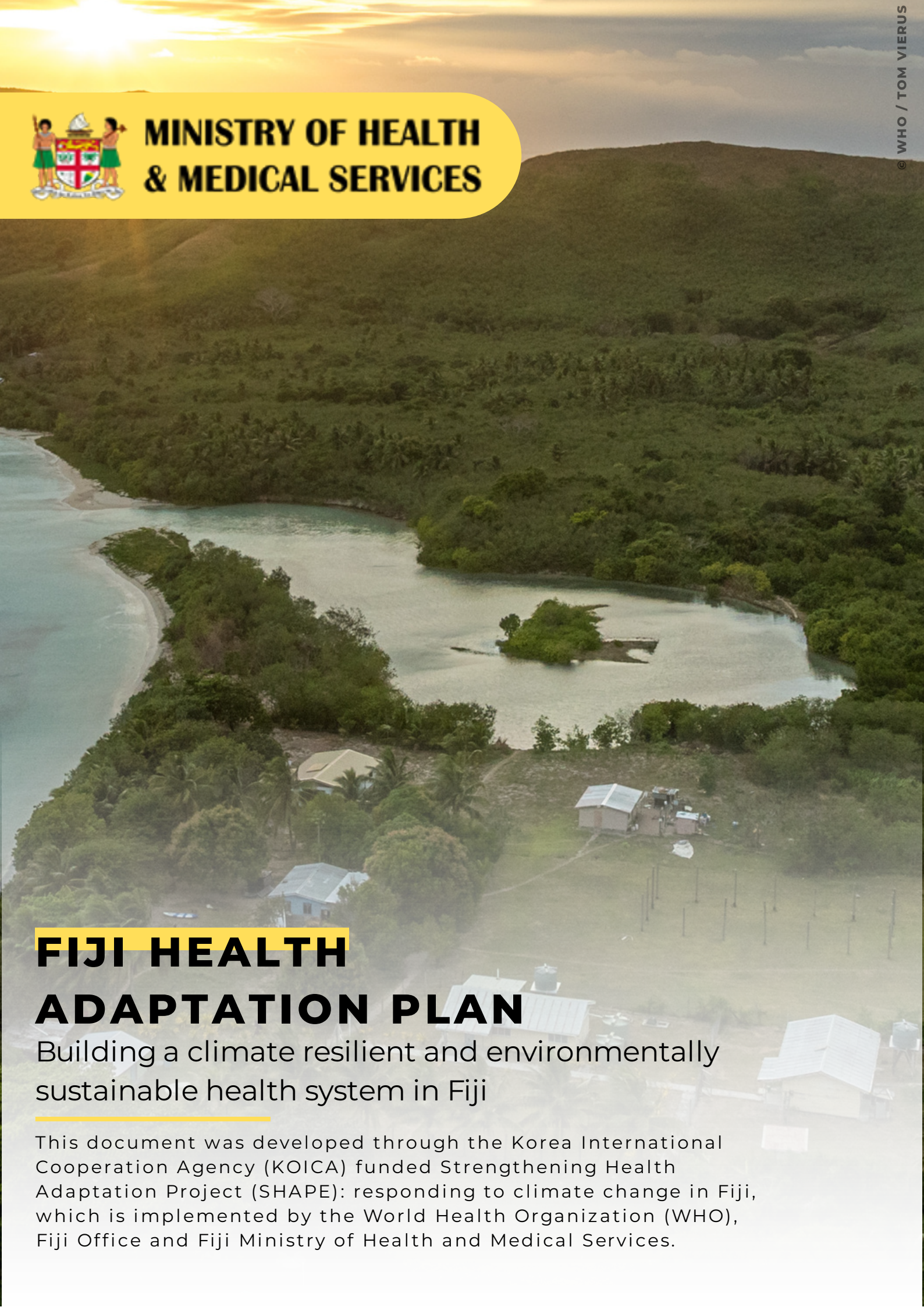

MINISTRY OF HEALTH & MEDICAL SERVICES

FIJI HEALTH ADAPTATION PLAN

Building a climate resilient and environmentally sustainable health system in Fiji

This document was developed through the Korea International Cooperation Agency (KOICA) funded Strengthening Health Adaptation Project (SHAPE): responding to climate change in Fiji, which is implemented by the World Health Organization (WHO), Fiji Office and Fiji Ministry of Health and Medical Services.

Foreword

The Minister for Health and Medical Services

The Fiji Health Adaptation Plan (HAP) is the Fijian health sector's response to the health impacts of climate change. It sets out the vision, outlines a set of tangible actions, and puts forward an achievable implementation plan for building a climate-resilient and environmentally sustainable health system.

The plan builds on more than a decade of activity on climate change in Fiji and continues from the Climate Change and Health Strategic Action Plan (CCHSAP) 2016-2022. It functions as a sectoral plan under the National Adaptation Plan (NAP) and aligns with the Ministry of Health and Medical Services Strategic Plan 2020-2025, and the Climate Change Act 2021. The Ministry envisions three phases – establishment, enhancement, and excellence – for building a climate-resilient and environmentally sustainable health system in Fiji reflecting on the CCHSAP and HAP.

The HAP articulates the strategic approach and specific adaptation and mitigation actions for the health sector in Fiji, based on stakeholder consultation and review of progress against intended outcomes and indicators in key MHMS and national governance documents. There are two major sets of commitments for climate action supported by the HAP: international commitments and national commitments.

Fiji led the development of the Special Initiative on Climate Change and Health in Small Island Developing States during its Presidency of COP23 in 2017 with a vision that by 2030 all health systems in SIDS will be resilient to climate variability and change. The HAP will see Fiji through to this point monitoring progress on the four strategic lines of action; empowerment, evidence, implementation, and resources. MHMS has also made commitments to the COP26 Health Initiatives in October 2021. These include a commitment to undertake climate change and health vulnerability and adaptation assessment; develop a health national adaptation plan; publish an action plan for a sustainable low-carbon health system (including supply chains) by June 2024; and reach net zero health sector emission by 2050. Fiji is well on its way with completion of the first two commitments as part of the HAP process; the second two commitments have been included in the HAP implementation plan.

Fiji's health sector's accomplishment in building climate resilience is supported through its conventional partnership with the World Health Organization and donor partners in KOICA, JICA, and MFAT. This plan underscores the health sector's strategy to achieve climate resilience.

Executive Summary

The Health Adaptation Plan is the Fijian health sector's response to the health impacts of climate change. It sets out the vision, outlines a set of tangible actions, and puts forward an achievable implementation plan for building a climate-resilient and environmentally sustainable health system. The plan builds on more than a decade of activity on climate change in Fiji and continues from the Climate Change and Health Strategic Action Plan (CCHSAP) 2016-2022.

The HAP is aligned to the Ministry of Health and Medical Services Strategic Plan 2020-2025, the Climate Change Act 2021, and functions as a sectoral plan under the National Adaptation Plan. It has been developed by integrating international best practices as well as consultation with health and non-health stakeholders to ground truth the implementation plan. Importantly, the HAP contains both adaptation and mitigation actions, noting Fiji's national leadership and health sector commitments at United Nations climate negotiations. It acknowledges the need for the health sector to contribute to the rapid and ambitious transformation needed to achieve Fiji's national target of net zero greenhouse gas emissions by 2050.

The HAP is presented in four parts: Section 1 sets out the Fijian context, evidence on the health impacts of climate change in Fiji, health sector frameworks for climate response, and the governance mechanisms for future ambitions. Section 2 provides a detailed synthesis of progress against existing climate change plans, assesses health system performance against international quality criteria, and distils the insights from stakeholder consultation. Section 3 sets out the implementation plan against the ten components of climate-resilient and environmentally sustainable health systems, and outlines the approach to monitoring, evaluation, and reporting. The final part of this document provides appendices with further detail on the approach that will take the Fijian health sector's response to climate change up to 2030.

The HAP will achieve its ambition through three streams of activity that will:

1. deliver the core functions of the health system through a climate lens;
2. develop programs that keep pace with and contribute to emerging best practices; and
3. create an enabling environment that fosters the innovation and increasingly transformative actions which will be necessary in order to face the intensifying impacts of climate change.

Considering Fiji's longer-term progress on climate change and health, an initial "establishment phase" has already put the health sector on a strong footing by targeting climate-sensitive diseases and raising awareness of the health system's role in combating climate change and its health impacts. With the publication of this HAP, Fiji now enters an "enhancement phase" where the approach will shift towards a more comprehensive approach that focuses on climate-sensitive health outcomes and mainstreams climate action across all health sector programs. The later years of the HAP and beyond envisage the "excellence phase" where Fiji will have a climate-resilient health system that can deliver healthcare services to international best practice standards of safe and quality care – in an era of climate change impacts that have been locked in by the current trajectory of greenhouse gas emissions.

Ultimately, the HAP reiterates the Ministry of Health and Medical Services' commitment to building a climate-resilient and environmentally sustainable health system – and doing its part to address the climate emergency.

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Acronyms

Acronym	Definition
ATACH	Alliance for Transformative Action on Climate and Health, WHO initiative launched at COP26 in 2021
CCH	Climate Change and Health
CCHU	Climate Change and Health Unit
CCD	Climate Change Division in the Office of the Prime Minister
CCHSAP	Climate Change and Health Strategic Action Plan 2016-2020 (extended to 2022)
CHVA	Climate Hazards and Vulnerability Assessment
COP	Conference of Parties to the UNFCCC climate negotiations
CRESHCF	Climate Resilient and Environmentally Sustainable Health Care Facilities
CSOs	Civil Society Organizations
EEZ	Exclusive Economic Zone
FBO	Faith-Based Organization
FCDC	Fiji Centre for Disease Control
FPBS	Fiji Pharmaceutical and Biomedical Services
FEMAT	Fiji Medical Emergency Medical Assistance Team
GIS	Geographic Information System
GHG	Greenhouse Gases
HEADMAP	National Health Emergencies and Disaster Management Plan
HAP	Health National Adaptation Plan
ICT	Information and Communications Technology
MHMS	Ministry of Health and Medical Services
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
NDMO	National Disaster Management Office
NGO	Non-government Organizations
NNDSS	National Notifiable Disease Surveillance System
PCCAPHH	Piloting Climate Change Adaptation to Protect Human Health Project
RISE	Revitalizing Informal Settlements and their Environments
SHAPE	Strengthening Health Adaptation Project
SIDS	Small Island Developing States
TEK	Traditional Ecological Knowledge
UNFCCC	United Nations Framework Convention for Climate Change
WASH	Water, sanitation, and hygiene
WASHFIT	Water and Sanitation for Health Improvement Tool
WHO	World Health Organization
WISH	Watershed Interventions for Systems Health

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For the Northern Division Consultation: Mrs Jane Naula, Red Cross/Labasa, Seaqaqa, Mr Vakaruru Cavuilati, Northern Health Services, Divisional Health Inspector/North, Mrs Naomi Ligaiviu, Northern Health Services, Director of Nursing/North, Mr Setareki Dakuiboca, Ministry of Regional Development, Development Planning Officer/North, Dr Tiko Saumalua, Northern Health Services, Divisional Medical Officer/North, Mr S Matavesi, Labasa Health Office, Acting Subdivisional Health Inspector/Labasa, Ms Repeka Vuniwawa, Labasa Health Office, Senior Assistant Health inspector, Mr Makario Tabuakuru, Macuata Provincial Council, Assistant Roko Tui/Macuata.

For the Central & Eastern Division Consultations: Ms Una Tuitubou, Fiji Council of Social Service, Director Lupus Organisation, Ms Vasiti Cakau, Fiji Council of Social Services, Resident Rewa Community Health Worker, Mr James Bhagwan, Pacific Council of Churches, General Secretary, Mr Gabriel Mara, Climate Change Division-Office of Prime Minister, Climate Change Adaptation, Mr Filimone Ralogaivau, Climate Change Division-Office of Prime Minister, Climate Change Adaptation, Mr Filipe Coreregа, Fiji Roads Authority, Safeguards Manager, Mr Luke Vonotabua, Central Health Services, Divisional Health Inspector/Central, Dr Tevita Qoriniasi, Central Health Services, Divisional Medical Officer/ Central, Mrs Savaira Sigawale, Commissioner Eastern Division, Executive Officer/Projects, Dr Aalisha Sahu Khan, Ministry of Health & Medical Services, Head of Health Protection, Mr Josefa Tabua, Ministry of Foreign Affairs & Trade-NZ, Health Advisor, Mr Onisimo Sadranu, Eastern Health Services, Divisional Health Inspector/Eastern, Dr Jimaima Kailawadoko, Cure Kids, Programme Head.

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Section 1: Background

1.1 The Fijian context

The Republic of Fiji stands on the frontline of climate change – as a vulnerable small island developing state, and as a strong advocate for international climate action. Climate change poses a threat to the health of Fiji's population and to the health system itself. However, Fiji also has distinct advantages as an advanced regional economy, a training hub for health practitioners, and a moral voice for climate action as a leading large ocean state.

This document, the Health National Adaptation Plan, outlines the ambitions of the Fiji Ministry of Health and Medical Services (MHMS) for climate change adaptation as well as mitigation. It continues from the Climate Change and Health Strategic Action Plan (CCHSAP) 2016-2020 (extended to 2022) by identifying a suite of tangible actions that will support Fiji's journey toward building a climate-resilient and environmentally sustainable health system. The HAP expands on health sector contributions included in the National Adaptation Plan [1] and addresses the United Nations (UN) Small Island Developing States Initiative recommendations on health and climate change in Fiji [2]. The HAP also aligns MHMS activities with Fiji's Climate Change Act 2021, directly addressing the first objective of the Climate Change Act 2021 by presenting measures and policies that will safeguard the future of Fiji and its people, ecosystems, and biodiversity in the face of the climate emergency [3].

Fiji is a Pacific Island country comprised of some 332 islands with a geographical area of 18,272 square kilometres and spread out over an exclusive economic zone (EEZ) of 1.3 million square kilometres. Approximately one-third of the islands are inhabited, with most of the 900,000 population living on the two largest islands of Viti Levu and Vanua Levu which account for 87% of Fiji's landmass and 96% of its population [1]. MHMS manages 206 healthcare facilities throughout Fiji; these are classified as nursing stations (101 locations), health centres (86 locations), Sub-divisional hospitals (18 locations), Divisional hospitals (3 locations), one national referral hospital in Suva (Colonial War Memorial Hospital), and two specialty hospitals, P.J. Twomey Hospital (for tuberculosis, leprosy, and medical rehabilitation), and St. Giles Hospital (for mental health services) (MHMS Asset Management Unit, 2023). The vulnerability of the population and the health system to repeated extreme weather and climate events is readily apparent. Fiji experienced 20 cyclones from 2010 to 2022 which caused lasting damage to health infrastructure; 16 health facilities were significantly damaged by these storms and three are yet to be rebuilt [4]. Moreover, 90% of the population lives in coastal areas [1] and about 41% of Fiji's healthcare facilities are located within 500 metres of the coastline, and at least 27 facilities within 100 metres of the coast [5].

Fiji has declared a climate emergency through the Climate Change Act 2021, joining 18 other national governments and the European Union in solidarity towards climate action [6]. The Climate Change Act 2021 places public health at the centre of the national climate agenda while also highlighting the upstream determinants of health such as food production, water availability, and the displacement of communities [3]. The need for urgent and scaled up action on climate change is clearly acknowledged through two strategic priorities in the MHMS Strategic Plan 2020-2025: to safeguard against environmental threats and public health emergencies; and to strengthen population-wide resilience to the climate crisis [7]. Addressing climate change and promoting ecological balance is also expressed as one of the priorities of the Pacific Island Countries and Areas Cooperation Strategy 2018-2022 with World Health Organization [8]. This strategy notes the triple burden of disease in the Pacific: the unfinished task of communicable disease control, the rapidly expanding noncommunicable disease epidemic, and the health impacts of climate change [8].

The HAP therefore heralds a new phase of activity that builds on the progress made and lessons learnt under the CCHSAP. It recognises that the cross-cutting nature of climate change impacts and response necessitates an enhancement of the current way that MHMS organises its work. Through the 35 adaptation and mitigation actions distributed across the six health system building blocks (see Figure 1), the HAP will evolve its approach to mainstream climate change in all MHMS programs and policy areas, shifting to a more comprehensive approach to climate resilience and environmental sustainability in the health sector.

1.2 Health impacts of climate change in Fiji

There is now substantial scientific evidence on the health impacts of climate change in Fiji, in Pacific Island countries and internationally. Whereas previous national health sector budget allocations for climate change may have been difficult to justify due to the real or perceived lack of evidence [9], this is now no longer the case. The evidence base in Fiji has been generated through several major research projects and initiatives (see Box 1).

Box 1: Sources of evidence on the health impacts of climate change in Fiji

Piloting Climate Change Adaptation to Protect Human Health (2010-2014): Fiji was one of seven countries that implemented this global project, focusing on anticipating and responding to four climate-sensitive diseases leptospirosis, typhoid fever, dengue, and diarrhoeal illness [10].

Yanuca Island Declaration on health in Pacific Island countries and territories (2015): adopted at the eleventh Pacific Health Ministers Meeting in Fiji and recommitted to the Healthy Islands vision first set out in 1995 as the unifying theme for health promotion and health protection activities [11].

WHO Report on Human Health and Climate Change in Pacific Island Countries (2015): landmark report and first comprehensive synthesis of the state of knowledge of health and climate change in Pacific Island countries [12].

Fiji Profile of Health and Environment (2016): MHMS report on national environmental health and climate change indicators which integrated the Sustainable Development Goals and Yanuca Island Declaration frameworks and assessed institutional arrangements for climate action [13].

Special Initiative on Climate Change and Health in Small Island Developing States (2017-2023): launched at the Fijian Presidency of the twenty third Conference of Parties (COP23) of the UN Framework Convention for Climate Change (UNFCCC) to provide Pacific countries with political, technical and financial support, and the evidence to protect Pacific islanders from climate-sensitive diseases and building climate resilient health systems [14].

Climate hazard projections for Fiji indicate that the direct impacts on health will include more frequent high temperature extremes; less frequent but more intense (category 4 and 5) tropical cyclones; and sea level rise, with attendant coastal erosion, water contamination, and population displacement [2]. These climate events will, in turn, result in indirect health impacts by exacerbating climate-sensitive health risks such as water security and safety (including waterborne disease); food security and safety (including malnutrition and foodborne disease); vector density and distribution (vector-borne diseases); zoonoses; disorders of the eyes, ears, skin and other body systems; disorders of mental/psychosocial health; non-communicable diseases; and health systems problems [12].

Internal displacement of people as a result of climate disasters is already being experienced in Fiji. In response, the Fijian government has established the Taskforce on the Relocation and Displacement of Communities Vulnerable to the Impacts of Climate Change [3]. The Climate Hazards and Vulnerability Assessment (CHVA) report found that more than 90% of healthcare facilities in the Central and Western Division were aging (a large proportion were built in the early 1900s) and had extreme, unrepaired damage from climate events. Between 70% and 80% of facilities experienced flooding of roads and bridges preventing access to healthcare facilities during extreme weather events [15].

Category 5 Tropical Cyclone Winston in 2016 provided a clear demonstration of the vulnerability of Fiji's health infrastructure to the impacts of extreme climate events. A total of 88 healthcare facilities were either damaged or completely destroyed. The cost of direct damage was estimated to be $13.9 million, excluding the cost of secondary implications on human health such as food and nutritional security, and water safety and security. The estimated cost of recovery and reconstruction was $30.9 million [16].

1.3 Health system responses to climate change

It is an inescapable reality that health systems must establish a program of work on climate change adaptation due to the increasing impacts on the health of populations and communities, and the increased demand on health services due to climate disasters. At the same time, health systems have an obligation to address national and international commitments for climate change mitigation – given the far-reaching operational, financial, social and environmental footprint of the health sector, and its contributions to greenhouse gas emissions. However, the relative focus on climate change adaptation versus mitigation must be balanced against the development needs of Fiji's health sector.

This dual focus on adaptation and mitigation was recognised by the Special Initiative on Climate Change and Health in Small Island Developing States (SIDS), which stated that building climate resilience must happen in parallel with the reduction of carbon emissions – in order to protect the most vulnerable from climate risks and to attain the health co-benefits of mitigation policies (see Box 2) [14]. The Alliance for Transformative Action on Climate and Health (ATACH) launched at the COP26 climate negotiations expands on the focus to climate resilient health systems; low carbon sustainable health systems; supply chains; and financing the health commitments [17].

Box 2: Health co-benefits of action on climate change

Action taken to halt and reverse climate change across all sectors of the economy and throughout society, not just in the health sector, deserves special attention as it can produce significant improvements to both the population's health and health service delivery.

Examples of health co-benefits of climate change in health-determining sectors include improved air quality and respiratory health that is achieved in parallel with reductions in greenhouse gas emissions; reduced noncommunicable diseases through active transport options like walking and cycling; and reduced urban heat island effect, health benefits of physical activity, and improved mental health outcomes from access to urban green spaces [18]. Interventions that produce health co-benefits are "no regret" interventions as they also produce economic gains such as cost savings for businesses and households from energy and resource efficiency; reduced fuel poverty; new green jobs in energy, recycling, and sustainable agriculture; and reduced healthcare costs.

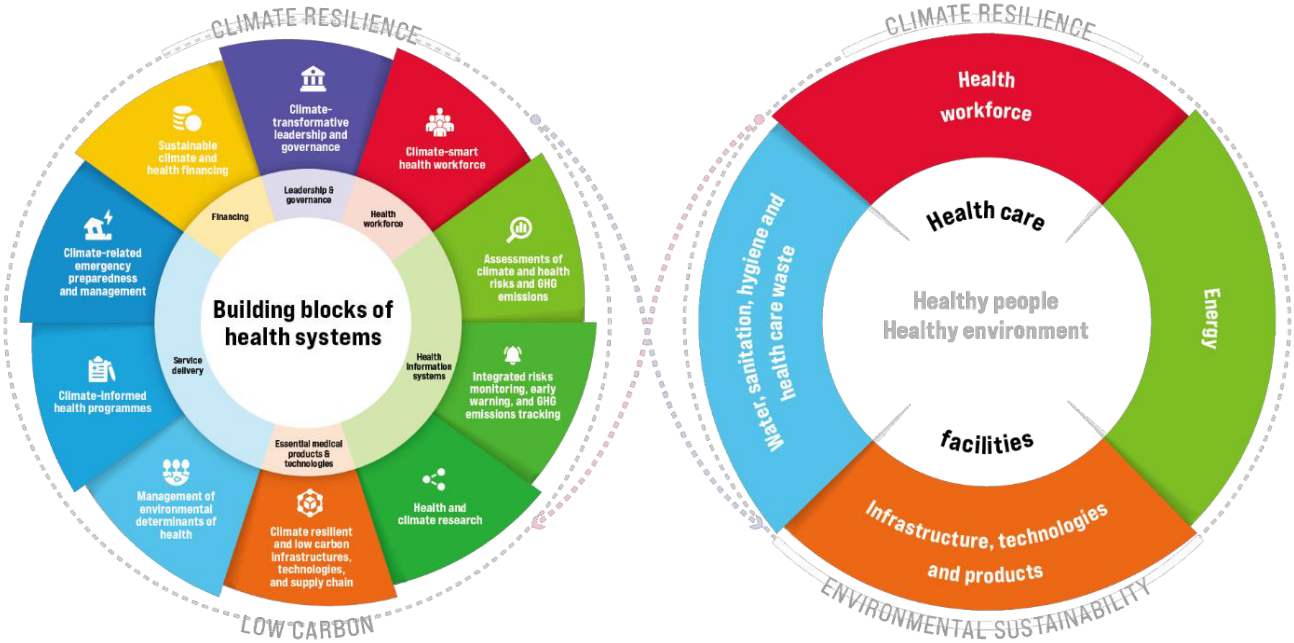
The health co-benefits provide a strong argument for transformative action on climate change in health-determining sectors such as energy generation, transport, food and agriculture, housing and buildings, industry, and waste management. A range of tools are available to assess the health co-benefits of climate action, for example:

1. The AIRQ+ software tool for health risk assessment of air pollution which allows policy makers to estimate the short-term and long-term effects of exposure to air pollution, including health end-points such as reduction in life expectancy [19].
2. The GreenUr green urban spaces and health plug-in for geographic information system (GIS) software that enables local authorities, urban planners, and non-government organizations to quantify the direct health effects of green spaces on mental health and ecosystem services.

MHMS has led action on climate change in the health sector for more than a decade. The Climate Change and Health Strategic Action Plan set the health sector agenda and commenced the assessment and planning phase through major projects such as the Climate Hazards and Vulnerability Assessment (CHVA) and the Climate Resilient and Environmentally Sustainable Health Care Facilities (CRESHCF) guidelines [20]. During this period MHMS climate response capability was greatly strengthened with the establishment of Fiji's Emergency Medical Assistance Team (FEMAT), the first such team in the Pacific with the capability to deploy both locally and internationally [21].

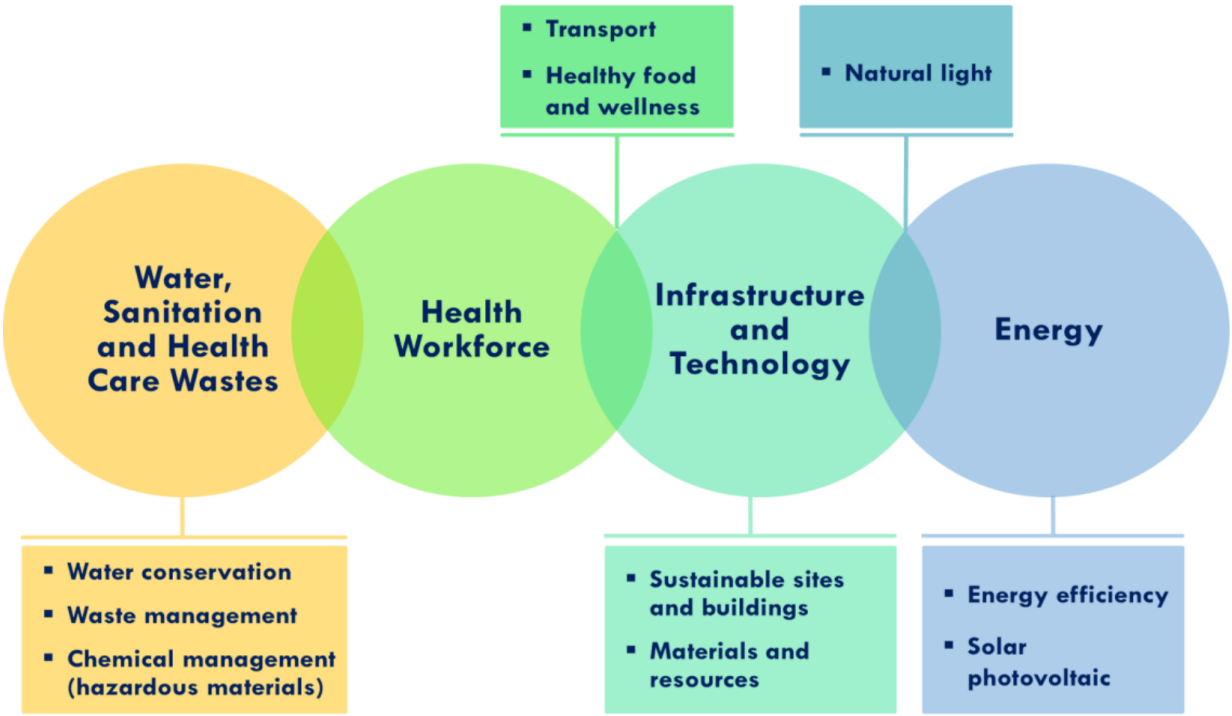
The CCHSAP adopted the ten components of the WHO Operational Framework [22] and the WHO six health system building blocks [7] to organize the Fijian health system's activities, and the effectiveness of this approach sees its continued use in this HAP. Figure 1 displays these ten components alongside the 2020 update to the WHO Operational Framework which additionally defines four fundamental requirements to address the dual imperative of climate resilience and environmental sustainability [23].

Figure 1: Six building blocks, ten components, and four fundamental requirements for climate-resilient and environmentally sustainable healthcare facilities [23]



The MHMS has localised the 2020 updated framework to the Fijian context through its Guidelines for Climate-Resilient and Environmentally Sustainable Health Care Facilities in Fiji [20]. These guidelines provide an interpretation of the four fundamental requirements through ten domains of action that are specific to and applicable to all healthcare facilities in Fiji's health system. These ten domains are displayed in Figure 2 and reproduced in Appendix 1 given their importance in guiding the development of environmentally sustainable healthcare facilities in Fiji. The CRESHCF guidelines function as a self-certifying toolkit for healthcare facilities and include a standard operating procedure and an easy reference checklist tool for undertaking healthcare facility assessment.

Figure 2: Ten domains within the four fundamental requirements for climate-resilient and environmentally sustainable healthcare facilities in Fiji [20]



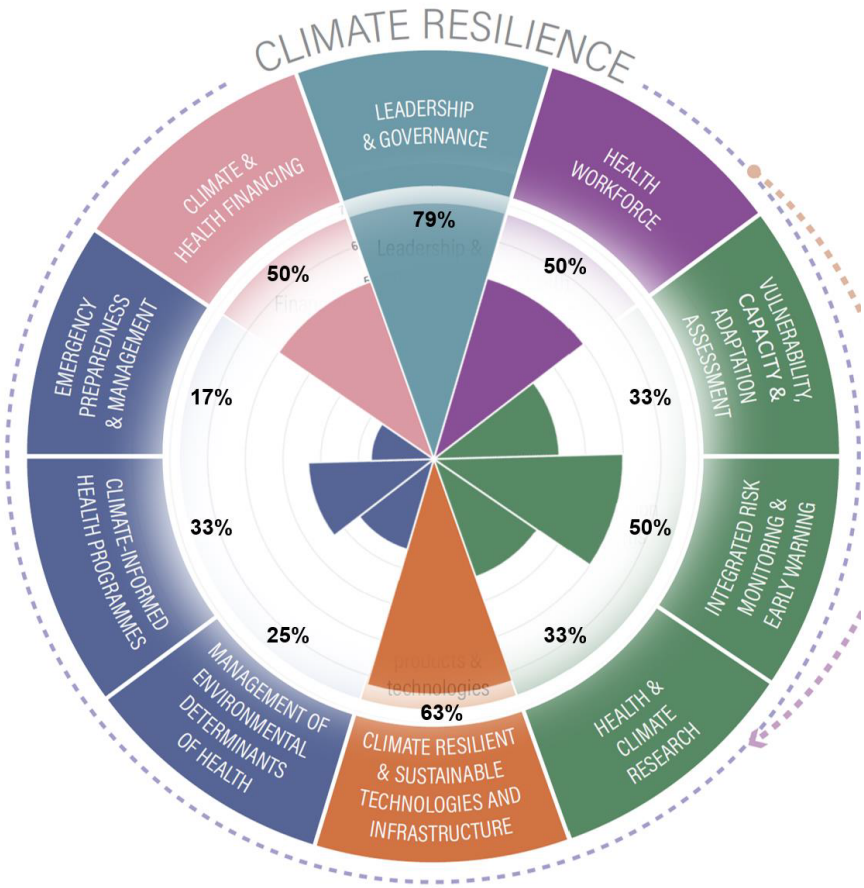
Section 2 of the HAP sets out the strategic approach across the six health system building blocks, ten components, four fundamental requirements, and ten domains of action for building a climate-resilient and environmentally sustainable health system in Fiji. Moreover, it acts as the central policy for promoting and facilitating coordinated and inclusive climate change and health planning among health stakeholders at different levels of government and across health-determining sectors [24].

1.4 Fiji's progress towards climate resilient health

The HAP articulates the strategic approach and 35 specific adaptation and mitigation actions for the health sector in Fiji. The approach and actions have been developed based on stakeholder consultation and review of progress against intended outcomes and indicators in key MHMS and national governance documents (see Appendix 2). This section outlines progress against the Climate Change and Health Strategic Action Plan (2016-2022); National Adaptation Plan (2018); Pacific Islands Action Plan on Climate Change and Health (2019); and WHO Quality Criteria for HAP (2021).

The CCHSAP established a comprehensive agenda for climate action in the health sector. MHMS has made progress across all ten components of the plan, albeit with an uneven number of indicators achieved and differing degrees of completion for each component. Figure 3 displays completion rates for the ten components; further detail is provided in Appendix 3.

Figure 3: Progress against the ten components of Climate Change and Health Strategic Action Plan.



The Monitoring and Evaluation Report of the CCHSAP identified several challenges to effective completion of the plan (Box 3). Understanding the broad challenges and specific gaps in completion was an important part of the HAP process; these issues are subsequently addressed through the adaptation and mitigation actions in the HAP implementation plan (Section 3).

Fiji's National Adaptation Plan was published in 2018 and preceded by the CCHSAP. This enabled MHMS to effectively influence and provide input into the NAP. Vertical alignment ensured that ten high-priority actions for the health sector were included in the 40 actions in the NAP. Progress has been made on all except one action (increased resources and personnel for the Climate Change and Health Unit (CCHU)), and one action was completed in full (identification and prioritisation of adaptation needs and associated health risk exposures).

The assessment of the actions is presented in further detail in Appendix 4. MHMS is a member of the NAP Steering Committee and continues to contribute to the iterative enhancement of climate action in Fiji through this mechanism.

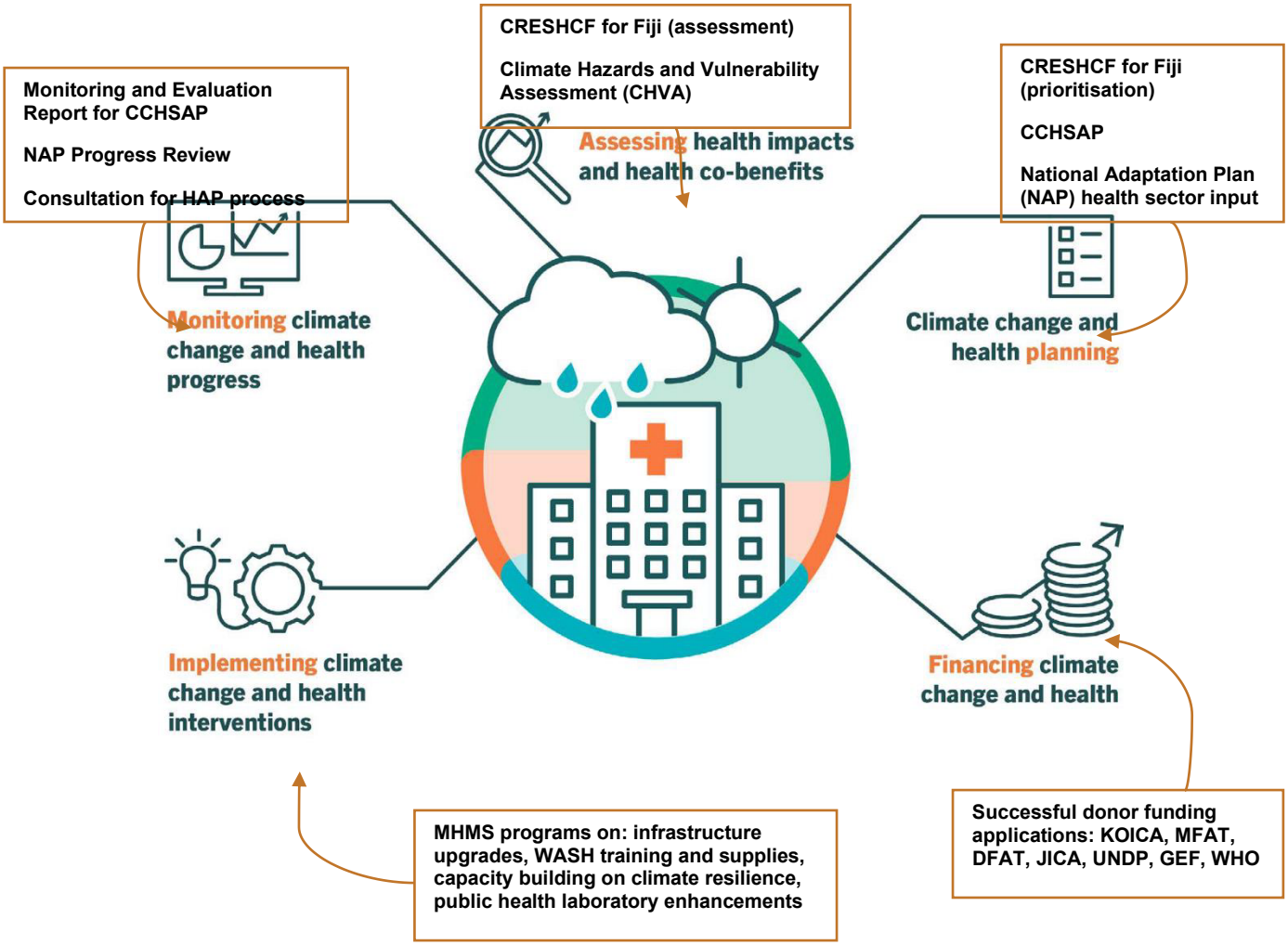
Box 3: Challenges in the progress towards climate resilient health in Fiji

Communication. The Monitoring and Evaluation Report found limited evidence of communication of the objectives, progress and achievements of the CCHSAP to stakeholders within and outside the health sector.
Institutional capacity. The CCHU within MHMS currently consists of a single officer who is responsible for managing a broad portfolio of activities across healthcare facilities as well as coordination with multiple external partners.
Operating environment. The decentralisation of monitoring and evaluation to individual programs and administrative levels within MHMS poses a challenge to the visibility of successes and gaps, particularly for a cross-cutting issue such as climate change.
Alignment. In contrast to the difficulty with horizontal alignment across health sector programs, MHMS has had better success in vertical integration of health sector priorities within the national adaptation planning process.
Financial costing. Health sector climate change initiatives are typically pitched to donor partners on an ad hoc basis which limits the effectiveness of a comprehensive, multi-year program of work. Adopting a successful approach used in other sectors (such as the NAP Costing Methodology Tool) can help address this gap.

The Pacific Islands Action Plan on Climate Change and Health, part of the Special Initiative on Climate Change and Health in SIDS, outlined four strategic lines of action to be achieved over the period 2019-2023: empowerment, evidence, implementation, and resources [9]. Fiji has achieved some progress against the “empowerment” action, having developed and published the National Climate Change and Health Strategic Action Plan 2016-2022, but with minimal formal intersectoral collaboration to address climate change. Fiji performed strongly against the “evidence” action, having completed a thorough vulnerability and adaptation assessment across all health facilities in the country through the CHVA [15]. The “implementation” action has seen mixed progress, with integrated risk monitoring currently under investigation in collaboration with the Fiji Meteorological Service, but with a focus on only some high priority climate-sensitive diseases rather than the broader climate-sensitive health outcomes. Emergency preparedness is a strong point for MHMS, with health sector response plans in place for climate hazards and Fiji's Emergency Medical Assistance Team on standby for deployment nationally and internationally. The “resources” action has been another area of strength for Fiji, having accessed international climate finance through the Global Environment Facility (GEF), World Health Organization, and bilateral donors.

The WHO Quality Criteria for HAP guidance published in 2021 indicates that the HAP document is but one component of the overall process of developing the HAP, and that the process itself is an important outcome [24]. Figure 4 displays important milestones along the HAP process in Fiji. In contrast to the challenges and potential weaknesses presented in Box 3, Figure 4 displays the successes achieved by MHMS and the broader Fijian health sector toward building climate-resilient health. It also indicates the strengths of the CCHSAP as the inception document for a coordinated health sector response to climate change. Consultation with MHMS program managers, and health sector and non-health sector stakeholders demonstrated good progress against the six WHO Quality Criteria. Progress against these criteria was confirmed to have proceeded according to the guiding principles, and it was recommended that the focus should now shift from the targeted approach taken in the CCHSAP towards a more comprehensive approach to ensure coverage of climate-sensitive health outcomes (and not only specific climate-sensitive diseases). Further detail on this assessment is provided in Appendix 5.

Figure 4: Process of building climate-resilient health in Fiji



1.5 Fiji's health sector ambitions and commitments to climate action

MHMS envisions three phases – establishment, enhancement, and excellence – for building a climate resilient and environmentally sustainable health system in Fiji. These phases are reflected in the CCHSAP and HAP.

The establishment phase put in place the key elements of a strategic, system-wide approach to climate action through the CCHSAP. This phase focused on setting the agenda, assessing vulnerability and capacity, and raising awareness of the health impacts of climate change among health professionals and stakeholders. During this phase, MHMS and the Fijian health sector have played a leading role on climate action among government entities in Fiji as well as on the international stage.

The enhancement phase will be characterised by tangible actions to mainstream climate change adaptation and mitigation efforts across all health sector programs. The HAP will cover the better part of a decade and align with the end of the Sustainable Development Goals. The first years of this plan will be marked by increasing organisational maturity, which will enable the health system to shift from the current targeted and vertical approach to a more comprehensive and horizontal approach to address climate-sensitive health outcomes. Cross-sectoral collaboration with health-determining sectors and key stakeholders will be an important feature of this phase. This will also be a phase when existing achievements are scaled up, and the next set of challenges are defined and addressed. These are outlined in the HAP implementation plan (Section 3).

The excellence phase will extend from the later years of the HAP and into the fourth decade of the twenty first century. The sophistication attained during the previous phase will see the Fijian health sector play a thriving role as a regional health hub in the Western Pacific, and MHMS will increasingly be called upon to share its technical expertise regionally and internationally. During this phase, climate-resilient healthcare facilities will provide cross-cutting benefits, allowing healthcare services to be delivered to international best practice standards of safe and quality care in the face of extreme weather and climate events. The sophistication attained during the previous phase will set the scene for an enabling environment that facilitates bottom-up innovations by Fijian health practitioners and stakeholders for local climate resilience and environmental sustainability. These innovations and increasingly transformative actions will be necessary to face the likelihood of a deteriorating environment and extreme climatic conditions.

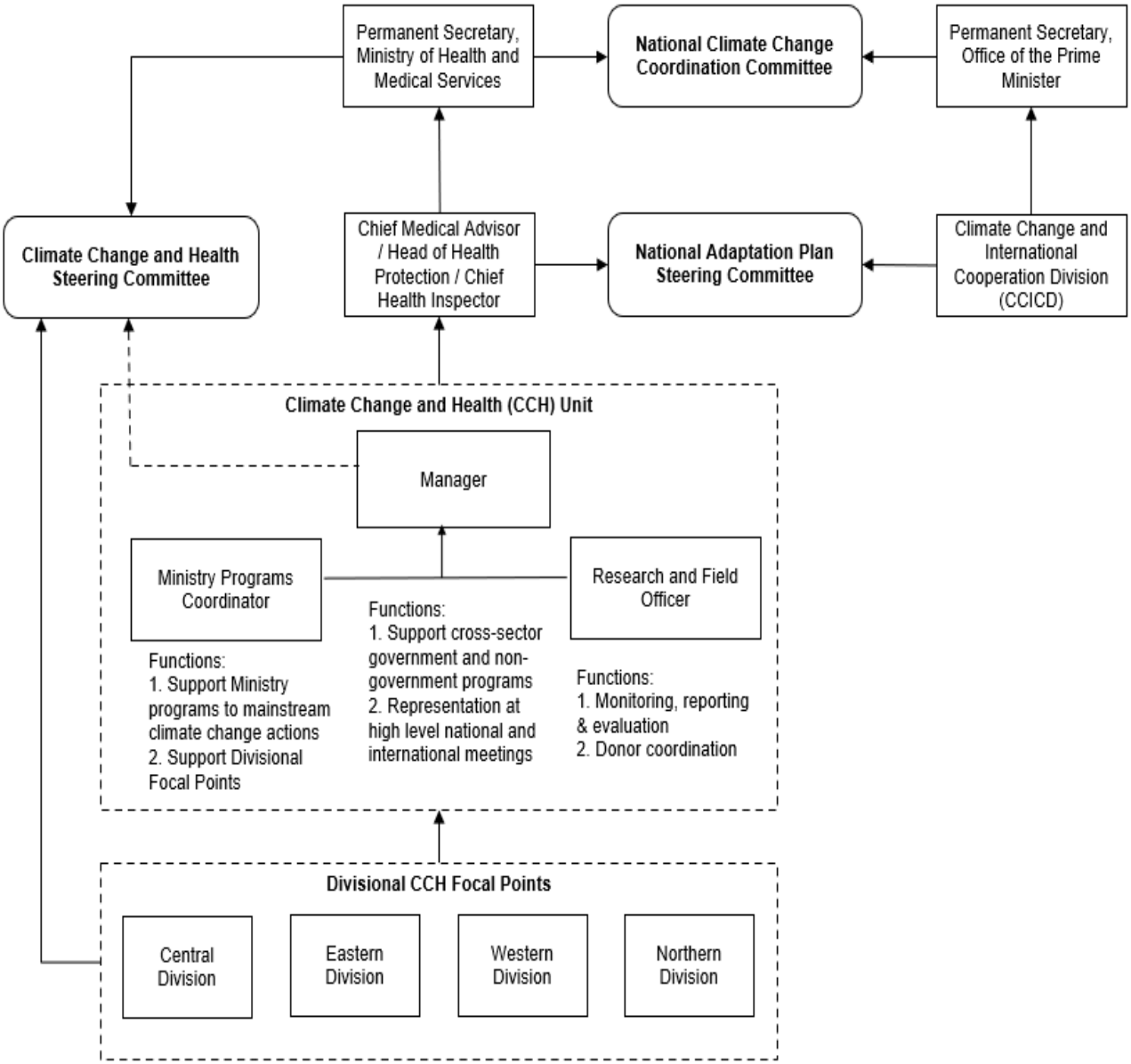
There are two major sets of commitments for climate action supported by the HAP: international commitments and national commitments. Fiji continues to play an international leadership role, and the health agenda is increasingly becoming a part of climate negotiations. During its Presidency of COP23 in 2017, Fiji led the establishment of the Special Initiative on Climate Change and Health in Small Island Developing States. This initiative set out a vision that by 2030 all health systems in SIDS will be resilient to climate variability and change. The HAP will see Fiji through to this point, and progress on the four strategic lines of action will need to be monitored (see Section 1.4). MHMS has also made commitments to the COP26 Health Initiatives in October 2021. These include a commitment to undertake climate change and health vulnerability and adaptation assessment; develop a health national adaptation plan; publish an action plan for a sustainable low-carbon health system (including supply chains) by June 2024; reach net zero health sector emission by 2050. Fiji is well on its way with completion of the first two commitments as part of the HAP process; the second two commitments have been included in the HAP implementation plan.

Health sector commitments at the national level are articulated in the National Development Plan 2017-2036, National Climate Change Policy 2018-2030, and National Adaptation Plan. MHMS is an important contributor to these plans and policies which have significant impacts on population health and the health sector itself, and therefore will continue to guide and interact with actions carried out through the HAP.

Reinvesting in governance and leadership for climate change and health is a critical feature of the enhancement phase of the MHMS vision. The Climate Change and Health Unit within MHMS will receive an ongoing minimum establishment of five permanent full-time equivalent staff. The CCHU will play a system-wide catalyst and coordination function that will support the achievement of the ambitious, multi-sectoral agenda of the HAP. The designation of CCH Divisional Focal Points in each Division of the health system (four in total) will supplement the capacity of the CCHU to implement system-wide actions and ensure a two-way flow of information. CCH Divisional Focal Points will support top-down dissemination of

tools and assessments of climate resilience and environmental sustainability to staff at the operational frontline of the health system; they will also facilitate efficient bottom-up escalation of critical issues across all ten components of the HAP to MHMS through the CCHU. Figure 5 outlines the structure and function of the governance system.

Figure 5: Governance and human resources for climate change and health



Section 2: Components of the health sector response to climate change action

This section provides a synthesis of existing progress against the Climate Change and Health Strategic Action Plan; assessment of performance against international quality criteria; and insights from stakeholder consultation. By considering these findings, this section sets out the program of work on climate resilience and environmental sustainability in the Fijian health sector leading up to 2030.

This program of work will be subject to a two-yearly monitoring, evaluation, and reporting cycle to ensure: robust oversight and tracking of progress against the implementation plan (detailed in Section 3); identification and resolution of implementation challenges at regular intervals; and incorporation of emerging innovations, both local and international, in future phases of the Fijian Health Adaptation Plan.

HEALTH SYSTEM BUILDING BLOCK 1: CLIMATE-TRANSFORMATIVE LEADERSHIP & GOVERNANCE

Component 1: Climate-Transformative Leadership and Governance

Fiji has played an internationally recognised leadership role on climate change issues, and these efforts are translated into action through governance processes led by government ministries and state entities. The health sector in Fiji has a longstanding history of climate action, as outlined in Section 1.2.

The Ministry of Health and Medical Services has adopted the WHO Operational Framework for building climate resilient health systems [22] to guide its work on climate change and health. There has been progress against all outcome-level progress indicators for climate-transformative leadership and governance set out in the WHO Operational Framework, and some measurable outputs have been completed. These include the establishment of a Climate Change and Health Unit within MHMS; exemplary efforts at the officer level to scale up the health sector climate response; and the publication of the CCHSAP. The Fiji health sector is now entering a phase of enhanced cross-sectoral collaboration with health-determining sectors, demonstrated by agreements such as the memorandum of understanding between MHMS and the Fiji Meteorological Service.

Stakeholder consultation has indicated that while the visibility, influence, and leadership of MHMS have been strengthened within the national process of building climate resilience, this has not completely filtered down to healthcare facilities. The next phase of activity will therefore focus on raising awareness of existing climate resilience tools, disseminating best practices at the operational levels of the health system, and involving frontline health practitioners in local assessments. This process will include a focus on community engagement and coordination, and enhanced governance at the Divisional and Sub-divisional level. This will help ensure that staff at the operational frontline of the health system are empowered with tools to lead local responses to the health impacts of climate change.

MHMS faces limitations in institutional capacity, with recognised challenges in human resources for health. The Monitoring and Evaluation Report of the CCHSAP identified that this limitation resulted in no reporting outputs being produced by the Climate Change and Health Steering Committee, which was responsible for quarterly reporting of implementation progress. Similarly, the CCHU has been reduced to a single MHMS officer with climate change stated in their job description [5].

In response, a CCHU will be fully established with a minimum establishment of three permanent full-time equivalent staff at MHMS to support the delivery of the necessarily ambitious agenda set out in the HAP. The unit will not duplicate functions of other units at MHMS but rather support the different programs to mainstream climate change actions into their operational plans; develop climate change and health strategic action plans and policies; capacity building on climate change and health; monitoring, reporting and evaluation of climate change and health-related activities implemented by MHMS; intra and intersectoral coordination on climate change and health issues; climate change funding and resource coordination and mobilization and; support cross-sectoral government and non-government programs.

Box: Climate-Transformative Leadership and governance in action

Health Minister presenting at international conference on climate change.

Deliverables against Component 1: Climate-Transformative Leadership and governance

No.	Adaptation and mitigation actions
1.1	Re-establish and strengthen the Climate Change and Health Unit (CCHU) within the MHMS and provide an ongoing minimum establishment of three permanent full-time equivalent staff. This will be supplemented by the designation of CCH focal points within each Division (four in total) who will support the CCHU in coordinating system-wide actions set out in the HAP and ensure that awareness of tools and assessments of climate resilience and environmental sustainability reach staff at the operational frontline of the health system.
1.2	Reinvigorate the MHMS Climate Change and Health Steering Committee, for which the CCHU is secretariat. The Steering Committee will align its schedule in line with the NAP Steering Committee.
1.3	Attend all meetings of the National Climate Change Coordination Committee, which will occur at least once a year. The Permanent Secretary will promote the health co-benefits of climate change action in health-determining sectors, and support the creation, implementation, and monitoring of cross-cutting policies, as set out in section 12 of the Climate Change Act 2021.
1.4	Appoint the manager of the CCHU as the MHMS focal point for the Climate Change Act 2021.
1.5	Provide health sector input to Fiji's Nationally Determined Contribution (NDC) using international best practice guidance, as set out in section 8(1) of the Climate Change Act 2021. This work will help to deliver on the MHMS COP26 commitment to reach net zero health sector emissions by 2050.
1.6	Actively contribute to the NAP Steering Committee, and contribute health sector priorities to the NAP, which will be reviewed at least every five years. This will contribute to the national approach set out in section 67 of the Climate Change Act 2021.
1.7	Submit projects completed by the MHMS climate change and health program of work to the Fijian Adaptation Registry, to support section 74 of the Climate Change Act 2021.
1.8	Incorporate climate change functions in the revised Public Health Act in order to mainstream climate actions across MHMS programs, alignment to the Climate Change Act 2021, and provide donor visibility on the MHMS commitment to climate action.
1.9	Actively contribute to international climate change negotiations by leading health delegations from MHMS at future Conference of Parties (COP) meetings for the Convention on Climate Change and the Convention on Biological Diversity, which both impact the health of Fijians.

HEALTH SYSTEM BUILDING BLOCK 2: CLIMATE-SMART HEALTH WORKFORCE

Component 2: Climate-Smart Health Workforce

The health workforce is an essential building block of the Fijian health system, and Fiji plays a major role as a regional training hub for nurses, doctors, and allied health professionals. Nevertheless, the nation faces protracted health worker shortages and experiences difficulty with staff retention. This situation exacerbates the impacts of climate change events which place additional demands on the workforce.

The Fijian health system has established an effective allocation of roles and responsibilities for the management of environmentally determined and climate-sensitive health conditions down to the Divisional and Sub-divisional levels. The strengths of this approach are apparent before, during, and after responses to outbreaks of climate-sensitive infectious diseases, which involve clinical and para-clinical staff (such as nurses, doctors laboratory technicians, and managers) as well as non-clinical staff (such as environmental health officers, building maintenance staff and community health workers). The National Disaster Management Office (NDMO) was noted to have delivered effective training following Tropical Cyclone Winston on disaster risk management; however, such efforts have been followed by only ad hoc and episodic capacity building of the health workforce. Nevertheless, there has been a longstanding commitment to delivering climate change education by some (but not all) institutions that train health professionals, such as at the Fiji School of Nursing (now the College of Medicine, Nursing and Health Sciences at Fiji National University). There is considerable scope to strengthen and join up these efforts.

Despite the effective organisation of the roles of the health workforce and punctuated attempts at capacity building, the system struggles with ongoing limitations to human resources for health. Consultation elicited that unfilled posts are the norm across various levels of healthcare facilities in all four Divisions of the health system in Fiji, at the same time as there has been an increase in the burden of disease and hospital bed occupancy. The COVID-19 pandemic and subsequent international demands for health practitioners in neighbouring countries have also led to attrition of the highly educated, skilled, and sought-after Fijian health workforce.

Improving the human resources for health is a multi-faceted problem which will be addressed by MHMS through multi-dimensional approaches. Solutions currently under consideration include raising the retirement age for some cadres of health professionals, redeployment to high-need areas, and increasing the intake of health professional students. While remuneration of staff remains an important concern, MHMS staff surveys have identified that working conditions (infrastructure maintenance and improvement) and continuous professional development are high rated concerns. The latter can be addressed through enhanced delivery of in-service training, upskilling through short courses (such as postgraduate certificates) and a specialisation framework for different health professions (particularly nurses). (FNA conference on 3 March 2023)

The HAP has an important supporting role to play in enhancing the health workforce building block. Climate resilience and environmental sustainability a repeatedly voiced concern for health professionals, and it provides an avenue to educate, upskill and provide practical tools to the workforce. The outcome of this focus in the HAP will to be improve health practitioners' day to day work performance; the quality of care delivered in healthcare facilities; and job satisfaction for a health workforce that is empowered to face the challenges posed by climate change.

Box: Health workforce in action

Photograph of consultation for the Climate Change and Health Training Modules in February 2023

Deliverables against Component 2: Climate-smart Health workforce

No.	Adaptation and mitigation actions
2.1	Review the existing CCH training package and further implement a capacity-building program for different cadres of health professionals (such as health inspectors, nurses, doctors, and community health workers). This train-the-trainer program will be carried out at the Divisional level and will include components for knowledge building, communication skills, and business case development for climate change projects..
2.2	Undertake a series of profession-specific consultations to establish key performance indicators for employees and contractors of MHMS to enhance their contributions to climate response in the health sector.
2.3	Establish a consortium between all academic institutions that train health professionals in Fiji to develop a minimum set of learning outcomes, graduate capabilities, and curriculum elements on climate change and health. This will support the intention of section 25 of the Climate Change Act 2021. This work will involve all medical, nursing, allied health, para-clinical, and public health degrees delivered in Fiji; attention will be paid to the broader Pacific context to ensure Fijian graduates have transferable knowledge, skills, and capabilities.

HEALTH SYSTEM BUILDING BLOCK 3: HEALTH INFORMATION SYSTEMS

Component 3: Assessment of climate and health risks and GHG emissions

Fiji has hosted and supported several major assessments of climate change and health over the years. Assessments outputs from the Piloting Climate Change Adaptation to Protect Human Health project (2010-2014), WHO Report on Human Health and Climate Change in Pacific Island Countries (2015), and the Special Initiative on Climate Change and Health in Small Island Developing States (2017-2023) have added to the body of evidence on the health impacts of climate change both in Fiji and the broader Pacific region. These health sector assessments have been complemented by national projects such as the Tropical Cyclone Winston Post-Disaster Needs Assessment in 2016, and Fiji's Climate Vulnerability Assessment in 2017.

The Climate Hazards and Vulnerability Assessment of 206 healthcare facilities in Fiji was a major undertaking by MHMS during 2021 and 2022. This assessment has enabled the prioritisation of actions as part of the HAP review process, based on the four fundamental requirements for a climate-resilient and environmentally sustainable health system. This has been complemented by the Guidelines for Climate-Resilient and Environmentally Sustainable Health Care Facilities in Fiji which translated international best practice guidance to the local context [20]. However, there is currently low awareness of this work at the operational level among Divisional and Sub-divisional staff. Thus, further dissemination of the CRESHCF self-assessment tool and familiarisation with the results of the CHVA findings at the healthcare facility level is warranted.

Component 4: Integrated risk, monitoring, and early warning

Health information systems in the Fijian health sector have a number of strengths, particularly in relation to comprehensive data collection at the lowest operational levels of the health system such as nursing stations. However, a combination of paper and digital medical records limits data management and epidemiological analysis to inform better health system management. Thus, MHMS is currently implementing a major information and communications technology (ICT) capability uplift, with a multi-year investment pipeline identified in the Digital Health Strategy 2023-2027 [25].

Following a targeted focus for a number of years on climate-sensitive diseases such as leptospirosis, typhoid fever, dengue, and diarrhoeal illness, MHMS is now enhancing the National Notifiable Disease Surveillance System (NNDSS) with a geographic information system component, web-based reporting, and an improved data management system. The Fiji Centre for Disease Control will deploy this integrated risk monitoring and climate-informed early warning system to better respond during climate emergencies through real-time monitoring of public health indicators. Additionally, the new system will support a broad range of environmental health functions, from business licensing to vector control and mapping.

Component 5: Health and Climate Research

The Fiji Human Health Research Policy has a stated objective to strengthen human health research activities and capacities to support the achievement of strategic priorities [26]. Conducting additional health research to better integrate climate considerations into the health sector is also an investment priority under the National Climate Finance Strategy [4]. There is a thriving environmental health research agenda in Fiji, through partnerships with major international projects such as Watershed Interventions for Systems Health in Fiji (WISH) and Revitalising Informal Settlements and their Environments (RISE). Through the HAP, MHMS will pivot its efforts to ensure adequate emphasis is placed on health and climate research, equally investigating both climate change mitigation and adaptation. An analysis of the health sector carbon footprint (greenhouse gas emissions) in Fiji will be a priority project to establish baseline emissions and identify the carbon hotspots that can be targeted by MHMS.

The next challenge for MHMS to address is the translation into practice of research produced in Fiji with overseas partners, and the dissemination of research to frontline health practitioners. There is a strong appetite among frontline health practitioners as well as stakeholders from non-government organisations (NGOs), civil society organisations (CSOs), and faith-based organisations (FBOs) for greater access to data, as well as a desire for participation and training in operational health research. This need is only partially met by current initiatives. Therefore, MHMS will establish a health research small grants program, which will incentivize MHMS staff at the Divisional level or below, as well as stakeholder groups, to undertake and publish their research on climate change and health.

Box: Health information systems in action

Photograph from previous LTDD work demonstrating impacts of surveillance systems on the ground.

Routine water sampling by Environmental Health Officers on homes relying on rainwater in a rural farming community in Sigatoka.

Deliverables against Component 3, 4 and 5: Health information systems

No.	Adaptation and mitigation actions
3.1	Publish the health sector Climate Hazards Vulnerability Assessment (CHVA) and the Water and Sanitation for Health Facility Improvement Tool (WASH FIT) which have been localised for Fiji and promote its usage across all health facilities in the country. This will contribute to the multi-sectoral approach set out in section 70 of the Climate Change Act 2021.
3.2	Review, update, and disseminate the Guidelines for Climate Resilient and Environmentally Sustainable Health Care Facilities (CRESHCF) checklists for self-assessment by health facilities.
4.1	Enhance the NNDSS to include an integrated risk monitoring and climate-informed early warning system function. Establish web-based reporting and improved data management system using GIS through the Fiji Centre for Disease Control.
4.2	Investigate, in partnership with iTaukei Affairs, the role of evidence-based traditional knowledge and ecological awareness in Fiji (such as food preservation, understanding weather patterns, traditional coping mechanisms, and rumour surveillance). Analyse findings of the iTaukei Affairs-led Traditional Ecological Knowledge (TEK) survey in relation to MHMS-led disease surveillance programs.
5.1	Analyse the health sector carbon footprint (greenhouse gas emissions) in Fiji using an appropriate methodology that has been used to estimate the carbon footprint of healthcare in other countries. This approach will establish the baseline emissions and hotspots of carbon emissions in the Fijian health sector, which can be mitigated through targeted action. This will contribute to the national approach set out in section 30 of the Climate Change Act 2021.
5.2	Submit a formal request from the MHMS to form a technical working group under section 12(10) of the Climate Change Act 2021, to undertake a health-specific vulnerability and capacity assessment of Fiji against the risks posed by climate change.
5.3	Develop evidence-based guidance on climate change adaptation and mitigation actions in Fiji, including (1) health co-benefits, (2) noncommunicable diseases, and (3) mental health conditions. In addition, a technical report on community engagement for climate change and health in Fiji will be produced. This will help to evolve the MHMS response to climate change from a focus on a limited set of climate-sensitive diseases

	towards comprehensive coverage of climate-sensitive health outcomes.
5.4	Convene an annual health co-benefits symposium involving stakeholders from health-determining sectors such as transport, energy, housing and agriculture, as well as non-government, civil society and faith-based stakeholders. This will strengthen cross-sectoral collaboration and promote advocacy and strategic actions to address the impacts of climate change on health in Fiji, while also contributing to the MHMS Human Health Research Policy which intends to establish an Annual Human Health Research Symposium.
5.5	Establish a health research small grants program, which disburses funding in the range of $1,000 to $5,000 for MHMS staff at the Divisional level or below, as well as health stakeholders, to undertake or publish their research.

HEALTH SYSTEM BUILDING BLOCK 4: ESSENTIAL MEDICAL PRODUCTS & TECHNOLOGIES

Component 6: Climate resilient and low carbon infrastructures, technologies, and supply chain

Climate-resilient healthcare facilities are a strategic priority under the MHMS Strategic Plan 2020-2025 [7]. MHMS has made considerable progress on identifying an ocalizing framework for assessment and implementation of climate-resilient infrastructure for health facilities in Fiji over the period covered by the previous plan, CCHSAP. This period was punctuated by multiple climate emergencies such as the aftermath of Tropical Cyclone Winston in 2016 and Cyclone Yasa in 2020 as well as less intense yet nevertheless highly disruptive weather events. During this period, international guidance transitioned from "Green Health Facilities" and "Safe and Smart hospitals" to "Climate Resilient and Environmentally Sustainable Health Care Facilities", and MHMS was at the forefront of ocalizing these new guidelines to the Fijian context [20].

Despite progress in assessment and post-disaster recovery efforts, basic needs in relation to water, sanitation and hygiene (WASH) and climate resilient infrastructure remain unmet across several healthcare delivery locations as well as several communities across Fiji Islands. This has a compounding effect on outbreaks of climate-sensitive diseases such as leptospirosis and dengue fever. Access to health facilities is another significant challenge in some areas, particularly the outer islands and the interior of the larger islands of Viti Levu and Vanua Levu. Review and streamlining ahead of time the underlying patient referral pathways; land- and water-based transport arrangements; and communication infrastructure (such as satellite phones and virtual clinical support for escalating care of the deteriorating patient) will contribute to health system resilience during climate events.

The HAP will have a strong focus over its implementation period on delivering infrastructure improvements and upgrades which have been identified by previous assessments such as the CHVA and the CRESHCF facility self-assessment checklists. Once priority health facilities receive their infrastructure upgrades, they will be declared climate resilient. The existing healthcare facility upgrade, and maintenance program led by the MHMS Asset Management Unit will be integrated with the climate resilience and environmental sustainability objectives of MHMS through a new Standard Operating Procedure.

Under the HAP there will also be a shift to ensure that environmental sustainability and mitigation (rather than only climate resilience and adaptation) of the Fijian health system is included within the scope of all health programs led by MHMS. The ambition is to develop a health system in Fiji that proactively leads on climate change mitigation activities and does not simply pursue a policy of reactive climate change adaptation activities. A range of actions will deliver on this vision; for example, MHMS as one of the largest government vehicle fleet managers, and as one of Fiji's major buyers of goods with a dependence on international supply chains, to advocate and influence shifts in other sectors of the economy in Fiji. Working with the Ministry responsible for transport to transition the MHMS vehicle fleet to electric and hybrid options will deliver co-benefits of reducing community exposure to air pollution, while also helping to create a market for electric vehicles when MHMS lease arrangements end, and those electric vehicles enter the private market through second-hand sales. Similarly, MHMS has an opportunity to use its legislated mandate on the National Building Code, which can be amended to meet the mitigation and adaptation objectives of Fiji's National Development Plan 2017-2036 as well as the Climate Change Act 2021.

Box: Climate resilient and low carbon infrastructures, technologies, and supply chain in action

Deliverables against Component 6: Climate resilient and low carbon infrastructures, technologies, and supply chain

No.	Adaptation and mitigation actions
6.1	Deliver infrastructure upgrades at 20 high-priority sites, based on findings from the CHVA, and declare them climate-resilient healthcare facilities. Continue to roll out the infrastructure upgrades across all healthcare facilities in Fiji.
6.2	Develop a new integrated assessment process Standard Operating Procedure (SOP) co-led by the Asset Management Unit and Climate Change and Health Unit to combine the existing healthcare facility upgrade and maintenance program with the climate resilience and environmental sustainability objectives of MHMS. A comparative assessment of asset management processes and findings from the CHVA will be used to initiate this action. Include the provision of non-fixed infrastructure such as MHMS mobile and satellite phones for nursing stations to facilitate patient referral and transfer, and timely situation reports during climate emergencies.
6.3	Work with the Ministry responsible for transport to transition the MHMS vehicle fleet to low-carbon options (such as electric vehicles or hydrogen fuel cell vehicles), as set out in section 44(1) of the Climate Change Act 2021. This includes vehicles used to transport patients (such as ambulances), medical supplies (such as medicines, linen, food, and other parts of the supply chain), and staff between health facilities and communities to carry out health programs. This work will help deliver on the MHMS COP26 commitment to consider the role the health sector can play in reducing exposure to air pollution through its activities and its actions.
6.4	Co-develop, together with the Fijian Procurement Office and Fiji Pharmaceutical and Biomedical Services, minimum standards for the health sector for promoting adaptation and climate resilience and sourcing zero or low emissions products, vehicles or energy sources, in accordance with section 23(1) of the Climate Change Act 2021 and to deliver on the MHMS COP26 commitment to eradicate emissions for health sector delivery and the associated supply chain to reach net zero health sector emissions by 2050.
6.5	Collaborate with the Ministry of Infrastructure to review and amend the National Building Code to meet the mitigation and adaptation objectives of Fiji's National Development Plan and section 73 of the Climate Change Act 2021. Development of health sector guidance for climate resilient development will be piloted initially, taking into consideration international guidance and emerging good practice from leading health systems.

HEALTH SYSTEM BUILDING BLOCK 5: SERVICE DELIVERY

Component 7: Management of environmental determinants of health

Climate change and anthropogenic activity is undoubtedly disrupting Fiji's ecosystems which, in turn, leads to disruptions to population health. Fiji is also challenged by sometimes unsustainable or unplanned development, particularly in islands where development resources remain scarce. However, there is a strong tradition of communal and multisectoral approaches to operate in harmony with the environmental and other upstream determinants of health in Fiji. While this strength permeates governance at the Divisional, Vanua and community levels in operational activities, intersectoral collaboration to address climate change has scored low in recent assessments [2].

Through the HAP, MHMS will focus its attention towards formalising existing health system efforts to improve the environmental determinants of health in communities, for example, through nature-based solutions to mitigate climate change. MHMS will also reduce the environmental impacts of healthcare delivery through ongoing activity on environmentally sustainable waste management and elevating circular economy considerations for medical devices and products. Collaborations will be an underpinning feature of MHMS activities on the environmental determinants of health, capitalising on the health system's role as an anchor institution, which will be opened up to good faith contributions from individual volunteers and local businesses.

Component 8: Climate-informed health programs

Climate change is a visible, present and cross-cutting concern in the Fijian health sector, for health professionals and for civil society and non-government partners. Integrating climate change into existing complex, vertical, and geographically distributed health program delivery is the next challenge that will be addressed through the HAP. MHMS will gradually shift its programmatic approach to climate change from the existing focus on climate-sensitive diseases to an integrated, comprehensive, and horizontal approach to climate-sensitive health outcomes.

A comprehensive Health Sector Decarbonisation Implementation Strategy will be the flagship project to set the course for action. This will enable MHMS to meet its COP26 commitments and contribute to the national commitment to achieve net zero greenhouse gas emissions by 2050 set out in the Climate Change Act 2021. MHMS will mainstream climate change in its operations by instituting a mandatory requirement for a "climate change and health impact statement" to be included in all major MHMS policies and programs. Health sector stakeholders have reported the need for greater penetration of health initiatives for climate change action to reach the frontline of clinical care and public health activities. Thus, a refreshed suite of communication resources will enhance community and practitioner awareness, while capacity building on environmentally sustainable quality improvement practices will bring "triple bottom line" benefits to MHMS finances, patient outcomes, and the environment.

Component 9: Climate-related emergency preparedness and management

Situated in a region that is disaster-prone, Fiji's longstanding familiarity with climate events and emergency response has resulted in a mature emergency management framework. Health workers report that overarching approaches outlined in the National Health Emergencies and Disaster Management Plan (HEADMAP) and actioned by the National Disaster Management Office and the Fiji Medical Emergency Medical Assistance Team, remain fit for purpose. The robust emergency management process puts the Fijian health sector on a strong footing; however, emergency preparedness is a constant and iterative cycle, and MHMS will contribute to enhancing these mechanisms. For example, a network of pre-deployed medical stockpiles at strategic locations will improve climate resilience at the Sub-divisional level and lessen the acute impacts of climate change events. Strengthening the role of FEMAT for outreach services,

in addition to outbreak and disaster response, is a strategic priority under the MHMS Strategic Plan 2020-2025 [7].
Community empowerment is identified as an essential component of emergency management in the WHO Operational Framework. Acknowledgment of Fijian traditional knowledge and approaches such as “lialiaci” (to reflect deeply, acknowledge, and take action on issues) as a form of debrief after climate-related emergencies will enhance the health sector’s operations and should be explored as the HAP progresses.

Box: FEMAT medical team in action

Deliverables against Component 7, 8 and 9: Service delivery

No.	Adaptation and mitigation actions
7.1	Update the MHMS Waste Management Policy to incorporate climate resilience and address the environmental sustainability of health facilities and the broader health sector. This includes monitoring the volume of waste generated and air pollutant emissions from incinerators operated by MHMS healthcare facilities. Standard operating procedures (SOPs) will be developed for managing end of life disposal of medical products and devices, in Fiji ensuring there is parity in waste management options between rural areas and urban areas.
7.2	Develop communication products that promote and advocate for the integration of health in all climate change activities with other partners, sectors, and donors.
7.3	Collaborate with other ministries on nature-based solutions that provide health co-benefits. An initial collaboration will be on the Jobs for Nature 2.0 program with the Ministry of Economy and Ministry of Environment and further developed with a focus on health co-benefits (for example, waste management at the community level) and involve MHMS staff at the local level. Existing activities (like tree planning initiatives) will be formalised into this program as a form of community-level health promotion, by engaging with the 30 Million Trees in 15 Years initiative led by the Ministry of Forestry, and urban development interventions such as bicycle lanes and green spaces in high population density areas.
8.1	Draft a Health Sector Decarbonisation Implementation Strategy which will contribute to emissions reductions to achieve net zero greenhouse gas emissions by 2050 (in accordance with Part 9 of the Climate Change Act 2021), and deliver on the MHMS COP26 commitment to (1) publish an action plan for Fiji will develop a

	sustainable low carbon health system (including supply chains) by June 2024, and (2) reach net zero health sector emissions by 2050 through eradicating emissions under the direct control of health service delivery, emissions for health sector delivery and associated supply chain.
8.2	MHMS to mainstream climate change in its operations by instituting a mandatory requirement for a "climate change and health impact statement" to be included in all major MHMS policies and programs. Implement a capacity-building program on quality improvement that includes an environmental sustainability lens. This initiative will empower both the clinical and public health workforce to contribute to climate change mitigation in their workplace and bring "triple bottom line" benefits to MHMS finances, patient outcomes, and the environment.
9.1	Contribute to the work of FEMAT particularly during the preparation and prevention phases where community and healthcare facility resilience can be strengthened as part of normal health system operations. Utilise FEMAT capability testing and simulation exercises to deliver climate resilience training to frontline health professionals and communities. This will include pre-deployment of medical stockpiles at strategic locations at the Sub-divisional hospital level, providing access to WASH and dignity kits.
9.2	Co-develop together with the Fiji Meteorological Service (FMS) a "climate change and health alert bulletin" similar to "Sugar Outlooks" and "Fiji sugarcane climate outlook from February 2023 - planting season "for use by health practitioners at all levels of the health system and will build upon the existing memorandum of understanding between MHMS and FMS.

HEALTH SYSTEM BUILDING BLOCK 6: FINANCING

Component 10: Sustainable climate and health financing

MHMS and other government agencies have a demonstrated and effective working relationship with development partners. This has enabled Fiji to be the voice of small island developing states at the international stage and resulted in effective implementation of multiple projects across its islands. Two major barriers to Fiji's ability to access international climate change finance to support health adaptation have been identified: lack of information on funding opportunities, and lack of connection by health actors to climate change processes [2]. The first barrier is being addressed by current efforts to expand MHMS capability to access health-specific funding through bilateral donor agencies, as well as the Green Climate Fund (GCF) and Global Environment Facility (GEF). The second barrier will be addressed by the actions identified under the preceding nine components of the HAP.

In order to truly achieve the HAP's ambition as a mechanism to mainstream the cross-cutting agenda of climate change in the health sector programs, MHMS will enhance donor coordination to raise the visibility of climate change actions. This enhancement will take place in the context of a budget allocation process which was described by consultation participants as effective and satisfactory, through existing cost centres that reach down to the Divisional level. Alignment of MHMS processes with the National Climate Finance Strategy will be pursued to ensure optimal access and use of donor funding in a holistic manner across government.

Box: Sustainable climate and health financing in action

Photograph from completed KOICA SHAPE-funded hospital infrastructure projects. This shorter section could be followed by a two or three-page spread with several images from projects funded by the major donor partners.

KOICA and WHO representatives were briefed by the Divisional Health Inspector Central on the status of Verata Nursing Station, one of the 20 healthcare facilities highly vulnerable to the impact of climate change selected for climate resilient project.

Deliverables against Component 10: Sustainable climate and health financing

No.	Adaptation and mitigation actions
10.1	Publish in the MHMS Annual Report the financial impacts to the health sector of climate change, including (1) the actual and estimated details of climate-relevant expenditure, (2) the financial impacts of climate change on MHMS, and (3) support needed and received in relation to finance, technology transfer, and capacity-building. This will be done in accordance with guidelines set out in section 26(3) of the Climate Change Act 2021. Ensure alignment with the National Climate Finance Strategy.
10.2	Support donor coordination across MHMS programs, to enhance the visibility of climate change and health funding, and to enable the cross-cutting agenda of climate change to be included in other externally funded MHMS programs.

Section 3: Implementation, monitoring and evaluation

3.1 Fiji's Health National Adaptation Plan 2023-2030

The HAP sets out the vision for a climate resilient and environmentally sustainable health system in Fiji which will be implemented through 35 tangible, specific and achievable adaptation, and mitigation actions across ten health system components (Figure 6).

The HAP builds on the substantial progress made by the CCHSAP (the establishment phase) and sets the trajectory towards mainstreaming climate change efforts across all health sector programs (the enhancement phase). The later years of the HAP will usher in an era where the Ministry of Health and Medical Services (MHMS) will be called upon to share its technical expertise as a thriving regional health hub in the Pacific. Fiji will have a climate-resilient health system that can deliver healthcare services to international best practice standards of safe and quality care – in the face of intensifying climate disasters (the excellence phase).

The HAP will guide eight years of progress on climate change and health in Fiji, and so the implementation framework conceptualises three streams of activity: delivering on the core functions of the health system and the ongoing agenda from CCHSAP; adopting emerging best practices through the HAP; and creating an enabling environment for future innovation and the increasingly transformative agenda for combating climate change (Figure 7).

3.2 Monitoring, evaluation, and reporting

The HAP program of work will be subject to a two-year monitoring, evaluation and reporting cycle. This will help to avoid missing key milestones and loss of focus over the eight-year implementation period. The two-year cycle would provide a high-level status report in the first quarter of 2025, 2027 and 2029; it is not designed to be onerous. There are opportunities to undertake more detailed evaluation, for example, a midpoint review in 2027, and an end-of-plan review in 2031.

The two-yearly reviews would ensure oversight and tracking of progress against the implementation plan; identification and resolution of implementation challenges at regular intervals; alignment to MHMS annual operational planning; and incorporation of emerging innovations, both local and international, in future phases of the HAP. This approach is considered appropriate in the context of MHMS program management practices; it will also avoid duplicating and deviating from the forthcoming NAP monitoring and evaluation guidance.

Figure 6: Adaptation and mitigation actions in Health National Adaptation Plan 2023-2030

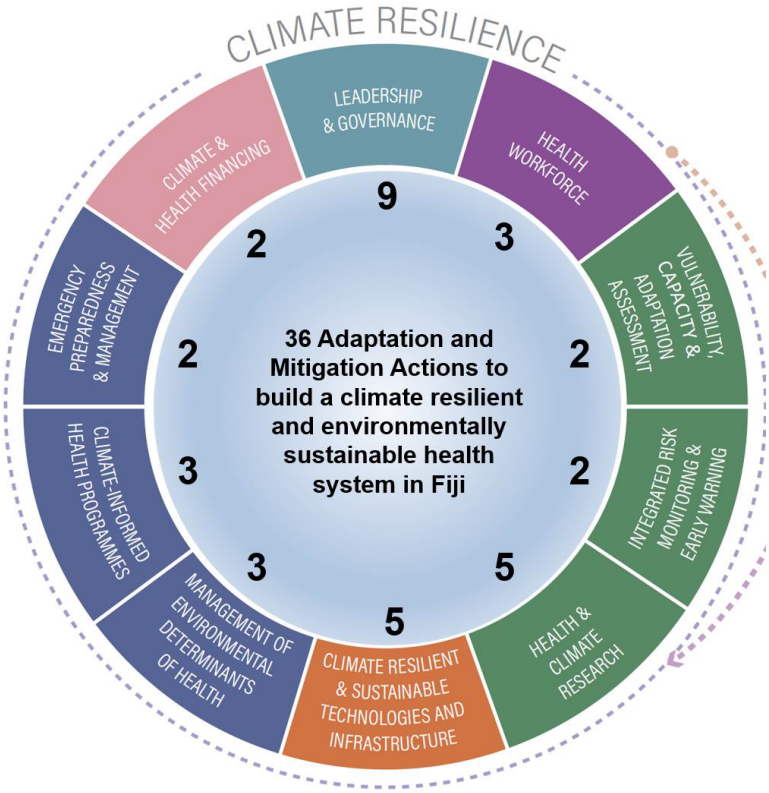
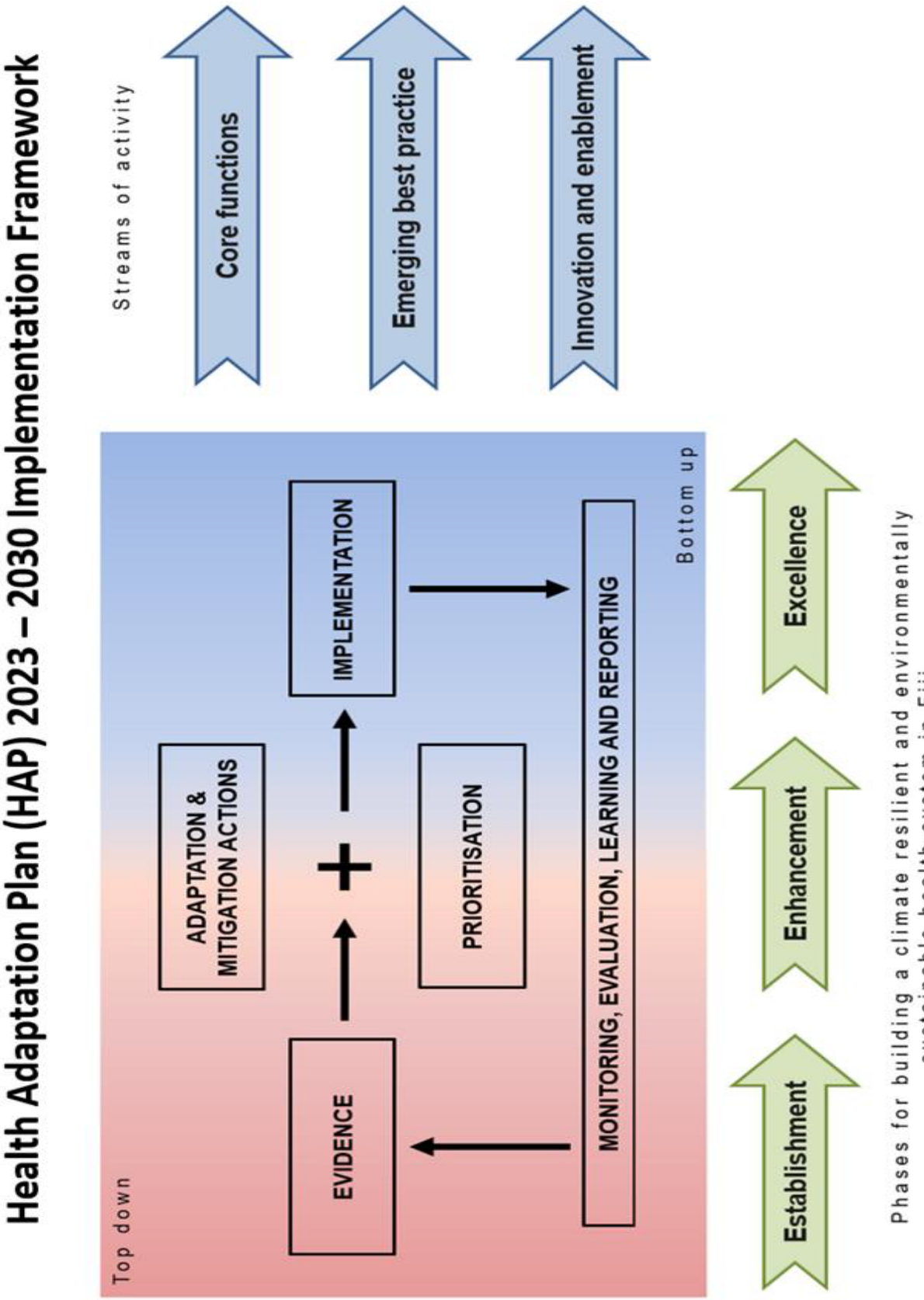


Figure 7: Implementation Framework for Health Adaptation Plan 2023-2030



3.3 HAP Implementation Plan

No.	Adaptation and mitigation actions	Timeline for implementation (yellow) and milestones (X)								Indicator and costing
		2023	2024	2025	2026	2027	2028	2029	2030	
1	**Climate-Transformative Leadership and Governance**									
1.1	Re-establish and strengthen the CCHU within the MHMS and provide an ongoing minimum establishment of three permanent full-time equivalent staff. This will be supplemented by the designation of CCH focal points within each Division (four in total) who will support the CCHU in coordinating system-wide actions set out in the HAP and ensure that awareness of tools and assessments of climate resilience and environmental sustainability reaches staff at the operational frontline of the health system.			X						**Indicator:** CCH Unit established with five permanent full time equivalent staff in post (1 x Band J and 2 x Band I) the 2025 financial year **Costing:** $ 690,000 for 5 years from 2026 – 2030.
1.2	Reinvigorate the MHMS Climate Change and Health Steering Committee, for which the CCHU is secretariat. The Steering Committee will align its schedule in line with the NAP Steering Committee.	X								Two meetings of the MHMS Climate Change and Health Steering Committee were held every year **Costing:** $ 80,000 (10,000 per year)
1.3	Attend all meetings of the National Climate Change Coordination Committee, which will occur at least once a year. The Permanent Secretary will promote the health co-benefits of climate change action in health-determining sectors, and support the creation, implementation, and monitoring of cross-cutting policies.	X								Permanent Secretary attended the National Climate Change Coordination Committee meeting every year **Costing:** Build into existing structure.
1.4	Appoint the manager of the CCHU as the MHMS focal point for the Climate Change Act 2021.	X								Manager of CCH Unit submitted a report to the Director of Climate Change and International Cooperation Division every two years **Costing:** Build into existing structure.
1.5	Provide health sector input to Fiji's Nationally Determined Contribution (NDC) using international best practice guidance, as set out in section 8(1) of the Climate Change Act 2021. This work will help to deliver on the MHMS COP26 commitment to reach net zero health sector emissions by 2050.				X					Health sector input to Fiji's NDC provided in a report by 2026, and every subsequent year **Costing:** $ 20,000 (2,500 per year)

No.	Adaptation and mitigation actions	Timeline for implementation (yellow) and milestones (X)								Indicator and costing
		2023	2024	2025	2026	2027	2028	2029	2030	
1.6	Actively contribute to the NAP Steering Committee, and contribute health sector priorities to the NAP, which will be reviewed at least every five years. This will contribute to the national approach set out in section 67 of the Climate Change Act 2021.	X								Manager of CCH Unit attended NAP Steering Committee Meetings every year **Costing:** Build into existing structure.
1.7	Submit projects completed by the MHMS climate change and health program work to the Fijian Adaptation Registry, to support section 74 of the Climate Change Act 2021.		X							At least one project submitted by MHMS to the Fijian Adaptation Registry every two years **Costing:** $ 200,000
1.8	Incorporate climate change functions in the revised Public Health Act in order to mainstream climate actions across MHMS programs, alignment to the Climate Change Act 2021, and provide donor visibility on the MHMS commitment to climate action.			X						Revised Public Health Act sets out MHMS duties in relation to climate change, gazetted by 2025 **Costing:** Build into existing structure
1.9	Actively contribute to international climate change negotiations by leading health delegations from MHMS at future Conference of Parties (COP) meetings for the Convention on Climate Change and the Convention on Biological Diversity, which both impact the health of Fijians.				X					MHMS led health delegation at COP31 in 2026 **Costing:** $ 100,000
2	**Climate-Smart Health Workforce**									
2.1	Review the existing CCH training package and further implement a capacity-building program for different cadres of health professionals (such as health inspectors, nurses, doctors, and community health workers).	X								Capacity building program on climate change and health delivered at least every two years **Costing:** $ 400,000 ($ 100,000 per training)
2.2	Undertake a series of profession-specific consultations to establish key performance indicators for employees and contractors of MHMS to enhance their contributions to climate response in the health sector.					X				Working group established for consultation on climate-related key performance indicators health professionals by 2024; new job descriptions commenced by 2027 **Costing:** $ 20,000
2.3	Establish a consortium between all academic institutions that train health professionals in Fiji to develop a minimum set of learning outcomes, graduate capabilities, and curriculum elements on climate change and health.					X				Working group established for the purpose of drafting learning outcomes by 2024; new learning outcomes finalised and approved by 2027 **Costing:** $ 20,000

No.	Adaptation and mitigation actions	Timeline for implementation (yellow) and milestones (X)								Indicator and costing
		2023	2024	2025	2026	2027	2028	2029	2030	
3	**Vulnerability, capacity, and adaptation assessment**									
3.1	Publish the health sector CHVA and the WASH FIT which have been localised for Fiji and promote its usage across all health facilities in the country. This will contribute to the multi-sectoral approach set out in section 70 of the Climate Change Act 2021.		X							CHVA and WASH FIT for Fiji published by 2024 **Costing:** $ 100,000
3.2	Review, update, and disseminate the Guidelines for CRESHCF checklists for self-assessment by health facilities.				X					Updated CRESHCF guidelines published, printed and distributed to Divisional hospitals, Sub-divisional hospitals and nursing stations by 2026 **Costing:** $ 100,000
4	**Integrated risk, monitoring, and early warning**									
4.1	Enhance the NNDSS to include an integrated risk monitoring and climate-informed early warning system function. Establish web-based reporting and improved data management system using GIS through the Fiji Centre for Disease Control.					X				Enhanced surveillance system in place by 2027 **Costing: $** 550,000
4.2	Investigate, in partnership with iTaukei Affairs, the role of evidence-based traditional knowledge and ecological awareness in Fiji (such as food preservation, understanding weather patterns, traditional coping mechanisms, and rumour surveillance). Analyse findings of the iTaukei Affairs-led Traditional Ecological Knowledge (TEK) survey in relation to MHMS-led disease surveillance programs.				X					Joint review by MHMS-iTaukei Affairs of the TEK survey commenced by 2026 **Costing: $** 50,000
5	**Health and climate research**									
5.1	Analyse the health sector carbon footprint (greenhouse gas emissions) in Fiji using an appropriate methodology that has been used to estimate the carbon footprint of healthcare in other countries.			X						Analysis of health sector carbon footprint in Fiji completed by 2025 **Costing:** $ 10,000
5.2	Submit a formal request from the MHMS to form a technical working group under section 12(10) of the Climate Change Act 2021, to undertake a health-specific vulnerability and capacity assessment of Fiji against the risks posed by climate change.			X						Technical working group established by 2024; assessment completed by 2026 to support the midpoint review in 2027 **Costing:** Build into existing structure

No.	Adaptation and mitigation actions	Timeline for implementation (yellow) and milestones (X)								Indicator and costing
		2023	2024	2025	2026	2027	2028	2029	2030	
5.3	Develop evidence-based guidance on climate change adaptation and mitigation actions in Fiji, including (1) health co-benefits, (2) noncommunicable diseases, and (3) mental health conditions. In addition, a technical report on community engagement for climate change and health in Fiji will be produced.		X							Guidance and reports published by 2024 **Costing:** $ 20,000
5.4	Convene an annual health co-benefits symposium involving stakeholders from health-determining sectors such as transport, energy, housing, and agriculture, as well as non-government, civil society, and faith-based stakeholders.	X								Human Health Research Symposiums convened or contributed to every year **Costing:** $ 800,000 (100,000 per year)
5.5	Establish a health research small grants program, which disburses funding in the range of $1,000 to $5,000 for MHMS staff at the Divisional level or below, as well as health stakeholders, to undertake or publish their research.					X				Small grants program commenced by 2027 **Costing:** $ 50,000
6	**Climate-resilient and low-carbon infrastructures, technologies, and supply chain**									
6.1	Deliver infrastructure upgrades at 20 high-priority sites, based on findings from the CHVA, and declare them climate-resilient healthcare facilities. Continue to roll out the infrastructure upgrades across all healthcare facilities in Fiji.			X						Infrastructure upgrades for the first tranche of high-priority sites completed by 2025 **Costing:** $ 3,000,000
6.2	Develop a new integrated assessment process Standard Operating Procedure (SOP) co-led by the Asset Management Unit and Climate Change and Health Unit to combine the existing healthcare facility upgrade and maintenance program with the climate resilience and environmental sustainability objectives of MHMS.		X							New SOP developed by 2024; subsequent infrastructure assessments include both routine issues and climate resilience every two years **Costing:** $ 50,000
6.3	Work with the Ministry responsible for transport to transition the MHMS vehicle fleet to low-carbon options (such as electric vehicles or hydrogen fuel cell vehicles). This includes vehicles used to transport patients, medical supplies, and staff between health facilities and communities to carry out health programs.		X							Roadmap for MHMS vehicle fleet transition completed by 2024 **Costing:** Build into existing structure
6.4	Co-develop, together with the Fijian Procurement Office and Fiji Pharmaceutical and Biomedical Services, minimum standards for the health sector for promoting adaptation and climate resilience and sourcing zero or low emissions products, vehicles or energy sources.					X				MHMS minimum standards for environmentally sustainable procurement mandatory by 2027 **Costing:** $ 10,000
6.5	Collaborate with the Ministry of Infrastructure to review and amend the National Building Code to meet the mitigation and adaptation objectives of Fiji's National					X				National Building Code amended based on international net zero building standards by

No.	Adaptation and mitigation actions	Timeline for implementation (yellow) and milestones (X)								Indicator and costing
		2023	2024	2025	2026	2027	2028	2029	2030	
	Development Plan and section 73 of the Climate Change Act 2021.									2027 **Costing:** $ 10,000
7	**Management of environmental determinants of health**									
7.1	Update the MHMS Waste Management Policy to incorporate climate resilience and address the environmental sustainability of health facilities and the broader health sector.	X								Updated MHMS Waste Management Policy published by 2023; SOPs for end-of-life disposal of medical products published by 2027 **Costing:** $ 100,000
7.2	Develop communication products that promote and advocate for the integration of health in all climate change activities with other partners, sectors, and donors.			X						Communication products developed by 2025 **Costing:** $ 60,000
7.3	Collaborate with other ministries on nature-based solutions that provide health co-benefits.			X						Collaboration on nature-based solutions commenced by 2025 **Costing:** $ 100,000
8	**Climate-informed health programs**									
8.1	Draft a Health Sector Decarbonisation Implementation Strategy which will contribute to whole of economy emissions reductions to achieve net zero greenhouse gas emissions by 2050.		X		X					Health Sector Decarbonisation Implementation Strategy drafted by June 2024 **Costing:** $ 100,000
8.2	Implement a capacity-building program on quality improvement that includes an environmental sustainability lens. Mainstream climate change in MHMS operations by instituting a mandatory requirement for a “climate change and health impact statement” to be included in all major MHMS policies and programs.			X						Commenced capacity building on sustainable quality improvement by 2025 **Costing:** $ 300,000 ($50,000 per year)
9	**Climate-related emergency preparedness and management**									

No.	Adaptation and mitigation actions	Timeline for implementation (yellow) and milestones (X)								Indicator and costing
		2023	2024	2025	2026	2027	2028	2029	2030	
9.1	Contribute to the work of the FEMAT particularly during the preparation and prevention phases where community and healthcare facility resilience can be strengthened as part of normal health system operations.		X	X						Commenced work on pre-deployment of medical stockpiles for climate emergencies by 2024, with stockpiles to be in place at the latest by 2025 **Costing:** $ 800,000 ($ 100,000 per year)
9.2	Co-develop together with the Fiji Meteorological Service (FMS) a "climate change and health alert bulletin" for use by health practitioners at all levels of the health system.			X						First joint MHMS-FMS "climate change and health alert bulletin" published by 2025 **Costing:** $ 140,000 ($ 20,000 per year)
10	**Sustainable climate and health financing**									
10.1	Publish in the MHMS Annual Report the financial impacts to the health sector of climate change, including (1) the actual and estimated details of climate-relevant expenditure, (2) the financial impacts of climate change on MHMS, and (3) support needed and received concerning finance, technology transfer, and capacity-building.		X							Published financial impacts of climate change to health by 2024 and every year subsequently **Costing:** $ 70,000 ($ 10,000 per year)
10.2	Support donor coordination across MHMS programs, to enhance the visibility of climate change and health funding, and to enable the cross-cutting agenda of climate change to be included in other externally funded MHMS programs.	X								Engagement with MHMS donor coordination processes commenced in 2023 **Costing:** $ 50,000

Appendices

Appendix 1: Ten domains of environmentally sustainable healthcare facilities in Fiji

The ten domains were defined in the Guidelines for Climate-Resilient and Environmentally Sustainable Health Care Facilities in Fiji [20]. The ten domains are reproduced here given their importance in guiding the development of environmentally sustainable healthcare facilities in Fiji.

1. Sustainable sites and buildings
1. Avoid development of inappropriate sites.
2. Reduce the environmental impact from the location of a building on a site.
3. Conserve, preserve, and enhance existing natural areas.
4. Restore damaged areas to provide habitat for native flora and fauna and to promote biodiversity.
5. Reduce the development footprint to reserve site area for future development.
6. Environment Impact Assessment & Environment Health Impact assessments of proposed sites should include climate vulnerability and carbon footprint.
7. Ensure that buildings on the site can withstand extreme weather events now and, in the future.
2. Water conservation
8. Do not use potable water, or other natural surface or subsurface water resources available on or near the project site, for landscape irrigation.
9. Use only captured rainwater, recycled wastewater, recycled grey water, or water treated and conveyed by a public agency specifically for non-potable uses for irrigation or Install landscaping that does not require permanent irrigation systems.
10. Install rainwater harvest system in health facilities with adequate filtration - assist in providing water for toilets and watering gardens, washing clothes and can also be used in emergencies if combined with adequate safeguards to prevent bacterial and chemical contamination.
11. Install tap-ware with maximum flow rate of 4.5 litres (6-star Water Efficiency Labelling and Standards (WELS) rating) in all en-suites and general amenity areas.
12. Install dual flush toilets with capacity of 3/4.5 litres (4-star WELS rating).
13. Install waterless or non-potable water flushed 6-star WELS-rated urinals for staff and visitors.
14. Design landscaping to be water efficient, including use of mulching, plant selection and water-efficient irrigation system, comprising subsoil drip systems and automatic timers with rainwater or soil moisture sensor over-ride.
3. Energy efficiency
1. Health care is the second most energy-intensive building sector in most countries.
2. Insulation to meet levels specified in the Building Code.
3. Maximise shading from existing trees and neighbouring buildings.
4. All three-phase heating, ventilation, and air conditioning (HVAC) system motors above 5kW to have variable speed drives.
5. Provision of solar hot water for domestic hot water (primary systems 60 per cent or pre-heater systems 20 per cent).
6. The use of low-voltage halogen down lights is not permitted in any areas of the facility, including lifts, foyers/reception areas, toilets, meeting rooms, concessions and executive suites.
7. Include occupancy and light sensors in rooms intermittently used, including dining rooms, activity rooms, meeting rooms, staff rooms, storerooms and staff toilets.
8. Install time controls on all boiling water units in kitchens and activity rooms.
9. Maximise natural ventilation through windows and doors.
4. Natural lights
10. Use light-coloured window frames to reduce heat absorption into the building.
11. Use skylights for day-lighting in single-storey buildings and the top floor of multi-storey buildings within travel areas.
12. Ensure access to views and natural light in HCFs - important stress-reducing effects, and can contribute to the reduction of pain and the length of stay at the hospital.
5. Materials and resources
13. Reduce the environmental impacts of the materials acquired for use in the construction of buildings and in the upgrading of building services.
14. Reduce the environmental impacts from the manufacture, use and disposal of furniture and medical furnishings products.
15. Establish minimum indoor air quality performance to enhance indoor air quality in buildings, thus contributing to the comfort and wellbeing of the occupants.

16. Chose safer, less toxic building materials for new construction and renovation projects.
17. Be compliant with Fiji's environment laws on phasing out chlorofluorocarbons (CFC).
18. Ensure equipment are serviced by professionals annually to reduce leakage or release of hazardous products.

6. Solar Photovoltaic

19. The demand for energy is rising and so is the cost. Hence opting to solar energy will benefit the health facility in a number of ways. It reduces long-term costs, provides an efficient way to power health facilities, and enables the use the building's rooftop space in an efficient way.
20. The Solar Photovoltaic (PV) system can be used as a backup for critical equipment. Solar panels can be used to support basic equipment like air conditioner, printer, and photocopier.
21. The building roof space can be considered for solar installation based on the load requirements.
22. Also consider ground mount options or carport installation when encountered with space issues. Consider a battery backup for solar installations to enable continuous power supply.
23. Backup generators remain important to help ensure functionality. For future development, if space, location, wind speed, prevailing wind direction and building codes allow, consider installing wind turbines in addition to or along with a PV system. All systems must be properly secured to withstand the natural hazards that affect Fiji and the Pacific.

7. Chemical management (hazardous materials)

24. Eliminate mercury-containing medical devices in favour of safer non-mercury alternatives.
25. Phasing out phthalate-containing polyvinyl chloride (PVC) medical devices and switching to safer plastics.
26. Reduce pesticides by using integrated pest management techniques (pesticide companies selected should comply with MHMS requirements).
27. Establish procedures for procuring, storing, dispensing, and proper disposal of all pharmaceuticals.
28. Be sure to emphasize that pharmaceuticals are not to be disposed of down drains or into septic or sewer systems.
29. Ensure that expired/unused pharmaceuticals are properly disposed of.
30. Ensure that no chemical disposal is done in landfills. Disposal in landfills is not appropriate, as chemicals can contaminate soil and groundwater.
31. Incineration also releases chemicals into the atmosphere and the residue from burning may be considered hazardous waste.
32. Chemicals listed hereafter are highly toxic and disposal of such chemicals should comply with the health care facility's waste management protocol or as legislated: mercury, PVC and phthalates, brominated flame retardants, glutaraldehyde, and ethylene oxide, pesticides, volatile organic compounds in building materials, hazardous ingredients in cleaning products.

8. Waste management

33. Ensure that your purchases are in line with the overarching goal of reducing solid waste generation and disposal.
34. Encourage recovery and recycling.
35. Minimizing waste using 3 waste minimization techniques: segregation, source reduction, and resource recovery and recycling.
36. Before going to the disposal site, infectious wastes must undergo treatment processes: autoclaving, thermal disinfection, microwave sanitation or incineration.
37. Restrict the amount of waste undergoing incineration for environmental sustainability.
38. Improved recapture and reuse of waste anaesthetic gases can provide significant climate and health co-benefits. Waste anaesthetic gases are not only powerful global warming pollutants; they are associated with reproductive risks (spontaneous abortion and congenital abnormalities), headache, nausea, fatigue, and cognitive impairment for exposed health workers. Engineer/consultant to discuss safe standards.
39. Encourage the use of biodegradable products like paper, cardboard, and plant-based products instead of plastics and Styrofoam.
40. Reduce food wastage. Use organic refuse from food services to create a compost pile and reuse material in the garden. If there is no space for a garden, a simple compost pile may be possible. Donate compost to the community or the food gardens of other facilities or sell to fund green initiatives.

9. Healthy food and wellness

41. As leaders in health-promoting activities and behaviour, health workers are expected to lead initiatives that address wellness – or the state of being in good health in the context of a 'green facility'.
42. Emphasis should be taken to support sustainable food production and improved environmental health through purchase of organic, drug free foods and improve access to locally produced food products.
43. Join with the community and staff to start an organic garden onsite, if space permits.
44. Procure food from local sources.
45. Health from increased physical activity, social interaction, and mental health – open space for recreational activities is provided, and ease of access for use of public transport is ensured.
46. Health from sustainable food production – organic gardening space is provided on-site for health workers' activities.
47. Health workers depend on healthy foods and use of disposable food wrappers is discouraged.
48. Health workers involved with the communities are implementing community-based activities that increase

sustainable development and health promotion.

49. Ensure that the facility is smoke-free with sufficient signage displayed.
50. Provide a healthy working environment both inside and outside the buildings.

10. Transport

51. The health sector has one of the highest numbers of transportation fleets. In this guide, focus is on vehicle mode of transportation which encompasses hospital ambulance fleets, health care facility vehicles, public health services vehicles, delivery vehicles, staff transportation and patient travel.
52. Ensure healthcare facilities develop and implement transportation and procurement strategies that minimize air pollution and the associated GHG emissions.
53. Develop strategies for telemedicine, communication by e-mail, and other alternatives to face-to-face encounters between healthcare workers and patients; between administration/ procurement staff and suppliers/customers.
54. Encourage video and teleconference where feasible to reduce travel.

Appendix 2: Summary of stakeholder consultation

Development of the HAP involved extensive stakeholder consultation through Divisional workshops, conference presentations, and key informant interviews. These are summarised in the table below.

Date	Name of event	Participating organizations
Multiple	Key informant interviews	**Ministry of Health**: Permanent Secretary, Chief Medical Advisor, Head of Policy and Planning, Medical Superintendent at P.J. Twomey hospital Divisional Medical Officers, Divisional Health Inspectors, Planning and Policy Unit Officers, Head of Health Protection, Chief Dietitian and Nutrition, Asset Management Unit, Chief Health Inspector, Climate Change and Health Officer, **Health stakeholders**: President of Fiji Medical Association, General Secretary of Fiji Nursing Association, and its members. **Government:** Office of the Prime Minister-Climate Change Division, National Adaptation Plan consultant, National Disaster Management Office, Provincial Office, Ministry of Regional Development, Fiji Meteorological Office, Department of Environment **Partners, NGOs, CSOs** – Health Advisers, MFAT, WHO, Fiji National University, Fiji Council of Social Services (FCOSS), Fiji Roads Authority, Fiji Red Cross, Fiji Lupus Foundation, Pacific Council of Churches **Field Works**: Visits and meetings with health staff at Fiji Centre for Disease Control (CDC), Verata nursing station, Nailililli nursing station and Wainibokasi Sub-divisional hospital. Participation from WHO team and Korea International Cooperation Agency (KOICA). Representation to the NAP Progress Review.
25 November 2022	Inception workshop, Suva	
7 February 2023	Western Division workshop, Lautoka	
13 February 2023	Northern Division workshop, Labasa	
15 and 16 February 2023	Field visits to healthcare facilities	
23 and 24 February 2023	National Adaptation Plan Steering Committee Meeting	
1 to 3 March 2023	Fiji Nursing Association Regional Scientific Conference, Yanuca Island	
8 March 2023	Central and Eastern Division workshop, Suva	

Appendix 3: Evaluation of progress against the Climate Change and Health Strategic Action Plan (CCHSAP)

A qualitative assessment of progress against the CCHSAP was made by the project team using the monitoring and evaluation framework and tool [5]. The findings are presented in the table below; there was a 49% completion rate based on the 36 indicators scored in the monitoring and evaluation tool. Note: the CCHSAP originally included 37 proposed activities and 48 key indicators across its ten components. This schema was updated to 71 indicators (some repeated) and 41 potential primary data sources by the Monitoring and Evaluation Report [5]. A total of 36 indicators were scored during the Health National Adaptation Plan development process, which resulted in the findings provided here. These findings are also provided as a bar chart.

Component	**Score (%)**
Component 1: Climate-Transformative Leadership and governance	78.57
Component 2: Climate-Smart Health workforce	50.00
Component 3: Assessment of climate and health risks and GHG emissions	33.33
Component 4: Integrated risk monitoring, early warning, and GHG emissions tracking	50.00
Component 5: Health and climate research	33.33
Component 6: Climate resilient and low carbon infrastructures, technologies, and supply chain	62.50
Component 7: Management of environmental determinants of health	25.00
Component 8: Climate-informed health programs	33.33
Component 9: Climate-related emergency preparedness and management	16.67
Component 10: Sustainable climate and health financing	50.00
Total completion rate	*48.61*

Appendix 4: Evaluation of progress against the National Adaptation Plan

A qualitative assessment of progress against the NAP was made based on discussion with the MHMS team. The findings are presented in the table below. There were ten actions and measures in the NAP related to the health sector. Progress was made on all except one action (increasing resources and personnel for the CCHU), and one action was completed in full (identification and prioritisation of adaptation needs and associated health risk exposures).

NAP action	Description and assessment using RAG rating (red = not commenced, amber = commenced but incomplete, green = complete)
13.1	Under the guidance of the Climate Change and Health Steering Committee and Climate Change and Health Advisory Working Group establish and strengthen a formal link to the National Climate Change Coordinating Committee to support the incorporation of health agenda in national, regional and global platform; and ensuring effective coordination of risk management and resilience for communicable diseases, health emergencies, climate change and natural disasters and climate sensitive environmental health determinants.
13.2	Improve case detection and coordinated response to reduce communicable disease morbidity and mortality through strengthened partnership and cooperation within MHMS and between the relevant ministries and stakeholders particularly with Fiji Meteorology Services for the effective and efficient use of the available resources and information towards climate change interventions relating to health system and consider piloting a web based reporting system that includes climate and climate sensitive diseases and emerging health concerns (exposure, adaptive capacity).
13.3	Retrofit the existing and installing innovative structures, energy and water supplies; medicines and equipment efficiency that guarantees safety and enable lifesaving support through the application of relevant legislations, policies and other reviewed standard health building designs and ensure such legislations, policies and designs are used for new health facilities to prevent vulnerability to CC impacts (apply in phases for existing that were not affected by TC Winston – Phase 1 & Phase 11).
13.4	Repair and reconstruct through the 'build back better' concept of health infrastructure affected by disasters particularly TC Winston and the 2017 landslides in Qamea and St Giles Hospital.
13.5	Strengthen and empower the Climate Change and Health Unit by increasing resources and personnel with clear mandates to implement the CCHSAP and other relevant national, regional and international plans, policies, agreements and conventions.
13.6	Identify and prioritise adaptation needs and associated health risk exposures of communities and populations most vulnerable to climate variability and change, including workers employed in the informal sectors, through the profiling or use of existing data; and by developing proposals, recommendations and plans for adaptation strategies to address identified gaps.
13.7	Enhance the resilience of the National Health System by developing the capacity of health workers including environmental health officers, laboratory technicians, doctors, nurses, pharmacists and other practitioners on health and climate change adaptation and disaster risk reduction; and promoting training capacities in the field of disaster medicine.
13.8	Improve diagnostic and treatment capacities to manage climate change and health risks, to ensure that health care infrastructure at all levels (especially in the disaster-prone areas) are capable to respond effectively to CSDs (dengue, diarrhoea, typhoid, leptospirosis) and other climate related conditions such as injuries, food borne illness and fish poisoning (ciguatera).
13.9	Develop policies that reflect health protection from climate risks and disaster risks particularly in relevant Health legislations, policies and other relevant climate regulations and protocols to ensure that short- and long-term action plans are developed for improved health infrastructure, staffing and capacity to cope with the climate and disaster risks such as vector-borne and water/food/air-borne diseases.
13.10	Preparation, translation, printing and distribution of information brochures combined with TV and radio shows about the impact of climate change and appropriate response on health and protection measures during extreme weather events and other measures to prevent occurrence of climate sensitive diseases with specific attention on vulnerable population groups (e.g. people with special needs, LGBTQ community, the elderly and children in high risk areas to communal disease outbreaks).

Appendix 5: Evaluation of progress against the WHO Health National Adaptation Plan Quality Criteria

Participants at the inception workshop rated progress against these criteria. The assessment was made in small groups and their scores were tabulated and averaged to arrive at the findings in the table below.

Section	**Criterion with RAG rating (red = not commenced, amber = commenced but incomplete, green = complete)**
Section 1: Leadership and enabling environment	1.1 Ministry of Health leads HAP development
	1.2 Government endorsement/approval
	1.3 Active engagement of the health sector in the process to formulate and implement the NAP
	1.4 Climate-informed health planning and programming
Section 2: Cross-sectoral coordination and policy coherence	2.1 Coordination and synergy with health-determining sectors
Section 3: Comprehensive coverage of climate-sensitive health risks	3.1 Evidence-based HAP
	3.2 Comprehensive coverage of context-specific climate-sensitive health risks
	3.3 Prioritization of climate-sensitive health risks
Section 4: Comprehensive coverage of adaptation options and actions	4.1 Comprehensive adaptation options to address climate-sensitive health risks
	4.2 Consideration of vulnerability factors to design and target adaptation actions
	4.3 Prioritization of health adaptation actions
Section 5: Resourcing	5.1 Estimation of the required resources for HAP implementation
	5.2 Resource mobilization strategy
Section 6: Monitoring, evaluation and reporting	6.1 HAP monitoring, evaluation and reporting plan
	6.2 Mechanism for periodic HAP iterations

Appendix 6: Review of the Climate Change Act 2021 and proposed health sector roles and actions

The Climate Change Act 2021 was reviewed as part of the Health National Adaptation Plan development process. Potentially relevant sections of the Act and possible roles for Ministry of Health and Medical Services (MHMS) consideration are provided in the table below.

Part	**Section of the Climate Change Act 2021 (direct quotes)**	**Role of the Ministry of Health and Medical Services (MHMS) in building a climate resilient and environmentally sustainable health system in Fiji**
Part 1 - Preliminary - Principles	5(a)(i) - Fiji will respect, promote and consider the Sustainable Development Goals… children's inalienable right to a healthy environment… and access to services, health, education, water, sanitation, housing and transport.	Section 5(a)(i) of the Climate Change Act 2021 enshrines a focus on the social and environmental determinants of health as a guiding principle when taking action to address climate change. This is directly related to and supports the existing mandate of MHMS on climate change and health.
Part 2 - Declaration of climate emergency	6(1) - This Act recognises and declares that Fiji and the Earth are facing a climate emergency. 6(3) - Fiji is already experiencing, and will continue to experience, the impacts of the climate emergency, including increasingly volatile and extreme weather events, sea-level rise and increasing susceptibility to food and water-borne diseases, which (a) is already having and will continue to have a devastating impact on food production, water availability, public health, infrastructure, communities and the economy, and (b) has already forced and will continue to force communities to relocate to higher ground. 6(5) - A rapid and ambitious transformation to a net zero emissions global economy is necessary to address and mitigate the climate emergency, and Fiji will contribute to this transformation by achieving net zero greenhouse gas emissions by 2050. 6(6) - The purpose of this Act is to set out a detailed framework for a whole of government approach to addressing the climate emergency in Fiji.	MHMS has a clear role to play as part of the whole of government approach set out in the Climate Change Act 2021. The Act places public health at the centre of the declaration of climate emergency and highlights broader determinants of health such as food production, water availability and the displacement of communities.
Part 3 - Implementation of the Paris Agreement - Preparation and implementation of Fiji's Nationally Determined Contributions	8(1) - All ministers must, where relevant and with the assistance of the National Climate Change Coordination Committee, take all reasonable steps within their portfolio to promote the achievement of any sectoral emissions reduction or limitation targets in Fiji's NDC.	MHMS has an obligation to support the Minister for Health and Medical Services to address this section of the Climate Change Act 2021. The HAP proposes to address this obligation through the following action: Provide health sector input to Fiji's Nationally Determined Contribution (NDC) using international best practice guidance, as set out in section 8(1) of the Climate Change Act 2021. This work will help to deliver on the MHMS COP26

		commitment to reach net zero health sector emissions by 2050.
Part 4 - Governance - National Climate Change Coordination Committee	12(2) - The National Climate Change Coordination Committee… consists of the permanent secretaries, the Director and other members nominated under subsection (3). 12(5) - The Committee must meet at least once a year, with at least 75% of members present. 12(7) - A member of the Committee may nominate an alternative person from their ministry or State entity to represent them at meetings of the Committee. 12(9) - The Committee has the following functions— (a) to receive and respond to requests for support from its members in relation to responding to climate change and the implementation of this Act within their respective portfolios; (b) to promote the creation, implementation and monitoring of cross-cutting policies that support the implementation of this Act; (c) to ensure the alignment of ministerial and departmental activities with policies and frameworks to support the implementation of this Act; (d) to ensure the creation, implementation, monitoring, and evaluation of relevant sector plans, with reference to performance indicators, and report back to the Minister; (e) to assist with resolving strategic-level issues and risks related to climate change and the implementation of this Act by providing advice and guidance to ministers, ministries and departments...	MHMS has an obligation to address this section of the Climate Change Act 2021. The HAP proposes to address this obligation through the following action: Attend all meetings of the National Climate Change Coordination Committee, which will occur at least once a year. The Permanent Secretary or their delegate will attend on behalf of MHMS. MHMS will use this Committee mechanism to promote the health co-benefits of climate change action in health-determining sectors and to support the creation, implementation, and monitoring of cross-cutting policies, as set out in section 12 of the Climate Change Act 2021.

Part 4 - Governance - National Climate Change Coordination Committee	12(10) - The National Climate Change Coordination Committee has the power to (a) request assistance from any State entity in carrying out any of its powers under this Act; (b) form technical working groups for the purpose of assisting the Committee carry out its functions under this Act; and (c) form consultative groups with meaningful participation of relevant experts and stakeholders, including the private sector, civil society organisations, youth organisations or representatives, and vulnerable and at-risk groups and communities.	MHMS has an opportunity to use this section of the Climate Change Act 2021 to build on its track record as a leading state entity on the response to climate change. This could attract further funding and raise awareness across government activities on the health co-benefits of climate action. This also places Fiji in a health leadership role within the Pacific region and internationally. The HAP proposes to use this opportunity by recommending the following action: Submit a formal request from MHMS to form a technical working group under section 12(10) of the Climate Change Act 2021. The purpose of the technical working group will be to undertake a vulnerability and capacity assessment of Fiji against the health risks posed by climate change. This assessment will: evaluate the populations and specific geographical regions in Fiji that are most vulnerable to climate-sensitive diseases and health outcomes; enhance Fiji's cross-sectoral preparedness, response and resilience to extreme weather events; produce policy-relevant and actionable information on adaptation and mitigation actions in Fiji; and bring attention to the health co-benefits of climate action in health-determining sectors. The assessment will involve consultative groups with meaningful participation of relevant experts and stakeholders, including the private sector, civil society organisations, youth organisations or representatives, and vulnerable and at-risk groups and communities. The assessment will directly contribute to the objectives set out in section 4 of the Climate Change Act 2021: to develop and implement clear and long term climate change measures and policies that will safeguard the future of Fiji and its people, ecosystems and biodiversity in the face of the climate emergency; and facilitate the evidence-based consideration of climate change issues in specified areas of government and private sector decision-making. This assessment can also be linked to the "integrated risk scenarios" outlined in section 69 of the Climate Change Act 2021.

Part 4 - Governance - Focal points	13(1) - The permanent secretary for each ministry must, in consultation with the Director, appoint a person from within their ministry as a focal point. 13(2) - Each focal point is responsible for promoting the objectives and principles of this Act within their Ministry, and must report to the Director bi-annually on the implementation of this Act within their ministry.	MHMS has an obligation to address this section of the Climate Change Act 2021. The HAP proposes to address this obligation through the following action: Appoint the manager of the Climate Change and Health (CCH) Unit as the MHMS focal point for the Climate Change Act 2021. The manager will be delegated authority by and report to the Permanent Secretary of MHMS, and also report to the Director of Climate Change and International Cooperation Division bi-annually on the implementation of the Act within the health sector and across MHMS programs, as set out in section 13(2) of the Climate Change Act 2021.
Part 5 - Climate change obligations of state entities - State entities must ensure consistency with objectives and principles of this Act	18(2) - All State entities must review and update relevant decisions made and policies, programmes and processes developed by the State entity prior to the commencement of this section for the purpose of ensuring that the decision, policy, programme or process is consistent with achieving the objectives and the principles of this Act if relevant to the decision, policy, programme or process.	MHMS has an obligation to address this section of the Climate Change Act 2021. The HAP proposes to address this obligation through the following action: Undertake a stocktake and review of MHMS decision-making, development, and implementation of policies, programs, and processes to ensure they are consistent with the objectives and principles of the Climate Change Act 2021. This will be done in accordance with guidelines issued by the Minister for Climate Change under section 18(4) of the Climate Change Act 2021. One approach to be considered is the requirement for a mandatory "climate change impact statement" to be included in all MHMS policy and program documents.
Part 5 - Climate change obligations of state entities - Government procurement	23(1) - The Fijian Procurement Office established by the Procurement Regulations 2010 must formulate procurement policies... to set minimum standards for (a) promoting adaptation and climate resilience; and (b) sourcing zero or low emissions products, vehicles or energy sources.	MHMS has an opportunity to use this section of the Climate Change Act 2021 to catalyse action on climate change mitigation in the health sector. The HAP proposes to use this opportunity by recommending the following action: Engage with the Fijian Procurement Office to develop minimum standards for the health sector for promoting adaptation and climate resilience and sourcing zero or low emissions products, vehicles or energy sources, in accordance with section 23(1) of the Climate Change Act 2021 and to deliver on the MHMS COP26 commitment to eradicate emissions for health sector delivery and the associated supply chain.

Part 5 - Climate change obligations of state entities - Ministerial portfolios, functions and human resourcing	24(2) - All ministers must ensure that the permanent secretary in their Ministry, in consultation with their minister, where relevant, reviews and revises key performance indicators and job descriptions for civil servants within their ministry with the aim of ensuring that civil servants are increasingly equipped with relevant specialist skills to support the implementation of this Act.	MHMS has an obligation to address this section of the Climate Change Act 2021. The HAP proposes to address this obligation through the following action: Review and revise job descriptions for health professionals across the continuum of clinical care, as well as for staff and contractors in health system support (non-clinical) roles. A series of profession-specific consultation events will establish key performance indicators for employees and contractors of MHMS to enhance their contributions to climate response in the health sector.
Part 5 - Climate change obligations of state entities - Integration of climate change into curricula	25(2) - The Minister may advise State entities responsible for universities and tertiary institutions on the integration of evidence-based learning about climate change into their curricula.	MHMS has an opportunity to use this section of the Climate Change Act 2021 to capitalise on its existing relationships with academic institutions that train health professionals to ensure that the emerging health workforce - which will face greater challenges from climate change risks - has the knowledge and capability to face these risks when they join the workforce. The HAP proposes to use this opportunity by recommending the following action: Establish a consortium between all academic institutions that train health professionals in Fiji to develop a minimum set of learning outcomes, graduate capabilities, and curriculum elements on climate change and health. This will support the intention of section 25 of the Climate Change Act 2021.
Part 5 - Climate change obligations of state entities - National budget submissions	26(2) - All State entities must include in their budget submissions (a) actual and estimated details of climate-relevant expenditure for the purposes of the national budget and budget estimates document along with the financial impacts of climate change on the State entity; and (b) information on support needed and received in relation to finance, technology transfer and capacity-building under Articles 9, 10 and 11 of the Paris Agreement. 26(3) - The Minister, with the assistance of the Committee, must prepare and publish guidelines for the purpose of assisting State entities to comply with their obligations under subsection (2).	MHMS has an obligation to address this section of the Climate Change Act 2021. The HAP proposes to address this obligation through the following action: Publish in the MHMS Annual Report the financial impacts to the health sector of climate change, including (1) the actual and estimated details of climate-relevant expenditure, (2) financial impacts of climate change on MHMS, and (3) support needed and received in relation to finance, technology transfer and capacity-building. This will be done in accordance with guidelines set out in section 26(3) of the Climate Change Act 2021.

Part 7 - Measurement, reporting and verification of emissions and emissions reductions - Sector-based collection of data and information needed to estimate emissions and emissions reduction data	30(1) - The following permanent secretaries must biennially estimate and compile data related to emissions and emissions reductions activities from within their portfolio and submit it to the Committee — (a) the permanent secretary or permanent secretaries responsible for energy and transport in relation to the energy and transport sectors; (b) the permanent secretary or permanent secretaries responsible for industrial processes and product use in relation to the industrial processes and product use sector; (c) the permanent secretary or permanent secretaries responsible for agriculture, forestry and other land use in relation to the agriculture, forestry and other land use sector; and (d) the permanent secretary or permanent secretaries responsible for waste in relation to the waste sector. 30(5) - The permanent secretaries referred to in subsection (1) may request that— (a) a State entity provide emissions and emissions reduction data and related information in relation to the State entity's portfolio or operations; and (b) a person who operates a facility or facilities in Fiji that emit in excess of an amount of carbon dioxide equivalent per financial year as prescribed by regulations made under this Act, provide emissions and emissions reduction data and related information in relation to the facility for the previous financial years.	MHMS is exposed to reporting obligations that may appear in the near future under this section of the Climate Change Act 2021 which may compel MHMS to report on its emissions when it is not prepared to do so. The health sector generates carbon emissions which can be measured and reduced. The HAP proposes to address this risk through the following action: Analyse the health sector carbon footprint (greenhouse gas emissions) in Fiji using by using top-down input-output methodology which has been used to estimate the carbon footprint of healthcare internationally and in countries in the Western Pacific region. This approach will establish the baseline emissions and hotspots of carbon emissions in the Fijian health sector, which can be mitigated through targeted action. This will contribute to the national approach set out in section 30 of the Climate Change Act 2021.

Part 9 - Climate change mitigation - Long term emissions reduction target	38(1) - The long term emissions reduction target for Fiji is net zero greenhouse gas emissions by 2050. 38(3) - Every 5 years the Minister must, with the assistance of the Committee, publish a statement of (a) Fiji's greenhouse gas emissions over the 5-year period, and any preceding 5-year periods reported on under this section; (b) an assessment of the progress made towards Fiji's NDC and the long term emissions reduction target at the national and sectoral levels, with reference to carbon budgets and mitigation measures, policies and programmes; and (c) recommendations on measures needed to meet the emissions reduction target in Fiji's NDC and the long-term emissions reduction target. 41 - In determining each carbon budget, the Minister must have regard to... (d) the best available scientific knowledge about climate change, including relevant information published by the IPCC... (f) social circumstances, in particular the likely impact of the target on the health and wellbeing of Fijians; (g) environmental circumstances, in particular the benefits to the environment of emissions reduction; (h) natural disasters and the adverse impacts of climate change, and the extent to which they have affected or will affect Fiji's greenhouse gas emissions... 43(1) - The Minister has the power to introduce and implement regulations, measures and actions with the purpose of limiting or reducing Fiji's greenhouse gas emissions across the economy... 43(2) Without limiting subsection (1), the Minister may... (c) introduce and implement fiscal incentives and national levies with the purpose of (i) limiting or reducing Fiji's greenhouse gas emissions, including in relation to particular sectors or industries; (ii) enhancing the conservation of natural sinks, particularly within natural protected areas and ecological conservation zones; and (iii) encouraging public and private investment in renewable energy and efficient cogeneration technologies, energy efficient infrastructure and zero-waste infrastructure and processes... (e) make regulations and develop policies for the construction of sustainable, low-emissions, energy efficient and climate resilient infrastructure and buildings...	MHMS is exposed to the risk of non-compliance with regulations that may appear in the near future under this section of the Climate Change Act 2021 which may compel MHMS to develop strategies when it is not prepared to do so. Commencing this action as an early adopter under the Climate Change Act 2021 reduces the risk to MHMS, while also simultaneously improving the health of Fijians, and elevating the health system's standing as an anchor institution in society that is leading by example on climate change. The HAP proposes to address this legal and reputational risk through the following action: Draft a Health Sector Decarbonisation Implementation Strategy which will contribute to whole of economy emissions reductions to achieve net zero greenhouse gas emissions by 2050 (in accordance with Part 9 of the Climate Change Act 2021), and deliver on the MHMS COP26 commitment to (1) publish an action plan which sets out how Fiji will develop a sustainable low carbon health system (including supply chains) by June 2024, and (2) reach net zero health sector emissions by 2050 through eradicating emissions under the direct control of health service delivery, emissions for health sector delivery and associated supply chain. MHMS will also contribute to the development of Fiji's national carbon budgeting for the five year period commencing 1 January 2026, to be determined by 31 March 2023 [or: commencing 1 January 2031, to be determined by 31 March 2025].

Part 9 - Climate change mitigation - Transport Decarbonisation Implementation Strategy	44(1) - The Minister must, in consultation with the Minister responsible for transport, develop and implement a detailed Transport Decarbonisation Implementation Strategy within 2 years from the commencement of this section, that builds upon the LEDS to decarbonise the transport sector by 2050.	The health sector has an opportunity to play a role in transport sector decarbonisation as the second largest government vehicle fleet manager. The HAP proposes to contribute to transport sector decarbonisation through the following actions: Work with the Ministry responsible for transport to transition the MHMS vehicle fleet to low-carbon options (such as electric vehicles or hydrogen fuel cell vehicles), as set out in section 44(1) of the Climate Change Act 2021. This includes vehicles used to transport patients (such as ambulances), medical supplies (such as medicines, linen, food, and other parts of the supply chain), and staff between health facilities and communities to carry out health programs. This work will help deliver on the MHMS COP26 commitment to consider the role the health sector can play in reducing exposure to air pollution through its activities and its actions.
Part 11 - Climate change adaptation and resilient development - Climate change is a threat to the rights and freedoms of Fijians	65 - This Act recognises that climate change is a threat to the rights and freedoms recognised in Chapter 2 of the Constitution, and in particular (a) the right to a clean and healthy environment; (b) the right to adequate food and water; (c) the right to health; (d) the rights of children and persons with disabilities; (e) the right to housing and sanitation; and (f) the right to reasonable access to transportation.	Section 65(c) of the Climate Change Act 2021 recognises that climate change is a threat to the constitutional right to health in Fiji, as well as a threat to the broader determinants of health. This is directly related to and supports the existing mandate of MHMS on climate change and health.

Part 11 - Climate change adaptation and resilient development - National Adaptation Plan	67(1) - The NAP Steering Committee must prepare successive NAPs, that may address— (a) comprehensive risk management; (b) water resources; (c) agriculture, forestry, fishing and aquaculture; (d) ecosystems and biodiversity; (e) transportation and communication infrastructure; (f) land-use planning and urban development; (g) health and public health infrastructure; (h) marine and terrestrial pollution reduction objectives; (i) adaptation and mitigation co-benefits resulting from environmental conservation activities; (j) natural resource management measures that support and enhance local livelihoods; (k) climate information management and services, including the capacity to generate, manage, disseminate and use climate change information; (l) resource mobilisation, including the accumulation and coordination of financial and non-financial resources during the design, implementation and monitoring of adaptation measures as well as any associated capacity building; (m) climate change awareness and knowledge, including enhancing understanding of climate change by increasing the flow of climate information to relevant adaptation stakeholders; (n) horizontal integration, including the mainstreaming of climate change issues into national-level development planning processes so that they are suitably climate-informed; and (o) vertical integration, including the integration of environmental and climate risk into sub-national development planning processes.	MHMS has an obligation to address this section of the Climate Change Act 2021. The HAP proposes to address this obligation through the following action: Actively contribute to the National Adaptation Plan Steering Committee, and contribute health sector priorities to the NAP, which will be reviewed at least every five years. This will contribute to the national approach set out in section 67 of the Climate Change Act 2021.
Part 11 - Climate change adaptation and resilient development - Audit of public infrastructure and physical assets	70(1) - The Minister may, in close co-ordination with relevant ministries and State entities, conduct an audit of existing public infrastructure and physical assets that are at risk from climate change, including— (a) any applicable infrastructure or asset management strategies; (b) the value of public infrastructure and physical assets, including the accounting value and the replacement value; (c) the features of infrastructure and physical assets that influence its level of vulnerability; and (d) the extent to which infrastructure and physical assets are climate resilient, including physical, social and environmental resilience to the impacts of climate change, with reference to any integrated risk scenarios developed in accordance with this Act. 70(2) - The Minister may maintain a register of	MHMS has an opportunity to use this section of the Climate Change Act 2021 and leverage its Climate Hazards Vulnerability Assessment (expected publication in 2023) and the separate survey being conducted by Assessment Management Unit. The HAP proposes to use this opportunity by recommending the following action: Publish the health sector CHVA and the WASH FIT which have been localised for Fiji and promote its usage across all health facilities in the country. This will contribute to the multi-sectoral approach set out in section 70 of the Climate Change Act 2021.

	all existing public infrastructure and physical assets which records the data collected by the audit conducted in accordance with subsection (1) and any repairs carried out on public infrastructure and physical assets for the purpose of increasing resilience to the impacts of climate change.	
Part 11 - Climate change adaptation and resilient development - National Building Code	72(1) - The Minister responsible for health, with the assistance of the Director and the Minister responsible for infrastructure as required, must review and if necessary amend the content, expand the scope and scale up the implementation and enforcement of the National Building Code immediately upon the commencement of this section and every 5 years thereafter for the purpose of increasing the climate resilience of Fiji's buildings and the alignment of the National Building Code with the objectives and principles of this Act. 72(2) - The Minister responsible for health, in reviewing and amending the National Building Code, must take into consideration (a) the objectives and principles of this Act, in particular the objective to provide for the implementation, operation and administration of regulations, measures and actions that build climate resilience and enhance adaptive capacity to the impacts of climate change, with respect to Fiji's communities, built environment and ecosystems...	MHMS has an obligation to address this section of the Climate Change Act 2021. The HAP proposes to address this obligation through the following action: Collaborate with the Ministry of Infrastructure to review and amend the National Building Code to meet the mitigation and adaptation objectives of Fiji's National Development Plan and section 73 of the Climate Change Act 2021. Development of health sector guidance for climate resilient development will be piloted initially, taking into consideration international guidance such as the National Health Service (NHS) England Net Zero Building Standard.
Part 11 - Climate change adaptation and resilient development - Voluntary reporting on adaptation projects	74(1) - A person who implements an adaptation project in Fiji may provide reports to the Director. 74(2) - The report may include (a) a description of the project; (b) the social, economic and environmental benefits of the project; (c) the contribution of the project to objectives set out under the NAP or the SDGs; and (d) the verified outcomes of the project. 74(3) - If the Director considers that the report is in relation to an adaptation project in Fiji, the Director must register the Project and publish the report on the Adaptation Registry.	MHMS has an opportunity to lead by example and submit projects completed as part of its climate change and health program of work to the Fijian Adaptation Registry. The HAP proposes to use this opportunity by recommending the following action: Submit projects completed by the MHMS climate change and health program of work to the Fijian Adaptation Registry, to support section 74 of the Climate Change Act 2021.

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