BELT AND ROAD INITIATIVE AND PUBLIC HEALTH EMERGENCIES/ HEALTH SECURITY

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OBJECTIVES / OUTLINE

Global Health Security Landscape

Looking at countries – a focus in WHO South East Asia Region

Potential impact of BRI on health security
- Opportunities
- Challenges – risks and threats

Actions and capacity for preparedness and response

Moving Forward: Optimizing opportunities for global health security

THE CURRENT LANDSCAPE

Global health security -- post 2014 ebola outbreak

Global Health Security Agenda

IHR and improving its implementation (MEF, national plans)

WHO – WHE
- One billion better protected from health emergencies / SEARO's Regional Flagship Programme

SDGs specifically Goal 3

Indo-Pacific Health Security Initiative

Sendai Framework for DRR
- Bangkok Principles for Health DRR

Climate Change and Paris Agreement

Belt and Road Initiative

The confluence of these initiatives – both opportunities and challenges are in countries

World Health Organization: South-East Asia Region

1.9 billion people

33% of the worlds disease burden

25% of the world's poor

Rapidly urbanizing

Young mobile population

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.
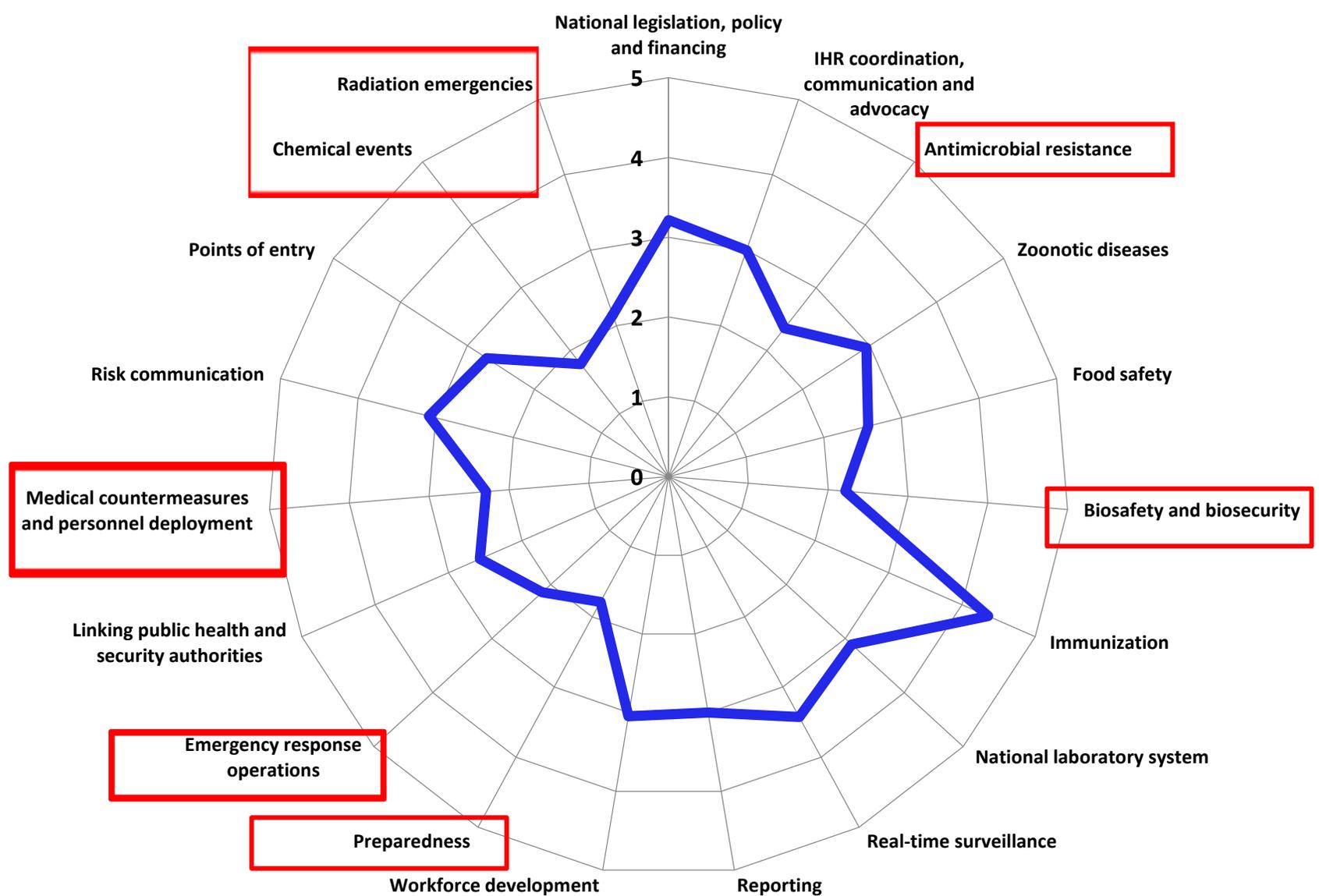
Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, and other contributors

Year	SEAR country	Disaster/epidemic	Estimated mortality/morbidity
2018	Indonesia	Sulawesi earthquake	Approximately 2000 deaths
2017	Cox's Bazar, Bangladesh	Rohingya conflict	Close to one million people displaced; public health risks; 231 deaths (including 81 children below 5 years of age)
2017	Bangladesh	Cyclone Mora	3.3 million people affected; 135 deaths
2017	Sri Lanka	Dengue outbreak	More than 80,000 cases; 300 deaths
2016	Indonesia	Aceh earthquake	More than 1000 injured; 100 deaths
2016	DPR Korea	Floods/ Typhoon Lionrock	138 deaths 100 000 homeless
2015	Nepal	Earthquake	9 000 deaths; 22 000 injured
2015	India	H1N1 outbreak	>2 000 deaths; 33 000 cases
2011	Thailand	Floods	815 deaths; 13.6 million affected
2010	Indonesia, Thailand, Sri Lanka, India	Dengue outbreak	>200 000 cases 1 500 deaths
2009	Thailand	Chikungunya outbreak	42 000 cases
2008-09	Sri Lanka	Conflict/ Civil War	>20 000 deaths; 60 000 wounded
2008	Myanmar	Cyclone Nargis	138 000 deaths
2007	Bangladesh	Cyclone Sidr	>5 000 deaths
2006-07	Indonesia, Thailand	H5N1 outbreak	187 deaths
2006	India	Chikungunya outbreak	1.1 million cases
2006	Indonesia	Yogyakarta earthquake	>5 700 deaths; 37 000 injured
2004	Indonesia, India, Sri Lanka, Thailand	Indian Ocean Tsunami	>227 000 deaths 125 000 injured
2001	India	Gujarat earthquake	>13 000 deaths; 167 000 injured

SEA Region frequently faces public health emergencies from various hazards

IHR capacities

Common Weaknesses and Strengths

IHR Self assessments are also now closer to JEE findings

Findings of JEEs – 7 countries, SEAR

Risk for natural hazards with UHC Index in the South-East Asia Region

INFORM Risk

- 0.0 - 2.0
- 2.0 - 4.0
- 4.0 - 6.0
- 6.0 - 8.0

UHC indicators

- Overall essential health services coverage index (Scale: 1-100)
- Reproductive, maternal, child and neonatal health
- Infectious diseases
- Noncommunicable diseases
- Service capacity and access

DPR KOREA 77

87 — Reproductive, maternal, child and neonatal health
55 — Infectious diseases
79 — Noncommunicable diseases
90 — Service capacity and access

NEPAL 65
65 — Reproductive
56 — Infectious
62 — Noncommunicable
78 — Service capacity

BHUTAN 66
83 — Reproductive
54 — Infectious
61 — Noncommunicable
70 — Service capacity

INDIA 57
68 — Reproductive
37 — Infectious
62 — Noncommunicable
69 — Service capacity

BANGLADESH 51
66 — Reproductive
34 — Noncommunicable
46 — Service capacity

MYANMAR 50
57 — Reproductive
42 — Infectious
62 — Noncommunicable
41 — Service capacity

THAILAND 77
89 — Reproductive
63 — Infectious
73 — Noncommunicable
86 — Service capacity

SRI LANKA 64
73 — Reproductive
38 — Infectious
74 — Noncommunicable
84 — Service capacity

MALDIVES 64
79 — Reproductive
54 — Noncommunicable
81 — Service capacity

INDONESIA 56
80 — Reproductive
30 — Infectious
70 — Noncommunicable
60 — Service capacity

TIMOR-LESTE 46
56 — Reproductive
58 — Infectious
22 — Noncommunicable
67 — Service capacity

Source: INFORM Index 2016
UHC Index 2016

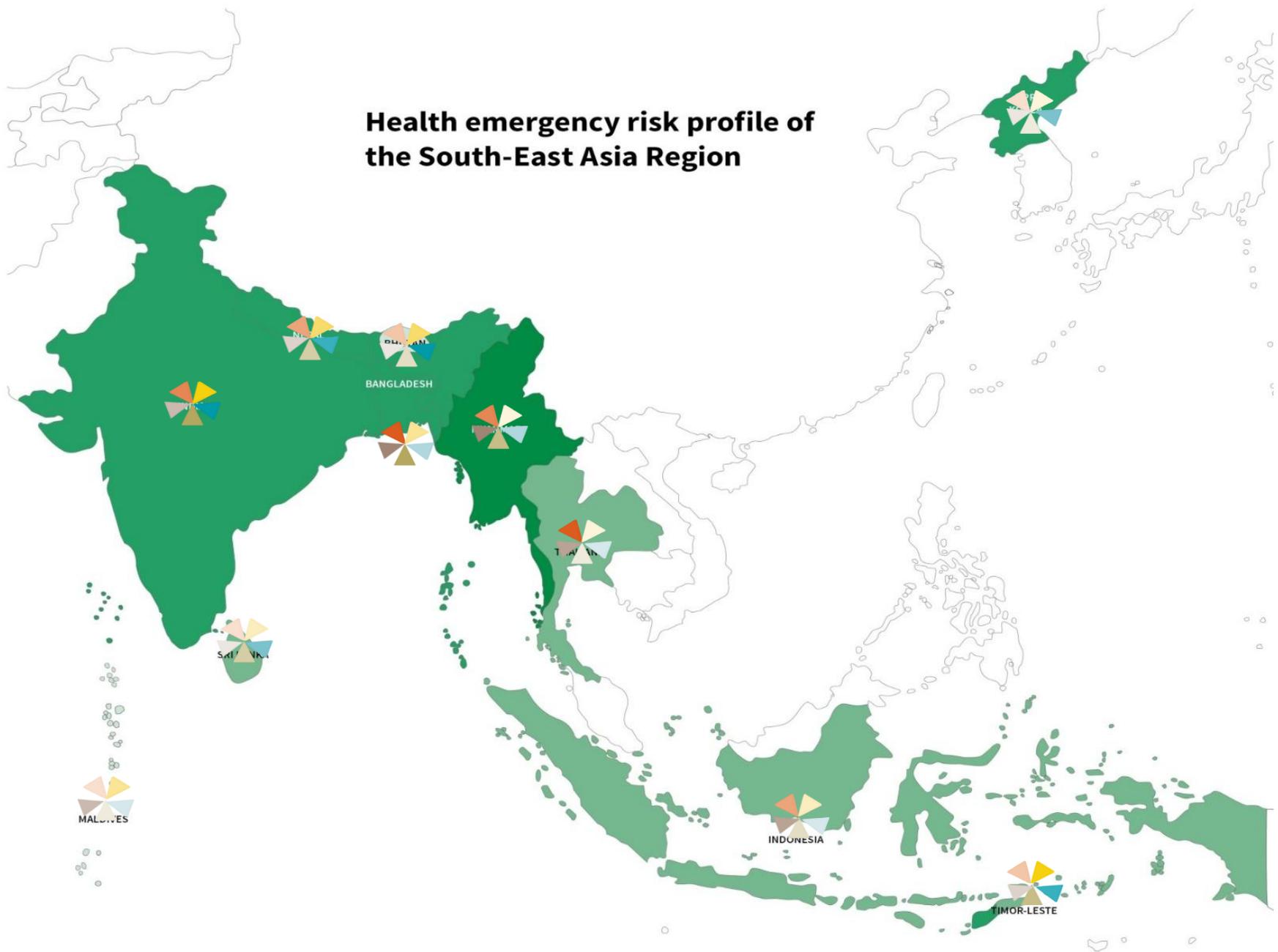|	Reproductive, maternal, child and neonatal health				Infectious diseases				Noncommunicable diseases				Service capacity and access			
	Family planning coverage (%)	Pregnancy care (%)	Child immunization coverage (DPT3 %)	Care seeking behaviour of suspected pneumonia (%)	Tuberculosis detection and treatment (%)	HIV antiretroviral therapy coverage (%)	Insecticide treated bednets or Indoor residual spray coverage for malaria prevention (%)	Access to improved sanitation (%)	Prevalence of normal blood pressure level in population (%)	Mean fasting plasma glucose (mmol/L) (Rescaled value)	Cervical cancer screening (%)	Tobacco non-use (%)	Density of hospital beds	Heath worker density	Access to essential medicines (%)	Health security: IHR compliance (%)
BANGLADESH	73	36	94	42	53	15	67	61	51	82	-	57	33	17	65	76
BHUTAN	85	78	99	74	72	23	100	50	44	65	64	75	100	45	-	76
DPR KOREA	77	97	96	80	73	-	28	82	64	99	-	-	100	100	-	73
INDIA	64	51	87	73	44	44	25	40	49	76	-	65	50	68	-	98
INDONESIA	79	85	81	75	27	9	55	61	53	100	-	64	33	66	-	99
MALDIVES	43	90	99	74	30	19	-	98	51	98	-	80	100	100	-	60
MYANMAR	75	59	75	58	61	46	83	80	51	100	4	59	33	36	43	84
NEPAL	56	69	91	50	69	31	100	46	41	83	-	69	100	66	-	72
SRI LANKA	69	96	99	58	58	19	-	95	55	86	25	75	100	67	-	79
THAILAND	89	91	99	80	42	65	60	93	55	98	-	73	100	66	-	98
TIMOR-LESTE	38	47	76	71	48	-	100	41	45	100	1	44	100	46	-	66

Legend:

Reproductive, maternal, child and neonatal health:
- Family planning coverage (%)
- Pregnancy care (%)
- Child immunization coverage (DPT3 %)
- Care seeking behaviour of suspected pneumonia (%)

Infectious diseases:
- Tuberculosis detection and treatment (%)
- HIV antiretroviral therapy coverage (%)
- Insecticide treated bednets or Indoor residual spray coverage for malaria prevention (%)
- Access to improved sanitation (%)

Noncommunicable diseases:
- Prevalence of normal blood pressure level in population (%)
- Mean fasting plasma glucose (mmol/L) (Rescaled value)
- Cervical cancer screening (%)
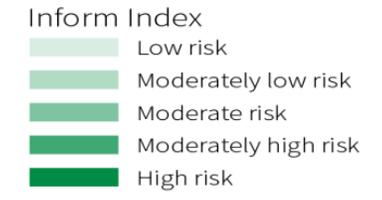- Tobacco non-use (%)

Service capacity and access:
- Density of hospital beds , expressed as % of global threshold, 18/10 000 (proxy for basic hospital access)
- Heath worker density, expressed as % of new global threshold, 44.5/10 000
- Access to essential medicines (%)
- Health security: IHR compliance (%)

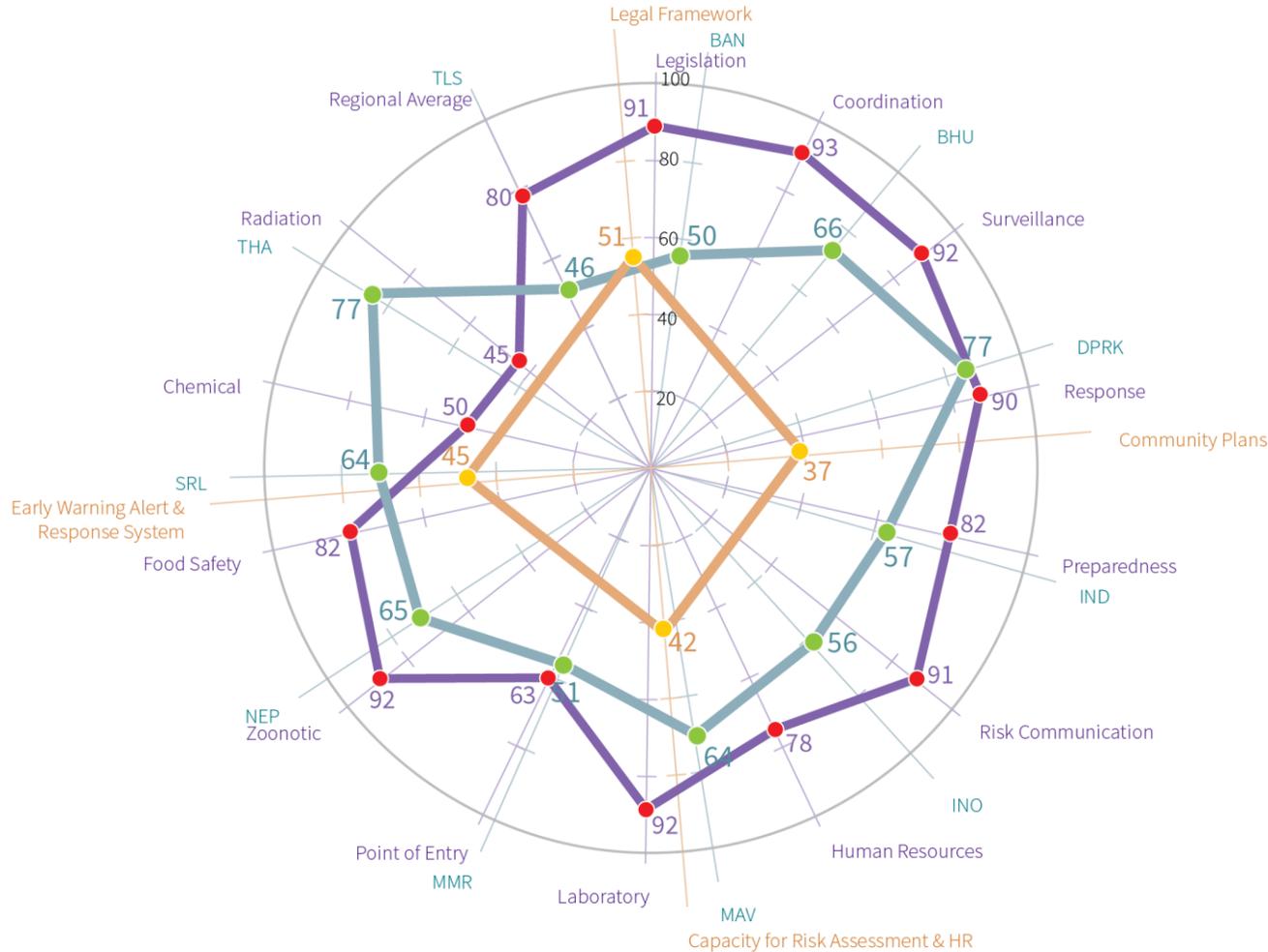Health emergency risk profile of the South-East Asia Region

Risk for natural hazards

Inform Index
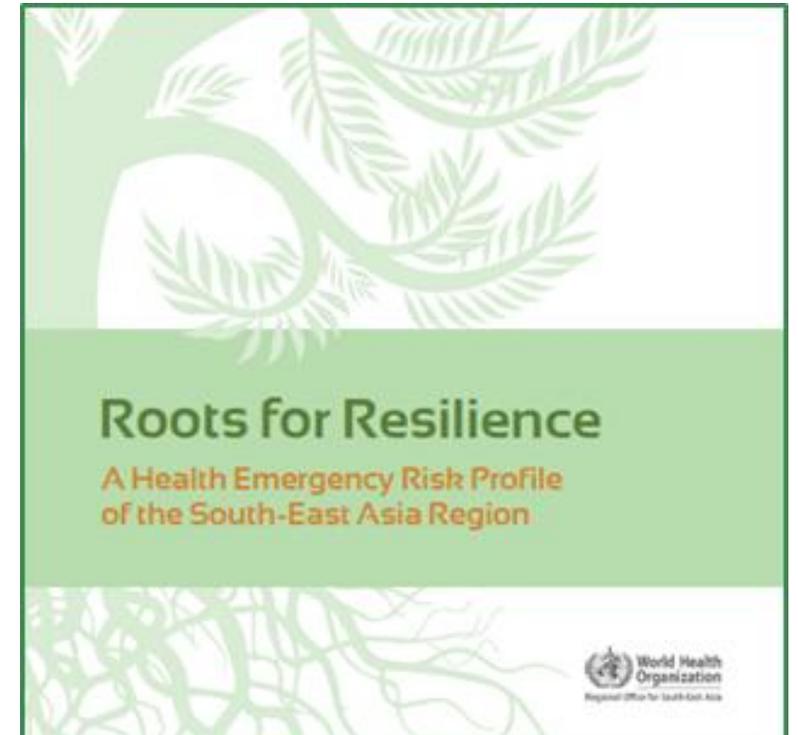- Low risk
- Moderately low risk
- Moderate risk
- Moderately high risk
- High risk

Indicators

Risk rank for CCHF
- Low risk
- Moderately low risk
- Moderate risk
- Moderately high risk
- High risk

Risk rank for Cholera
- Low risk
- Moderately low risk
- Moderate risk
- Moderately high risk
- High risk

Risk rank for JE
- Low risk
- Moderately low risk
- Moderate risk
- Moderately high risk
- High risk

Risk rank for MERS
- Low risk
- Moderately low risk
- Moderate risk
- Moderately high risk
- High risk

Risk rank for ZVD
- Low risk
- Moderately low risk
- Moderate risk
- Moderately high risk
- High risk

BANGLADESH

SRI LANKA

MALDIVES

INDONESIA

TIMOR-LESTE

Capacity for health security

Legend:
- IHR Capacity Regional self-assessment score
- UHC index
- SEAR Benchmark (without India)

Roots for Resilience
A Health Emergency Risk Profile of the South-East Asia Region

World Health Organization

OPPORTUNITIES FOR HEALTH SECURITY

Commitment to provide medical/public health assistance in emergencies to BRI partners

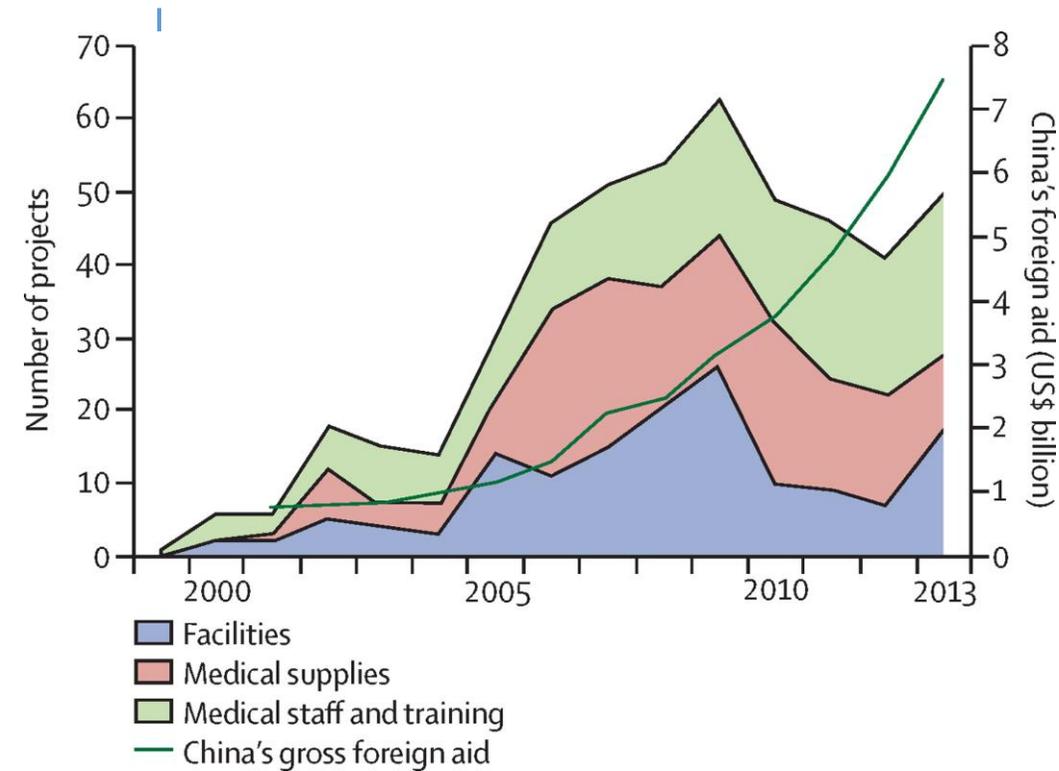- Contribution in Ebola response in West Africa
- Support to the Nepal Earthquake for public health laboratories

China's regional cooperation and coordination in prevention and management of infectious diseases

- Epidemic information sharing
- Exchange of preventive and interventional methods
- Training health professionals

"Beijing Communique" adopted in 2017 to synergize efforts in medical emergency response and epidemic prevention

DEVELOPMENTS

(Source: China's Silk Road and global health, The Lancet, December 2017)

MoU between China and WHO (2017)

April 2018: Establishment of China's International Development Cooperation Agency (IDCA)

- Responsible for coordinating and managing the country's foreign aid policy, both financing and implementation
- China's foreign aid has been increasing in recent years

China and Pakistan launched last year a new emergency medical center in the southern port city of Gwadar

- Access to essential health services
- Improved capacity for prevention and response to outbreaks

AREAS OF HEALTH COOPERATION: MOU BETWEEN CHINA AND WHO (2017-2021)

Implementation of IHR and public health emergency response

Emergency medical teams (EMTs)

Health system and policies – UHC

Prevention and control of HIV, TB, malaria etc infectious diseases

Prevention and control of NCDs

Traditional medicines

Capacity building and personnel training

Current EMT capacities in SEAR countries, 2018

Country	EMTs
Bangladesh	6 teams -MoH, Disaster Management, Building Resources Across Communities - BRAC, Bangladesh Red Crescent Society
Bhutan	1 team – Type 1 Fixed – signed up for WHO verification
DPR Korea	Several teams at central and provincial levels
India	Several teams, including Military and National Disaster Response Force's EMTs
Indonesia	11 teams – MOH, Military, Hajj and Muhammadiyah EMTs
Maldives	4 teams – MOH, Indira Gandhi Memorial Hospital (IGMH), ADK Hospital, Maldivian Red Crescent Society
Myanmar	5 teams including MOH, Yangon General Hospital
Nepal	7 teams including Army Hospital's team
Sri Lanka	1 team – Military EMT
Thailand	77 Medical Emergency Response Teams, 1 Bangkok city team, 4 military teams
Timor-Leste	One Rapid Response Team with MoH

Regional Committee Resolution for EMT strengthening, 2018

EMTs in the process of QA and accreditation:
- **Bhutan**
- **Indonesia**
- **Sri Lanka**
- **Thailand**

CHALLENGES ON HEALTH SECURITY

Increasing mobility of migrant workers

Ecological impact of large infrastructure projects that could push vectors (mosquitoes, bats, ticks, etc) to colonize new areas

Management of hazardous materials, e-waste and toxic chemicals

Hazardous industries may not provide adequate occupational health and environmental standards

Potential humanitarian crisis due to geopolitical tensions; increased economic migrations ; events due to vulnerability to other hazards (eg natural- seismic, hydrometreological)

EXAMPLES OF POTENTIAL RISK

Potential for more frequent and sustained flu outbreaks

- Movement of many zoonotic influenza strains
- Weak surveillance and public health response system in many countries
- Cross border issues

Increased movement of people, animals and microbes

- Potential for spread of zoonotic infections
- Increased potential for importation and/or outbreaks of
  - MERS-CoV
  - Vector-borne diseases such as malaria, dengue

Vulnerability of BRI areas to other hazards- natural, technological

ACTIONS FOR PREPAREDNESS & RESPONSE CAPACITY

IHR core capacity strengthening with systems resilience building

- Coordination, information sharing in all activities
- Leverage BRI actions on this – platforms for good practice, human resources exchange; building of health facilities

Information collection, analysis and sharing

- Health profiles of countries (Epidemiology, disease, vector, etc) with a focus on the vulnerable
- Specific risk assessments and health impact assessments in countries

Planning activities based on risk assessments

Actions around inter-sectoral efforts – One Health approach

MOVING FORWARD

Consolidate

- Ensure continuation of capacities achieved – surveillance, health Intelligence
- Provision and access to health care and WASH
- Contributions to emergency response
- Packaging of BRI - 3 hundreds; health indicators, ; risk informed plans

Accelerate

- Strengthening health security capcities in specific strategic areas / risk areas
- Health reforms for more resilient health systems
- Support development of resilient health emergency systems – addressing JEE gaps including EMTs and field operation (WASH, biosafety etc.)

Innovate

- Partnerships and country collaboration through research and innovations

KEY MESSAGES

- The action for global health security is local

- Economic security is a health security issue and vice versa

- The hazards are multiple and capacities at specific geographic and technical areas may not be adequate to address risks and potential events

- Focus on work across borders and across sectors

- Leverage initial preparedness and response activities started by BRI

- Consolidate, Accelerate and Innovate