SDG 12: Sustainable Consumption and Production

TARGETS	INDICATORS
12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries	12.1.1 Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies
12.2 By 2030, achieve the sustainable management and efficient use of natural resources	12.2.1 Material footprint, material footprint per capita, and material footprint per GDP 12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP
12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	12.3.1 Global food loss index
12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement 12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse	12.5.1 National recycling rate, tons of material recycled
12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	12.6.1 Number of companies publishing sustainability reports
12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	12.7.1 Number of countries implementing sustainable public procurement policies and action plans
12.8 By 2030, ensure that people everywhere have the relevant information and awareness for	12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development

sustainable development and lifestyles in harmony with nature	(including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment
12.A Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production	12.A.1 Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies
12.B Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products	12.B.1 Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools
12.C Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities	12.C.1 Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels

Section 1.1- Inclusive Socio-economic Development

100 Percent Access to Clean and Safe Water and Proper Sanitation

Every Fijian has a right to clean and safe water in adequate quantities. For the urban areas, 100 percent access to clean and safe water will be realised by 2021 and for the rural and maritime areas by 2030. Resources will be allocated for sustained maintenance and construction of new water treatment plants, reservoirs and reticulation systems, rural water schemes, development of groundwater sources, setting up desalination plants in the maritime region, and distribution of water tanks in rural areas. To support low-income households, the free water programme will continue. To meet the long-term demand, new dam sites including Sovi river catchment, upper Waimanu River and Waibogi in the upper reaches of Navua River have been identified. Other potential sites in the Western and Northern divisions will be identified in the future, and feasibility studies will be undertaken for new dam development. Consideration will be given to joint development of both water supply and hydropower. Innovative technologies will be adopted for industrial recycling, rainwater harvesting and storage, storm water and aquifer management and use of renewable energy for desalination plants. Building climate resilient water infrastructure will be a key aspect of all new projects. Leak reduction programmes will continue so that piped water losses are significantly reduced, and other water conservation initiatives will be pursued. To build resilience to climate change, adaptation measures will be implemented to protect freshwater aquifers from saltwater intrusion. Public awareness and education on water conservation and management will be increased to support adaptation to changes in seasonal rainfall patterns that may occur due to

climate change. To ensure improved sanitation, 70 percent of the population will have access to centralised sewerage systems within the next 20 years. Public sewerage treatment systems will be built and expanded in all urban centres. Sustainable and viable sewerage and sanitation options will also be explored for rural areas. Ensuring that every Fijian household is connected to a proper sewerage treatment system is a key priority.

Food and Nutrition Security

Food and nutrition security will be improved by ensuring increased local production, raising farm efficiency and productivity, and developing more effective distribution systems. Agriculture and fisheries programmes will be enhanced, and local produce made available to all Fijians. New technology, mechanisation and better production practices will be adopted. Market linkages will be improved. Large-scale production will be encouraged and supported to achieve greater economies of scale. Organic farming will be promoted, and production of traditional crops and niche agricultural and fisheries products will be pursued. Production will be made more climate-resilient and environmentally sustainable. To adapt to climate change, increased funding will be directed towards agriculture research into crop varieties that can be more resilient to expected changes in weather patterns. In addition, extension training will evolve to ensure that farming practices adapt to changes due to climate change.

Electricity for All

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 Fiji Electricity Authority (FEA) will promote private sector participation and raise efficiency and service delivery.

National Development Targets relevant to SDG 12

Target	2015	2021	2026	2031	2036
Access to clean and safe water in adequate quantities (% of population)	78	90	95	100	100
Access to clean and safe water in adequate quantities, rural (%of population)	58	85	90	100	100
Access to clean and safe water in adequate quantities, urban (% of population)	98	100	100	100	100

Food sourced domestically compared to total food available (%)	32	42	TBD	TBD	TBD
Renewable energy share in electricity generation (%)	67	81	90	99	100
Renewable energy share in total energy consumption (%)	13	18		25	

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.

FNDP SECTION SUMMARY

3.2.15 MINING

"A Sustainable Mining Industry"

- Exports of minerals including gold, bauxite, iron ore and sand resources have been increasing in recent years together with exports of mineral water.
- Mining is expected to increase with eight mining leases currently being monitored and 78 exploratory licenses being issued with licences also including offshore oil exploration and geothermal exploration to support renewable energy production.
- Government will ensure sustainable mining practices and ecological balance together with equitable sharing of revenue amongst investors, landowners, and the State.
- The Mining Act, policies and institutional framework for mining and quarrying will be updated to improve in areas such as Occupational Health and Safety (OHS) and environmental safeguards.
- Monitoring the environmental impact of mining and quarrying activities will be strengthened. The responsibilities of the Environment Unit within the Ministry of Land and Mineral Resources have been broadened to include the assessment and monitoring of river-gravel extraction, fine-sand dredging, and all foreshore development leases and licenses.
- Investigation of potential groundwater sites will continue to increase production and access to sustainable, clean, and safe drinking water. Local laboratories will be upgraded to undertake

water-quality testing and geochemical analysis so that samples do not need to be sent overseas for analysis.

IMAGE: The sector includes mining of minerals, quarrying and groundwater resources.

FURTHER INFORMATION

Mining

Mining and exploration in Fiji have been dominated by gold production from Vatukoula mine in the past, although significant other sector revenues come from industrial minerals such as sand and gravel, quarried stone, and coral sand.

The mining and quarrying sector on average accounts for 1.4% of GDP. A sluggish performance in 2005 saw the sector decline by 30.7%, and its contribution to GDP falling to 1%. Prospects for the sector looked bleak when operations at Emperor Gold Mine (EGM) in Vatukoula was shut down in early 2006 to allow a reorganisation aimed at bringing the mine back into profitability. While the shutdown was supposed to be temporary, a management decision was taken in December 2006 to close the mine, citing the inability to generate viable returns as the central reason for closure. For 2006, gold production declined by 49.2%. The EGM was back into operation in 2008.

Source and Further reading:
https://sustainabledevelopment.un.org/content/documents/dsd/dsd_aofw_ni/ni_pdfs/NationalReports/fiji/Mining.pdf

SDG 12 in Figures

Fiji's mining and quarrying sector on average accounts for 1.4% of GDP

In 2016 Fiji mined 1499kg of Gold

The combined total gold and silver ounces produced at Vatukoula in 2012 were 0.57 meters per ounce raking in total revenue of F$133.4 M

4,276 sq.km of Agricultural land in 2011

125,000 Farm workers in 2008 which is 14.7% of the population

Fiji generates 914,000 MWh of electricity as of 2016 (covering 108% of its annual consumption needs)- 45% of this from non-renewables (Fossil Fuels) and 55% Renewable sources.

In 2016 Fiji did not Import or export any electricity

Sources:

https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/atoms/files/myb3-2016-fj.pdf

https://www.investmentfiji.org.fj/pages.cfm/for-investors/sector-industry-profiles/mining-groundwater.html

https://sustainabledevelopment.un.org/content/documents/dsd/dsd_aofw_ni/ni_pdfs/NationalReports/fiji/Mining.pdf

https://www.nationmaster.com/country-info/profiles/Fiji/Agriculture

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

SDG 2019 REVIEW

SDG 12: SUSTAINABLE CONSUMPTION AND PRODUCTION

Ensure sustainable consumption and production patterns

Energy

- The government alongside Energy Fiji Limited have invested in steps to achieve a responsible, affordable, and environmentally conscious blend of energy generation. This includes hydroelectric power and wind turbines.
- Fiji's infrastructure development has incorporated numerous green initiatives, such as the installation of solar panels on public buildings and solar-powered streetlights
- Fijians are being encouraged to use more energy-efficient white goods and fuel-efficient vehicles, through activism and tax incentives
- Fuel quality has improved to match the Euro IV standard

Food

- Fiji has undertaken major initiatives to improve the domestic supply of food to Fijian consumers, encourage healthy eating habits, and bolster the nation's food security.
- Holistic infrastructure developments and holistic supplies, including rural roads upgrades, municipal markets, chillers, and cyclone-resistant roadside stalls have all helped improve the supply of food to consumers

Water

- The government has undertaken major investments in infrastructure to provide long-term water supply through the construction of new water treatment plants, reticulation systems and reservoirs, and digging boreholes in the country's most remote areas.
- Through the Urban Water Supply and Wastewater Management Investment Program, the Fijian Government with the financial assistance from the Green Climate Fund and the Asian Development Bank, will provide improved access to a safe, piped water supply and environmentally friendly sewage systems to more than 300,000 Fijians.

Solid Waste

- Attractive tax incentives have been provided in the 2019-2020 Budget to promote proper solid waste management.
- High-density plastic bags (less than 50 microns thick) will be banned from 1 January 2020 onwards, while the Environment and Climate Adaptation Levy (ECAL) on low-density plastic bags will be increased from 20 cents to 50 cents per bag
- Illegal dumping and burning of waste have historically posed a problem in Fiji. Recent amendments to the Litter Decree 2010 have helped deter littering through the imposition of on-the-spot fines.

10-Year Framework of Programmes on Sustainable Consumption and Production Patterns

- In 2012, Fiji adopted the 10-Year Framework of Programmes (10YFP) on Sustainable Consumption and Production (SCP) Patterns during the United Nations Conference on Sustainable Development (Rio+20).
- Concepts such as resource efficiency and green economy are reflected in the Green Growth Framework for Fiji
- The Fiji National Adaptation Plan (2018) also supports efforts to ensure SCP patterns through sustainable management and efficient use of natural resources and improved waste management (including reducing waste generation).

International Commitments

- Fiji follows the Montreal protocol and has developed regulations such as the Ozone Depleting Substances Act (1998) to meet these commitments
- Fiji is part of the Stockholm Convention on Persistent Organic Pollution set up in 2001 and in 2006 set out a plan to meet the commitments of this commitment

Agricultural Production

- Food production has become more vulnerable to climate variability (from severe weather devastation to in-arable salinity levels to erosion), threatening food security over the last 16 years
- Climate change has also resulted in increased shoreline erosion and inundation and reduced surface water, which present major threats to long-term food production in low-lying areas.

A key challenge for Fiji in implementing SDG12 is a need to raise public awareness on the importance of sustainable consumption and production practices. At the consumption end, there is a need for improved consumer awareness, building and shaping sustainable habits, and encouraging more sustainable choices. Monitoring and regulation of sustainable consumption and production patterns continue to be a challenge.