

Regional Framework on operational partnerships for emergency response



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Regional Framework on operational partnerships for emergency response

(South-East Asia Region)

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Regional Framework on operational partnerships for emergency response (South-East Asia Region)
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Contents

Abbreviations	vi
Glossary.....	viii
Executive summary	xii
1. Introduction.....	1
2. WHO Emergencies Programme.....	3
3. Risk profile.....	5
3.1 Regional risk profile	5
3.2 Recent major health emergencies	8
3.3 Country-wise risk profile.....	10
4. Landscape of partners.....	15
4.1 Inter-Agency Standing Committee (IASC)	15
4.2 UN Office for the Coordination of Humanitarian Affairs	15
4.3 Global Health Cluster (GHC)	16
4.4 Emergency medical teams	17
4.5 Global Outbreak Alert and Response Network (GOARN)	18
4.6 Standby Partners	19
4.7 Multilateral and bilateral development partners	19
4.8 WHO Collaborating Centres (WHO CCs)	20
4.9 Regional networks.....	20
4.10 Private sector networks.....	22
5. Gaps and opportunities.....	23

6. Regional framework on operational partnerships	25
6.1 Goal of the framework	26
6.2 Key elements for operational partnerships for emergency response	26
7. Implementation	33
7.1 Governance and stewardship	33
7.2 Partners' coordination	33
7.3 Collective emergency response	34
7.4 Advocacy	36
8. Monitoring and evaluation	38

Annexes

1. List of operational partners in South-East Asia Region	41
2. Matrix of emergency response procedures under operational partnerships across WHO SEARO, WCO and partners	54

Abbreviations

CERF	Central Emergency Response Fund
DANIDA	Danish International Development Agency
DFID	UK Department for International Development
EMO	Emergency Operations
EMT	Emergency Medical Team
GOARN	Global Outbreak Alert and Response Network
HEOC	Health Emergency Operations Centre
HRP	Humanitarian Response Plan
WCO	WHO offices in countries, territories and areas
IASC	Inter-Agency Standing Committee
IDP	Internally Displaced People
IHR	International Health Regulations (2005)
IMT	Incident Management Team
IMS	Incident Management System
ISCG	Inter-sector Coordination Group
JICA	Japan International Cooperation Agency
MIRA	Multi-sector Initial Rapid Assessment
MOH	Ministry of Health
NGO	Non-Governmental Organization
OIE	World Organization for Animal Health
OPC	Operational Partnership Coordinator
PAM	(Regional Office) Programme Area Manager
PHRRT	Public Health Rapid Response Team
RED	Regional Emergency Director
SAARC	South Asian Association for Regional Cooperation
SBP	Standby Partners
SDGs	Sustainable Development Goals
SEARHEF	South-East Asia Regional Health Emergency Fund
SitRep	Situation Report
SIDA	Swedish International Development Agency
SOPs	Standard Operating Procedures

UNCT	United Nations Country Team
UNHCT	United Nations Humanitarian Country Team
USAID	United States Agency for International Development
US CDC	United States Centres for Disease Control and Prevention
WCC	WHO Collaborating Centre
WHE	WHO Health Emergencies Programme
WHO	World Health Organization
WHO SEARO	WHO South-East Asia Regional Office
WR	WHO Country Representative
4Ws	Who is Where, When, doing What

Glossary

Benchmark: Reference point or standard against which performance or achievements can be assessed [WHO Definitions: Emergencies]

Capacity: The combination of all strengths, attributes and resources available within an organization, community or society to manage and reduce disaster risks and strengthen resilience [UNISDR]. Capacity may include infrastructure, institutions, human knowledge and skills, and collective attributes such as social relationships, leadership and management.

Cluster: A group of agencies, organizations and/or institutions working together towards common objectives to address needs in a particular sector such as health [WHO Definitions: Emergencies]

Cluster lead: An agency/organization that formally commits to take on a leadership role within the international humanitarian community in a particular sector/area of activity, to ensure adequate response, and high standards of predictability, accountability, partnership, and to serve as provider of last resort when necessary [IASC]

Coordination: In the context of humanitarian response, the aim is to have all participating organizations/operational partners harmonize efforts and use the available resources efficiently within the framework of the agreed objectives, priorities and strategies, for the benefit of the affected population(s) [IASC].

Contingency planning: The process of establishing programme objectives, approaches and procedures to respond to situations or events that are likely to occur, including identifying those events and developing likely scenarios and appropriate plans to prepare and respond to them in an effective manner [Inter-Agency Contingency Planning Guidelines for Humanitarian Assistance 2001]

Effectiveness: A measure of the extent to which an intervention's intended outcome (its specific objectives) have been achieved

Efficiency: A measure of the relationship between outputs (the products produced or services provided by an intervention) and inputs (the resources it uses)

Disaster: A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts [UNISDR]

Emergency: It is a term describing a state. It is a managerial term demanding decision and follow-up in terms of extraordinary measures (Oxford Pocket Dictionary, 1992). A “state of emergency” demands to “be declared” or imposed by somebody in authority, who, at a certain moment, will also lift it. Thus, it is usually defined in time and space, it requires threshold values to be recognized, and it implies rules for engagement and an exit strategy. Conceptually, it relates best to response [WHO Definitions: Emergencies].

Complex emergency: A humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single and/or ongoing UN country programme [IASC]

Graded emergency: An acute public health event or emergency that requires an operational response by WHO. There are three WHO grades for emergencies, signifying the level of operational response by the organization: Grade 1 (limited response), Grade 2 (moderate response), and Grade 3 (major/maximal response). If a graded emergency persists for more than six months, it may transition to a protracted emergency [WHO Emergency Response Framework 2017].

Evaluation: A systematic and impartial examination (of humanitarian action) intended to draw lessons to improve policy and practices, and to enhance operational partnership and accountability [ALNAP]

Hazard: A possible threat of source of exposure to injury, harm or loss, for example, conflict and natural phenomena. Hazards include biological, environmental, geological, hydrometeorological and technological processes and phenomena [Inter-Agency Contingency Planning Guidelines for Humanitarian Assistance 2001].

Incident management system: The standardized structure and approach that WHO has adopted to manage its response to public health events and emergencies, and to ensure that the organization follows best practice in emergency management. WHO has adapted the incident management system to consist of six critical functions: leadership, partner coordination, information and planning, health operations and technical expertise, operations support and logistics, and finance and administration [WHO Emergency Response Framework 2017].

Incident management team: The in-country team responsible for managing and implementing the WHO response to the emergency. It is structured around the six critical incident management system functions and their associated sub-functions. The size and composition of the team is flexible and can vary according to the context [WHO Emergency Response Framework 2017].

Incident manager: The leader of the incident management team, who is responsible for strategic leadership and day-to-day management and oversight of WHO’s response to the

emergency. The incident manager serves as the overall lead of the incident management team and delegates authority to other critical functions as they are established. S/he works with the health authorities and partners to agree on strategic priorities and objectives for the health response, fully consistent with humanitarian principles [WHO Emergency Response Framework 2017].

Monitoring: The ongoing process/act of observing and checking over a period of time, and regularly gathering and analysing data on emergency programme inputs and outputs

Operational response: The emergency actions that exceed the usual country-level cooperation that the WHO office in countries, territories and areas has with the Member State [WHO Emergency Response Framework 2017]

Operational partnership: The strategic partnership with identified and mutually agreed partners for an effective and efficient emergency response that exceeds the usual country-level response capacity

Output: The strategic actions completed to date by an emergency operation [WHO Global Health Cluster Guide]

Partner: Organizations/agencies and public health institutions that are engaged in responding to disasters, emergencies and civil strife situations and collaborate to achieve mutually agreed upon objectives

Partnership: The concept of “partnership” connotes shared goals, common responsibility for outcomes, distinct accountability and reciprocal obligations. Partners may include the government, civil society, UN agencies, non-governmental organizations, public health institutions, multilateral organizations and private companies [WHO Global Health Cluster Guide].

Public health event: Any event that may have negative consequences on human health. The term includes events that have not yet led to disease in humans but have the potential to cause disease through exposure to infected or contaminated food, water, animals, manufactured products or environments [WHO Emergency Response Framework 2017].

Risk: An evaluation of the probability of the occurrence and the magnitude of the consequences of any hazard, that is, how likely is a hazard and what consequences will it have? [Inter-Agency Contingency Planning Guidelines for Humanitarian Assistance 2001]

Recovery: Decisions and actions taken after a disaster or emergency with a view to restoring or improving the pre-disaster living conditions of the affected community, while encouraging and facilitating necessary adjustments to reduce risk [UNISDR]

Resources: Financial or in-kind contributions. In-kind contributions include donation of medicines and other goods and free provision of services on a contractual basis.

Response: Actions taken directly before, during or immediately after a disaster or emergency in order to save lives, reduce health impacts, ensure public safety and meet the basic substance needs of the people affected [UNISDR]

Stakeholder: An agency, organization, group or community that has direct or indirect interest in a particular activity, or its evaluation

Executive summary

The South-East Asia Region is vulnerable to different types of emergencies and disasters. Countries in this region face a broad range of disasters from natural hazards, including floods, cyclones, earthquakes, tsunamis, landslides, volcanic eruptions, heat waves and droughts, and share a high burden of outbreaks and epidemics of common infectious diseases, and emerging and re-emerging diseases, including zoonotic infections. Emergencies with health consequences are likely to continue to increase under adverse climate changes, demographic and epidemiological transitions, growing civil unrest/conflict and tensions, with multitudes of varying types of public health risks – natural as well as human-induced.

During an emergency, the presence of a multiple number of humanitarian stakeholders working with or without any partnership agreement/s makes coordination, communication and implementation of response interventions difficult and challenging. WHO alone cannot do everything in emergency situations. In order to have a timely, coordinated, effective and efficient emergency response, WHO, at its Regional Office based in New Delhi, India, collaborates with various partners.

There are existing established operational partnership mechanisms and networks, such as the Inter-Agency Standing Committee (IASC), Global Health Cluster (GHC), emergency medical teams (EMT), Global Outbreak Alert and Response Network (GOARN), WHO Collaborating Centres and WHO Standby Partners, and regional networks such as the ASEAN and Asia Pacific Emergency and Disaster Nursing Network.

To further improve and strengthen the coordination mechanisms and operational partnerships in the South-East Asia Region, the Emergency Operations unit of the WHE/WHO SEARO organized a regional consultation in Bangkok, Thailand on 28–29 November 2017 in which 86 delegates from 54 agencies, including Member States from the South-East Asia Region, participated and provided their inputs for the development of this “Regional Framework on Operational Partnerships for Emergency Response”.

Guidance on building operational partnerships for emergency response under this framework is in line with the principles and criteria for operational partnerships recommended by the Sixty-third World Health Assembly. The Regional Framework should serve the purpose of guiding Member States, WHO country offices and health partners in the Region to build, develop and expand operational partnerships for readiness, effective emergency response and early recovery through improved mechanisms of networking and coordination.

The essential key components recommended as prerequisites for the successful building of operational partnerships under this Regional Framework are: (1) contingency planning, (2) developing and expanding partnerships, (3) financial sustainability, (4) strengthening emergency response capacity, (5) information-sharing among health partners, (6) health partners mapping and coordination, and (7) post-disaster needs assessment and partnership building across the continuum of the emergency management cycle across phases of readiness, emergency response and early recovery.

The Regional Framework also elaborates on the strategic interventions on how to implement and roll out the operational partnerships initiative across the diverse range of health partners and 11 Member States in the Region. It emphasizes the promotion, advocacy and facilitation of the cluster approach, establishment of coordination mechanisms at the country and regional levels, regular advocacy and networking web-enabled platforms or forums for a collective emergency response.

The Regional Framework draws heavily on the WHO Emergency Response Framework for monitoring and evaluation indicators and emergency response procedures following an incident management system. It is expected that this framework will serve as a guidance and reference document for building new operational partnerships and consolidating and expanding the existing partnership networks for the optimal utilization of resources in the Region to have a solid readiness and timely, effective and efficient collective emergency response.

I. Introduction

Public health emergencies due to increased frequencies of natural and human-induced disasters, including civil conflicts and biochemical, nuclear and radiation accidents, are on an upward trend over the last decades. Increasing urbanization and adverse climate change (extreme weather events, flood, drought, deteriorating air quality) are threatening the health and survival of people, not only in low- and middle-income countries but also in high-income countries.

During the acute phase of an emergency, the presence of a multiple number of humanitarian stakeholders working with or without any partnership agreement/s makes the emergency response less effective and inefficient, with lots of duplication of response activities and waste of resources which are already scarce. On top of that, weak coordination and communication mechanisms affect the quality and timely delivery of much needed emergency relief and services.

The Sendai Framework for Disaster Risk Reduction (2015–2030) outlines the primary responsibility of Member States to prevent and reduce disaster risk, including through cooperation with shared responsibility between central and local authorities, stakeholders and sectoral partners.¹ The Bangkok Principles, declared in March 2016 at the International Conference on the Implementation of Health Aspects of the Sendai Framework, also recommend increased participation of health sector representatives in multisectoral emergency response.²

The post-2015 development agenda (Sustainable Development Goals) has also identified health emergency and security as a key indicator and called for effective partnership, as follows:

- SDG 3 (Good health and well-being)
 - SDG 3.4: “Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health crisis.”
- SDG 17 (Partnership for sustainable goals)
 - SDG 17.9: “Enhance international support for implementing effective and targeted capacity-building in developing countries to support national

1 UN General Assembly (2015). Sendai Framework for Disaster Risk Reduction 2015–2030 adopted at the 69th Session of the United Nations General Assembly on 3 June 2015.

2 UNISDR (2016). Bangkok Principles for the implementation of the health aspects of the Sendai Framework for Disaster Risk Reduction 2015–2030. International Conference on the Implementation of the Health Aspects of the Sendai Framework for DRR 2015–2030, held on 10–11 March 2016.

plans to implement the SDGs, including through North–South, South–South and Triangular cooperation.

- SDG 17.18: “Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the SDGs in all countries, in particular low and middle-income countries.

In addition, the Climate Change Paris Agreement 2016,³ World Humanitarian Summit 2016,⁴ Habitat III Global Meeting 2016⁵ and IHR Global Implementation Plan that have been implemented globally in recent years, the World Health Organization (WHO) reformed its existing emergency programmes into the new WHO Health Emergencies Programme (WHE).

3 UNFCCC (2016). The Paris Agreement. Available at: http://unfccc.int/paris_agreement/items/9485.php.

4 World Humanitarian Summit 2016. Available at: <https://www.agendaforhumanity.org/resources/world-humanitarian-summit#final-consultation-reports>.

5 UN HABITAT (2016). Habitat III. Available at: <http://habitat3.org>.

2. WHO Emergencies Programme

Lessons learned from the Ebola outbreaks in Guinea, Nigeria, Liberia and Sierra Leone in 2014–2015 and the loss of life (11 310 deaths),⁶ including humanitarian staff, in affected countries led to structural and operational reforms in the WHO's emergency work. As a way forward, the WHO Health Emergencies Programme (WHE) was formulated and became active in August 2016 with the adoption of the Incident Management System (IMS) and operational partnership development being two of the key organizational approaches to manage emergencies.^{7,8,9} It led to the establishment of a single programme (WHE), with one workforce, one budget, one set of rules and processes, one set of benchmarks and one clear line of authority.¹⁰

In 2016, the WHO South-East Asia Region established a WHE department headed by the Regional Emergency Director (RED). Aligning the Regional Office with the global WHE Programme, the department established the following five functional units under the leadership of the Regional Emergency Director.

E1. Infectious Hazard Management	E2. Country Health Emergency Preparedness and IHR (2005)	E3. Health Emergency information and Risk Assessments	E4. Emergency Operations (EMO)	E5. Emergency Core Services
Ensure strategies and capacities are established for priority high-threat infectious hazards.	Ensure country capacities are established for emergency risk management of all hazards.	Provide timely and authoritative situation analysis, risk assessment and response monitoring for all major health threats and events.	Ensure emergency-affected populations have access to an essential package of life-saving health services.	Ensure WHO emergency operations are rapidly and sustainably financed and staffed.

To prevent, detect and respond to emergencies, the WHE Programme focuses on building country capacity in collaboration and partnership with the national, regional and global partners. The Regional Director of the WHO/SEARO has made strengthening of emergency risk management and the WHE programme a flagship regional priority

6 WHO (2016). Ebola Virus Disease, Situation Report, 10 June 2016. Available at http://apps.who.int/iris/bitstream/10665/208883/1/ebolasitrep_10Jun2016_eng.pdf?ua=1.

7 WHO (2015). Resolution of Executive Board for reform of WHO work in health emergencies, EBSS2.R1.

8 WHO (2016). Global Policy Group Statement on reforms of WHO work in outbreaks and emergencies. Geneva, Switzerland, 30 January 2016.

9 WHO (2016). Reform of WHO's work in health emergency management. Sixty-ninth World Health Assembly, A69/30, 05 May 2016.

10 WHO (2017). Emergency Response Framework- 2nd ed. Geneva: WHO; 2017.

to improve coordination mechanisms for emergency response through effective partnerships.¹¹

In order to have a timely, coordinated, effective and efficient emergency response, the WHE/EMO unit of WHO at the Regional Office based in New Delhi, India collaborates with various partners. Effective partnerships need focus and collaboration across the aforementioned five core functional areas.

The overarching purpose of the Regional Framework on Operational Partnership is to assist and guide the WHO Country Offices, a wide range of stakeholders and operational partners in strengthening mechanisms and tools of networking, coordination and communication for a sustainable partnership for timely, effective and efficient health emergency response in the South-East Asia Region.

¹¹ WHO SEARO (2015). Policy and technical topics: Response to emergencies and outbreaks. Sixty-eighth Session of Regional Committee (SEA/RC68/70) at Dili, Timor-Leste; 7–11 Sept 2015.

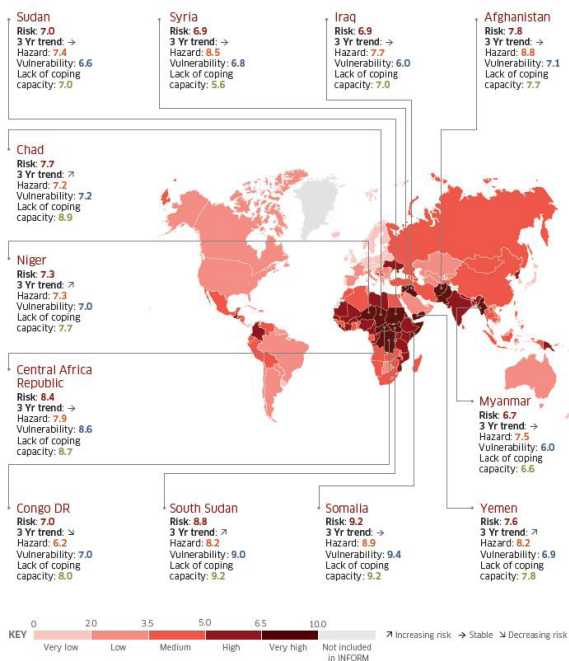
3. Risk profile

3.1 Regional risk profile

The South-East Asia Region is vulnerable to different types of emergencies and disasters. Countries in this region face a broad range of disasters from natural hazards, including floods, cyclones, earthquakes, tsunamis, landslides, volcanic eruptions, heat waves and drought. The region also shares a high burden of outbreaks and epidemics of common infectious diseases, and emerging and re-emerging diseases, including zoonotic infections. Some of the recent outbreaks and threats faced by the South-East Asian countries include influenza A (H1N1), Middle East respiratory-syndrome coronavirus (MERS-CoV), avian influenza A (H5N1), A (H9N2), A (H5N1), Nipah virus, Japanese encephalitis and Crimean-Congo haemorrhagic fever (CCHF).¹²

The World Disasters Report 2015 shows that over the past decade, the Region contributed to 24.6% of the global mortality due to disasters and health emergencies.¹³ The South-East Asia Region has become a highly vulnerable region as per INFORM Risk Index¹⁴ (Figs 1 and 2).

Fig. 1: WHO South-East Asia Region – a highly vulnerable and priority region



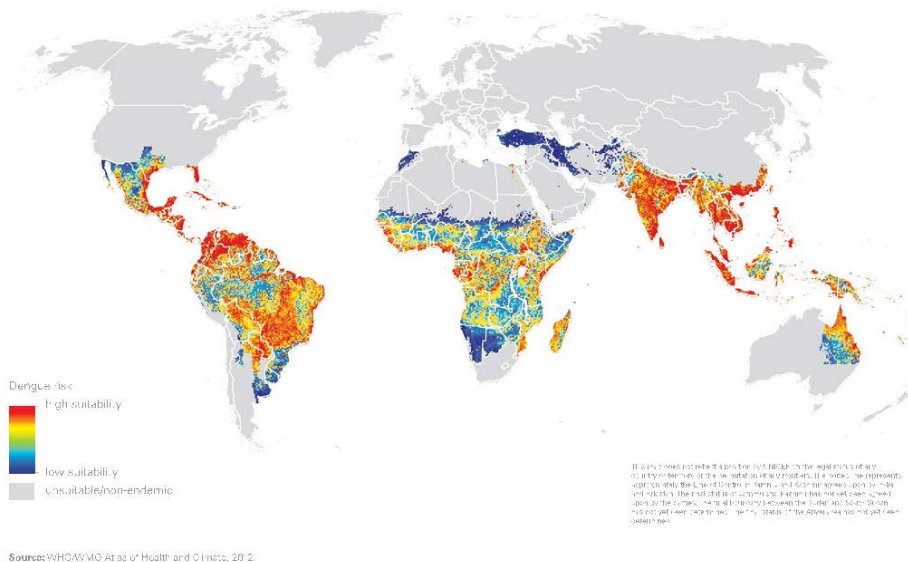
12 WHO (2017). Roots for resilience: a health emergency risk profile of the South-East Asia Region.
 13 IFRC (2015). World Disaster Report: focus on local actors, the key to humanitarian effectiveness.
 14 WHO (2017). Roots for resilience: a health emergency risk profile of the South-East Asia Region.

Fig. 2: Risk profile for natural hazards in the South-East Asia Region as per INFORM Risk Index¹⁴



Increase in ambient temperature, humidity and adverse climate changes have been conducive to an increase in vector and waterborne disease outbreaks that mostly affect children, women and other marginalized and poor sections of an affected community. The altered vector's reproduction rates, biting behaviours and expansion in distribution of vectors to new regions are posing a serious health risk through emerging diseases like dengue, chikungunya and Zika virus-associated neurological anomalies (Fig. 3).

Fig. 3: Suitability for dengue fever due to climate changes

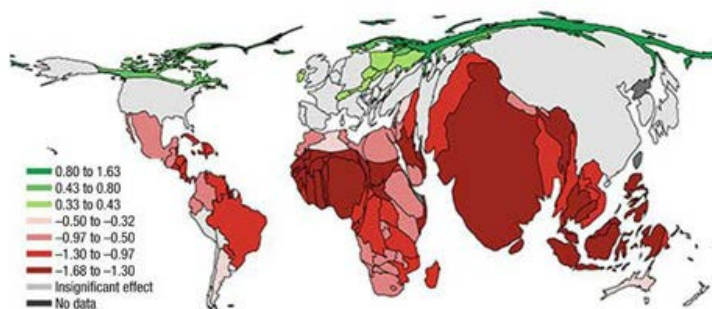


Increase in water temperature will facilitate the proliferation of diverse types of bacteria, viruses and fungi that is likely to result in an increase in outbreaks of acute diarrhoeal diseases and skin infections. Poor air quality due to ambient air pollution, especially in winter, has led to an increase in outbreaks of acute respiratory infections. The calculations of the World Bank Group Cartography Unit and International Monetary Fund (October 2017) for the contemporaneous negative impact of 1^o C increase in temperature on the per capita income output of Member States are represented in **Fig. 4**.

Fig. 4: Impact of 1°C temperature increase on per capita income output

Feeling the heat

Close to 60 percent of the world's population will feel the adverse impact of rising temperatures.



Sources: Natural Earth; ScapeToad; UN World Population Prospects; World Bank Group Cartography Unit; and IMF staff calculations.

Note: The map depicts the contemporaneous effect of a 1°C increase in temperature on per capita output. The panel uses the recent 10-year average country-level temperature together with estimated coefficients in Annex Table 3.3.1, column (5) of the chapter. Each country is rescaled in proportion to its 2015 population.

The number of emergencies with health consequences is likely to continue to increase under adverse climate changes, demographic and epidemiological transitions, and growing civil unrest/conflict and tensions, with varying types of public health risks – natural as well as human-induced. WHO and its partners must be ready and have the capacity to respond.

3.2 Recent major health emergencies

The South-East Asia Region is considered a “hotspot” for emerging infectious diseases, including those with pandemic potential. Some of the major public health emergencies that occurred in the last two decades in the Region are listed in section 3.2 (Table 1).

Table 1. Major public health emergencies in the South-East Asia Region

Year	Public health emergency	Countries affected	Morbidity	Mortality
2001	Gujarat earthquake (Richter scale 7.7) on 26 January	India	167 000 injured, 6.3 million affected	25 000 deaths
2003–2004	Avian influenza H5N1	Bangladesh, Myanmar, Indonesia, Thailand	228 cases	181 deaths
2004	Indian Ocean tsunami	Indonesia, India, Bangladesh, Sri Lanka, Thailand	125 000 injured	>230 210 deaths
2005	Kashmir earthquake (Richter scale 7.6) on 8 October	India	4 million became homeless	86 000 deaths
2006	Chikungunya outbreak	India	1.39 million cases	2944 deaths ¹⁵
2006	Yogyakarta earthquake (Richter scale 6.4), 27 May	Indonesia	37 000 injured	>5700 deaths
2007	Cyclone Sidr	Bangladesh	7.5 million affected	>5000 deaths
2007	Cyclone Alia	India (Sunderbans) and Bangladesh	3.8 million affected	190 deaths
2008	Cyclone Nargis	Myanmar	2.4 million affected	138 000 deaths
2008–2009	Conflict/civil war	Sri Lanka	60 000 wounded	>20 000 deaths
2009	Chikungunya	Thailand	42 000 cases	–
2010	Dengue outbreak	Indonesia, Thailand, Sri Lanka, India	>20 000 cases	1500 deaths
2011	Floods	Thailand	13.6 million affected	815 deaths
2012–2015	Middle-East respiratory syndrome coronavirus (MERS-CoV)	Thailand	3 lab-confirmed cases	

15 Mavalankar D, Shashtri P, Bandyopadhyay T, Parmar J, Ramani KV (2008) Increased mortality rate associated with Chikungunya epidemic, Ahmedabad, India. *Emerging Infect Dis.* vol (14) No.3, March 2008

Year	Public health emergency	Countries affected	Morbidity	Mortality
2015	Earthquake (Richter scale 7.8) on 25 April	Nepal	22 303 injured, 41 199 hospitalized, 462 health facilities completely damaged, 765 partially damaged	9000 deaths
2015	H1N1 outbreak	India	33 000 cases	>2000 deaths
2015	Flood	India (Chennai)	1.8 million IDP	>500 deaths
2015	Floods,	Myanmar	1 million people affected	103 deaths
2016	Flood/landslides,	Sri Lanka	52 500 people affected	>100 deaths
2016	Floods/Typhoon Lionrock	DPR Korea	100 000 became homeless	138 deaths
2016	Cyclone Roanu,	Sri Lanka, Bangladesh	300 000 people affected	204 deaths in Sri Lanka and 26 deaths in Bangladesh
2016	Mount Sinabung eruption	Indonesia	28 536 IDPs (203 pregnant women, 869 babies, and 1573 pregnant ladies)	20 deaths
2016	Aceh earthquake (Richter scale 6.5) on 7 December	Indonesia	1000 injured	100 deaths
2016	Zika Grade 2 (20 Jan) declared PHEIC* on 1 February and graded down to endemic status on 18 November	Bangladesh, Thailand, Indonesia, India, The Maldives,	Bangladesh: 1 case Thailand: >360 cases, 2 microcephaly India: 4 cases	None
2017	Cyclone Storm Mora (May)	Bangladesh	3.3 million people affected, 260 000 IDP, 17 000 houses damaged	
2017	H1N1 outbreak	Myanmar	166 confirmed cases	17 deaths
2017	H1N1 outbreak	The Maldives	268 confirmed cases	6 deaths

Year	Public health emergency	Countries affected	Morbidity	Mortality
2017	Floods and landslides (May)	Nepal	21 391 IDP, 41 893 houses totally damaged	161 deaths (including 25 children)
2017	Floods and landslides (May–June)	Sri Lanka	683 821 people affected, 15 897 houses damaged	224 deaths
2017	Dengue outbreak	Sri Lanka	170 075 cases from January to November	400 deaths
2017	Drought	DPR Korea	18 million people food insecure, 200 000 children with acute malnutrition	–
2017	Rohingya refugees conflict	Myanmar/ Bangladesh	646 000 Rohingya people displaced to Bangladesh since 25 August 2017 Public health risk of outbreaks of cholera, measles, diphtheria, tuberculosis, malnutrition. Many cases of gender and sexual violence	231 deaths (including 81 children under-5 years of age) as on 3 December 2017

3.3 Country-wise risk profile

The risk profile of the following eleven countries of the Region are according to the assessments done in 2007 on the implementation of WHO’s benchmarks, standards and indicators for emergency preparedness and response and risk profiling done for the Region in the “Roots of resilience”.^{16,17}

- 1. Bangladesh:** Bangladesh is highly vulnerable to disasters from natural hazards (floods, cyclones, tidal surges, tornadoes, landslides, river erosions and droughts) and health emergencies due to waterborne, vector-borne and vaccine-preventable disease outbreaks. The country is at high risk for MERS-CoV, Zika virus disease and Crimean-Congo haemorrhagic fever. Over the past four decades, the country has been hit by 7 of the 10 deadliest cyclones of the twentieth century. Cholera

¹⁶ WHO SEARO (2007). Benchmarks, standards and Indicators for emergency preparedness and response. July 2007.

¹⁷ WHO (2017). Roots for resilience: a health emergency risk profile of the South-East Asia Region.

outbreaks are frequent.^{18, 19} Climate change is predicted to cause inundation of 10% of the land mass due to rising sea levels. The country is also vulnerable to some of the human-induced and technological hazards, such as river traffic accidents, fires, building collapses, gas field explosions, terrorist attacks and political conflict.²⁰

The country's eastern province of Cox's Bazar, bordering Myanmar, is a hotspot for the Rohingya refugees crisis due to the ongoing conflict in the Rakhine state of Myanmar. It hosts the world's largest refugee camp of around 0.8 million people.²¹

Partner coordination is focused only on response but prior arrangements for operational partnership are not in place. Risk identification, mapping and engagement of multistakeholders in risk management have not been operationalized yet, although Bangladesh has established a national Health Emergency Operations Centre (HEOC).

- 2. Bhutan:** Bhutan is vulnerable to various natural disasters, being in the high-risk seismic zones of IV and V. Each year, due to damage to critical health infrastructure, the delivery of health facilities to the affected community becomes a challenge. There is an impending risk from glacial lake outburst floods because of increasing climate change. The country has 2674 glacial lakes, of which 25 have been identified as potentially dangerous.²² It is also vulnerable to seasonal hazards such as landslides, flashfloods, windstorms, forest fires and emerging diseases. With an ever-increasing number of vehicles and high road density, there is an increasing vulnerability of the population to road traffic accidents.

There is some form of coordination mechanism at the national level and the Health Emergency and Disaster Contingency Plan (HEDCP) has given the mandate for setting up of an HEOC. Technical and human resources capacity for the HEOC is a challenge. Rapid response teams (RRTs) exist but their capacities on assessment of vulnerabilities are weak. However, all pharmacies and clinics in the private sector are legally obligated to participate in times of emergencies.

- 3. Democratic People's Republic of Korea:** The country is vulnerable to floods, typhoons, storm surges, acute malnutrition and the risk of nuclear and radiation accidents. Outbreaks of measles, tuberculosis, malaria, hepatitis B and avian influenza are frequent.

18 Siddique AK, Zaman K, Baqui AH, Akram K et al. Cholera epidemics in Bangladesh: 1985–1991. *J. Diarrhoeal Dis Res.* 1992 Jun; 10 (2): 79–86.

19 Longini IM, Yunus M, Zaman K, Siddique AK, Bradley R, Nizam A. Epidemic and endemic cholera trends over a 33-year period in Bangladesh. *J. Infect Dis.* 2002 Jul; 186 920: 246–251.

20 WHO. Assessment of capacities using SEA Region benchmarks for emergency preparedness and response. SEA-EHA-22-Bangladesh.

21 IOM Director General Statement on 16 October 2017; Available at: <http://www.dhakatribune.com/bangladesh/2017/10/16/iom-chief-rohingya-crisis-worlds-biggest-humanitarian-disaster/>

22 WHO. Assessment of capacities using SEA Region Benchmarks for Emergency Preparedness and Response. SEA-EHA-22-Bhutan.

Apart from closed zones such as the Kaseong Industrial Complex, the capacity for disease control is limited. Partners mapping and mechanism for operational capacity are lacking.

- 4. India:** The geographical statistics of India show that almost 58% of the land is vulnerable to earthquakes, 68% of cultivable area to drought, 8% to cyclones and 12% to floods.²³ The Indian population of 1.25 billion is also highly vulnerable to disease outbreaks. On an average, 30–40 outbreaks are reported every week across the 36 states and Union Territories, of which outbreaks of acute diarrhoeal diseases, acute respiratory infections, food poisoning, measles and vector-borne diseases (malaria, dengue, chikungunya, scrub typhus, Japanese encephalitis) are the most frequent.²⁴ In addition, there are new challenges such as air pollution, heat waves, and toxic exposures from industrial, chemical and radiation leaks.

India has one Strategic Health Operation Centre at the National Centre for Disease Control, New Delhi and 10 similarly structured HEOCs in the health departments of vulnerable states, all hazards contingency plan and a well-established Integrated Disease Surveillance Programme. It has a National Crisis Management Group and a National Disaster Response Fund.

- 5. Indonesia:** Indonesia is located on three tectonic plates, a ring of fire with 128 active volcanoes (15% of all active volcanoes in the world). The country is prone to disasters such as earthquakes, tsunamis, floods, landslides, cyclones and volcanic eruptions. There are also frequent outbreaks of diarrhoea and gastroenteritis, dysentery, cholera, avian influenza, leptospirosis, hepatitis A and E, tuberculosis, HIV/AIDS, malaria, dengue fever and chikungunya. In addition, there are human-induced vulnerabilities such as fires, forest fires, air pollution, road traffic accidents, ethnic and religious conflicts, and biochemical, nuclear and radiation-related toxicities.

Indonesia has a national health cluster system. There are established coordination mechanisms, contingency plans and national HEOC. However, there are leadership and coordination challenges at subnational levels. The Indonesian Ministry of Health has identified the major partners working in health in the government as well as private sectors, academic institutions and subnational levels. Some memoranda of understanding (MoUs) have been signed with these partners.²⁵

- 6. The Maldives:** The Maldives is vulnerable to hydro-meteorological hazards due to the country's extremely low elevation and flat geography. It regularly gets affected by high-frequency, low-impact seasonal events such as monsoonal floods, coastal erosion, salt-water intrusion and intense sea surges-related flooding due to rise in

23 Government of India, Ministry of Home Affairs (2011). Disaster Management in India.

24 IDSP, DGHS, MOHFW, Government of India. Disease alerts/outbreaks reported and responded to by states/UTs through Integrated Disease Surveillance Programme (IDSP). Available at: <http://idsp.nic.in/index4.php?lang=1&level=0&linkid=406&id=3689>

25 WHO. Assessment of capacities using SEA Region benchmarks for emergency preparedness and response. SEA-EHA-22-Indonesia.

sea level.²⁶ Vector-borne disease outbreaks of dengue and chikungunya, and food and waterborne diseases such as diarrhoea and intestinal parasitic diseases are common. In January 2016, a case of Zika virus infection was reported with travel history linked to Finland.

Emergency operations are logistically difficult in the Maldives due to the spread of its islands in a vast ocean. The Health Emergencies Coordination Committee under the MOH and partner organizations within their established coverage throughout the nation are working on establishing effective local response. The MOH set up an HEOC in its premises in 2017.

- 7. Myanmar:** Fifty per cent of the total number of disasters from natural hazards in Myanmar were related to floods, followed by storms (23%), earthquakes (15%) and internal displacement (12%).²⁷ Myanmar is undergoing civil conflict along with a transition from military rule to democratic processes. The Rakhine state is vulnerable to civil conflict.

National and subnational emergency committees are present but intersectoral cooperation and partnership arrangements are key challenges. The HEOC has been set up but an incident management structure is yet to be established.

- 8. Nepal:** Nepal has high vulnerabilities to earthquakes, floods, landslides, forest fires, droughts, hailstorms, avalanches, and conflicts and disease outbreaks. Epidemics account for high morbidity and mortality. Diarrhoeal diseases, acute respiratory infections, Japanese encephalitis, scrub typhus, kala-azar and malaria are seasonal threats and avian and human pathogenic influenza are of increasing concern.²⁸

The country has long-term health emergency preparedness and response plans in place along with an established coordination mechanism. However, the roles and responsibilities of partners are not clearly defined and not supported by administrative procedures. Nepal has a functional national and three regional HEOCs. The national health contingency plan is not fully established. Human resource capacity for emergency risk management is limited at the subnational level.

- 9. Sri Lanka:** Sri Lanka is vulnerable to floods, landslides, cyclones, tidal waves, tsunamis, coastal erosion and droughts. Human-induced disasters include industrial and mining accidents. The country is also highly vulnerable to outbreaks of measles, rubella, acute respiratory infections, malaria, dengue, chikungunya, HIV/AIDS, Japanese encephalitis and avian influenza.²⁹

²⁶ National Disaster Management Centre, Maldives: Disaster profile and vulnerability context of Maldives. Available at: <http://ndmc.gov.mv/downloads/natural-disaster/>

²⁷ Japan International Cooperation Agency (2015). Country Report – Myanmar. Available at: http://open_jicareport.jica.go.jp/pdf/1000023395.pdf

²⁸ WHO. Assessment of capacities using SEA Region benchmarks for emergency preparedness and response. SEA-EHA-22-Nepal.

²⁹ WHO. Assessment of capacities using SEA Region benchmarks for emergency preparedness and response. SEA-EHA-22-Sri Lanka.

There are one national and three subnational HEOCs. Although a robust emergency response coordination mechanism is in place, intra- and intersectoral coordination and partnerships for emergency operations are still a challenge. Some health partners are not fully aware of their responsibilities in the health cluster mechanism.

- 10. Thailand:** Thailand is vulnerable to impacts of monsoon floods, tropical hurricanes, landslides, droughts, wildfires, epidemics, civil conflict and refugee migration. The country often faces outbreaks of dengue and chikungunya, and recently outbreaks of Zika and Middle East respiratory coronavirus (MERS-CoV).³⁰

Thailand has HEOCs at the national, regional and provincial levels. It has demonstrated a successful operational partnership model. The cluster approach has been implemented at the national level.

- 11. Timor-Leste:** The country is vulnerable to natural hazards (landslides, flash floods, tropical storms, rural fires, droughts, earthquakes, marine flooding) and epidemics (acute respiratory infections, diarrhoea, cholera, typhoid, tuberculosis, malaria, dengue/dengue haemorrhagic fever and Japanese encephalitis). Human-induced vulnerabilities, marine accidents, road traffic accidents and civil conflicts are common.

A limited budget and lack of trained human resources make it essential to develop and strengthen operational partnerships. There was no HEOC until 2017.

³⁰ WHO (2012). Assessment of capacities using SEA Region benchmarks for emergency preparedness and response. SEA-EHA-22-Thailand.

4. Landscape of partners

Various partnerships have their own mechanism of networking and coordination within their respective areas of specialty or interest. The operational partners and existing key partnership platforms are broadly categorized into the following networks.

4.1 Inter-Agency Standing Committee (IASC)

It is the primary mechanism for inter-agency coordination relating to humanitarian assistance in response to complex and major emergencies. The IASC is managed by the Emergency Relief Coordinator (who is appointed by the UN Secretary-General), who is also the head of the UN Office for the Coordination of Humanitarian Affairs (OCHA). The World Health Organization is an active member of the IASC. A similar inter-agency coordination mechanism needs to be implemented and strengthened at the South-East Asia Region level.

For 2016–2017, the priorities of the IASC Working Group have been: effective response to emergencies and protracted crises, accountability and inclusivity, displacement and protection outcomes and financing. The IASC Emergency Directors Group (EDG) advises on operational issues of strategic concern and preparing options and recommendations for the IASC on operational issues. WHO worked closely with the IASC's EDG to develop new protocols for leadership and coordination in large-scale events due to infectious hazards, based on existing committee mechanisms.

The IASC's cluster approach is a vital mechanism for coordinating sectoral action in humanitarian emergencies. The Global Cluster Coordination system under the guidance of EDG supports the strengthening of country-level cluster and inter-cluster coordination with support of OCHA, with an overall aim of improving the quality of humanitarian response. In the country of humanitarian operation, OCHA provides the platform for inter-agency coordination mechanism through setting up and conduct of IASC; and supporting humanitarian coordinator's leadership.

4.2 UN Office for the Coordination of Humanitarian Affairs

OCHA serves as the secretariat for the critical inter-agency coordination mechanism, such as the IASC; rapid response tools, such as the United Nations Disaster Assessment and Coordination (UNDAC) system; and the International Search and Rescue Advisory Group (INSARAG).

It brings together humanitarian actors for a coherent, effective and efficient response to emergencies. A key pillar of OCHA's mandate is to coordinate effective

humanitarian action in partnership with national and international actors. It leads the contingency planning for UN agencies and brings in a harmonized approach in the humanitarian response plan while engaging a varied number of humanitarian actors. Working through its regional and country offices, OCHA urgently deploys staff at short notices to emergencies. The lead role of OCHA in operational coordination in emergencies includes assessing situations and needs, agreeing on common priorities, developing common strategies to address issues, such as negotiating access, mobilizing funds and other resources and monitoring progress. It primarily supports the United Nations Resident Coordinator or Humanitarian Coordinator.

The Regional Office for Asia and the Pacific (ROAP) is based in Thailand and covers 36 countries and 14 territories. Its primary role is to support country teams in the region that do not have a local OCHA presence with the coordination of humanitarian response. The ROAP team supports and facilitates cluster coordination and the use of humanitarian financing tools such as Central Emergency Response Fund (CERF), flash appeals and consolidated appeals. It also provides assistance on information management, public information and civil–military coordination. In addition, ROAP backstops the work of OCHA country officers in Indonesia, Nepal, Myanmar, the Philippines and Sri Lanka by providing surge capacity, training and technical support.

During a crisis situation, the OCHA-managed UNDAC team, which is a standby team of volunteer emergency managers with varied skills, is deployed within 24–48 hours of a disaster. There are three ‘surge’ staffing options used by OCHA prior to the recruitment of regular longer-term staff: (1) rapid and temporary redeployment of internal staff from the field and headquarters, (2) deployment of experts seconded from rosters managed by OCHA’s 11 standby-partner organizations that may be seconded to OCHA and (3) rapid temporary recruitment and deployment of experts from the Associates Surge Pool.

It is also an active member of the Inter-Agency Sub-Working Group on Preparedness. The group aims to strengthen and promote inter-agency preparedness, contingency planning and early warning processes across the IASC.

4.3 Global Health Cluster (GHC)

A functioning health cluster involves UN agencies, NGOs, community-based organizations, and community members, including between the national capital and the field, and with other sectors/clusters. WHO is the Global Health Cluster Lead Agency and it provides secretariat support through the Global Health Cluster Team in the WHO Emergency Operations Department in the headquarters in Geneva.

It is mandated to build global capacity in humanitarian response in three ways: (1) providing guidance, tools, standards and policies, (2) establishing systems and procedures

for rapid deployment of experts and supplies and (3) building global partnerships to implement and promote emergency preparedness and response work.³¹

The GHC supports health clusters in countries by providing the right expertise at the right place at the right time, by building capacity of health cluster coordinators and other health cluster staff in countries, by identifying and addressing gaps in technical knowledge and available guidance to ensure health response based on global best practices and standards and by promoting and advocating the importance of humanitarian health action to ensure political and financial support for the health cluster. The cluster approach and partnerships must be promoted and institutionalized within national emergency, recovery and development coordination structures.

4.4 Emergency medical teams

An emergency medical team (EMT) is a group of health professionals (doctors, nurses, paramedics, etc.) providing direct clinical care to populations affected by disasters, emergencies or outbreaks. This includes governmental (both military and civilian) and non-governmental teams and can include both national and international teams. The overall goals are to strengthen national capacity to respond to emergencies with health consequences. The scope of EMTs ranges from the management of trauma due to sudden-onset disasters (mass casualty management) to acute medical emergency care in outbreaks of cholera, *Shigella* and Ebola. It also supports populations affected by floods, conflict and protracted crises, such as famine.

WHO has developed a global verification and registry system in which EMTs can be classified and ready to be deployed to health emergencies. The EMTs have been categorized into three types:

- **Type1:** mobile EMT (50 patients/day), fixed EMT (100 patients/day);
- **Type 2:** inpatient surgical (with infrastructure; at least 7 major or 15 minor operations daily with at least 20 inpatient beds per one operating table); and
- **Type3:** complex inpatient referral surgical care, including intensive care capacity (at least 2 operating tables in 2 separate rooms within the theatre, at least 40 inpatient beds and the capacity to treat 15 major or 30 minor surgical cases a day).

In an emergency, the outcome of response depends on how quickly right expertise reaches the right place to meet the needs of people in need. The EMTs are an important part of the global health workforce but the EMT initiative places a strong focus on helping every country in developing its own EMT that can arrive where it is needed

³¹ WHO (2009). Health Cluster Guide: A practical guide for country-level implementation of the health cluster. Inter-Agency Standing Committee. WHO

in the shortest time. Emergency medical teams need to comply with globally agreed standards and coordination mechanisms in humanitarian response. WHO coordinates and supports the EMT initiative for predictable, self-sufficient and quality-assured emergency medical response.

The host/affected country should have a pre-existing mechanism for EMT training, quality assurance, deployment and coordination. WHO has been coordinating the development of standards, quality assurance and verification process for EMTs and guidance for EMT coordination. There are 13 EMTs which have been classified and verified through a peer-review process and more than 70 EMTs are currently going through the assurance process. Thailand has approximately 70 national EMTs that are expected to undergo an accreditation programme. India has agreed to initiate the internal process for EMT registration/verification (Type 1, fixed). Indonesia is moving forward with quality assurance and further strengthening of its EMTs for international deployment (MOH, military, Hajj Medical team, Red Crescent, Muhammadiyah NGO). Bhutan has also started the process of registration and verification of its EMT (Type 1, fixed) by WHO's EMT initiative process.

4.5 Global Outbreak Alert and Response Network (GOARN)

The GOARN network, a global technical partnership, is a key mechanism for timely deployment of a health emergency workforce with technical and operational capacities for rapid identification, confirmation and response to public health emergencies of international concern. It plays a pivotal role from alert, to risk assessment, to rapid implementation of disease control measures with emphasis on strengthening and implementation of IHR (2005) systems and capacities.

The partners include medical and surveillance initiatives, regional technical networks, networks of laboratories, United Nations agencies (e.g., UNICEF, UNHCR, UNFPA), the Red Cross and Red Crescent Societies (ICRC, IFRC), international humanitarian non-governmental organizations (e.g., International Rescue Committee, Epicentre), and national public health institutions.

WHO is an institutional partner, the WHO Country Offices are network members and WHO SEARO is the network hub of GOARN. The reported number of GOARN network members in the South-East Asia Region reached 30 in 2017, though active participation is limited.³² The GOARN's 21-member steering committee approves all new additions to the network and oversees the planning, implementation and evaluation of the GOARN activities and strategic goals. The GOARN operational support team is based at the WHO office in Geneva, comprising eight staff members.

³² WHO (2017). Global Outbreak Alert and Response Network. Information Sheet 2017.

GOARN has a significant role to play in the South-East Asia Region by building the technical capacity of the members of the network in disease investigation and control skills. It has an online training programme which has been designed on the basis of the GOARN Competency Model. The GOARN partners are encouraged to take these courses to develop and test the necessary skills, attributes and behaviours to effectively support and respond to national and international outbreaks and public health emergencies. There is also a need to strengthen linkages, cooperation and collaboration between the GHC, EMTs and Standby Partners.

4.6 Standby Partners

The WHO Standby Partners initiative is a central element of WHO's emergency risk management system and a strong complement to WHO's other surge and response partnership mechanisms. This form of partnership allows no-cost rapid access and deployment of the highly skilled personnel of the global health emergency workforce with a broad range of humanitarian and technical profiles to support field emergency work, including information and data management, mapping, water and sanitation, nutrition, public health, logistics, project management and social work.³³ The WHO standby partners agree to maintain a roster of standby personnel (standby roster) for the rapid mobilization and deployment of pre-screened individuals included in the roster. The standby personnel are not WHO consultants. The standby partner agency awards an employment contract to those selected from the standby roster prior to deploying them to WHO.

WHO holds global agreements with six partners (International Civilian Response Corps [CANADEM], the information Management and Mine Action Programme [iMMAP], the Netherlands Enterprise Agency, the NGO Consortium for the Global Health Cluster, the Norwegian Refugee Council, RedR Australia and the United Kingdom Department for International Development). This form of partnership arrangement needs to be contextualized and scaled up at the regional level.

4.7 Multilateral and bilateral development partners

Multilateral organizations obtain their funding from multiple governments as well as from non-governmental sources and spend their funding on projects in various countries. The major multilateral organizations are all part of the United Nations. The UN agencies which are multilateral are basically inter-governmental agencies. The multilateral partners that get engaged in emergency response are WHO, UNICEF, UNDP, UNFPA, WFP, UN Women, IOM, UNISDR, World Bank, Disaster Risk Reduction – European Commission (DIPECHO) and Global Fund to Fight AIDS, Tuberculosis and Malaria.

³³ WHO (2017). Health workforce coordination in emergencies with health consequences: A report by the Secretariat, Executive Board EB140/10, 9 January 2017.

Bilateral agencies receive funding from the government in their home countries and use the funding to aid low- and middle-income countries. These are developmental agencies of national governments. Bilateral organizations such as the US CDC, USAID, DFID, JICA, DANIDA, and SIDA get involved in emergency preparedness and response.

4.8 WHO Collaborating Centres (WHO CCs)

WHO Collaborating Centres are institutions (autonomous or under national governments) such as research institutes and universities which are designated by the Director-General to carry out activities in support of the WHO's programmes. In each WHO regional office, as at the headquarters, focal points are designated to manage and coordinate statutory information and procedures on WHO CCs.

These centres work in different areas such as communicable diseases, nursing, nutrition, mental health, public health informatics, innovations and technologies, and research training and capacity building. Examples of WHO CCs in the Region that get engaged in emergency response are the National Centre for Disease Control, MOHFW, Government of India; ICDDR, Dhaka, Bangladesh; and Centre of Health Crisis, MOH, Indonesia.

To facilitate management, cooperation and networking, a global information system on all WHO CCs has been developed, to be accessible worldwide to WHO staff, WHO CCs, and eventually Member States and the public health community at large. Exchange of experience and collaboration between centres is supported by regular meetings at the country and regional levels and on specific topics.

4.9 Regional networks

4.9.1 Association of South-East Asian Nations (ASEAN): This is a regional intergovernmental organization comprising Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Cambodia, Laos, Myanmar and Vietnam that promotes Pan-Asianism. It is a good inter-governmental platform for advocacy, stewardship and coordination mechanism for strengthening regional emergency response capacity and partnerships. It aims to promote active collaboration and mutual assistance on matters of common interests in economic, social, cultural, peace and regional stability, agricultural, educational, research training, and disaster management fields.

The ASEAN-Emergency Response and Assessment Team (ASEAN-ERAT) has been established to respond to a major sudden onset of disaster within the ASEAN region. It also coordinates the mobilization and deployment of regional disaster management capacity and facilitates the incoming relief assistance from the Member States. Currently, there are more than 90 trained ASEAN-ERAT members and experienced emergency responders.

The ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (**AHA Centre**) was established in Nov 2011. It acts as a regional hub for information and knowledge exchange on disaster management. The AHA Centre is based in Jakarta, Indonesia.

The **ASEAN Earthquake information Centre** in Jakarta monitors earthquake activities and helps mitigate the effects of earthquakes. It also provides support in the South-East Asia Region to improve the capabilities of national seismic centres and establish regional seismic information services.

WHO as part of the Public Health Emergency Operation Centre Net will collaborate with ASEAN to build capacity on Incident Management Systems, establish and run EOCs for managing health emergencies and address various coordination and communication challenges in the Region.

4.9.2 South Asian Association for Regional Cooperation (SAARC): This is the regional inter-governmental organization and geopolitical union of nations in South Asia. Its main objectives are to improve the quality of life and to accelerate economic growth, social progress and cultural development. It comprises Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka.

It has established the **SAARC Disaster Management Centre** for providing advice on and facilitating capacity building services and system development for a rapid regional emergency response coordinating mechanism. It advocates and promotes regional cooperation to preserve, protect and manage the diverse and fragile ecosystems of the region and address the challenges posed by adverse climate change and natural hazards.

4.9.3 Asia Pacific Emergency and Disaster Nursing Network: This network came into existence as a key outcome of the Joint Informal Meeting of Health Emergency Partners and Nursing Stakeholders that was convened in Bangkok in 2007. It aims to build the capacities of nurses and midwives to fully contribute to coordinated and effective prevention, preparedness and response efforts; improved service delivery; and building of community resilience during times of emergencies and disasters.

The Network has around 240 individual members from over 40 countries in the Asia Pacific region. Most of the members are academics, officials of ministries of health, nursing and midwifery professionals and representatives of humanitarian organizations.

4.9.4 South-East Asian Ministers of Education Organization- Tropical Medicine and Public Health Network (SEAMEO TROPMED): This is a regional cooperation network for education, training and research in tropical medicine and public health under the South-East Asian Ministers of Education. The Member Countries are Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste and Vietnam. Its highest policymaking

body is the SEAMEO Council (SEAMEC), which is composed of the Ministers/Secretaries of Education of the Member Countries. Its secretariat is located in Bangkok, Thailand and it has 17 regional centres.

The network serves as a focal point in higher education and research in tropical medicine and public health. It aims to develop the capacity of individuals and institutions in the delivery of quality healthcare.

4.10 Private sector networks

With the rise of corporate social responsibility (CSR) as a standard practice in Member States, private sector actors/corporate houses invest and work in humanitarian emergency aids and response. Some examples of private sector actors are the Rockefeller Foundation, Bill and Melinda Gates Foundation, Reliance Health Foundation and Public Health Foundation of India (public–private sector model).

There are various trade chambers and professional associations of commerce in the Region which are common business platforms of private companies for sharing information on trade and commerce and ideas on CSR. These can be tapped for emergency readiness, response and early recovery phases. For example:

The Federation of Indian Chambers of Commerce and Industry: This is the largest apex business organization in India, reaching out to over 250 000 companies. It is investing on environment and climate change, water and sanitation and hosts a 'Clean Air Platform' for the private sector.

A provisional list of operational partners in the Region is provided in **Annex 1**.

5. Gaps and opportunities

The commonly encountered gaps in the operational partnership arrangements for emergency response specifically in the South-East Asia Region are the following:

- The mechanism for effective coordination and communication in organizing immediate response during an emergency and the recovery phase is often weak, unclear and ineffective in implementation.
- There is often a disconnect between global, national and subnational health clusters and other partnership coordination networks.
- The incident management system is either non-existing or weak in structure and staffing. The trigger mechanism for activating the IMS and HEOCs lacks clarity. The role of operational partners in readiness for emergency response during emergency and in early recovery as a support to the MOH is not well-defined in policies and guidelines.
- The available technical expertise and operational capacity of the partners in assessments, water and sanitation, healthcare waste management, emergency health system resilience, laboratory reagents supply chain, non-communicable diseases, data management, planning, HEOC operations, incident management, project management, monitoring and evaluation, and evaluation remain diffracted and not optimally tapped and utilized for effective emergency operational management. The rapid response team or public health emergency medical teams remain underutilized for management of emergency response.
- Weak operational response capacity in food safety, chemical and radio-nuclear events, and slow-onset disasters like drought need to be covered and enhanced under partnership arrangements with relevant operational partners
- Early warning, alert and response systems still need to be strengthened wherein different partner networks can contribute and play a coherent role.
- The priority areas for effective operational partnership (mapping of priority infectious disease outbreaks and threats; and disease transmission control at points of entry) need to be developed based on the recognized expertise of the operational partners.
- The sustainable financial mechanism for operational partnerships for emergency response needs to be strengthened.
- Pre-emergency partnership arrangements with private health sector and other potential partners are often non-existing despite the potential of CSR. The

networks of trade associations, chambers of commerce and business forums are untapped potentials for engaging major corporate houses/foundations in investing in emergency risk management and humanitarian response activities.

Operational partnerships for effective emergency response can be strategic if they are risk-informed and guide the mutual understanding for timely, effective and efficient response within available scarce resources.

6. Regional framework on operational partnerships

Working more closely with partners is essential as WHO cannot deliver everything alone. WHO regularly collaborates with partners to leverage and coordinate the expertise required for better emergency response.³⁴ There is a need to have good coordination amongst existing partner networks in the South-East Asia Region because in actual emergency response, teams and partners will have to relate with other partnerships to avoid duplication and to ensure seamless response activities.

Certain principles and criteria followed by WHO for engaging with partners in formal or informal partnerships are given in Box 1.³⁵

Box 1: Principles and criteria for operational partnership

- ⦿ Added value in emergency operations: There must be a shared vision and concept of health. Partnership demonstrates a clear added value in terms of knowledge and resources, technical expertise, and creating synergy.
- ⦿ Clear goal: There must be shared goals and targets. Partnership should represent an extension of WHO's core functions, policies and relative strengths to the partnering organization.
- ⦿ Clear roles for partners: Partnership arrangements must clearly articulate the expertise and strengths of partners, avoid duplication of WHO's and partners' activities, and the introduction of parallel systems.
- ⦿ Partnership guided by technical norms and standards: Emergency Response Framework and Emergency Preparedness and Response Benchmarks as specified by WHO.
- ⦿ Decision-making powers for participating members of partners: Members must have sufficient status and authority in their own organization to influence decisions. Otherwise collaboration becomes only a networking process.
- ⦿ Adequate participation in partner coordination meetings and emergency operations: Members must have sufficient time to devote to interagency activity.
- ⦿ Important to demonstrate achievements: This implies the need for self-monitoring and/or periodic evaluation.
- ⦿ Transaction costs related to a partnership: These must be evaluated, along with the potential benefits and risks.
- ⦿ Partnership coordination: A regular coordination function should continue to maintain commitment and to identify potential resources.

³⁴ World Health Assembly (2010). Sixty-third World Health Assembly. WHA63.10, 21 May 2010.

³⁵ World Health Assembly (2016). Sixty-third World Health Assembly. WHA60.10, 28 May 2016.

6.1 Goal of the framework

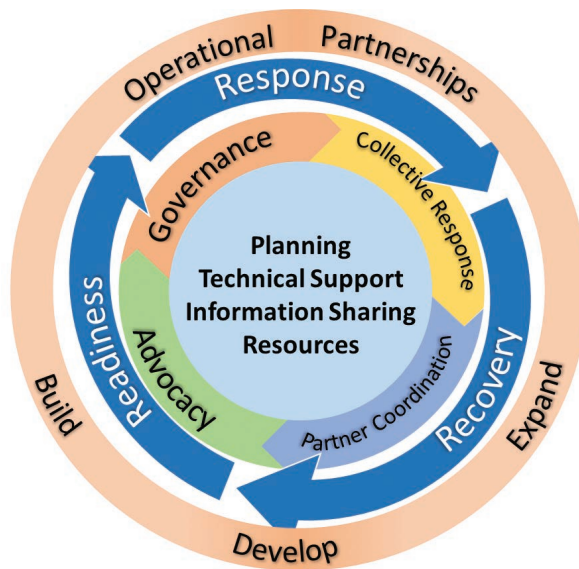
Build, strengthen and expand operational partnerships in the South-East Asia Region for effective emergency response through improved mechanisms of networking and coordination among operational partners.

6.2 Key elements for operational partnerships for emergency response

WHO SEARO has identified strengthening of emergency risk management as a flagship programme, of which operational partnership for emergency response is a key component.³⁶

Opportunities for building new operational partnerships and strengthening existing partnerships are to be explored through recognizing partners' contribution and engaging them across all three phases of the emergency risk management continuum, that is, during preparedness/readiness, emergency response and early recovery (Fig. 5).

Fig. 5: Concept of operational partnerships for emergency response



The following key elements are in line with the partnership criteria set by the World Health Assembly,^{37,38} in "Benchmarks, Standards and Indicators for Emergency

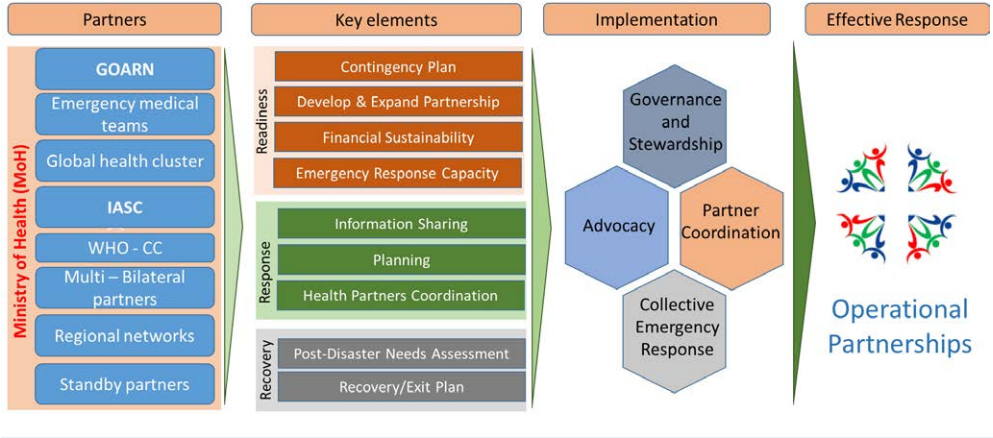
36 WHO SEARO (2015). Policy and technical topics: response to emergencies and outbreaks. Sixty-eighth Session of Regional Committee (SEA/RC68/70) at Dili, Timor-Leste; 7–11 Sept 2015.

37 World Health Assembly (2010). Sixty-third World Health Assembly. WHA63.10; 21 May 2010.

38 World Health Assembly (2016). Sixty-third World Health Assembly. WHA60.10; 28 May 2016.

Preparedness and Response”³⁹ and “Emergency Response Framework”⁴⁰ for building operational partnerships for emergency response in the Region (**Fig. 6**).

Fig. 6: Schematic layout of the regional framework’s key elements and implementation processes



6.2.1 Readiness

The following elements should be considered to build and strengthen operational partnerships during the preparedness phase.

Contingency plan

The contingency planning is done in advance to get prepared well before an actual health emergency happens. WHO should support the ministry of health in the conduct of operational partners mapping, their expertise and strengths vis-à-vis the risk and multi-hazards profile of the geographical area and the beneficiary populations.

Some understanding can be developed on who will do what, when and where (4Ws approach). The frequency of mapping of potential operational partners should be decided based on the local area needs and change in the context.

The contingency plan should consider human resources capacity, technical and logistical requirements, financial requirements, and the requirement for a coordination and communication mechanism. The operational partners need to evaluate and find out areas where they can contribute, support and supplement readiness for emergency

39 WHO SEARO (2007). Benchmarks, standards and Indicators for emergency preparedness and response. July 2007. Available at: http://www.searo.who.int/entity/emergencies/topics/EHA_Benchmarks_Standards11_July_07.pdf

40 WHO (2017): Emergency response framework. 2nd Edition. Available at <http://apps.who.int/iris/bitstream/10665/258604/1/9789241512299-eng.pdf?ua=1>

response. The pooling of resources for operational support and logistics may also be required.

Partnership is a key to ensuring effective and efficient operational support and logistics as a joint and combined contingency plan. This should be built upon the following subfunctions:

- (1) Coordination and communication mechanisms: Tools of coordination, methods of communication and standard operating procedures (SOPs) should be mutually agreed upon, predefined and explicitly mentioned in the contingency plan. Operational partners are expected to confirm their focal points who will take part in the health partner coordination meetings and have the authority to mobilize rapid response assistance with a requested time frame. WHO provides technical assistance and guidance to the MOH in the activation of a health emergency response coordination group by national authorities:
 - Establishment of an inter-agency/inter-sector coordination group (or emergency response steering group/cluster) at the country and regional levels (for example, inter-agency standing committee);
 - Establishment of an operational partners' coordination group at national level; and
 - Support to the MOH in the establishment of an IMS.

Such inter-agency coordination groups should be in place before any health emergency arises. The objective, purpose, scope of work, accountability mechanisms and trigger for activation of such groups at different levels should be well defined under the national level policies and legislation, and must be clear to each member of the group. Each Member State in the South-East Asia Region should develop and strengthen its national health cluster in coordination with WHO.

- (2) Supply chain system: There should be a clear and documented understanding and agreement among the operational partners for ensuring end-to-end, timely and efficient provision of earmarked items relating to consumables and equipment. It should be clearly spelt who will be responsible for procurement and supply (including technical skills) of which item based on individual partner strengths and resources.
- (3) Field support: There should be clearly demarcated areas of joint operational support functions when it comes to management and field support to response teams; readily deployable database/standby roster of trained workforce, functional and secure working spaces, equipment, communications and transport. To ensure timely availability, experts should be identified using a roster and pre-vetted by the Member States and/or with

WHO. Agreements should be in place with their home institutions/partner agencies to release them at short notice (within 72 hours). Visa and health check-ups should be completed in advance. Administrative requirements such as contractual arrangements should be in an advanced state, ready to be activated without delay.

- (4) Financial resources: The contingency plan should have clearly demarcated funds and specified allocations for different emergency interventions. Operational partners need to be fully aware about the financial provisions and procedures for maintaining and releasing required funds in time of emergency that they earmarked under their contingency plan.
- (5) Health logistics: Contingency planning should be based on agreed joint provisions of providing technical expertise, tools, methods and means to meet the logistics needs of medical facilities, cold chain management, laboratories and blood banks. The agreement should be clear on name of items/technical expertise, maximum limit of quantity, and methods and means of procurement and supply to the emergency field.

An inventory of standby resources (general and health logistics) committed by partners should be available with the national authorities which should be maintained and updated regularly.

Develop and expand partnerships

Strategic partnerships are crucial to leverage comparative advantages of operational partners. Partnership arrangements should not be narrowly limited to the health sector only but should be flexible for allowing space for working together with partners who have additional strengths in health-related sectors such as nutrition, water, sanitation and hygiene promotion (including safe and dignified burial), education, child protection, safety and security, logistics and transport, mental health and psychosocial counselling {Emergency and Humanitarian Action Programme (**EHA benchmark 4**)}.

WHO and potential operational partners should discuss and clarify the broad terms of understanding for collaborative scope of work, though not legally binding, whilst considering the operational limitations, bottlenecks and budgetary issues (**EHA benchmarks 2 and 4**).

In the context of fragile states, disasters, conflicts, and complex and protracted emergencies, development and humanitarian assistance need to be complementary in making systems resilient and ready for emergencies. Such a humanitarian and development nexus should be recognized. Thus, expansion and strengthening of operational partnerships at country and regional levels through networking and addition of new partners in GOARN, health clusters, Standby Partners, other public health institutions and collaboration with regional networks and private sector stakeholders

should be a priority and ongoing process to build emergency response capacity in the Region.

Financial sustainability

Informal or formal agreement and commitments under the partnership should have a sustainable mechanism of financial viability (**EHA benchmark 1**). The South-East Asia Regional Health Emergency Fund (SEARHEF), which was established in 2008, has been used to provide immediate financial support to 9 out of 11 Member States in 31 emergency operations with a total funding support of US\$ 5.2 million. The scope of SEARHEF has been expanded under approval by the Member States in the 69th Regional Committee that would strengthen key aspects of preparedness/readiness.

Financial sustainability mechanisms should allow the Member States in the Region to ensure coordination with external partners in emergency response to explore possibilities of strengthening emergency funding at the country level. There is an obvious need to further expand and consolidate the emergency funds. Private sector partners should be engaged under CSR. Operational partners can provide assistance to the MOHs in the submission of applications to donors and in mobilizing emergency funding.

Strengthening emergency response capacity

Preparing and building surge capacity for emergency response under operational partnerships is an important element of readiness.

Intersectoral capacity development of partners that are often engaged in emergency response with pooled and collective sourcing of technical competencies and training resources will further strengthen the emergency operational capacity in the Region (**EHA benchmark 10**). An example is the training and capacity development of HEOC staff, EMT, GOARN and Standby Partners and potential subnational partners that work closely at community levels.

There can be a standard training course for regional- and national-level RRTs and EMTs, considering the regional and national multi-hazards, risks and vulnerabilities. Health or allied health professionals from WHO and operational partners who are or may be likely to get involved in emergency operations can be offered such training. Coordination and management of EMTs need to be streamlined to promote more effective volunteerism during emergencies. Priority focus countries for EMT strengthening in 2017–18 are Bangladesh, Bhutan, India, Indonesia, Nepal, Sri Lanka and Thailand, where partnerships should be built with potential EMTs.

An annual training calendar could be developed for the conduct of capacity-building programmes for strengthening emergency response technical skills, attitudes and practices of response teams/ national EMTs and the key staff from health partners.

Operational partners should conduct joint multisectoral simulation exercises and mock drills periodically in order to stay ready for any unexpected disasters (**EHA benchmark 2**).

A standby roster of trained workforces in the existing operational partners and standby partners should be maintained at national and subnational levels.

6.2.2 Emergency response

Operational partners should have a mutually agreed operational platform in order to deliver emergency services effectively under a joint operational plan. In addition, implementation of the following elements should be strengthened:

Information-sharing

Sharing of important information on risk and vulnerabilities mapping, potentials for health emergencies/disease outbreaks, key programme areas and technical expertise of operational partners for emergency response is critical for the partners, resource mapping and better coordination.

Lack of information or unprocessed, scattered and duplicated data in the aftermath of a disaster or during an emergency results in miscommunication and poor coordination among the public health community as well as among the affected population. The national authorities in collaboration with WHO should enforce the use of standard format with defined flow of information for cross-sharing of information and surveillance data so that decision-making and joint planning on utilization of scarce resources and rational allocation of emergency health service provisions can be guided appropriately.

Operational partners are expected to continue arrangement of regular communication to ensure comprehensive and transparent exchange of information relating to situational analysis, gaps identified, surveillance and alerts for collective emergency response. The repository of information can be tapped by all operational partners for a coherent and complementary programming for effective emergency response and recovery.

Health partners coordination

Coordination, communication and inter-agency cooperation and collaboration are key elements in the emergency response phase. The WHO country office in the affected country provides leadership in health sector partners' coordination as a technical assistance to the MOH. It assists and facilitates the activation of the existing inter-agency coordination mechanism and mobilizes partners for participation in health coordination meetings for joint rapid needs assessment, 4Ws analysis and development of joint operational plan. The operational partnership agreements organized prior to

an emergency should get activated and implemented. The presence and contribution of new potential partners in the immediate emergency response should be recognized.

Identification of potential partners

There may be new emergency response actors in a specific geographical location in a particular health emergency which are noted by all for their effective and timely contribution to emergency response. WHO should be open to new opportunities of collaboration and partnership with new operational partners to expand and strengthen the partnership at local and regional levels in case the situation gap analysis indicates that the needs are not being met through the existing operational partnerships for an effective and efficient emergency response.

These new partners could be new EMTs or private sector corporate houses or private foundations. An informal understanding can be evolved during the emergency phase which can mature later into a formal partnership or MoU.

6.2.3 Early recovery

Post-disaster need assessment and partnerships

The MOH in the affected country should ensure through the partners' coordination group and enforce a clear "exit plan/policy" for each operational partner with proper hand-over to the government department concerned. The 4Ws analysis should be reviewed in the early recovery phase.

Some of the operational partners get involved in "Build Back Better" developmental interventions during the early recovery phase. Partners should be encouraged to contribute to a post-disaster needs assessment and explore the possibilities of informal or formal partnerships in areas of building critical health infrastructure; resilient, improved surveillance and health information systems; provisions for nutrition services; and mental health and psychosocial support.

Examples of operational partners that get more involved in the recovery phase are: World Bank, Asian Development Bank, UNDP, UNISDR and regional and private sector networks such as ASEAN-AHA Centre, SAARC and national chambers of commerce and industries.

7. Implementation

The WHO South-East Asia Regional Office will facilitate, oversee and provide support for the implementation of the Regional Framework on Operational Partnership for Emergency Response, in consultation and cooperation with national MOHs, WHO country offices and operational partners in the Region.

The Framework will be implemented through the following processes and methods.

7.1 Governance and stewardship

The existing mechanisms and tools of coordination for optimal utilization and tapping of expertise and contributions of operational partners will be strengthened at the country and regional levels. The humanitarian and development nexus should fill the gaps and strengthen both health systems resilience and emergency operations for minimizing the impact of hazards and health emergencies.

The establishment of a regional forum or a platform for operational partnerships in health emergency response would support the efforts for further strengthening emergency operations. The forum or platform will bring together partners, the network of HEOCs and national incident management systems.

The Emergency Response Framework and this Regional Framework on Operational Partnerships for Emergency Response are concrete actions of stewardship in building and fostering operational partnerships in the Region. WHO and the lead partner agencies will advocate, promote, facilitate and support the national authorities in strengthening the emergency health systems, cluster approach, and operations capacities and capabilities by supplementing the unmet needs and gaps through the mobilization and pooling of resources, including the required funds, technical expertise, tools and materials.

7.2 Partners' coordination

WHO takes the lead in partners' coordination in health emergencies as a technical support to the MOH in the affected country. Participation and active contribution of operational partners in the health coordination meetings is crucial across all three phases of emergency operations.

Networking, building and maintaining partnerships, and regularly coordinating with the interested partners for enhancing capacities on readiness, collective response and recovery through the sharing of knowledge, experience, expertise and resources is

a regular process. Based on prior-to-emergency mapping of operational partners in the affected country, the geographical areas and division of emergency operations work can be distributed. In case there is no existing 4Ws mapping for an affected area in a country or new operational partners are seen to contribute in emergency response, the exercise of partners mapping on 4Ws can be repeated for clarity and new opportunities for partnerships. The strengths and contributions of each partner in facilitating the strengthening of the IMS and assistance in the establishment and operationalization of HEOCs will be needed.

Partners' coordination function should be conducted on a regular basis for managing the dynamics of partnership arrangements, agreements and expansion of the scope of different types of partnerships. It is a must for further developing and sustaining operational partnerships for emergency response in the Region.

The roles and responsibilities under the partnership coordinator function should be clear and specified. Some of the key activities under the partnership coordinator function are as follows.

- Establish governance and coordination mechanisms for EMT, GOARN, Standby Partners and other agencies at the regional level.
- Ensure that the operational partners' capacity is updated periodically through training, workshops, drills and simulation exercises.
- Ensure that SOPs and minimal technical standards for emergency service provisions are followed by all partners.
- Identify new potential regional, national and local partners that can enhance WHO emergency response capacity through collaborations and partnerships.
- Maintain and expand the database of the operational partners and networks.
- Design, maintain and improve a web-enabled platform for operational partnership for regular exchange of information, emergency risk alerts and reports on emergency operations performance evaluation.
- Advocate, promote and facilitate partnership arrangements for emergency response in the Region.
- Establish liaison and maintain rapport with prospective operational partners in the Region, including the private sector.

7.3 Collective emergency response

Collective and synergized emergency response as a strong support to the national authorities in the affected country is the main intended outcome of this framework. Joint and coordinated efforts of the operational partnerships should range from joint rapid assessment, combined immediate response to joint operational planning.

The operational partners should proactively contact and collaborate with the MOH and WHO for participation in and conduct of a joint rapid assessment using the standard tools as soon as a disaster occurs and a public health emergency is declared by a national government. As the inter-agency coordination group or intersectoral coordination group is activated by the national government, the partners should actively participate and contribute in situation review, gaps analysis and identification of needs and opportunities to make emergency operation effective and efficient.

Partners are expected to undertake or share specific functions at different levels within the country or regional levels. The purpose is to bring them together under this Regional Framework for timely, effective, efficient and integrated coordinated emergency response as a strong support to national and regional capacity.

At the activation of the national IMS, the partners should alert and activate their roster of experts based on the collective understanding of the emergency situation in the health partner coordination meetings. The standby roster can be activated for the deployment of relevant expert staff. It may include re-purposing of staff and/or temporary support from the partners' trained staff under prior partnership agreement for different coordination or technical expertise roles or supplementing the general or health logistics needs.

The existing operational partnership agreements among partners should enable coordinated deployment of joint RRTs in the affected community within 72 hours. For example, GOARN partners may facilitate the mobilization and deployment of RRTs. As needed, the health cluster can also be activated. In the wake of an emergency due to an earthquake or flood where mass casualties have occurred, national EMTs can be strengthened by partners.

If authorities in an affected country determine that the event(s) require additional support, WHO SEARO may convene an emergency meeting (physical/teleconference) with the relevant operational partners to mobilize regional resources for emergency response. For example, the coordination for the EMTs at the South-East Asia regional level can be facilitated so as to work in coherence with other response teams at the national and regional levels in times of crisis. This should be integrated with the existing coordination mechanisms for the health sector. This system, active within minutes of a disaster, uses the agreed coordination mechanism/s within the national disaster management agency/authority and/or MOH.

As the needs assessment brings more clarity and is discussed in detail in the health coordination group, a multisectoral humanitarian response plan is formulated as a wider strategy. The implementation of the Strategic/Humanitarian Response Plan requires a Joint Partners' Operational Plan that should consider the expertise and comparative advantages of key operational partners working in emergency response to support the

MOH effectively in a collective manner to avoid duplication of work while optimally utilizing scarce resources at times of utmost need (**EHA benchmark 4**).

It must ensure the optimal coverage and standardization of essential health services package, promote adherence to technical standards and best practices, and commit partners to common operational targets and reporting. It should clearly mention how health partners link with and complement other relevant sectors, for example, water and sanitation, nutrition, protection and mental health. While a range of technical standards may be applicable in different contexts and the operational partners may have differences in opinion on certain standards, the Sphere Minimum Standards in Humanitarian Response⁴¹ may be used as a common guide.

The Inter-agency or Intersectoral Coordination Group/s should have clear protocols and processes for a collective partners' response to a coordination of large-scale natural disasters or conflicts that require system-wide mobilization ("Level 3 [L3]" emergencies). In such L3 emergencies, the scope of expansion of the partnership arrangement should be explored at the national and/or regional level, as needed, to include GOARN, major public health institutions and other partners effectively contributing in the emergency response.

The distribution of sub-functions across the three levels – WHO country office, operational partners and WHO SEARO – is given in **Annex 2**.

7.4 Advocacy

There is a strong need in the South-East Asia region to communicate and better promote the collective work of the health sector and work better with partners, networks and stakeholders in a more inclusive manner (**EHA benchmark 8**). Advocacy for operational partnership through **"Build, Develop and Expand"** can be achieved through the following modalities.

- ◉ Developing and maintaining a web-portal that will be used to:
 - advocate and promote the importance of operational partnerships;
 - raise awareness of principles of criteria of partnerships with WHO;
 - raise awareness of types of different partnerships;
 - build a network of operational partners;
 - identify priority areas of partnership based on regional hazards and vulnerability assessment and partners landscape;

41 The Sphere Project. The Sphere handbook: humanitarian charter and minimum standards in humanitarian response; 2017.

- share experiences, best practices and evaluation reports of recent health emergency operations in the Region;
 - provide annual updates of different types of partner networks;
 - build a gallery of images, video clips, lessons and documentary from the field;
 - host a virtual platform for the community of emergency responders;
 - link with relevant scientific resources, regional and global guidelines, protocols and SOPs; and
 - provide important emergency contacts of regional coordinating lead agencies and regional networks.
- ⦿ Advocacy and promotional materials (information products, infographics)
 - ⦿ Events-based activities (seminars, conferences, symposia) for raising awareness and building an enabling environment for operational partnership-building at the country level, for example:
 - EMT awareness workshops;
 - national or regional GOARN awareness meetings/activities;
 - national or regional awareness workshops for potential Standby Partners and other development partners and public health institutions; and
 - national or regional workshops for strengthening public–private sector model for emergency response.

8. Monitoring and evaluation

Expected outcomes of partnerships

The following outcomes are to be achieved in line with the WHE Results Framework.⁴²

Output 1.0 Effective partnerships framework in place at the national level in WHO SEAR countries

Output indicator:

- Availability of Regional Framework on Operational Partnership for Emergency Response as a guideline

Output 1.1 Health operations effectively managed, in support of national and local response

Output indicators:

- Incident Management System established at country level within 72 hours of declaration of an emergency
- Presence and active contribution of WHO partners in health coordination meetings at national and local levels in emergency situations
- Joint rapid assessments conducted in partnership with listed operational partners within 48 hours of an emergency

Key deliverable:

- Effective management at national and subnational levels for all health emergencies of various grades through efficient communication, coordination and partnership

Output 1.2 Effectively coordinated collective emergency response by operational partners

Output indicators:

- Partner coordination mechanism in place at national and subnational levels for all graded and protracted emergencies

⁴² WHO (2016). WHO Health Emergencies Programme Results Framework. Available at: <http://www.who.int/about/finances-accountability/funding/financing-dialogue/emergencies-programme-results-framework.pdf>

- Number of partners with readily deployable RRTs/standby rosters that can be deployed within 72 hours of notice
- Number of deployments in support of emergency operations through Standby Partners, by function
- Joint partner operational plan developed within 30 days for all newly graded emergencies
- Number and capacity of GOARN partners supporting alert, risk assessment and response to public health events, and emergencies
- Number and percentage of health clusters/health sector coordination groups with a dedicated, full-time coordinator
- Number of verified and/or mentored EMTs at the regional and national levels

Key deliverables:

- Increased global capacities for interoperable health emergency response through the expansion and strengthening of GOARN, GHC, EMT, Standby Partners, other partnerships ensuring increased interoperability among networks
- Consistent engagement of operational partners (of GOARN, GHC, EMT, Standby Partners) for health emergencies
- Readily deployable internal and external roster of experts among partner organizations that can be mobilized within 24–72 hours for emergency response
- Joint training and exercises in partnership and collaboration with operational partners
- Evaluation report on joint emergency operations and performance

Output 1.3 Effective logistics and operational support rapidly established and maintained

Output indicator:

- Number of operational partners that shared their emergency logistics resources as a support in transport, health facilities, health and general logistics and ICT

Key deliverables:

- Operation support provided, including transport, accommodation, facilities, security and ICT by partners
- Operational support provided by partners in terms of health logistics (medical supplies and equipment)

Output 2.0 Regional expert networks and innovative mechanisms developed and/or supported and implemented in partnerships in management of health emergencies due to high-threat infectious hazards, for example, clinical management, laboratories, social sciences, data modelling)

Output indicators:

- ◉ Number of institutions contributing to regional and national expert networks and mechanism for emergency response
- ◉ Development and availability of consistent technical standards for operational partnerships and monitoring system of implementation against standards

Key deliverables:

- ◉ Operational partnership mechanism in place at the regional, national and subnational levels to ensure access to life-saving interventions for health emergencies due to high-threat infectious hazards, for example, stockpiles, expert roster, SOPs for triggering of joint operations
- ◉ Coordinated technical expertise readily available for risk assessment, event mitigation/control and response to new and evolving high-threat infectious hazards
- ◉ Quality assurance framework for EMTs implemented

Output 3.0 Resource mobilization for sustenance and strengthening of effective partnerships for emergency response

Output indicators:

- ◉ Funds contributed/mobilized in common basket under operational partnership emergency funds
- ◉ Joint donor appeals for coordinated emergency response under operational partnerships

Key deliverable:

- ◉ Common pool of emergency funds for strengthening partner's emergency response capacity and deployment

There should be evaluation of the operational partnership arrangements for emergency response at least once in every two years, with inputs from both WHO and the partner.

Annex I

List of operational partners in South-East Asia Region

S.No.	Name of agency	Contact focal person	Key expertise of the agency
Global Health Cluster			
1	United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA), Regional Office for Asia and Pacific, Bangkok	Mr Markus Werne Head of Office, OCHA Email: werne@un.org	Lead in coordination of partners' response for emergency, primarily through IASC
2.	United Nations High Commissioner for Refugees (UNHCR), Regional Office for South-East Asia in Thailand	Dr Herve Isambert Senior Public Health Officer Email: Isambert@unhcr.org	Refugees crisis management, emergency response
3.	International Organization for Migration (IOM), Regional Office for Asia and Pacific	Dr Kristin Parco Migration Health Officer Email: ROBangkok@iom.int	Migrants management in emergencies, research and evidences on migration patterns in the Region
4.	United Nations Children's Fund (UNICEF), Regional Office for South Asia	Dr Paul Rutter Regional Health Advisor Email: prutter@unicef.org	Health Emergency Preparedness Initiative, multisectoral emergency response, rapid assessment
5.	World Food Programme (WFP), Regional Office, Thailand	Partnership Coordination Officer Email: WFP.Bangkok@wfp.org	Food supplies and food security in emergency response, nutritional assessments
6.	Food and Agricultural (FAO), Regional Office for Asia and Pacific	Mr Sridhar Dharmapuri Senior Food Safety and Nutrition Officer Email: FAO-HQ@fao.org	Nutrition and food safety in emergencies, climate resilience
7	United Nations Development Programme (UNDP), Regional Office for Asia and Pacific, Thailand	Disaster Management Specialist Email: infor.thailand@undp.org	Climate and disaster resilience, disaster management

S.No.	Name of agency	Contact focal person	Key expertise of the agency
8	United Nations Population Fund (UNFPA), Asia Pacific Regional Office	Mr Mathew Taylor Communication Officer Email: taylor@unfpa.org	Emergency services on reproductive health, sexual and gender-based violence, HIV/AIDS prevention and control
9	UN Women, Asia and Pacific	Ms Montira Narkvichine Regional Communications Specialist Email: montira.narkvichien@unwomen.org	Humanitarian coordination in sexual and reproductive health, gender and diversity, crisis response and recovery, HIV/AIDS Prevention and Control
10	United Nations International Strategy for Disaster Reduction (UNISDR), Regional Office for Asia Pacific	Dr Animesh Kumar Office-in-charge and Deputy Chief Email: animesh.kumar@un.org	Disaster risk reduction, disaster management, climate resilience
11	Centre for Disease Control and Prevention (CDC), Asia Regional Office Thailand	Dr John MacArthur Director of Global Health Protection Email: zae5@cdc.gov	Outbreak investigation and control, highly dangerous pathogens, laboratory surveillance
12	United States Agency for International Development (USAID), Regional Office for Bangkok	Chris Kelly Acting Mission Director Email: ckelly@usaid.gov	Emergency response in crisis and conflicts, global health, environment and global climate change, education and nutrition in emergencies
13	European Civil Protection and Humanitarian Aid Operations (ECHO), Regional Office for East and South-East Asia	Mr Phillipe Bonhouse Regional Medical Coordinator- South Asia Email: drrc@echo-bangkok.org	Health emergencies, education in emergencies, emergency shelter, capacity-building, humanitarian response funding
14	World Bank	Kanitha Kongrukreatiyos Email: kanitha@worldbank.org	Development work, humanitarian aid in complex emergencies
15	International Federation of Red Cross and Red Crescent Services	Ms Kym Blechynden Regional Emergency Health Coordinator- Asia Pacific Email: kym.blechynden@ifrc.org	Health emergencies in conflicts zones, training and roster of experts

S.No.	Name of agency	Contact focal person	Key expertise of the agency
16	Medecins Sans Frontieres (MSF), Regional Office for Asia, Hong Kong	Dr Natasha Reyes Emergency Response Support Coordinator, Email: Natasha.reyes@hongkong.msf.org	Humanitarian medical emergency response, WASH, nutrition, mental health, clinical care, medical logistics
17	MSF South Asia	Dr Farhat Mantoo Head of Human Resources Email: farhat.mantoo@new-delhi.msf.org	Roster of multisectoral experts, humanitarian logistics, humanitarian advocacy and campaign
18	Care International, Regional Office for Asia and Oceania	Ms Michelle Nunn President and CEO Email: cisecretariat@careinternational.org	Emergency response in natural disasters, WASH, nutrition, HIV/AIDS, education
19	BRAC	Moh. Faruque Ahmed Executive Director Email: info@brac.net	Humanitarian aids, emergency response, training, capacity building, roster of multisectoral experts
20	Caritas International	Humanitarian Response Coordinator, Bangladesh Email: ed@caritasbd.org	Disaster and emergency response in health, education, WASH, capacity-building
21	Trained Nurses Association of India	Mrs Evelyn P. Kannan Secretary-General Email: tnai_2003@yahoo.com	Training, capacity-building, roster of nurses
22	Nepal Health Research Council	Professor Dr Anjani Kumar Jha Executive Chairman Email: nhrc@nhrc.gov.np	Outbreak investigation and control, training and research in communicable diseases, environmental health
23	Christian Aid	Humanitarian Response Coordinator, Bangladesh Email: info@christian-aid.org	Emergency response, HIV, malaria
24	Solidarities International	Emergency Coordinator Email: dha.cmm.coo@solidarites-bangladesg.org	Emergency response in WASH, food security and nutrition
25	World Concern	Mr Dave Curtis Partnership Coordinator Email: info@worldconcern.org	Humanitarian relief and development
26	Action Aid Regional Office for Asia	Asia Regional Director Email: mail.asia@actionaid.org	Emergencies and conflicts, HIV/AIDS, climate change

S.No.	Name of agency	Contact focal person	Key expertise of the agency
27	Plan International	Mr Roger Yates Head of Partnerships Email: roger.yates@plan-international.org	Humanitarian response, conflicts, emergencies, disasters, child protection, education, food security and nutrition
28	RedR India	Mr Tanaji Sen Executive Director Email: tanaji@redrindia.org	Training, capacity-building, multisectoral roster of experts, emergency response in WASH, logistics, nutrition, public health
Regional partnerships networks			
29	Association of South-East Asian Nations (ASEAN)	Dr Ferdinal M. Fernando Assistant Director Email: ferdinal.fernando@asean.org	Intergovernmental platform for regional cooperation and coordination mechanism, advocacy and stewardship on emergency response capacity, ASEAN Coordinating Centre for Humanitarian Assistance as regional hub for information exchange on disaster management
30	South Asian Association for Regional Cooperation (SAARC)	Mr Sangye Rinchen Director, Environment, Natural Disasters and Biotechnology Email: dirbhu@saarc-sec.org	Disaster management centre, DRR, HIV/TB, emergency response coordination mechanisms at regional level
31	Southeast Asian Ministers of Education Organization, Tropical Medicine and Public Health Network	Dr Irwin Fernandez Chavez Email: irwinfc@yahoo.com	Training, capacity-building and research in tropical medicine and public health, roster of experts
32	Asia-Pacific Emergency and Disaster Nursing Network	Dr Aiko Yamamoto Email: a_yamamoto@cnas.u-hyogo.ac.jp	Network established by WHO, health emergency partners and nursing stakeholders. Network has 240 individual members from 40 countries of Asia-Pacific region.

S.No.	Name of agency	Contact focal person	Key expertise of the agency
Private Sector			
33	Bill and Melinda Gates Foundation	Dr Mrunal Shetye Head of Health Programmes Email: mrunal.shetye@gatesfoundation.org	Emergency aids in health and sanitation
34	Public Health Foundation of India	Dr K. Srinath Reddy President Email: ksrinath.reddy@phfi.org	Training, capacity-building, emergency public health system strengthening
35	Reliance Foundation	Mr Jagannatha Kumar Head	Disaster response, health emergency response, HIV/AIDS, TB, MCH and NCDs
Emergency medical teams			
36	Dhaka Community Medical College Hospital and Dental Unit, Bangladesh	Professor Mahmud Rahman Trust Coordinator and Chairman Email: dcht87@gmail.com	Training, capacity-building and clinical services
37	Amrita Institute of Medical Sciences, Kerala, India	Dr Prem Nair Medical Director Email: medicacollege@aiims.amrita.edu	Training, capacity-building, clinical services, super specialties in surgery and medicine
38	Ananda Marga Universal Relief Team (AMURT), USA	Mr Peter Sage Executive Director Email: contact@amrut.email	Emergency response in natural disasters and conflicts
39	Bangalore Medical College and Research Institute, Karnataka, India	Dr Sachidanand Director-cum-Dean Email: director_bmcric@yahoo.co.in	Training, capacity-building, clinical services
40	Bharatiya Jain Sanghata, Pune, India	Director Email: info@bjsindia.org	Disaster response, education initiative, active networks of volunteers across India
41	Doctors For You (DFY)	Dr Rajat Jain President Email: info@doctorsforyou.org	Medical relief agency, emergency medical aid in disaster, conflicts and epidemics
42	Human Care Foundation, Delhi, India	Dr Ravinder Email: contacthcf@yahoo.co.in	Emergency response in health education, rehabilitation of women, training, capacity development

S.No.	Name of agency	Contact focal person	Key expertise of the agency
43	Indian Medical Association	Dr R. N. Tandon President Email: hsg@ima-india.org	Medical assistance in emergency, training, capacity-building, roster of medical experts
44	Indian Red Cross	Joint Secretary Email: jointsecretary@indiaredcross.org	Emergency response, training, capacity-building in first aid, roster of community-based volunteers
45	Humedica	Dr Raphael Marcus Director and Programme Advisor Email: rmarcus@humedica.org	Humanitarian response, disaster management
46	King George's Medical University (KGMU), UP, India	Professor M. L. B. Bhatt Vice- Chancellor Email: vc@kgmcindia.edu	Training, capacity-building, clinical research
47	Nitte university, Mangaluru, India	Mr N. Vinaya Hedge Vice- Chancellor Email: info@nitte.edu.in	Training, capacity-building
48	Terapanth Professional Forum (TPF), UP, India	Mr Prakash Chand Maloo President Email: pcmaloo@westcoastpaper.com	Training, capacity-building, emergency response, mobile van clinics
49	Association of Medical Doctors of Asia (AMDA)	Dr Shigeru Suganami President Email: amda_info1984@amdainternational.com	Humanitarian response, emergency medical aids, disaster management
50	Indonesian Red Cross	Dr Instianasari Head of Emergency Health Subdivision Email: istianasari@pmi.or.id	Humanitarian response, emergency medical first aid, community-based volunteers
51	Indonesia National Board for Disaster Management (BNPB) Badan Nasional Penanggulangan Bencana	Mr Williem Rampangilei Kepala BNPB Email: contact@bnpb.go.id	Disaster alert on volcano eruptions in Indonesia, disaster management, training and research
52	Association of International NGOs in Nepal (AIN)	Ms Reshma Email: reshma@ain.org.np	Emergency response and rehabilitation
53	Compassionate Hands for Nepal	Director Email: comphands@gmail.com	Humanitarian relief, emergency response in health sector

S.No.	Name of agency	Contact focal person	Key expertise of the agency
54	Human Outreach Project	Mr Dean Cardinale President Email: dean@wwtrek.com	Humanitarian response, youth engagement in emergency
55	Nepalese Army Institute of Health Sciences	Maj. Gen. Dr Bachhu Ram K. C. (Rtd.) Executive Director Email: info@naihs.edu.np	Clinical care services, training, capacity-building
56	Institute of Medicine, Nepal	Dr Pradeep Vaidya Email: praidya@yahoo.com	Training, capacity-building, clinical services
57	Nepal Kidney Foundation (NKDF)	Dr Shakti Basnet Founder President	Kidney care in emergency situations, pools of volunteers, raising awareness of kidney diseases
58	Nick Simons institute (NSI)	Mr Bhekh B. Thapa Chairperson Email: nsi@nsi.edu.np	Rural healthcare, training, capacity-building, pool of trained frontline workers
59	Nurse. Teach. Reach (NTR)	Ms Lucky Founder Email: info@nurseteachreach.org	Training, capacity-building of nurses, humanitarian response
60	JICA (EMT)	Emergency Focal Person Email: Suzuki.Shota@jica.go.jp	Disaster relief, search and rescue, emergency medical response, EMT types 1 and 2
61	Thai Red Cross Society	Professor Prmlert Chatkaew Email: interc@redcross.or.th	Emergency response, training, capacity-building, roster of community-based volunteers for first aid
62	HumaniTerra	Dr Xavier Dufrenot Director Email: x.dufrenot@humani-terra.org	Surgical emergency care, EPHP system strengthening, training, roster of surgeons
63	Jigme Dorji Wangchuck National Referral Hospital, Thimpu	Ms Tshering Yangden Director Email: tsheringya@jdwvrh.gov.bt	Clinical care services, training, capacity-building, mass casualties' management
64	Medical Emergency Response Team (MERT) Thailand	Emergency Medical Group Leader Email: mertthailand@gmail.com	Acute medical services, critical care, ICUs

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65	Central Board Muhammadiyah Disaster Management Centre (MDMC)	Dr Corona Rintawan Email: rintawan@yahoo.com	Acute medical services, critical care, ICUs
GOARN			
66	Institute of Epidemiology, Disease Control and Research, Bangladesh	Professor Dr Meerjady Sabrina Flora Director Email: drraihand@iedcr.gov.bd	EIS, outbreak management, field epidemiology and research, GOARN member
67	National Institute of Preventive and Social Medicine (NIPSOM), Bangladesh	Professor Dr Akhtarun Naher Director Email: nipsom@id.dghs.gov.bd	Field epidemiology, training, surveillance strengthening, risk communication, GOARN member
68	International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR, B)	Dr John Clemens Executive Director Email: jdclemens@icddr.org	Diarrhoeal disease research, surveillance, outbreak investigation and control, oral cholera vaccines, GOARN member
69	Bangladesh Disaster Preparedness centre	Mr Naimu Islam Moom Project Coordinator Email: info@bdpc.org.bd	Community-based DRR and disaster management, training, capacity-building
70	Public Health Laboratory, Bhutan	Ms Sangay Zangmo Email: sangayphl@health.gov.bt	Laboratory testing and surveillance of infectious disease outbreaks
71	INCLLEN Trust	Dr N. K. Arora Executive Director Email: nkarora@inclentrust.org	Clinical epidemiology research, training, household air pollution, GOARN member
72	Indian Council of Medical Research	Director-General Email: headquarters@icmr.org.in	Apex body in India for biomedical research policies, network of research institutes in country, GOARN member
73	National Institute of High Security Animal Diseases (Indian Council of Agricultural Research)	Dr V P Singh Director Email: director.nihasad@icar.gov.in	Research and outbreak investigation of exotic and emerging pathogens of animals, BSL-3 biocontainment laboratory, GOARN member

S.No.	Name of agency	Contact focal person	Key expertise of the agency
74	National Centre for Disease Control, New Delhi, India	Dr A. C. Dhariwal Director Email: dirnicd@nic.in	Outbreak investigation and control, SHOC/EOC, epidemiological research, Global Disease Detection/ EIS Programme, and roster division of zoonosis, GOARN member
75	National Institute of Epidemiology, Chennai, India	Dr Manoj Murhekar Director Email: directorne@dataone.in	Research and training in field epidemiology, biostatistics
76	ICMR Centre for Research in Medical Entomology, Madurai, India	Dr T. Mariappan Director Email: director@crme.res.in	Research and training in vector-borne diseases, entomology, serology, outbreak investigation, EWAR system for vector-borne diseases, climate impact on epidemiology of vector-borne disease distribution
77	Eijkman Institute Jakarta	Dr I Made Artika Email: imart@eijkman.go.id	Research in infectious diseases related molecular biology and biotechnology, training
78	B2P2VRP (National Vector-borne and Zoonosis Research Centre), Salatiga	Dr Farida Handayani Email: farida.handayani@gmail.com	Research, training and outbreak investigation on vector-borne and zoonotic diseases
79	Field Epidemiology Training Programme (FETP), UGM, Indonesia	Dr Citra Indriani Email: cintrairdriani@gmail.com	Field epidemiology, EIS, roster of trained workforce
80	Malaria Sub-directorate, MOH, Indonesia	Eka Jusuf Singka Email: ekasingka@yahoo.co.uk	Vector-borne disease outbreak investigation and control
81	Persatuan Karya Dharma Kesehatan Indonesia (PERDHAKI), Association of Voluntary Health Services of Indonesia	Dr Ari hermawan Email: perdhaki@cbn.net.id	Emergency response, training
82	Indonesian Christian Association for Health Services (PEIKES)	Dr Daniel Budi Wilbow Email: pelkesi@cbn.net.id	Emergency preparedness and response planning, humanitarian response, advocacy

S.No.	Name of agency	Contact focal person	Key expertise of the agency
83	Indonesia Epidemiological Association	Dr Hariadi Wibisono Email: info@paei.or.id	Field epidemiology, training, capacity-building, outbreak investigation and control, roster of experts
84	Indonesia PHEOC (Public Health Emergency Operation Centre)	Dr Jane Supardi Email: kontak@kemkes.go.id	EOC, health emergencies management
85	FETP, Indonesia	Dr Yuwono Email: fetpindonesia@yahoo.com	EIS, roster of experts, outbreaks management, field epidemiology and research
86	Indonesia, Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET)	Dr I Nyoman Kandun Email: fetpindonesia@yahoo.com	Outbreak alerts, investigation and control, FETP, roster of experts
87	Indira Gandhi Memorial Hospital, Male, Maldives	Dr Aishath Aroona Abdulla Email: iaroonah@hotmail.com	Clinical services, mass casualties' management
88	Regional Department, Mandalay region, Myanmar	Dr Moe Swe Email: drmoeswe09@gmail.com	Curative and preventive services, emergency health services, supply chain system
89	Central epidemiology unit, Department of Health, Naypyitaw, Myanmar	Dr Htun Tin Email: htuntin.dr@googlemail.com	Outbreak investigation and control, field epidemiology, training and research
90	National Public Health Laboratory, Nepal	Dr Runa Jha Director Email: nphl@wlink.com.np	Public health laboratory tests, laboratory surveillance, training and research, GOARN member
91	Sukha Raj Tropical and Infectious Disease Hospital, Nepal	Director Email: info@istidh.org	Outbreak investigation and control, clinical services, mass casualty management, training and research, GOARN member
92	Office of the Regional Directorate of Health Services, Gampaha, Sri Lanka	Dr Chandrani Senarathne Email: rmchandrani@yahoo.com	Emergency services, rapid assessment, outbreak management, emergency supply chain management

S.No.	Name of agency	Contact focal person	Key expertise of the agency
93	Epidemiology unit, MOH, Sri Lanka	Chief Epidemiologist Email: epidunit@sltnet.lk	Field epidemiology, outbreak investigation and control, training and research, GOARN member
94	Bureau of Emerging Infectious Diseases, Thailand	Dr Rome Buathong Email: romeua@hotmail.com	Outbreak investigation and control, field epidemiology, training and research
95	Mekong Basin Disease Surveillance	Regional Coordinator Email: moe@mbsdsnet.org	Research, outbreaks investigation and control, PHEIC and country coordination, GOARN member
96	Dengue Unit Queen Sirikit, National Institute of Child Health, Thailand	Dr Sorasak Lochindarat Email: siripenk@gmail.com	Paediatric dengue infection treatment and outbreaks management, training and research
97	International FETP	Dr Wanna Hanshaoworakul Email: loah12@hotmail.com	Outbreak investigation and control, training and research, GOARN member
98	Integrated Community Health Service, MOH, Timor-Leste	Dr Jao PH da Silva Email: merry_niha@yahoo.com	Community-based health services, training of frontline workers
99	Surveillance division, MOH, Timor-Leste	Dr Merry Varela Niha Email: merry_niha@yahoo.com	EWRS, surveillance, outbreak investigation and control
WHO Collaborating Centres			
100	National Institute of Virology (NIV) India	Dr D T Mourya Director Email: mouryadt@icmr.org.in	Research and outbreak investigation of arthropod-borne arbo-viruses, national reference laboratory (BSL-4) for virological confirmatory tests, diagnostic kits QA/QC, WHO Collaborating Centre, GOARN member
101	Bureau of Epidemiology, Surveillance and Response Unit, MOH, Thailand	Dr Potjman Sirirayapon Email: nakorn.premisri@gmail.com	Field epidemiology, outbreaks investigation and control, training and research, GOARN member

S.No.	Name of agency	Contact focal person	Key expertise of the agency
102	Bhabha Atomic Research Centre, India	Dr K. S. Pradeep Kumar Director Email: kmkund@barc.gov.in	CBRN accidents management, training
103	National Environmental Engineering Research Institute, India	Dr Pawan Labhasetwar Senior Principal Scientist-Water Quality Email: pk_labhasetwar@neeri.res.in	Environmental virology, air pollution, training on water safety, water quality monitoring
104	Centre of Health Crisis, MOH, Indonesia	Dr Achmad Yrianto Nasrun Harun Director Email: a_yurianto362@yahoo.co.id	Emergency response, training
Standby Partners			
105	International Civilian Response Corps (CANADEM)	Mr Paul LaRose-Edwards Executive Director Email: Edwards@canadem.ca	Humanitarian response, standby roster of multisectoral experts, training and capacity-building
106	Information Management and Mine Action Programme (iMMAP)	Mr Patrick Fitzgerald Email: pfitzgerald@immap.org	Information management in emergencies, GIS-based monitoring and evaluation, capacity-building
107	DSS Water (the Netherlands Enterprise Agency)	Sandra Cats Water Coordinator Email: Sandra.cats@rvo.nl	Humanitarian response, standby roster of multisectoral experts, training and capacity-building
108	Danish Emergency Management Agency (DEMA)	Jens Bjerg Sand Head of Section Email: kom@brs.dk	Fire and rescue services, emergency response, mass casualties management, nuclear and radiation accidents management
109	Swedish Civil Contingencies Agency (IMS)	Director-General Email: tib@msb.se	Emergency response, public warning systems, protection and safety, CBRN management, capacity-building
110	Norwegian Refugee Council (NRC)	Mr Adam Comb Regional Director Asia Europe Email: nrc@nrc.no	Emergency response, camp management, shelter planning, WASH, food security, legal assistance

S.No.	Name of agency	Contact focal person	Key expertise of the agency
111	RedR Australia	Mr Drasko Kraguljac Director- Strategy and Partnerships Email: dkraguljac@red.org.au	Standby partnerships with WHO, AUSMAT and GOARN. Expertise in WASH, humanitarian response, disease outbreaks investigation and control, risk communication, emergency logistics
112	Save the Children	Mr Sian Watters Programme Manager Email: S.watters@savethechildren.org.uk	Emergency response for disaster, disease outbreaks management, armed conflicts and migration, protection of children, child rights
113	UK Department for International Development (DFID)	Alice Hooper Humanitarian Deputy Deployments Manager, Email: A-Hooper@dfid.gov.uk	Humanitarian emergency response and aids

Annex 2

Matrix of emergency response procedures⁴³ under operational partnerships across WHO SEARO, WCO and partners

WHO country office	WHO SEARO	Operational partner
Within 24 hours		
<ul style="list-style-type: none"> ▪ Establish contact with operational partners and MOH ▪ Call to partners for activating RRT 	<ul style="list-style-type: none"> ▪ Commence initial outreach to regional partners ▪ Identify and begin deployment of candidates for in-country coordination roles, e.g. health sector, health cluster, EMTs, GOARN 	<ul style="list-style-type: none"> ▪ Proactively contact WHO and MOH for contributing to joint rapid assessment ▪ Activate intersectoral database of experts and deploy requisite human resources and other support logistics for timely, effective and efficient emergency response
Within 24–72 hours		
<ul style="list-style-type: none"> ▪ Support MOH in determining and implementing coordination mechanism ▪ Advise humanitarian coordinator on need for activation of health cluster, if not already activated ▪ Convene first health sector/health cluster meeting and map partner's emergency response ▪ Ensure partner's contribution in joint initial situational analysis and MIRA ▪ Establish EMT coordination cell within MOH, as needed 	<ul style="list-style-type: none"> ▪ Expand outreach to regional partners and request mobilization/deployment as necessary ▪ Lead, motivate and mobilize partners in global calls ▪ Engage GOARN and other partners at regional level to contribute to monitoring of public health risks (e.g. impending outbreaks) and evolution of situation (complexities of risk and hazards in health) 	<ul style="list-style-type: none"> ▪ Participate in and contribute to health coordination meetings ▪ Identify priority gaps, needs and opportunities in emergency operations and come forward with proposal and project interventions complementing the joint operations

43 WHO (2017). Emergency Response Framework, 2nd ed. Geneva: WHO; 2017.

WHO country office	WHO SEARO	Operational partner
Within 3–10 days		
<ul style="list-style-type: none"> ▪ Coordinate overall development of initial health sector/health cluster response strategy and action plan ▪ Ensure that SOPs are followed by all participating agencies in emergency operations for implementing HRP and for deployment of staff ▪ Work with partners to identify immediate priority gaps in service delivery and coverage through 4Ws matrix/exercise ▪ Participate in intercluster/sector meetings and activities ▪ Issue initial health sector/health cluster bulletin 	<ul style="list-style-type: none"> ▪ Collaborate with regional partners to mobilize resources to address operational and technical gaps ▪ Ensure quality of health sector/health cluster bulletin 	<ul style="list-style-type: none"> ▪ Activate own procurement and logistics teams for needs assessment and future projections
Within 10–30 days		
<ul style="list-style-type: none"> ▪ Identify, facilitate registration of new agencies with the MOH and establish subnational hubs of operational partnerships ▪ Lead partners in development of HRP and joint operations plan ▪ Finalize health section of MIRA, in collaboration with IMT ▪ Conduct regular health partner/health cluster meetings (e.g. daily, bi-weekly) to review status of response needs, untapped potential of partners, risk and activities ▪ Monitor effectiveness of health response and engage partners to address gaps in service delivery and coordination 	<ul style="list-style-type: none"> ▪ Reach out to other sectoral partners regionally for nutrition, water sanitation and hygiene, protection, mental well-being and education ▪ Represent health sector/health cluster in regional forums, for example, IASC teleconferences and meetings 	<ul style="list-style-type: none"> ▪ Strengthen MIRA for effective and efficient emergency response considering changed and emerging priorities of population-in-need ▪ Contribute to gap analysis, reporting, sharing of information for addressing unmet needs and improving emergency service delivery provisions ▪ Actively contribute to development of joint operational plan contextualized to local settings and strengths of partners

WHO country office	WHO SEARO	Operational partner
Within 30–60 days		
<ul style="list-style-type: none"> ▪ Fill priority coordination gaps at subnational levels ▪ Expand operational partnerships through enrolment and capacity development of local partners ▪ Contribute to transition and recovery planning 	<ul style="list-style-type: none"> ▪ Engage regional partners on an ongoing basis, exchange information and advocate for additional resources/mobilization ▪ Expand operational partnership through enrolment of new regional-level partners who have contributed significantly in emergency response 	<ul style="list-style-type: none"> ▪ Mobilize resources and technical expertise for recovery and rehabilitation phase ▪ Maintain liaisons, communication and exchange of information with WHO for strengthening operational partnership



**World Health
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REGIONAL OFFICE FOR

South-East Asia