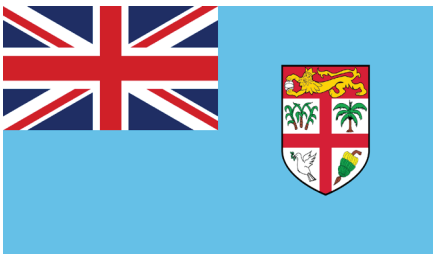
Climate change adaptation to protect human health



FIJI

This summary gives an overview of the aims, activities, challenges and results of the project "Climate change adaptation to protect human health" for Fiji.

Project background

The "Climate change adaptation to protect human health" project is a global initiative jointly implemented by the World Health Organization (WHO) and United Nations Development Programme (UNDP). The seven pilot countries were Barbados, Bhutan, China, Fiji, Jordan, Kenya and Uzbekistan. The project was co-funded by the Global Environment Facility (GEF) Special Climate Change Fund (SCCF).

Overall project goal

The series of pilot projects aimed to "increase adaptive capacity of national health system institutions, including field practitioners, to respond to climate-sensitive health risks".

Fiji at a glance

Fiji is located in Oceania and comprises 300 islands. Of these, less than 100 are inhabited with a population of 850 000. The island group lies in the South Pacific Ocean, about two thirds of the way between Hawaii and New Zealand, and covers a total land area of 18 270 km². The climate is generally tropical marine. The dry season runs from May to October and the rainy season from November to April. During the wet season, Fiji is often traversed by tropical cyclones as it lies directly in their usual path. Fiji's location has a strong influence on both seasonal and interannual variations in climate, particularly with regard to rainfall, where the south-east trade winds carry moist air onto the islands.

Climate change and health in Fiji

Fiji has been and will be adversely impacted by climate change in terms of air/sea temperature, tropical depression and cyclone, flood, as well as extended periods of drought, particularly during El Nino.

- Extreme weather conditions will increase the risk and incidence of drowning and some climate-sensitive diseases (CSDs) such as dengue fever, leptospirosis, typhoid fever and diarrhoea among the Fiji population.
- Health facilities located in flood-prone areas or on seashores will be acutely affected by flood or inundated by sea-level rise in the coming decades.
- Cases of ciguatera fish poisoning are likely to increase, due to the change in marine biology and related toxic algal growth in coral reefs.

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Objectives of the Fiji project

The specific objective of the project in Fiji was to increase the adaptive capacity of the health sector to respond to climate-sensitive health risks by increasing the Ministry of Health's capacity to monitor, assess and respond to hydrometeorological disasters and CSDs, and thus reduce the health risks associated with climate change and variability.

The main expected national benefit from this project was the development of a health information system capable of generating early warning systems (EWS) for CSDs.

Other national health benefits included the following:

- Field practitioners trained in how to carry out interventions as per the requirement of the health emergency and disaster management action plan (HEADMAP);
- Raised awareness among communities, contributing to increased resilience to climate variability and change;
- Strengthened interdisciplinary collaboration and communication to address CSDs within all levels of the Ministry of Health;
- Strengthened intersectoral collaboration at all levels with key government agencies such as the Fiji Meteorological Service and the National Disaster Management Office.

The project was managed under the existing organizational framework of the Fijian Ministry of Health, in particular, the Division of Public Health. A Climate Change and Health Officer under the strategic guidance of the Deputy Secretary for Public Health coordinated the project. During the implementation process, various offices of WHO provided technical guidance – headquarters, the WHO Regional Office for the Western Pacific, the Fiji Climate Change Country Team and the National Steering Committee with support from other relevant stakeholders.

Barriers/challenges to implementation of the various strategies, policies and procedures

At the beginning of the project, several barriers were identified that had to be overcome.

- Lack of in-country expertise was a challenge to the development of the EWS.
- Another limitation was inadequate policies to ensure strict compliance with reporting responsibilities for notifiable diseases, which often resulted in incomplete and inconsistent records of laboratory tests.
- At the community level, lack of sustained commitment from major stakeholders delayed implementation in the pilot sites.

Solutions

- International experts with experience in developing climate-based EWS were engaged.
- A web-based reporting system was introduced and practitioners trained in reporting notifiable diseases.

Main outcomes and outputs: climate change adaptation in Fiji

The three global outcomes defined for the project "Piloting Climate Change Adaptation to Protect Human Health" were adjusted slightly to the specific context of Fiji and its identified health risks related to climate change.

Outcome 1

Early warning and response systems with information on the likely incidence of climate-sensitive health outcomes were established

Fiji already has a National Notifiable Disease Surveillance System (NNDSS), which monitors selected infectious diseases, including typhoid, dengue and leptospirosis. It also has a syndromic surveillance system that monitors occurrence of fever, influenza-like syndrome and diarrhoeal diseases for early detection of outbreaks. However, these surveillance systems were not functioning optimally because reporting by health service providers was not always reliable and complete. In the frame of this project, health service providers in Ba and Suva were trained in order to improve their reporting of notifiable diseases as a prerequisite for the development and implementation of an EWS on CSDs.

Over the course of the project, a range of outputs were delivered as components of an early warning and response system (EWARS) for CSDs:

- An EWS model for diarrhoea was developed using the Fiji disease and climate data as a step towards the development of an EWARS for other CSDs.
- Information, education and communication (IEC) materials were developed and widely distributed to raise awareness of the risks related to CSDs in Ba and Suva.
- A work programme for climate change and health (CCH) was included in the Ministry of Health's Strategic Plan for 2015–2020 so as to facilitate mainstreaming and integration of climate change adaptation into national health policies, and to ensure sustainable capacity building in the Ministry of Health.

Outcome 2

Capacity of health sector institutions to respond to climate-sensitive health risks based on early warning information improved

Under Outcome 2, the project improved the capacity of health sector institutions and health professionals to prepare for and respond to climate change.

- The environmental health courses taught at the Fiji National University (FNU) were reviewed during a workshop jointly coordinated by WHO in 2014 for inclusion of appropriate climate change and health issues relevant to Fiji, e.g. preparedness and response to hydrometeorological disasters, and early warning and response to CSDs.

- A new curriculum for prospective health professionals was developed to incorporate climate change and health into the training syllabus of the FNU.

Outcome 3

Disease prevention measures piloted in areas of heightened health risk due to climate change

The project improved awareness on CSDs in all pilot communities and contributed to the development of community emergency response plans, which increased resilience to climate change and variability (see, for example, Photo 1). Disease prevention measures focused mainly on training activities in communities to improve capacity to prepare for and respond to climate-related health risks.

Photo 1: Safe water (Fiji Red Cross Society)

- The Fiji Red Cross Society (FRCS) continued the capacity-building work with pilot communities. Seasonal calendars were developed through focus group discussions to identify traditional indicators of climate variability and change. The seasonal calendars were promoted for use by communities as a simple EWS.
- In Ba and Suva, community committees were set up to enable community ownership and implementation of community health adaptation activities.
- The FRCS facilitated sessions to raise awareness among participating community groups on CSDs along with health protection advice for disasters/emergency preparedness and protection.
- Volunteers and climate change champions were trained using the FRCS Climate Change Champions Training Manual in 10 pilot sites in Ba and Suva (Photo 2). The training focused on eight modules in the Climate Change Manual, which included: communicating to change behaviour, climate change and health risks, safe water, hygiene and sanitation, typhoid and diarrhoea, dengue fever, leptospirosis, CSD outbreaks and action plans, and outbreak prevention and control.
- Vulnerability and capacity assessments in relation to climate change-related health risks were undertaken in the 10 pilot sites.

Photo 2: Training of volunteers and community climate change champions (Fiji Red Cross Society)

Lessons learned

» Existence of reliable and complete surveillance and statistics on infectious diseases is a prerequisite for the development of a powerful EWS.

» The development of an EWS is a highly technical task and the capacity available for this in Fiji was limited. The project benefited significantly from regular visits by and interactions with an expert in climate change and health for developing an EWS.

» Training local epidemiologists are needed to utilize the climate and health data for developing and implementing an EWS, and for ownership of the EWS by the country.

» It is also very important to focus on building national and local capacity on issues related to climate change and health as the most effective way to build resilience. Strengthening the higher education curriculum is necessary for long-term capacity building.

» Lack of government funding and human resources is an issue for scaling up the project. Involvement of high-level decision makers from the Ministry of Health in the project implementation process proved to be crucial for the climate change adaptation activities to be mainstreamed and incorporated into national health policies.

Efforts to ensure sustainability of the structures and measures

The fact that climate change and health was included in the Ministry of Health's Strategic Plan for 2015–2020 demonstrates the successful incorporation of climate change adaptation into national health policies and plans, leading to the development of the health component of the national adaptation plan (H-NAP).

In Fiji, climate change is not a separate unit within the Ministry of Health. However, there is a strategic consideration to establish a new unit dealing with both climate change adaptation and disaster risk management from 2015. The GEF/SCCF project contributed to raising the interest of the Ministry of Health in climate change and health issues.

Opportunities to scale up

- The preliminary recommendations include adding a course dedicated to climate change and health to the existing environmental health curriculum of FNU.
- The recommendation to add a postgraduate-level course on environmental health aimed at strengthening research and education capacity of the FNU was presented to the Dean of the FNU School of Medicine. The postgraduate course could cover a range of relevant topics such as climate change, water quality, food safety and epidemiology.
- Digitization of health records and introduction of a web-based reporting system in the NNDSS and syndromic surveillance system can enhance the reliability and completeness of surveillance data on CSDs.

Key products

The project produced a series of reports, scientific publications and information materials that may be of interest to other regions or countries. Key products include the following:

- EWS model for diarrhoea
- Medical pathology laboratories: medical requisition forms for parasitology, bacteriology, serology, and haematology and biochemistry
- Seasonal calendars to guide agricultural and social activities in view of climate change (Photo 3)
- IEC materials
  - Information paper: Human health vulnerability to climate change in Fiji, 2013 Summary, Fiji Project on Protecting Health from Climate Change (MoH, WHO, UNDP and GEF)

Photo 3: Seasonal calendar

- A series of posters developed by the FRCS in partnership with the MoH and WHO Climate change can increase disease: dengue, diarrhoea, typhoid and leptospirosis
  - Dengue fever can be deadly
  - Stop dengue mosquitoes
  - Typhoid can be deadly
  - Typhoid and diarrhoea
  - Diarrhoea makes your body dry out
  - Leptospirosis is spread by contact with animal pee
  - Prevent leptospirosis

- Training manual: Climate change champions, published by FRCS in partnership with the Fiji Ministry of Health for the project "Piloting Climate Change Adaptation to Protect Human Health", supported by WHO, UNDP and GEF (Photo 4).

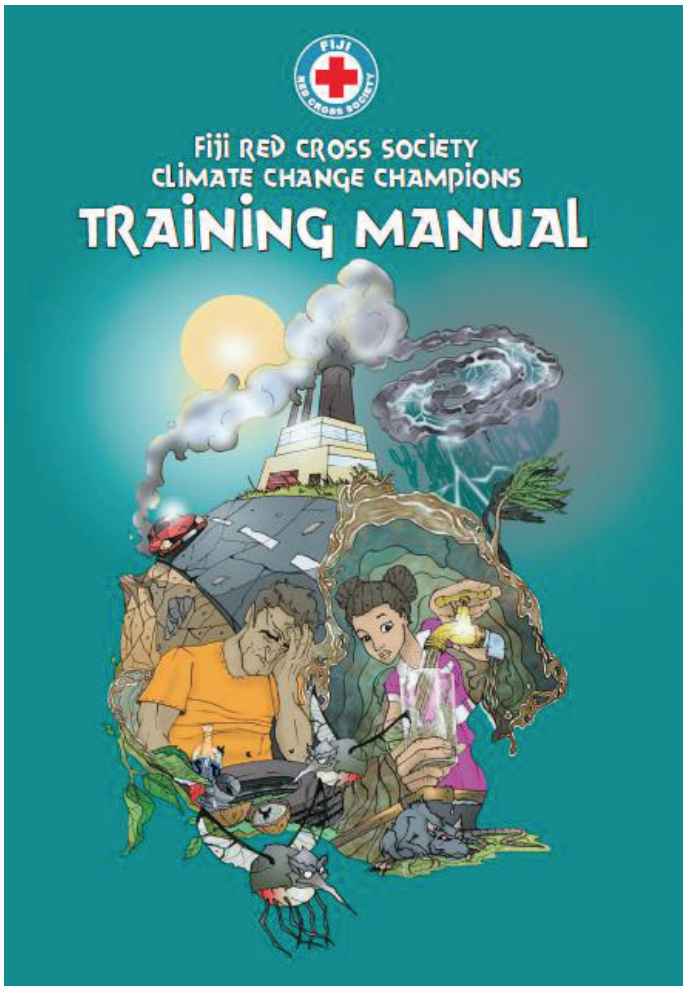

Photo 4: Cover of the Fiji Red Cross Society Training Manual on Climate Change and Health (Fiji Red Cross Society)

- Toolkit on Climate change and health, developed by FRCS in partnership with Fiji Project on Protecting Health from Climate Change (MoH, WHO, UNDP and GEF); containing 14 tools
- Community emergency response plans for pilot villages
- Scientific publication

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- Reports
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Public Health & Environment Department (PHE)
Health Security & Environment Cluster (HSE)
World Health Organization (WHO)
Avenue Appia 20, CH-1211 Geneva 27, Switzerland
www.who.int/phe/en/

Editing and design by Inís Communication – www.iniscommunication.com