THE ASIAN COLLECTIVE FOR HEALTH SYSTEMS

Health and Climate in South and Southeast Asia – Opportunities for Knowledge Exchange and Regional Collaboration

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Structure of the paper

1. Climate-health burden in the 10 countries of South/Southeast Asia
2. Mapping of policy response and action
3. Analysis of climate-health policy action using a framework based on WHO guidance
4. Identification of shared regional priorities and opportunities for knowledge exchange

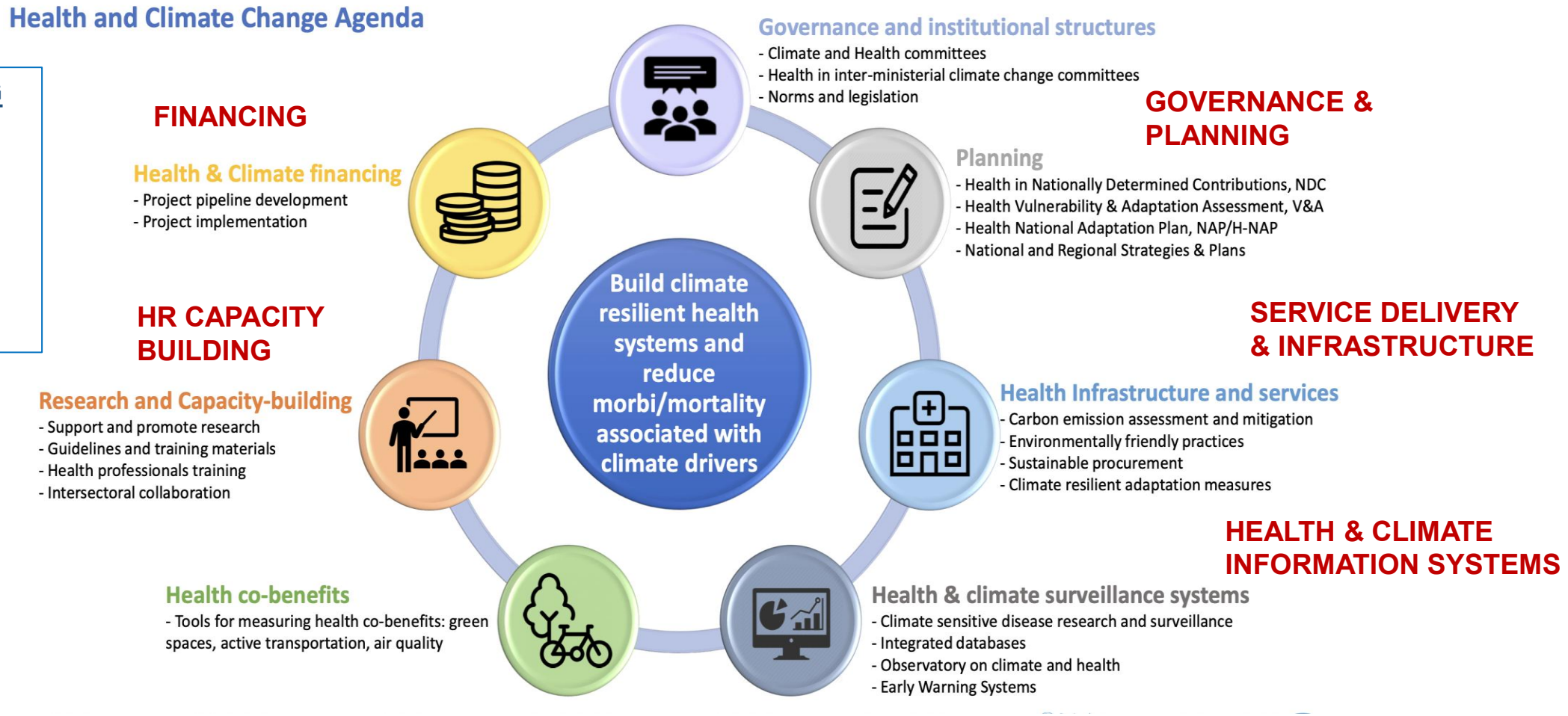
Snapshot of Climate-Health Burden

Country	Extreme Heat	Vector &water-borne diseases	Air pollution	Floods
Bangladesh	30 deaths per 100,000 (by 2080) for 65+ years of age	Malarial risk: 147M people (by 2070 assuming a high emission scenario); 8% of total diarrheal deaths(<15 years) attributable to climate change (2030)	61% of all estimated children deaths due to acute lower respiratory infections, attributable to household air pollution (2012)	+4.2M additional people at risk annually (by 2030)
Malaysia	45 deaths /100k for 65+ years of age (2080)	Malarial risk: 43M people (2070)	—	+86k additional people at risk annually (2030)
Nepal	53 deaths /100k for 65+ years of age (2080)	VBD's prevalent in Nepal's lowland Terai region & hilly areas, 80% pop. at risk	58% estimated ALRI deaths due to household air pollution (2012)	+199k additional people at risk annually (2030)
India	55% ↑ heat deaths between 2000-2004 and 2017-2021	Highest number of malarial cases regionally (2022)	1.24M deaths (2017)	—
Indonesia	53 deaths /100k for 65+ years of age (2080)	Malarial risk: 308M people (2070)	45% estimated ALRI deaths due to household air pollution (2012)	+269k additional people at risk annually (2030)
Singapore	↑ Heat illness	↑ Dengue & diarrheal	—	—
Sri Lanka	22 deaths /100k for 65+ years of age (2080)	Malarial risk: 24M people (2070)	56% estimated ALRI deaths due to household air pollution (2012)	+26k additional people at risk annually (2030)
Thailand	58 deaths /100k for 65+ years of age (2080)	Malarial risk: 71M people (2070)	29% estimated ALRI deaths due to household air pollution (2012)	+244k additional people at risk annually (2030)
Vietnam	16B potential labour hours lost due to heat exposure	↑ Dengue/malaria	34k deaths due to PM 2.5 (2020)	—
Philippines	31 deaths /100k for 65+ years of age (2080)	Malarial risk: 150M people (2070); 7.7% diarrheal deaths due to climate change	46% estimated ALRI deaths due to household air pollution (2012)	+187k additional people at risk annually (2030)

Framework for Health and Climate Change Assessment (WHO Guidance)

POLICY/PLANNING DOCUMENTS ANALYSED:

- NDCs
- HNAPs
- NATIONAL & SUBNATIONAL POLICIES



WHO Operational Framework for Climate-resilient Health Systems (2023)

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State of Climate-Health Policy Response

Countries	Governance and Planning	Financing	Service Delivery and Infrastructure	HR Capacity-Building	Health & Climate Information Systems
Bangladesh	HNAP Action Plan (2018-23), led by the IEDCR and WHO; MOHFW's CCHPU – advisory and technical working group	1.04 million USD estimated for HNAP	Piloting solarisation and green hospitals practices	Training of health administrators and professionals – TOT models; courses by CCHPU	Generation of climate-resilient health data from routine MIS (CCHPU and UNICEF)
Malaysia	No dedicated HNAP	NA	Green hospital targets; Carbon-Neutral Healthcare Blueprint toward 2045	NA	Early warnings for haze and dengue
Nepal	Updated HNAP (2023-30) informed by VAA; dedicated thematic group under MOHP	4.75 billion USD estimated in NAP (Health and WASH)	280 climate resilient facilities by 2035; non-burn tech for healthcare waste	Training of 500 health personnel budgeted in HNAP; training manuals etc in place	MoU for data sharing with hydrology dept; piloting DHIS 2 – dengue surveillance
India	NAP in progress; NAPCCHH; SAPCCHH; NCDC	1.99 billion INR proposed for NAPCCHH	Solarisation of PHCs	District State nodal officers training; community level training module	Integration Health Information Platform
Indonesia	HNAP (2020-30); Technical Team for Health Adaptation	NA	Renewables / cold chain pilots	NA	Developing web-based application called Climate Change Adaptation on Health (APIK Application)
Singapore	No dedicated HNAP; climate-health actions embedded across multiple agencies (MOH, NEA, MSE)	NA	Solar deployment in hospitals	Guidance / advisories exist	VBD surveillance; bio-surveillance programs
Sri Lanka	Health in NAP (2016-25) integrated	431 million SLR proposed in NAP	Solar deployment with grants from Japan	IOM – Climate-health risk communication	Piloting a Climate Health Platform using DHIS2
Thailand	HNAP 2021–2030; PHACCP Steering Committee	NA	Green and Clean Healthy Hospitals; Solarisation of health facilities	Training in collaboration with ASEAN	Part of MBDS
Vietnam	Response and Action Plan (2019-30); cross-ministerial	Estimated budget - 2,000 billion VND	Solar powered facilities	Cont. training programs - intersectoral	Integrated surveillance plan for dengue fever, zika virus and chikungunya

Assessment of Climate-Health Action

Domain	Shared Gaps / Challenges
Governance & Planning	• Limited role of health actors in climate agenda-setting; framing led by environment ministries or development partners. • Weak integration of climate into national health policies; climate rarely central to public health planning. • Poorly institutionalised multisectoral coordination; lack of mandates, budgets, or accountability. • Subnational coordination weak; local governments lack guidance, funds, and data access.
Financing	• Absence of dedicated budget lines for climate–health adaptation. • Over-reliance on donor-driven, short-term project funding with weak local ownership. • Health adaptation finance remains marginal in global climate finance flows.

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Domain	Shared gaps / challenges
Information Systems	• Siloed data systems between meteorology, environment, and health sectors; limited data-sharing mandates. • Pilot projects not institutionalised or scaled; limited domestic capacity for data analytics and integration.
Service Delivery & Infrastructure	• Health systems already overburdened and under-resourced; climate shocks exacerbate strain. • Focus on hard infrastructure rather than integrated service resilience. • Low-emission, community-based primary healthcare models under-prioritised.
Health Workforce	• Training programs fragmented and project-based; limited interdisciplinary learning. • Lack of systematic monitoring or locally tailored capacity-building frameworks. • Over-reliance on external consultants for training delivery.

Recommendations for Regional Action Based on Shared Priorities

Thematic Areas	Focus Areas / Outputs	Key Questions
1. Intersectoral Governance Innovations	• Establish regional working group across health, environment, and finance ministries; • Document cross-country coordination mechanisms; • Develop templates for intersectoral mandates and accountability frameworks.	**What systemic and administrative innovations enable sustainable intersectoral coordination for climate–health?**
2. Sustainable Climate–Health Financing	• Assess financing gaps; • Identify domestic and international funding options; • Estimate regional resource needs; • Examine equity implications of financing mechanisms.	**What additional resources and capacities are needed to support equitable, long-term financing for climate–health adaptation?**

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Thematic Areas	Focus Areas / Outputs	Key Questions
3. Integrated Climate–Health Information Systems	• Support development of interoperable data systems and early warning tools; • Establish regional standards for data sharing; • Link surveillance with planning.	**How can regional platforms help redesign health information systems to integrate climate risks for better policy and planning?**
4. Regional Capacity-Building	• Develop regional training resources and shared curricula; • Support regional centres of excellence; • Standardise climate–health competencies.	**How can the region strengthen capacity among policymakers, planners, and providers to respond to climate–health challenges?**
5. Community Accountability & Social Participation	• Enhance representation of civil society and NGOs; • Support participatory governance; • Foster advocacy and coalition-building; • Promote social accountability in implementation.	**How can community engagement mechanisms strengthen accountability and equity in climate–health policy?**

Thank you!