**



Thank you



**One day or day one, it is your call.
The problem is, you think you have time...**