



Key Sustainability Principles

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What are some of the most important environmental issues in Fiji that green businesses can help address? We've mentioned some of these above, but in this section we'll take a closer look at why these problems exist, and explore some examples of existing green businesses that are addressing them.

Land and soil degradation

In many areas across Fiji, land is managed in an unsustainable way. The shift away from traditional agroforestry practices to more commercial agriculture has resulted in increased chemical fertiliser and pesticide use, which can harm river ecosystems and reduce soil fertility. Use of excess chemical fertilisers can also lead to increased emissions of nitrous oxide, which contributes to climate change. Burning remains a common method of clearing land, despite the long-term damage to soil health, air pollution, and carbon emissions that this can cause. Taken together, these practices have increased soil erosion, river and stream contamination, sedimentation, pollution, and flooding in low coastal and coral reef areas.

Green businesses that are working to restore and protect landscapes and soil health include those making organic compost to sell to farmers for use in place of chemical fertilisers, nursery and land management businesses, organic farms, and tourism-related businesses that are actively protecting land through their operations.



[Loving Islands](#)¹¹ is a social enterprise focused on agro-ecological practices and organic farming.

[Rivers Fiji](#)¹² is a tourism company offering rafting trips that has a conservation lease on the Upper Navua River.



Rivers Fiji works with local landowners (mataqali) to protect the Upper Navua Conservation Area, Fiji's first Ramsar Site (a wetland site determined to have international importance)¹³

11 Loving Islands, <https://www.lovingislands.com/>.

12 Rivers Fiji, <http://www.riversfiji.com/>

13 Rivers Fiji, <http://www.riversfiji.com/> (photo credit Kristin Deason)



Environmental degradation and biodiversity conservation

Ecosystems such as oceans, forests, and mangroves are important natural resources. Conserving these areas and the biodiversity of the plants and animals that live there is important because these natural resources provide food and support industries, including tourism and fisheries. Mangroves, for instance, play a vital role in regulating the climate and water, and in protecting coastlines from erosion. Mangroves are also habitats for important animal species and sources of medicinal plants.

In addition, Fiji has an exclusive economic zone of 1.3 million km² of ocean resources. Over the past few decades, concerns have been raised about the number of offshore vessels given licenses to operate, and the potential impacts of this on fisheries and coral reefs.¹⁴



The State of Fiji's Forests

In Fiji, closed natural forests decreased by 14% between 1991 and 2007. They were converted into open forests through forestry, development, and agricultural expansion onto steep slope natural areas. Mangrove areas declined by about 5% between 1991 and 2007, mostly in urban areas, which saw up to a 40% decline in some places.¹⁵ Coastal area and wetland reclamation caused significant loss of mangrove areas and littoral forest, especially around heavily industrialised areas, towns, and cities.¹⁶

Green businesses that help to protect ecosystems and conserve biodiversity include timber companies that ensure forests are replanted faster than they are extracted, businesses that treat wastewater before returning it to the ecosystem, and tourism operators that educate others about conserving ecosystems and biodiversity. An increasing number of social enterprises also focus directly on mangrove replanting and forest rehabilitation. Fiji's large tourism sector depends on healthy oceans for its sustainability, and can play a role in promoting sustainable marine practices. In fact, a recent report highlighted over 50 marine conservation agreements between tourism operators and local communities in Fiji.¹⁷



[Mangroves for Fiji](#)¹⁸ is a business that enables tourists to offset their carbon emissions and support mangrove rehabilitation.



[Beqa Adventure Divers](#)¹⁹ describes itself as a conservation project masquerading as a dive shop and works to protect sharks in the Beqa Lagoon in partnership with local communities.

14 Asian Development Bank, "Country Partnership Strategy: Fiji 2014-2018 – Environment Assessment (Summary)," November 2014, <https://www.adb.org/sites/default/files/linked-documents/cps-fiji-2014-2018-ena.pdf>

15 Secretariat of the Pacific Regional Environment Programme, Fiji's State of Environment Report 2013 (Apia, 2013), <http://macbio-pacific.info/wp-content/uploads/2017/08/State-of-Environment-Report-2013.pdf>

16 Asian Development Bank, "Country Partnership Strategy: Fiji 2014-2018 – Environment Assessment (Summary)," November 2014, <https://www.adb.org/sites/default/files/linked-documents/cps-fiji-2014-2018-ena.pdf>

17 Wildlife Conservation Society, Contribution of Marine Conservation Agreements to Biodiversity Protection, Fisheries Management and Sustainable Financing in Fiji (Suva, 2018), <https://fiji.wcs.org/Portals/82/reports/WCS%20MCA%20Fiji%20Report%20040518%20.pdf?ver=2018-05-08-231334-113>

18 Mangroves for Fiji, <http://mangrovesforfiji.com/>

19 Beqa Adventure Divers, <http://fijisharkdive.com/>

Climate change

Climate change is already changing rainfall patterns and causing increased temperatures and sea-level rise. These impacts will be felt differently across the country, across different sectors and communities.

Green businesses that can help address the causes of climate change include those that reduce greenhouse gas emissions and the use of fossil fuels (see below), and those that produce local products to replace things that are currently being imported (as importing goods requires the use of fossil fuels to transport them to Fiji).

Green businesses will also be needed to address the impacts of climate change, for example by making infrastructure less susceptible to flooding (e.g., by planting mangroves to protect shorelines) or by providing increased water security through new water management techniques and/or technology. Businesses could also include services to enhance the resilience of communities and businesses (e.g., with weather information services for the agriculture and tourism industries).



[Na Draki](#)²⁰ provides weather- and climate-related services to various clients, including those in the tourism industry.

Fossil fuel dependency

Fiji is heavily dependent on imported fossil fuels like petrol and diesel for transport and electricity. Fossil fuels contribute to air pollution and to global climate change, and pose a serious environmental hazard in the event of an oil spill. While Fiji's greenhouse gas emissions may be relatively small, the Government of Fiji is committed to decarbonising the economy, and shifting towards cleaner transport and energy generation systems.²¹

Green businesses that help reduce fossil fuel use include those supplying solar hot water and solar electricity systems, energy audit services that support businesses in saving energy, and providers of low-emission transport (e.g., bicycles, traditional sailing, electric cars and scooters, sail- and solar-assisted vessels).

Transforming transport and energy systems will also require many associated services – such as solar technicians, battery recycling, electric scooter and car technicians, e-transport charging infrastructure, traditional sailing experts, and information and communication technology experts.



[Clay Energy](#),²² [Greenco Energy Solutions](#),²³ [CBS Power Solutions](#),²⁴ [MV Solar](#),²⁵ and [Vision Energy Solutions](#)²⁶ provide solar solutions for communities, businesses, and residential customers.

20 Na Draki, <http://www.nadraki.com/>.

21 Ministry of Economy, Republic of Fiji, Fiji NDC Implementation Roadmap 2017-2030 (2017), https://www.reinfofiji.com.fj/wp-content/uploads/2017/11/FIJI-NDC-IMPLEMENTATION-ROADMAP_LOWRES.pdf.

22 Clay Energy, <https://clayenergy.com.fj/>.

23 Greenco Energy Solutions' Facebook page, <https://web.facebook.com/greencofiji>.

24 CBS Power Solutions, <http://www.cbspowersolutions.com/>.

25 MV Solar, <https://www.mvsolar.com.au/>.

26 Vision Energy Solutions, <http://www.visionenergy.com.fj/>.



Nanuya Island Resort has a solar array of 260 panels providing electricity for their tourism property in the Yasawa Group²⁷

Waste and the circular economy

The proper disposal of waste is a challenge in Fiji. Rubbish that is thrown on the ground or into the sea can contaminate water supplies, threaten wildlife, and just doesn't look very nice!

When waste makes it into a rubbish bin in an urban area, it generally goes to a landfill. Although it is better for the rubbish to be in the landfill than on the ground or the sea, there are still some issues because the landfill can also contaminate water supplies, generate methane (a greenhouse gas) when organic waste breaks down, and take up valuable space. Sometimes, waste is burned, but this is not a good solution because it causes air pollution and releases carbon emissions.

The best solution is to first reduce waste as much as possible, reuse any waste that you can, and then to dispose properly of the rest. It is particularly important to reduce single-use plastics such as straws, water bottles, and styrofoam containers, along with composting organic waste instead of sending it to the landfill.

Green businesses can help with the waste issue by using reusable instead of disposable items (like cups and plates), composting their organic waste, finding ways to reduce the amount of waste they produce, and making sure they dispose of their waste properly. Some business are fully established around addressing the waste issue – they may make or sell alternatives to single-use plastics (such as plates or food containers made from leaves or paper, or biodegradable plastic bags). Recycling companies that support the disposal and reuse of waste products can also help reduce the amount of waste going to landfill.

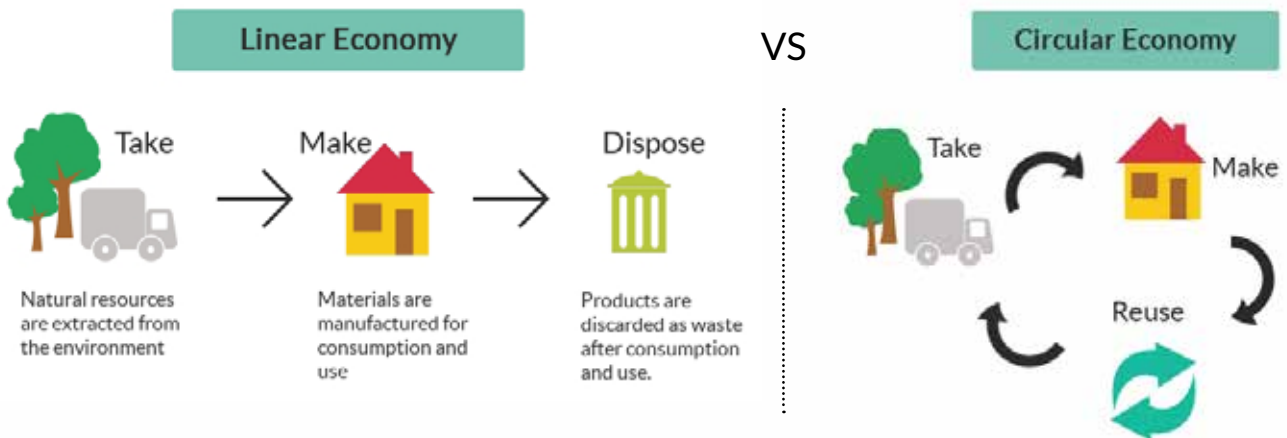


South Pacific Waste Recyclers²⁸ provides a recycling service to Suva businesses and reduces the amount of paper going to landfill. They also produce Nabawan Toilet Tissue using recycled paper.

Another way that green businesses can address waste is by creating a more circular economy – that is, by using the waste products of another industry or business as their input. Currently, our society is mostly linear – we use raw materials to make products and then dispose of them at the end of their useful life. This has been described as the “Take – Make – Dispose” economy. To create a more sustainable circular system, green businesses can make new products from existing waste products, reducing overall waste.

²⁷ Photo credit: Matt Capper.

²⁸ South Pacific Waste Recyclers, <http://www.southpacificwasterecyclers.com.fj/>.



The linear economy vs the circular economy²⁹



[This short video](#)³⁰ describes the evolution of thinking about the environment and the business world.



[Waitika Farm](#)³¹ in Ra makes a variety of honey products, including beeswax wrappers that can be used in place of disposable plastic wraps.

[Sole Rebels](#)³² is an Ethiopian company that makes shoes from recycled materials.



Sole Rebels manufactures shoes from recycled products and describes itself as “Green by Heritage”³³

29 Graphics by Margaret Seravatu, GGGI.
 30 YouTube video: HSGUniStGallen, “Little Green Bags: True Business Sustainability,” 9 March 2016. <https://youtu.be/AEFqUh4PMml>.
 31 Waitika Farm’s Facebook page, <https://web.facebook.com/Waitika-Farm-589613347735089>.
 32 Sole Rebels, <https://www.solerebels.com/>.
 33 Source: Sole Rebels, <https://www.solerebels.com/>.



Addressing challenges the Pacific way!

Many of the traditional ways of farming, fishing, carrying and packaging items, and constructing homes and boats are inherently sustainable and use natural materials such as leaves, vines, grass, wood, and bamboo.

As Fiji has become increasingly part of the global system, people have shifted away from using local resources to being dependent on mono-cropping in agricultural systems, and to using imported goods such as plastics from around the world for packaging and decoration. A move to a more sustainable economy and society may mean learning from the past, and re-introducing or re-adopting some of Fiji's traditional practices.



Replacing plastic bags and packaging with locally-sourced biodegradable material can reduce the volume of non-biodegradable waste and provide income-generating opportunities locally³⁴

34 Photo credit: Kristin Deason