SDG 13: Climate Action

TARGETS	INDICATORS
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	13.1.3 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies 13.1.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people 13.1.2 Number of countries with national and local disaster risk reduction strategies
13.2 Integrate climate change measures into national policies, strategies, and planning	13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)
13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary, and tertiary curricula 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic, and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions
13.A Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully	13.A.1 Mobilized amount of United States dollars per year starting in 2020 accountable towards the $100 billion commitment

operationalize the Green Climate Fund through its capitalization as soon as possible	
13.B Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth, and local and marginalized communities * Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.	13.B.1 Number of least developed countries and small island developing States that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and management, including focusing on women, youth and local and marginalized communities

Section 1.1- Inclusive Socio-economic Development

Electricity for All

Investment into renewable energy sources outlined in this section such as Hydroelectric power will help steer Fiji away from fossil fuels.

Ninety percent of the population currently has access to electricity. Electrification projects in the rural and maritime areas will be expedited to ensure that the entire population has access to electricity by 2021. Further grid extensions will be undertaken in Viti Levu, Vanua Levu, Ovalau and Taveuni. Government will continue to fully fund rural electrification projects, including connections for households near the grid lines. For the rural and outer islands, decentralised renewable energy sources such as solar, mini hydro, hybrid biofuel/ diesel operated generators and wind systems will be adopted where feasible. Electricity generation from renewable energy sources will be increased to 100 percent by 2036. Apart from the ongoing hydro projects such as the Qaliwana/Upper Wailoa Diversion Hydro Project and Lower Ba Hydro Project, new areas will be identified for feasibility studies. Other renewable energy sources such as wind, solar, biomass, geothermal and wave and tidal energy will be developed where they are viable and affordable. Future electricity infrastructure projects will be climate resilient, and opportunities for underground cables for electricity distribution will be explored and adopted where feasible. Carbon credits under the Clean Development Mechanism (CDM) will be employed as part of the financing arrangements. Other sources of climate finance will also be accessed. Independent power producers of both small- and largescale electricity production will be supported with fair pricing for sale of electricity. The ongoing regulatory reforms in the electricity sector with the partial divestment of FEA will promote private sector participation and raise efficiency and service delivery.

National Development Targets relevant to SDG 13

Environment Targets	**2031**	**2036**
Reduction in Greenhouse gas emissions from 2013 baseline (NDC target) (%)	30	TBD

* For the 30% reduction in carbon emissions by 2030, a 10% reduction will be achieved through implementation of the GGF for Fiji using available domestic resources with a further 20% reduction conditional on external funding.

What is the Clean Development Mechanism?

The Clean Development Mechanism (CDM) is a mechanism under the Kyoto Protocol, which, in accordance with Article 12 of the Kyoto Protocol, allows emission-reduction projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one tonne of CO2. These CERs can be traded and sold and used by industrialized countries to a meet a part of their emission reduction targets under the Kyoto Protocol. The mechanism stimulates sustainable development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction limitation targets.

Source:
https://www.gov.uk/government/publications/guidance-and-proforma-for-clean-development-mechanism-projects#:~:text=The%20Clean%20Development%20Mechanism%20(CDM,to%20one%20tonne%20of%20CO2.

Reading:
http://fijiclimatechangeportal.gov.fj/sites/default/files/documents/cdm-investors-guide-fiji.pdf - This is a link to the 'Clean Development Mechanism (CDM) Investors' Guide'. Although it is targeted at investors it provides further information about the CDM in Fiji.

Effect of Climate Change on Fiji

Rising sea levels coupled with warmer temperatures and stronger El Niño patterns increase the island's susceptibility to deadly food- and water-borne diseases. Across Fiji's two main islands, the number of cool nights has decreased, and warmer days has increased since 1942. Tropical cyclones are predicted to decrease in frequency and increase in intensity. These changing weather patterns have worsened Fiji's susceptibility to viral disease outbreaks. Fiji recorded a drought-induced outbreak of diarrheal disease in 2011, combatted a post-flood leptospirosis outbreak in 2012 and quelled a Dengue outbreak in 2013.

Changing weather extremes threaten the livelihoods of the Fijian people—implicating the island's ecosystems, on land and at sea. Saltwater intrusion from coastal flooding destroys farmland, disrupting the supply of staples in the Fijian economy and forcing communities to migrate to safer ground. The damages sustained to Viti Levu, Fiji's most populous island, total some $52 million per year, or 4 per cent of Fiji's GDP. In 2012, residents of Vunidogoloa became the first to begin relocating due to the impact of rising tides, eroding agricultural lands, and intensifying floods.

Ocean acidification—or carbon pollution that increases the ocean's acidity—will continue in Fiji, impacting the health of the island's coral reef systems.

Countering the crisis will require collective action from the Fijian Government, the nation's private sector and the world's industrialized nations. Fiji remains at the frontline in advocating international policies to counter climate change. But internally, the nation lacks sufficient technical expertise, human resources, and financial capacity to fully implement protective measures. The private sector,

other governments and international financial institutions can play key roles in helping Fiji mobilise financing to implement integral climate adaptation measures.

Source: https://cop23.com.fj/fiji-and-the-pacific/how-fiji-is-affected-by-climate-change/#:~:text=According%20to%20Fiji's%20National%20Climate,larger%20than%20the%20global%20average.

Further Reading: http://world.350.org/pacific/files/2014/01/1_PCCSP_Fiji_8pp.pdf

FNDP Section Summary

Despite no specific area of the FNDP being designated to Climate Action, climate action is referred to throughout the FNDP and key areas include the use of Renewable energy sources, protection of rural communities and resource-based agriculture.

3.1.2 – Energy

Electricity:

- Almost 90% of the population now have access to electricity. Those that still lack access are concentrated in rural and maritime areas; over the next 5 years there will be a focus on addressing this.
- The government will continue with the policy to fully fund rural electrification projects.
- The government will support education for engineers.

Renewable Sources:

- Currently over 60% of electricity is generated from renewable sources such as hydro, biomass, wind, and solar energy.
- Investment will continue to ensure that over 80% of all electricity comes from renewable sources by 2021.
- There are three major hydro projects being developed in Fiji with further sites being investigated.
- Further research will be done into the potential use of ocean energy, geothermal energy, wave energy and the generation of energy from waste.
- Solar, mini-hydro and wind systems will be used to electrify rural areas and maritime zones where possible.
- The government are developing an Independent Power Producers framework to increase private sector generation of energy while ensuring fair pricing and a transparent process remain.
- Tax incentives for investment in renewable energy will continue.
- The codes and standards for buildings and industry will be updates to reduce electricity consumption.
- Efforts will continue to ensure that electricity infrastructure is made disaster resilient.

Petroleum and Biomass

- The transport sector is the main consumer of imported fossil fuel:
    - Therefore, the government has incentivized the importation of hybrid and electric cars.
    - Fiji Airways has upgraded its fleet with more fuel-efficient aircrafts.
    - Research and development on biofuel in the transport sector will continue.

Energy generation from biomass will be expanded over the next 5 years and a new biomass plant in Sigatoka is currently under construction.

Wood

- Wood is the main cooking fuel and although it can be considered renewable, there are serious health implications such as emphysema.
- Therefore, the government has introduced the Rocket Wood Stove in rural areas.

Figure 1: Construction of 10 MW biomass plant at Navutu, Sigatoka

3.2.10 EXPANDING THE RURAL ECONOMY

• 830 vulnerable communities at risk from climate-related events have been identified for relocation, with 48 of these needing urgent relocation that will be supported through government funding with assistance from development partners.

3.2.11 SUGAR

- The Fiji Sugar Corporation (FSC) 5-year Strategic Action Plan is to increase production from 1.6million tonnes to 3.9million tonnes to match the crushing capacity of the mills which is estimated at 4.2million tonnes. Replanting has been negatively affected by natural disasters and adverse climate conditions

- The government plans to invest in in improving farm drainage infrastructure and irrigation to control water run-off and saltwater intrusion. The Sugar Research Institute of Fiji (SRIF) will also enable the FSC to develop improved cane varieties suitable to deal with climate change.

FURTHER INFORMATION

Sugar Research Institute of Fiji (SRIF)

Mission: To contribute to the emergence of a competitive sugarcane industry in Fiji through excellence in appropriately targeted research and supporting technology transfer combined with international engagement, the development of supporting knowledge services, and a strong and sustained industry communications strategy.

Source and Further reading: https://srif.net.fj/wp-content/uploads/2018/11/SRIFSAP.pdf - SUGAR RESEARCH INSTITUTE OF FIJI STRATEGIC PLAN 2014-2020

SDG 13 in Figures

55% of Fiji's electricity is from Renewable sources

Since 1993, Fiji has recorded a 6 millimetre (0.2 inch) increase in its sea level per year

In Suva, maximum temperatures have increased at a rate of 0.15°C per decade and at Nadi Airport the rate of increase has been 0.18°C per decade from 1950 to present.

Table 1: Projected annual average air temperature changes for Fiji for three emissions scenarios and three time periods. Values represent 90% of the range of the models and changes are relative to the average of the period 1980-1999.

	2030 (°C)	2055 (°C)	2090 (°C)
Low emissions scenario	0.2–1.0	0.5–1.5	0.7–2.1
Medium emissions scenario	0.2–1.2	0.9–1.9	1.3–2.9
High emissions scenario	0.4–1.0	1.1–1.7	2.0–3.2

Table 2: Sea-level rise projections for Fiji for three emissions scenarios and three time periods. Values represent 90% of the range of the models and changes are relative to the average of the period 1980-1999.

	2030 (cm)	2055 (cm)	2090 (cm)
Low emissions scenario	5–16	10–27	16–47
Medium emissions scenario	5–15	9–31	20–59
High emissions scenario	3–16	8–31	21–62

Sources:

https://www.worldometers.info/electricity/fiji-electricity/

https://cop23.com.fj/fiji-and-the-pacific/how-fiji-is-affected-by-climate-change/#:~:text=According%20to%20Fiji's%20National%20Climate,larger%20than%20the%20global%20average.

http://world.350.org/pacific/files/2014/01/1_PCCSP_Fiji_8pp.pdf

SDG 2019 REVIEW

SDG 13: Climate Action

Take urgent action to combat climate change and its impacts

Climate Action

- Fiji was the first country to ratify the Paris Agreement and has been a signatory party to other relevant international conventions, such as the United Nations Convention to Combat Desertification, Convention for Biological Diversity, the Hyogo Framework for Action and the Sendai Framework for Disaster Risk Reduction
- The Ocean Pathway launched under the Fijian Presidency at COP23 calls for oceans to be an integral part of the UNFCCC process, recognising that oceans play a crucial role in regulating earth's climate and emphasising the link between a healthy global ocean and its role in mitigating the impacts of climate change on already vulnerable Pacific Island countries

Climate Change Adaptation

- Achieving SDG 13 is a precursor to achieving all other SDG's
- Fiji has identified 160 adaptation measures to be prioritised over the five-year period of the National Action Plan (NAP)
- The Fijian Government spending on investments to strengthen resilience has significantly increased, from 3.74 per cent of the total budget in 2013 to 9.85 per cent in the 2016-2017 fiscal years (CVA, 2017).
- Investments have gone in to the rehabilitating flood-retention dams, constructing protection barriers against coastal erosion, conducting environment impact assessments to mitigate flood risks, strengthening the early warning system and installing water-level and rainfall telemetry instruments in all hydrological stations to effectively monitor the river levels.
- Communities have also had to be relocated due to rising sea levels, with the first-ever relocation of an entire village occurring in 2014
- The Fijian Government conducted its Climate Vulnerability Assessment (CVA) in 2017 and is in the process of developing a National Disaster Risk Reduction Plan.
- An Urban Water Supply and Wastewater Management Investment Program benefiting more than 300,000 Fijians living in the Greater Suva Area is underway. The project is expected to be completed in July 2025 with a total investment of US $405 million.
- The Fijian Government has also established a Ministry of Waterways and Environment to address the growing threat that flooding poses to Fijian communities, a threat that is projected to worsen due to the effects of climate change.

Climate Change Mitigation

- Fiji has shown its commitment to the Paris Agreement with an ambitious Nationally Determined Commitments (NDCs) of 30 per cent reduction in energy-sector emissions by

2030. Fiji's current Nationally Determined Contribution (NDC) is specific to the energy sector.

- The 30% emission target will be achieved by striving to reach 100% renewable-energy power generation and through economy-wide energy efficiency
- Fiji launched the Fiji Rural Electrification Fund (FREF) program in cooperation with the Leonardo DiCaprio Foundation, the solar-energy company Sunergise, the Fiji Locally Managed Marine Area Network and Energy Fiji Limited
- The fund has provided upfront capital to bring in clean and renewable energy to off-grid communities. Vio Island, just off the coast of Fiji's mainland Viti Levu, is the first community to be electrified under the FREF program.
- Fiji has also developed a mid-century, long-term low emission development strategy which aims to enhance the Fijian Government's ability to plan for decarbonisation of its economy in the long- term

Climate Finance

- Fiji has completed a Climate Public Expenditure and Institutions Review (CPEIR) 2015, to examine how public and private expenditures related to climate change and disaster risk management are integrated into national budgetary processes
- Domestically, Fiji has increased the rate of its Environment & Climate Adaptation Levy (ECAL) from 6 per cent to 10 per cent to mobilise more finance for climate change-related projects.
- In 2017, Fiji issued the Fiji Sovereign Green Bond, the first developing country green bond, raising FJ$100 million for climate resilience actions. The proceeds from the bond have been used to finance climate projects such as the rural water supply programme, rainwater harvesting programme, rehabilitation and construction of schools damaged by Tropical Cyclone Winston, emergency works, the rural electrification programme and construction of landfill.
- Fiji also acquired direct access to Green Climate Fund (GCF) financing through the accreditation of the Fiji Development Bank. Currently, Fiji is developing three project proposals that would qualify for fund financing

Opportunities for Collaboration

- Fiji's mitigation actions would contribute very little to the effort to slow the rate of global warming because the country's carbon emissions are relatively insignificant in global terms. Yet Fiji also suffers disproportionately the negative effects of climate change, and climate related disasters have already had a substantial impact on virtually all aspects of Fiji's social and economic development.
- Fiji has limited financial resources available for climate actions, a situation exacerbated by the significant economic losses Fiji has incurred due to natural disasters
- The Climate Vulnerability Assessment of the country reveals that the Fijian Government will require about FJ$9.3 billion, in investment over the next 10 years to strengthen resilience, which is almost 100% of its annual GDP.
- Given the ongoing focus on building resilience, the Fijian Government has seen it fit to consider tapping into the disaster insurance market as a potential means of building capacity and developing contingencies for post-disaster financing.
- Effectively improving institutional arrangements and technical capacity in relevant ministries and agencies will also improve data integrity, with key planning and development agencies having quality and reliable data readily available for informed decision making, disaster preparedness, and policy and strategy development.

- Fiji continues to suffer significant economic losses from natural disasters because key sectors are still not well protected against a range of climate adversities, partly due to lack of capacity to implement appropriate adaptation and mitigation measures.
- Fiji's efforts as set out in key policy documents will be instrumental in guiding the process for climate-proofing the nation and making all Fijians more resilient to the present and future impacts of climate change. However, the key to reducing future climate impacts and their threat to our quality of life and even our survival still lies in the hands of the bigger and more industrialised nations.