



Greening the Healthcare Sector, Mitigation Measures that Strengthen Communities and Society

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DOH: Yolanda damaged 432 health facilities



NOT SPARED. A Filipino woman runs past patients at the Divine Word hospital in the super typhoon devastated city of Tacloban, Leyte province, Philippines, Nov 17, 2013. File photo by Nic Bothma/EPA



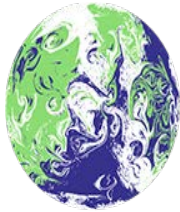
8 million people affected, 340,000 displaced, 1.5 million homes destroyed, 13 billion pesos agriculture damaged, 17 billion infrastructure wrecked

Typhoon Rai's Impact

The CARAGA Regional Hospital in Surigao City sustained damages in its upper floors but remains operational, with over 200 admitted patients, including suspected and confirmed COVID-19 cases. © WHO Philippines

- Climate disasters threaten the capacity of health care systems and facilities to sustain its services to address the long-running and slow climate impact on health
- Yet hospitals also emit carbon and toxic emissions that seriously threaten both our climate and the environment
- To address this, local government units and policy makers must collaborate with the Ministry of Health, clinicians, hospitals engineers/architects and community in building new hospitals, and renovating old ones to become climate smart, resilient and green healthcare facilities

COP26 Health Programme | Country commitments for climate resilient and sustainable, low-carbon health systems



UN CLIMATE
CHANGE
CONFERENCE
UK 2021

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World Health
Organization



Without Harm

Summary of initiative commitments of the COP26 Health Programme

Commitment area 1: Climate resilient health systems

- Commit to conduct climate change and health vulnerability and adaptation assessments (V&As) at population level and/or health care facility level by a stated target date;
- Commit to develop a health National Adaptation Plan (HNAP) informed by the health V&A, which forms part of the National Adaptation Plan (NAP) to be published by a stated target date;
- Commit to use the V&A and HNAP to facilitate access to climate change funding for health (e.g. project proposals submitted to the Global Environmental Facility (GEF), Green Climate Fund (GCF) or Adaptation Fund (AF) or GCF Readiness programme).

Commitment area 2: Sustainable low carbon health systems

- High ambition/high emitters: Commitment to set a target date by which to achieve health system net zero emissions (ideally by 2050).
- All countries: Commitment to deliver a baseline assessment of greenhouse gas emissions of the health system (including supply chains)
- All countries: Commitment to develop an action plan or roadmap by a set date to develop a sustainable low carbon health system (including supply chains) which also considers human exposure to air pollution and the role the health sector can play in reducing exposure to air pollution through its activities and its actions.

Sustainable, Low carbon healthcare: Cross sectoral collaboration must happen at the Country and Local Level

- To install solar energy, hospitals need to work with private companies who in many cases would offer no-cash out deal for renewable energy system that they will operate for 5 -10 years before it would be turned over fully to hospitals
- To facilitate this swiftly and smoothly, a conducive set of policy enactments from Ministry of Energy, Ministry of Health, Ministry of Climate and the local government
- Some hospitals are ready for carbon emission measurement but the best help in terms of tools development, training and guidance would come from universities, NGOs, and select Government agencies



Sustainable, Low carbon healthcare: Cross sectoral collaboration must happen at the Country and Local Level

- Transportation is a major source of air pollution throughout the world, creating significant health impacts. Yet, The health sector – with its fleets of ambulances, hospital vehicles, delivery vehicles, and staff and patient travel – is a transportation-intensive industry.
- Hospitals who take up transportation as means of reducing carbon emission needs the support of private vehicle suppliers, financing institutions, city planners and officials, as much as the leadership in the hospitals
- Parks and green space are developed to mitigate flooding, capture carbon, reduce heat and facilitate natural cooling, and foster a sense of community within the large campus of the facility



Khoo Teck Puat Hospital harnesses power of nature in healing

- Khoo Teck Puat surpasses traditional hospitals and opens the door towards a new kind of building type for the healthcare industry, which considers how the built and natural environment can become part of the healing process.
- KTPH used nature as a healing process through paying close attention to all the human senses, noting that it is also a natural habitat for butterflies, birds and fish.
- The rainforest-like landscaping that weaves in and out of the hospital infuses the atmosphere with natural sights, sounds and scents.



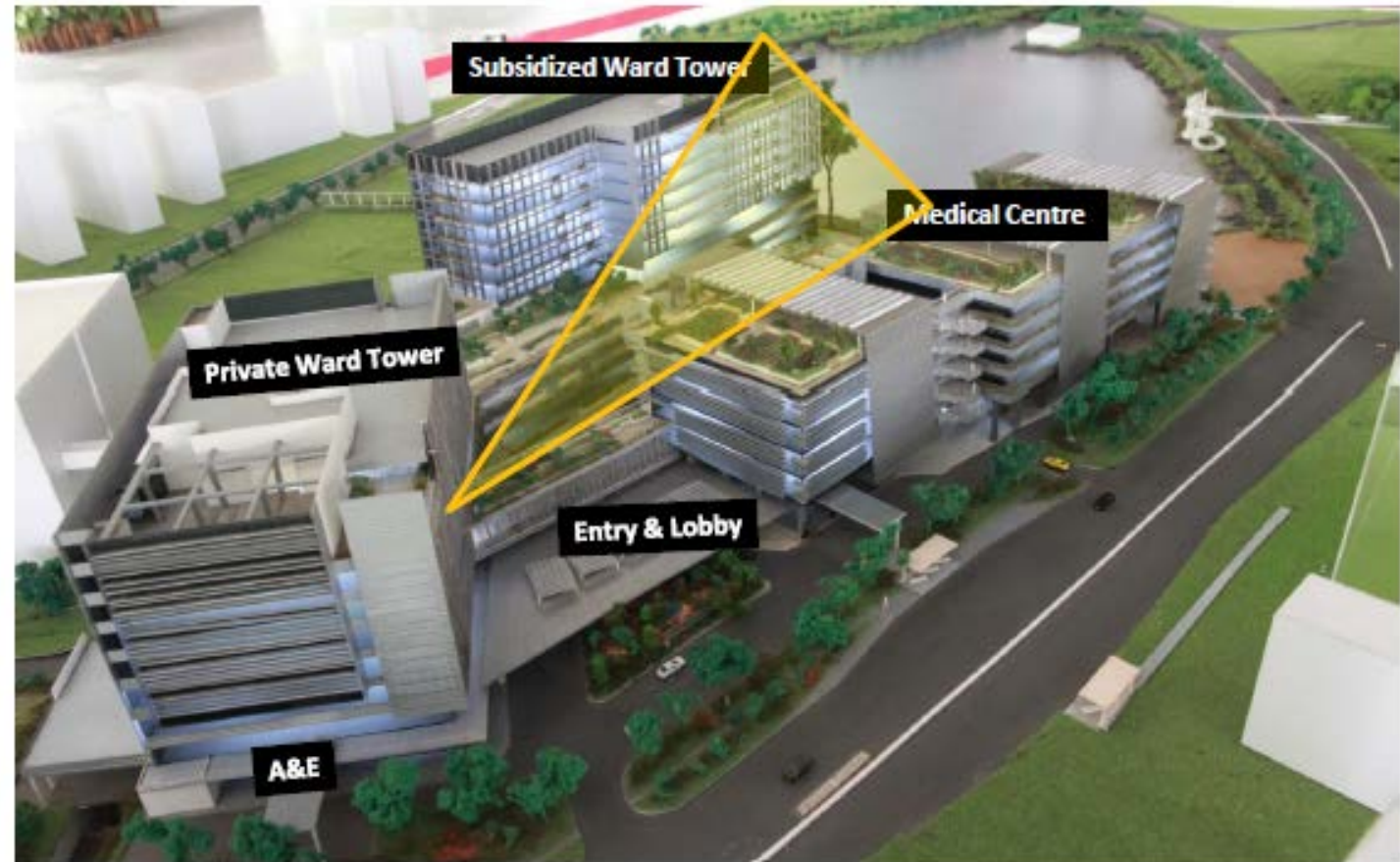
Khoo Teck Puat Hospital harnesses power of nature in healing



BUILDING: Supporting green design and construction

Khoo Teck Puat Hospital *Singapore*

- Spatial layout provides good access to natural light and cooling breezes and views
- Rooftop garden reduces urban island effect, reduces transmission of heat to clinics below
- 30% more energy efficient than other hospitals



Green Vaccination as Part of COVID-19 Response

- Strengthen coordination between global health donors, logistics organizations, infection and control experts, healthcare waste, and environmental/climate advocates.
- Regulate waste management practices by updating and implementing sustainable waste standards.
- Invest in safe, resilient waste management system including broader infection prevention and WASH in efforts in hospitals
- Adoption of reverse logistics, centralized treatment, local & regional production of vaccines
- Investment in climate-smart, energy efficient cold chain





FOOD: Serving sustainably grown food and fostering healthy eating habits



Buddhist Tzu Chi Dialysis Center *Malaysia*

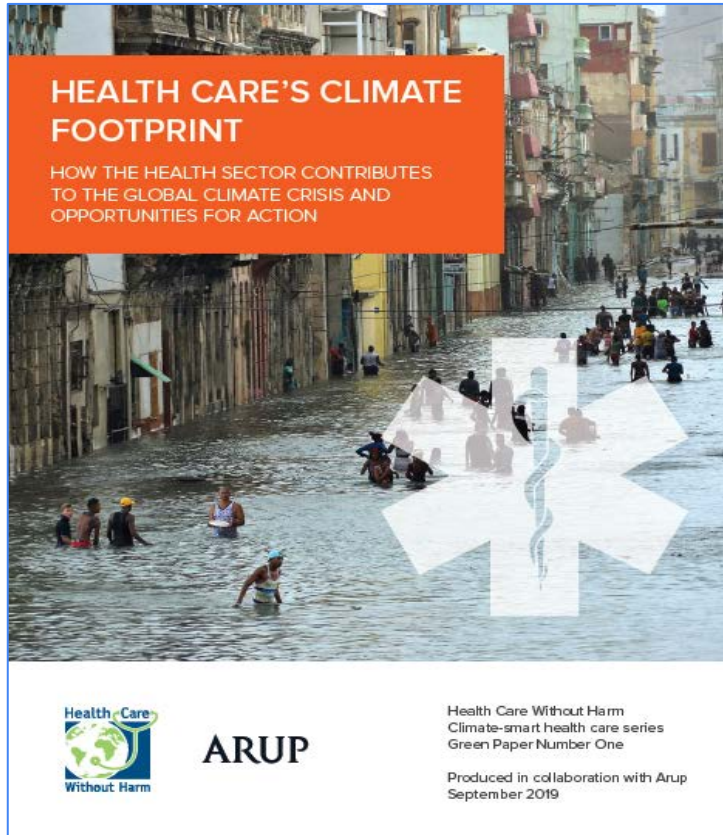
- Promotes plant-based diet among employees and patients, reducing emission on food

West Java Mental Hospital *Indonesia*

- Initiated a local organic farm with community farmers
- Produce to be used in their up-cycled hospital plant-based cafe



HEALTH CARE'S CARBON FOOTPRINT



Equivalent to 4.4% of global net emissions

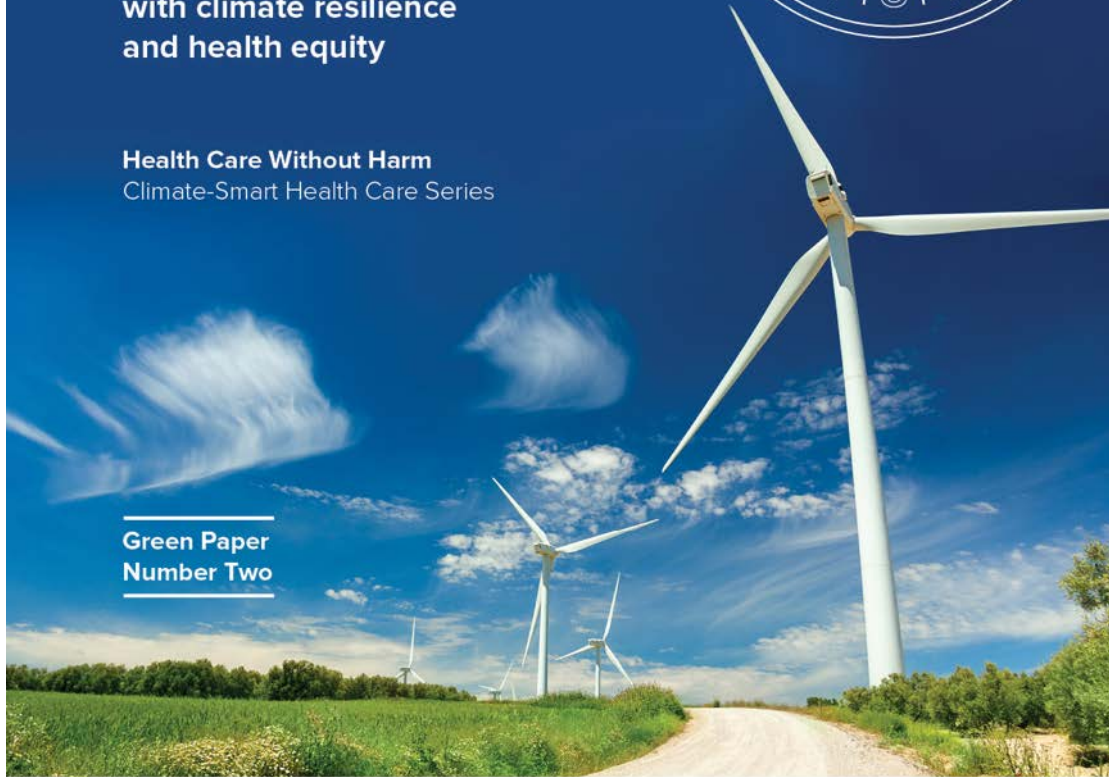
- Equal to emissions from 514 coal fired power plants
- If health care were a country it would be the 5th largest climate polluter on the planet

Global Road Map for Health Care Decarbonization

A navigational tool
for achieving zero emissions
with climate resilience
and health equity

Health Care Without Harm
Climate-Smart Health Care Series

Green Paper
Number Two



Produced in collaboration with ARUP

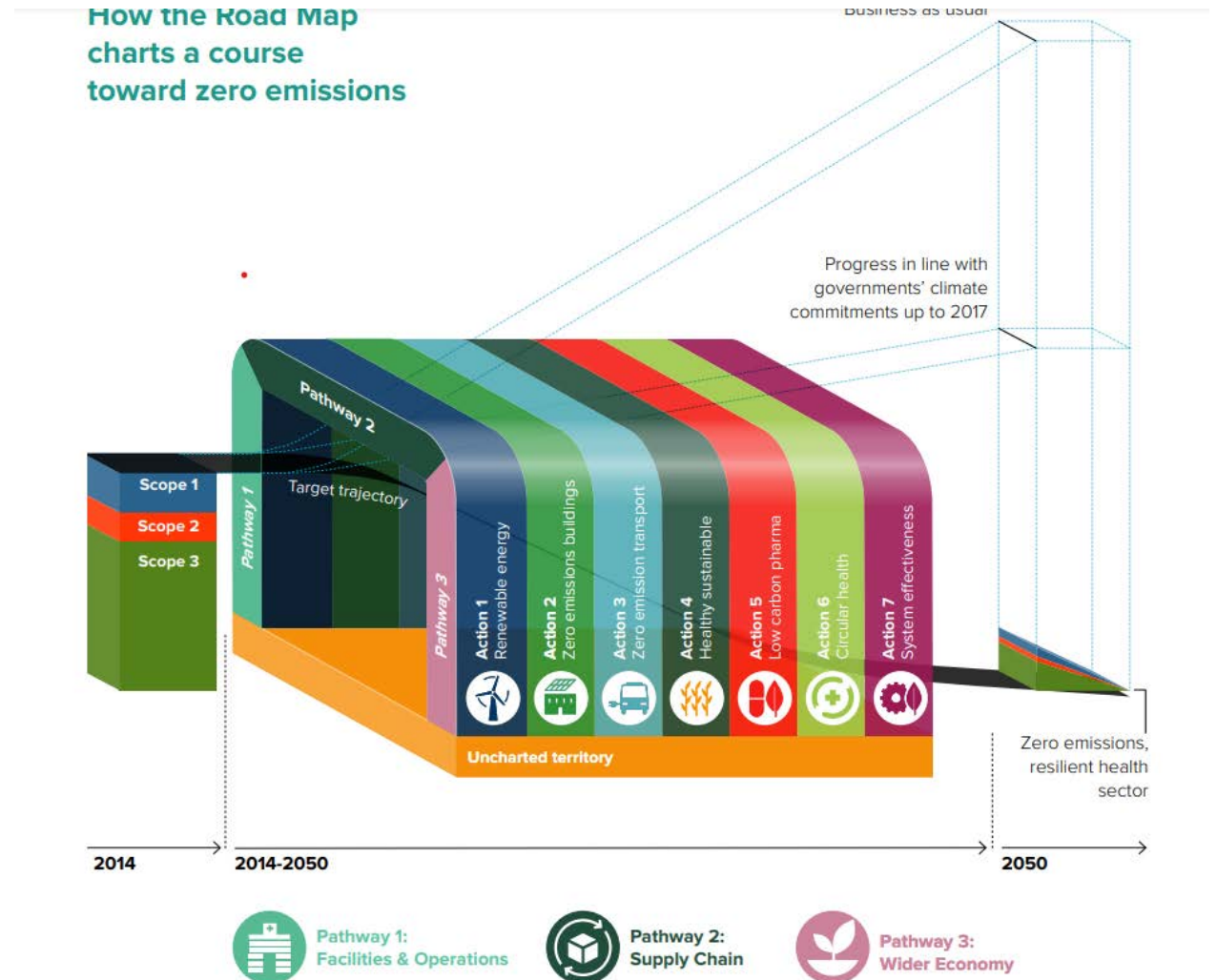
The health sector must:

1. Take on the climate crisis— a greater health threat than COVID-19
2. Achieve decarbonization in the context of achieving both greater health equity and climate justice between nations.
3. Transform itself and in doing so contribute to broader societal transformation

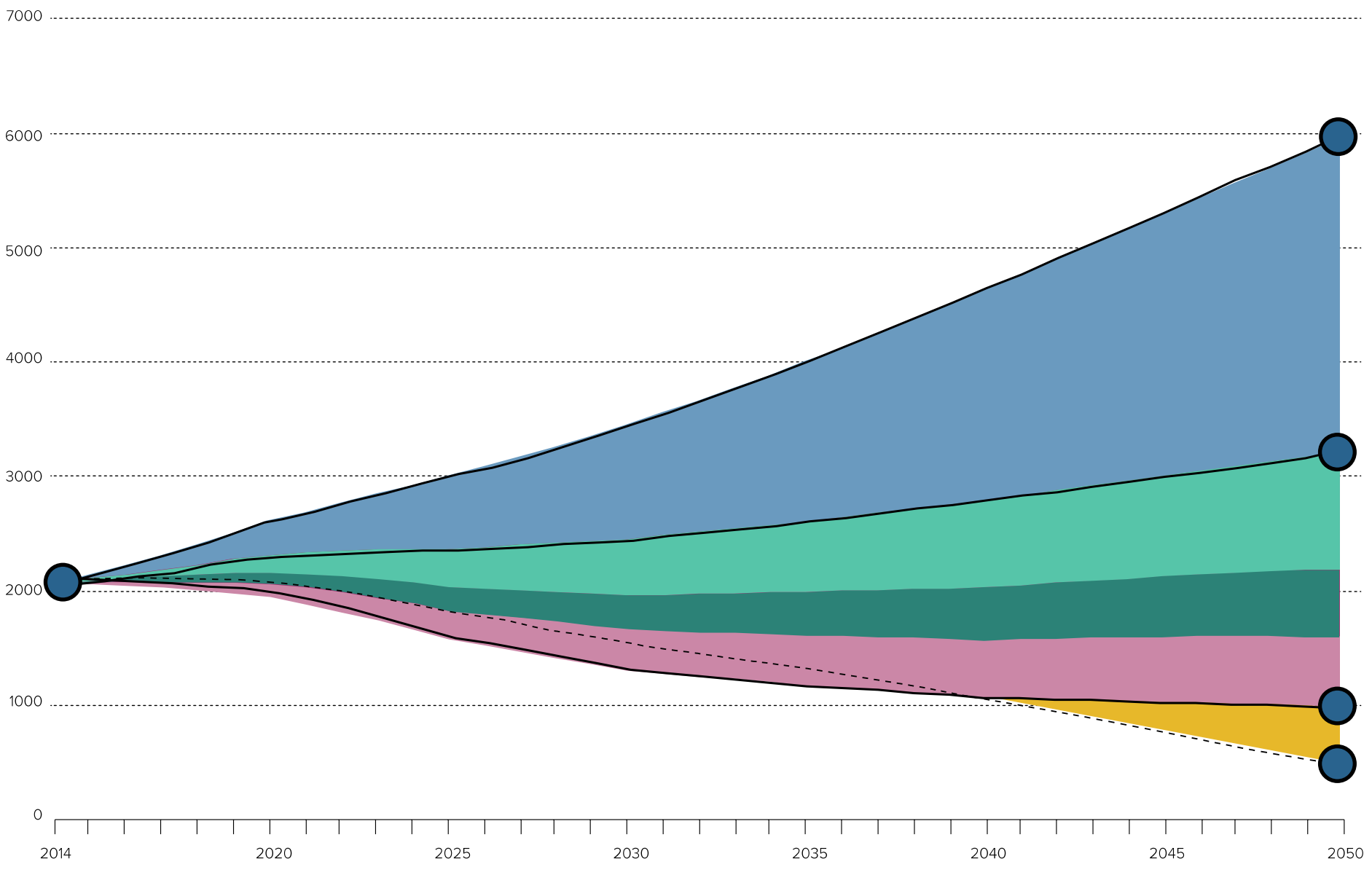
healthcareclimateaction.org/roadmap

Delivering Health on a Warming Planet

- If the health sector around the world were to come together to address the climate crisis, it could influence more than its own footprint.
- If health care development, growth, and investment can align with global climate goals, the sector could help provide leadership for a low-carbon, climate smart, more equitable, and healthier future.
- The Road Map for Health Care Decarbonization provides a plan and charts a course to get healthcare towards zero emission



Charting a course to zero | Three pathways



Pathway One:
Decarbonize health care delivery, facilities, and operations

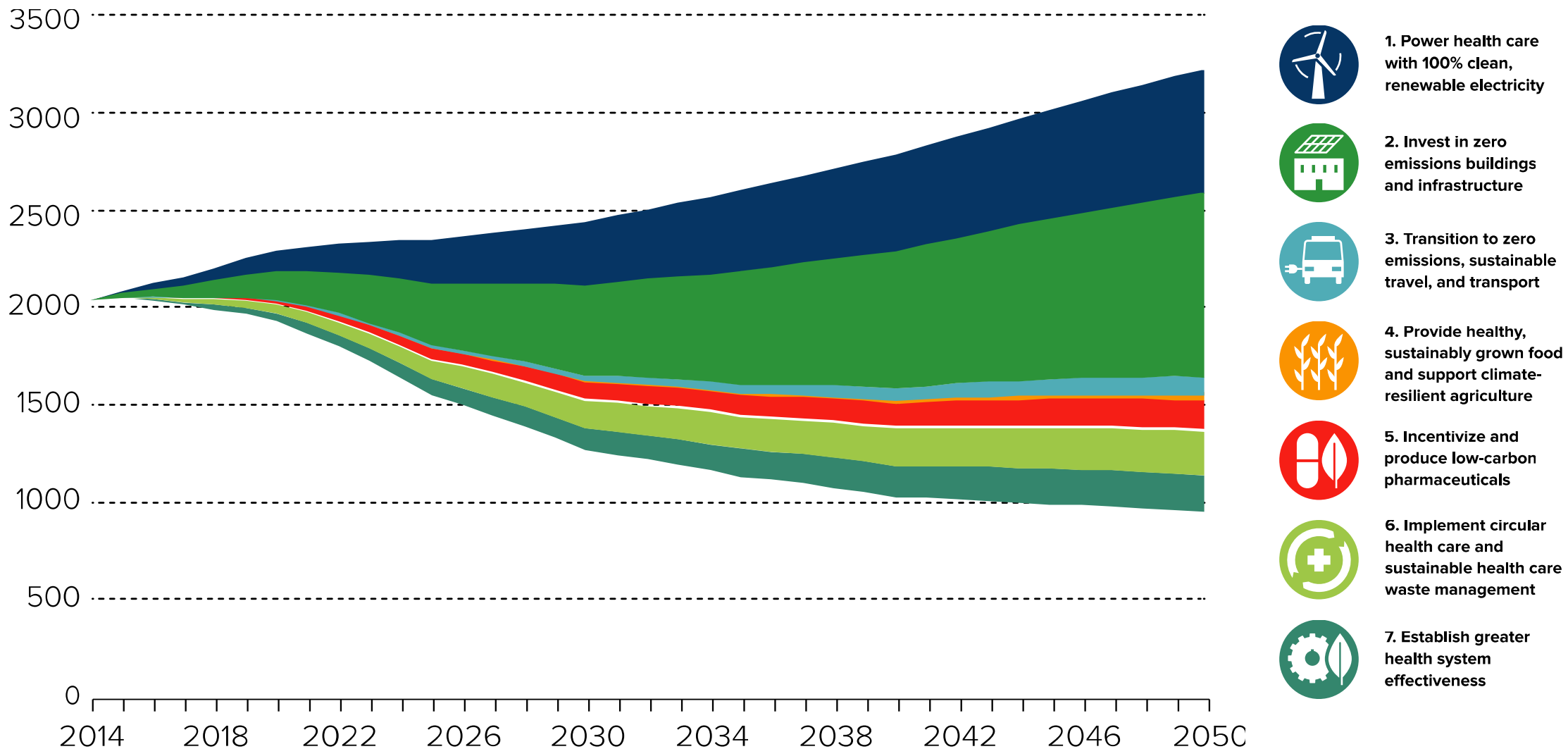


Pathway Two:
Decarbonize health care's supply chain



Pathway Three:
Accelerate decarbonization wider economy and society

Charting a course to zero | Seven high-impact actions = 44.8 gigatons emission reduction over 36 years = the entire world's GHG emissions in 2017





- [Race to Zero](#) (RtZ) is a global campaign initiated by the United Nations Framework Convention on Climate Change (UNFCCC) to rally leadership and support from non-state actors for a healthy, resilient, zero-carbon recovery that prevents future threats, creates decent jobs, and unlocks inclusive, sustainable growth.
- It mobilizes a coalition of leading net zero initiatives by cities, regions, businesses, investors, universities, and healthcare sector.
- RTZ is guided by the following objectives:



Race to Zero: The Potential for Multi-sectorial Policies and Practices on Mitigation, Decarbonization, and Resilience

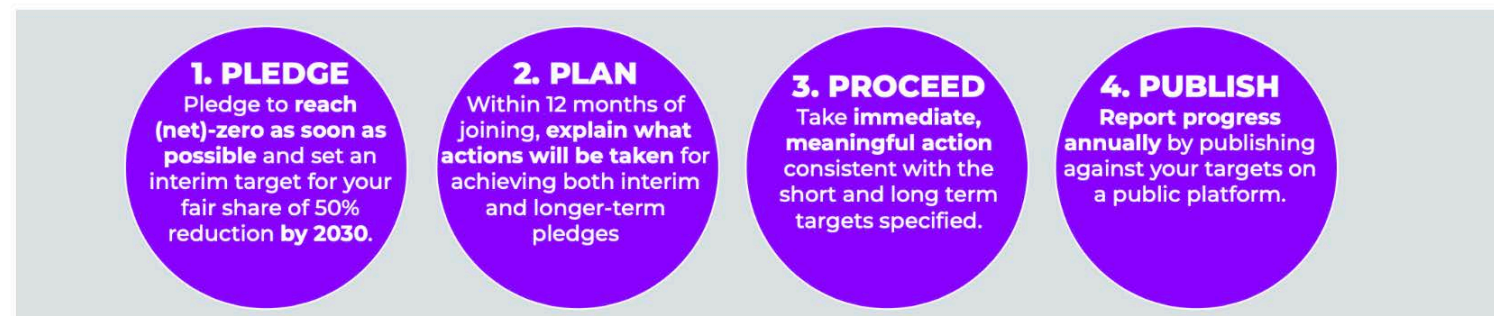
Participating Hospitals in SE Asia:

1. Dalin Tzu Chi Hospital, Taiwan
2. St. Paul Hospital, Inc. Iloilo, Philippines
3. Kho Teck Puat Hospital, Singapore
4. Sunway Medical Centre Velocity, Malaysia
5. Mary Johnston Hospital, Philippines
6. R. Syamsudin Hospital, Indonesia

Participating Universities/Cities in SE Asia:

1. King Mongkut's University of Technology Thonburi
2. Mahidol University
3. Palembang, Indonesia
4. Bangkok, Thailand
5. Hanoi, Vietnam
6. Quezon City, Philippines
7. Melaka, Indonesia

The minimum criteria consists on the following four steps:



GGHH has over 1,600 members in 78 countries

USA and Canada

Practice Greenhealth, HCWH's implementation arm in the US, is an organizational member, along with 18 hospitals and health systems in Canada, representing in total 3,776 hospitals and health centers.

Europe

64 members representing the interests of 7,474 hospitals and health centers.

Global

5 members representing the interests of 4,900 hospitals and health centers.

Asia

182 members, representing the interests of 13,968 hospitals and health centers.

Pacific

61 members, representing the interests of 922 hospitals and health centers.

Latin America

767 members representing the interests of 2,500 hospitals and health centers.

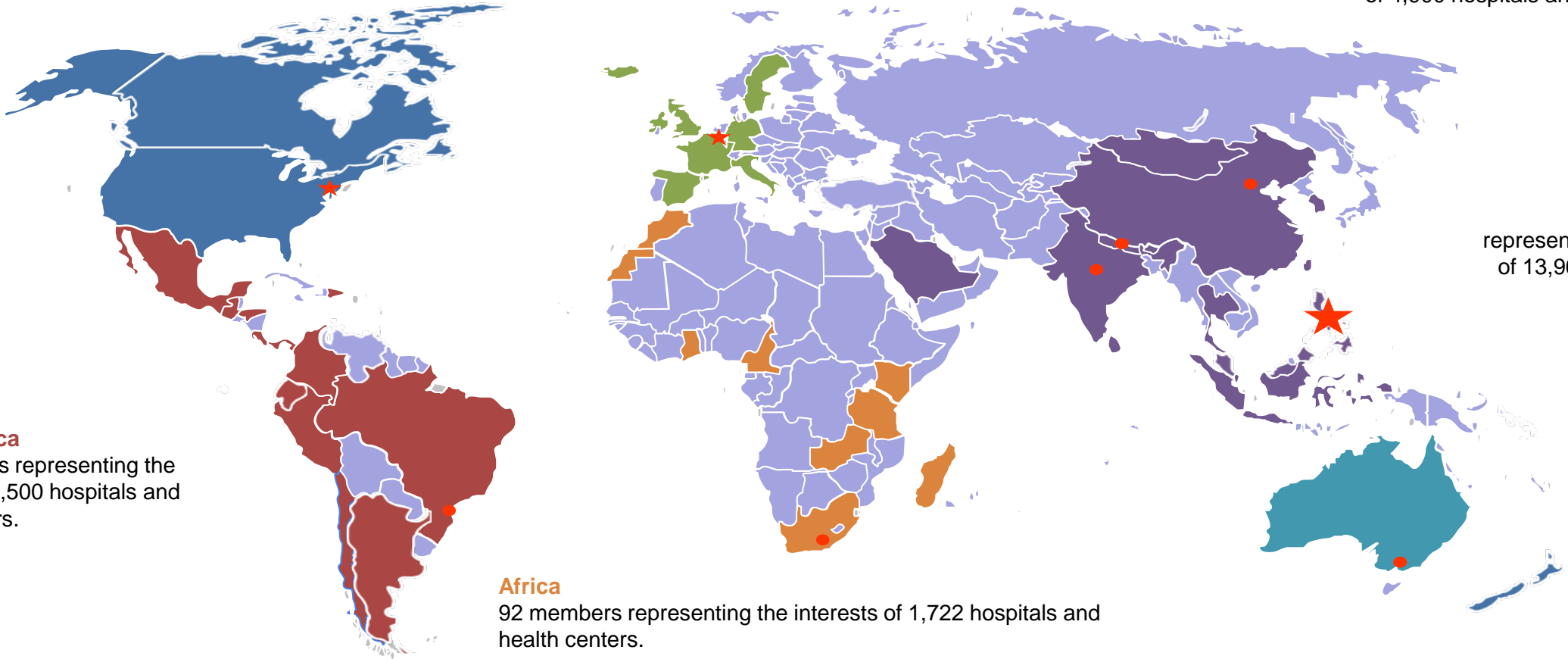
Africa

92 members representing the interests of 1,722 hospitals and health centers.

★ HCWH Regional Offices
● Strategic Partners

HEALTH CARE WITHOUT HARM

GGHH members represent the interests of over 60,000 hospitals and health centers



Please visit our new website: <https://greenhospitals.org/>

