

Sharing Timor-Leste's experience in climate vulnerability assessment

Jit Sohal
Senior Lead, International Strategy

05 Mar 2025



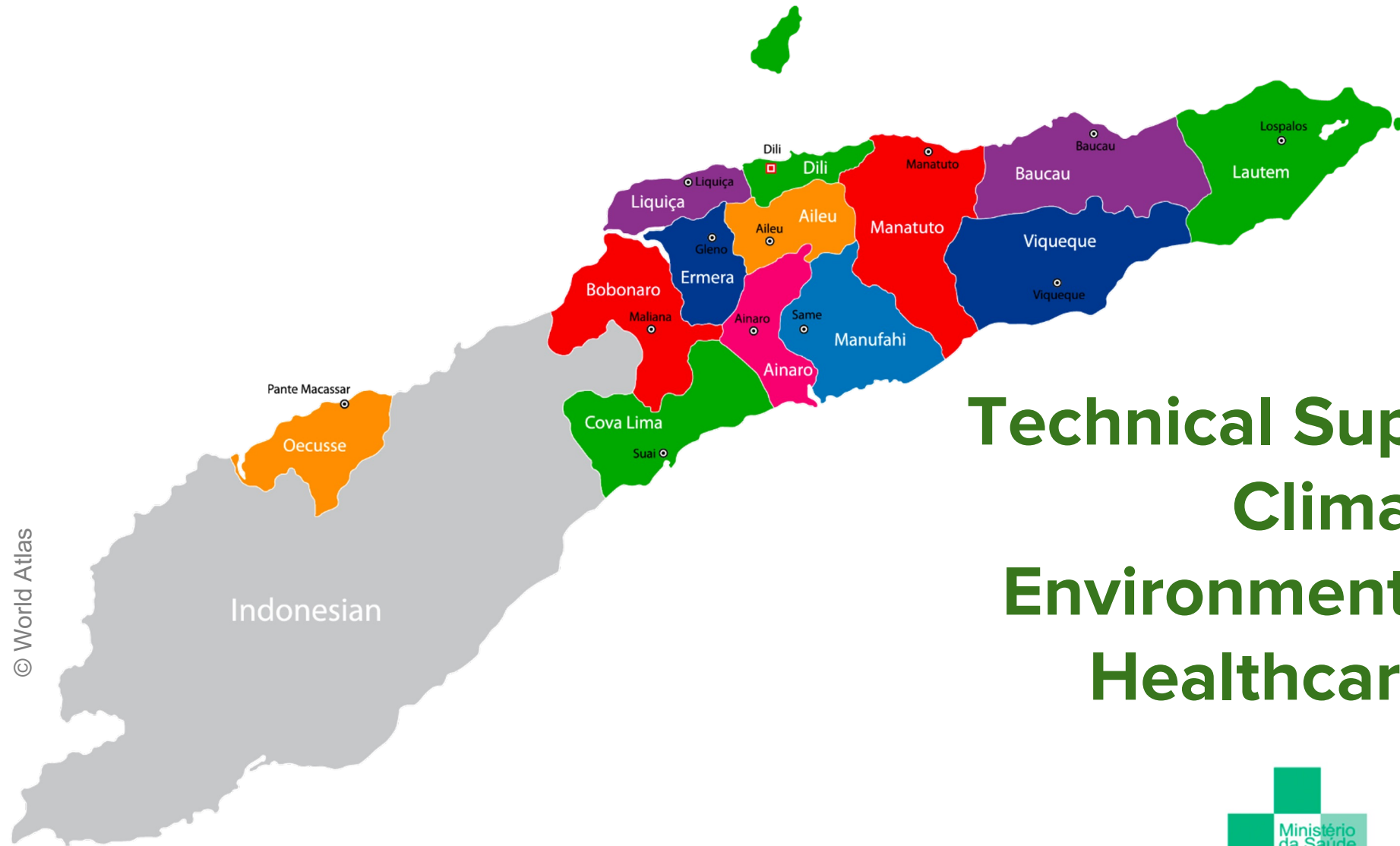


About the Centre for Sustainable Medicine

At the forefront of net zero transition in healthcare, the Centre for Sustainable Medicine is delivering real-world change by training future healthcare leaders and equipping clinicians, industry, and health policymakers with the tools and evidence needed to respond at pace to climate change.



Our **three pathways** to deliver change



Technical Support to Develop Climate-Resilient and Environmentally Sustainable Healthcare in Timor-Leste



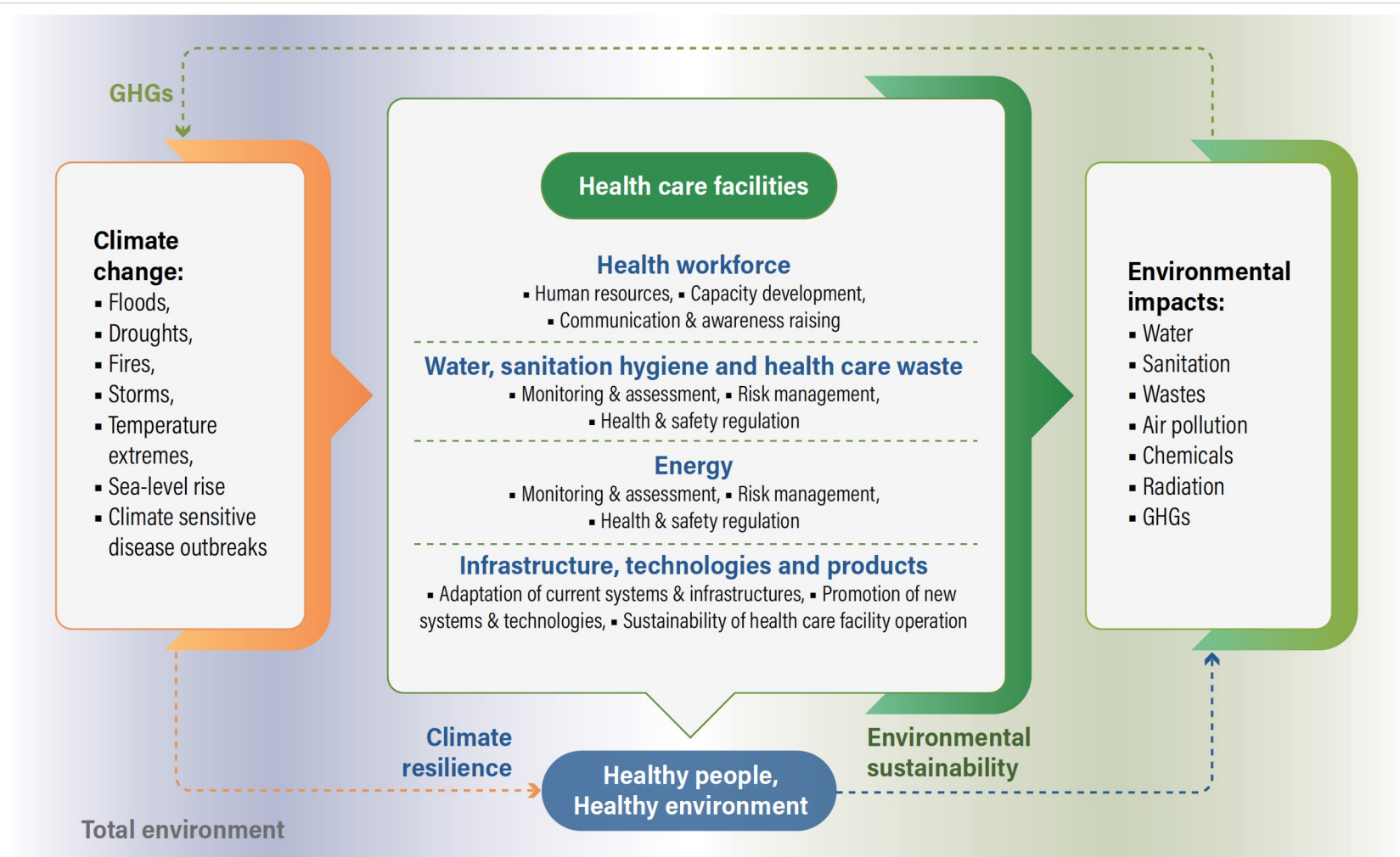
Project Objectives

- Understand the **climate vulnerability** of select hospitals and health facilities in the country and **their environmental sustainability**, with respect to the specific characteristics of the facilities and the context of the country; and,
- Propose **strategic policy recommendations** for the implementation of climate-resilient and environmentally sustainable healthcare in Timor-Leste, in line with the HNAP of the country and national and international frameworks and approaches.

Project Outputs

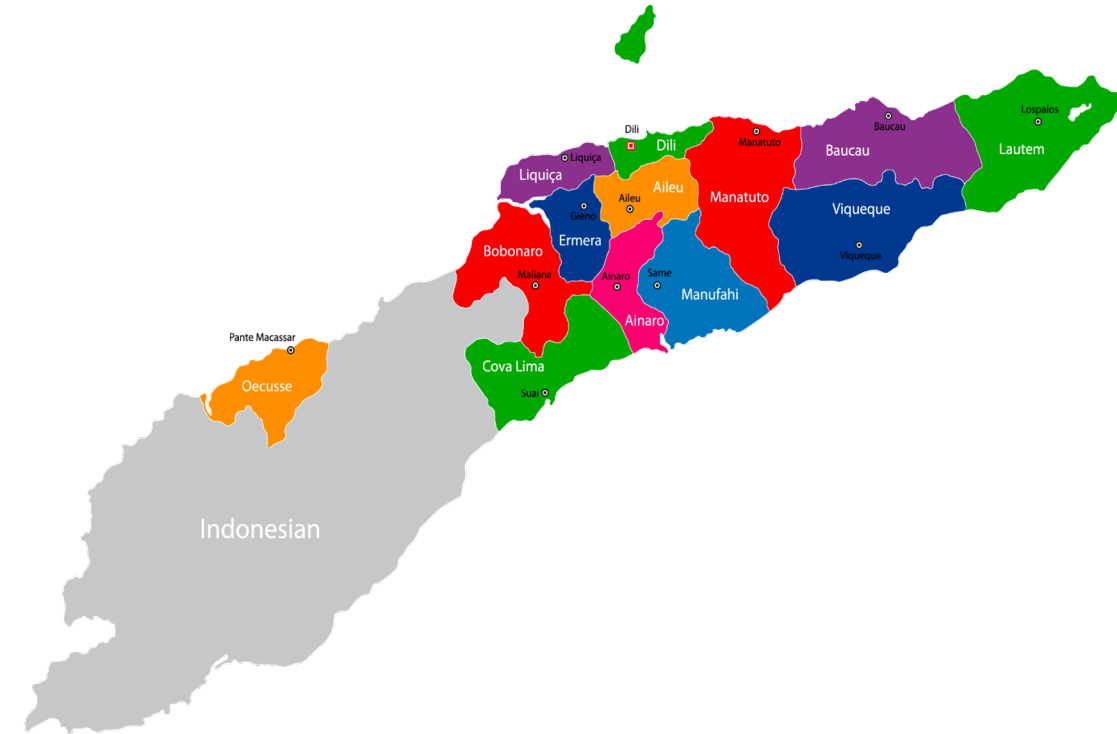
- **Vulnerability Assessment Report**
containing the summary and analysis of the data collection results
- **Policy and Strategy Report**
containing recommendations for policies and strategies that the MOH can implement to improve climate-resilience and environmental sustainability of healthcare facilities and the entire system in Timor-Leste

Framework for building climate resilient and environmentally sustainable health care facilities



About Timor-Leste and its health system

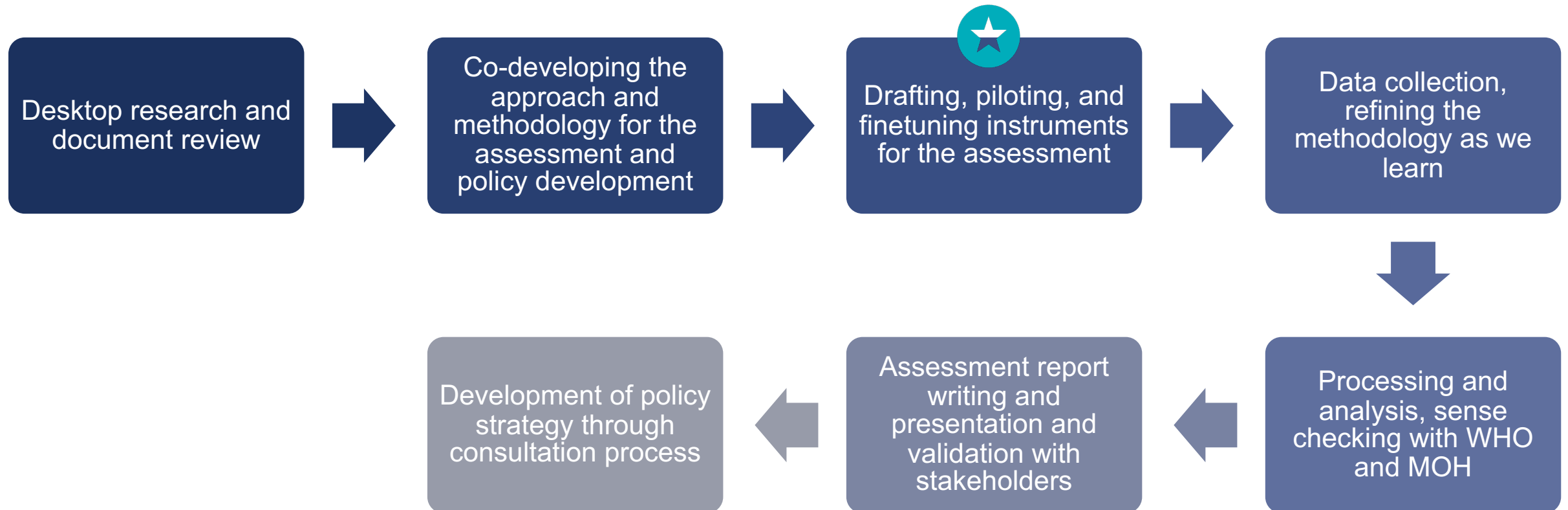
- Timor-Leste is one of the youngest countries having gained independence in 2022.
- Around **41.8% of the population** lives below the national poverty line (as of 2014)
- A government-led **primary healthcare focused system**, with community health centers and health posts serving rural areas
- Many health facilities **lack essential medical equipment**, reliable electricity, and water supply, especially in rural areas
- **Shortages** of specialists, nurses, and midwives
- Maternal and child mortality rates remain high due to limited access to skilled birth attendants, prenatal care, and emergency obstetric services



Target areas and facilities for the assessment

Level	Location and Facility		
	Dili	Ainaro/Maubisse	Comoro
National Hospital (Tertiary)	Guido Valadares National Hospital		
District Hospital (Secondary)	Materinadade Fatumeta	Maubisse District Hospital	Suai District Hospital
<i>Puskesmas</i> (Primary)	Comoro (CHC) Tasitolu (HP)	Santo Joaquim (CHC) Posto Saude (HP)	Covalima (CHC) Salele (HP)

Our execution process for Timor-Leste



Data collection methods

Method	Respondents/Source
Data and Document Review	WHO, MOH, HCWH, Online sources
Checklist	Representatives from target hospitals and health facilities who are involved in sustainability, climate mitigation and resilience initiatives
Focus Group Discussion (FGD)	WHO and MOH representatives
Key Informant Interviews (KIIs)	Representatives from target hospitals and health facilities who are involved in sustainability, climate mitigation and resilience initiatives
Site Visits	4 hospitals, 3 community health centers, and 3 health posts

Developing and finalizing the data instruments

Desk review of documents and data

Drafting of the instruments

Validation with MOH and WHO

Finalization of instruments

Conduct of data collection

Reviewed the existing WHO Checklists for all hazards

Gathered and reviewed documents relevant to Timor-Leste's healthcare system

Gathered and reviewed data from the target health facilities

Adapted the WHO checklist to ensure that they are fit for purpose and easy to use

Drafted a complementary KII guide that will help us understand further the vulnerability of health facilities

Drafted a FGD guide to get a system-level understanding of the context

Present all three draft instruments to MOH and WHO and gather comments

Integrate comments of MOH and WHO into the final instruments

Send the checklist to the health facilities for completion before the field visit

Project team to review the accomplished checklist and prepare for the field visit

Field visit for data collection

Process of developing the adapted checklist

5

Validate the checklist for tertiary hospital with WHO and MOH. Based on the tertiary facility checklist, develop a shorter and simpler version of the secondary and primary facility checklist.

4

Integrated similar questions, removed questions that are not applicable or are redundant. Simplified the language and format of the checklist, making it easier to understand and complete.

3

Starting with the tertiary hospital, prioritized the questions in the original checklist based on their relevance and importance to Timor-Leste's healthcare system and the tertiary hospital.

2

Identified climate hazards in each district and integrated the essential elements of the individual checklists into one.

1

Reviewed the original checklist. Considered the language, format, and structure of the original checklist.

What the checklists look like...

Ida ne'e hanesan **Versiaun Tetun/Tetum** ba vulnerabilidade "checklist".

Lee pergunta ida-idak no hili resposta ne'ebé loos deit (yes, partially, no).

Checklist	Nivel vulnerabilidade			Notas <i>aumenta kualkér esplikasaun ka kontestu iha ne'e</i>
	YES <i>vulnerabilidade ki'ik</i>	PARTIALLY <i>vulnerabilidade mediu</i>	NO <i>vulnerabilidade aas</i>	
Sin: preparadu; bele hatán (risika ki'ik) Partialmente: preparasaun báziku; nivel resposta médiu (risku mediu) No: la preparadu; nivel ki'ik atu hatán ka la bele hatán (risku aas liu)				
HEALTH WORKFORCE				
Funshonáriu ospital sira simu ona treinamentu kona-ba sistema avizu early, Alert and Response (EWARS) no / ka saúde publika no perigu ba mudansa klimatika hanesan inundasau, rai-rahun no rai-manas, no oinsá mak ida-ne'e bele fó impaktu ba saúde?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira hatene kona-ba risku poténsial ba fasilidade no sira-nia an durante akontesimentu perigu ka lae?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ospital iha planu atu asegura katak iha funshonáriu ne'ebé suficiente atu fornese kuidadu ne'ebé adekuaudu durante no depoisde akontesimentu perigu sira?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira fornese ekipamentu protesaun pesoál no apoiu ba kmaan no recuperasaun (inklui apoiu saúde mentál nian) durante no depois akontesimentu perigu sira?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ospital iha planu kontinjensia atu kontinua fornese servisu iha fasilidade seluk ka iha comunidade lokal sira karik presiza?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira iha koñesimentu, esperiénsia, formasaun no rekursu atu jere planu preparasaun emerjénsia no medida resposta atu hamenus risku no impaktu perigu iha fasilidade no comunidade lokal sira?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira envolve iha desenvolvimentu planu no resposta ba risku perigu ba mudansa klimatika ka lae?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira bele komunika estratéjia protesaun ho efetivu durante emerjénsia saúde publika nian ka lae?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira hetan treinamentu atu jere lixu perigozu (kimiku, biolojiku, radiolojiku) iha situasaun rutina no emerjénsia ka lae?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira hetan treinamentu atu mantein nivel seguransa ne'ebé loos ba forneshimentu eletrisidade iha situasaun rutina no emerjénsia ka lae?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira hetan treinamentu atu mantein nivel seguransa bee ne'ebé loos, kontrolu kualidade no forneshimentu tratamentu iha eventu sira ne'ebé relasiona ho perigu no rutina ka lae?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira hetan treinamentu kona-ba oinsá atu trata bee ne'ebé rai hela ba konsumu umanu ka lae?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Funshonáriu ospital sira hetan treinamentu no iha orientasaun spesífiku kona-ba asaun sira atu hamenus fatór risku maka'as ba funshonáriu sira ka lae?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pesoál ospital sira hetan treinamentu atu deteta no jere moras ne'ebé bele iha relasaun ho modelu rai-rahun ka lae?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Results and outcome

Health Facility	Health Workforce	WASH and Waste	Energy	Infrastructure
Hospital Nacional Guido Valadares	Medium	Medium	Medium	Medium
Maternidade-Escola de Nossa Senhora de Fatima	Medium	Medium	Medium	Medium
Suai Referral Hospital	High	Medium	Medium	Medium
Maubisse Referral Hospital	High	High	Medium	High
CHC Comoro	Medium	High	High	High
CHC Covalima	High	High	High	High
CHC Santo Joaquim	High	High	High	High
HP Lakonak	High	High	High	High
HP Tasitolu	High	High	High	High
HP Horaikiik	High	High	High	High

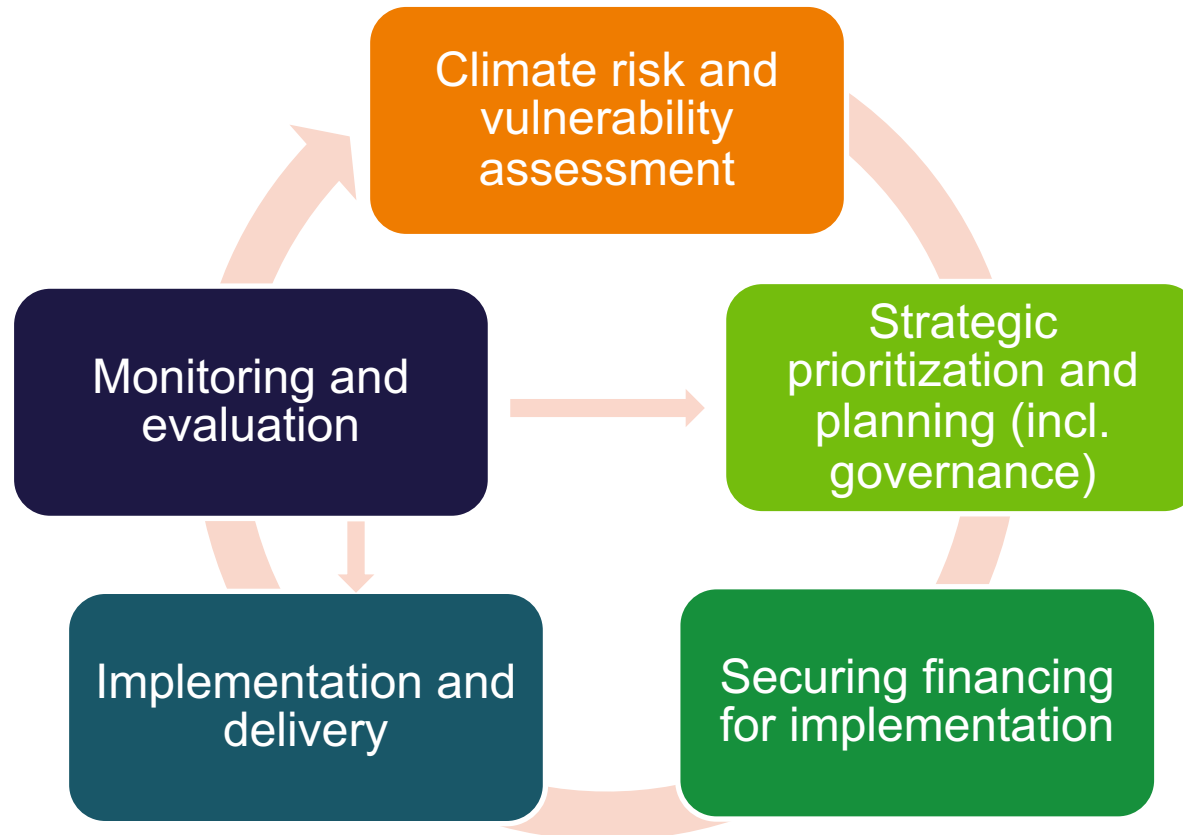
Both reports can be accessed at HCWH Southeast Asia's website:
<https://asia.noharm.org/resilient-sustainable-health-care-timor-leste>

Qualitative and quantitative results from the assessment have been categorized based on key areas identified in the WHO guidance.

These findings have informed a **policy strategy report** aimed at strengthening the **sustainability and resilience** of Timor-Leste's health system at the national level.

The intended outcome is to enable Timor-Leste to **secure financing** for implementing the recommended improvements, ensuring a **more resilient and sustainable** healthcare system.

A climate vulnerability assessment is much more valuable if it drives system improvement and overall resilience



Jit Sohal, 2025

Thank You!

For any questions, please feel free to contact me at jsohal@nus.edu.sg





ADVANCE YOUR CAREER WITH
POSTGRADUATE PROGRAMMES IN
SUSTAINABLE HEALTHCARE

- ✓ MASTER OF SCIENCE
1 YEAR FULL-TIME ON CAMPUS
- ✓ EXECUTIVE FELLOWSHIP
1 YEAR, PART-TIME,
HYBRID / ONLINE

Learn more at medicine.nus.edu.sg/cosm/education →



Applications for August 2025
intake close on 7 March 2025



Scan Me