



## Sewage in Our Seas: *Unmonitored and Unregulated*

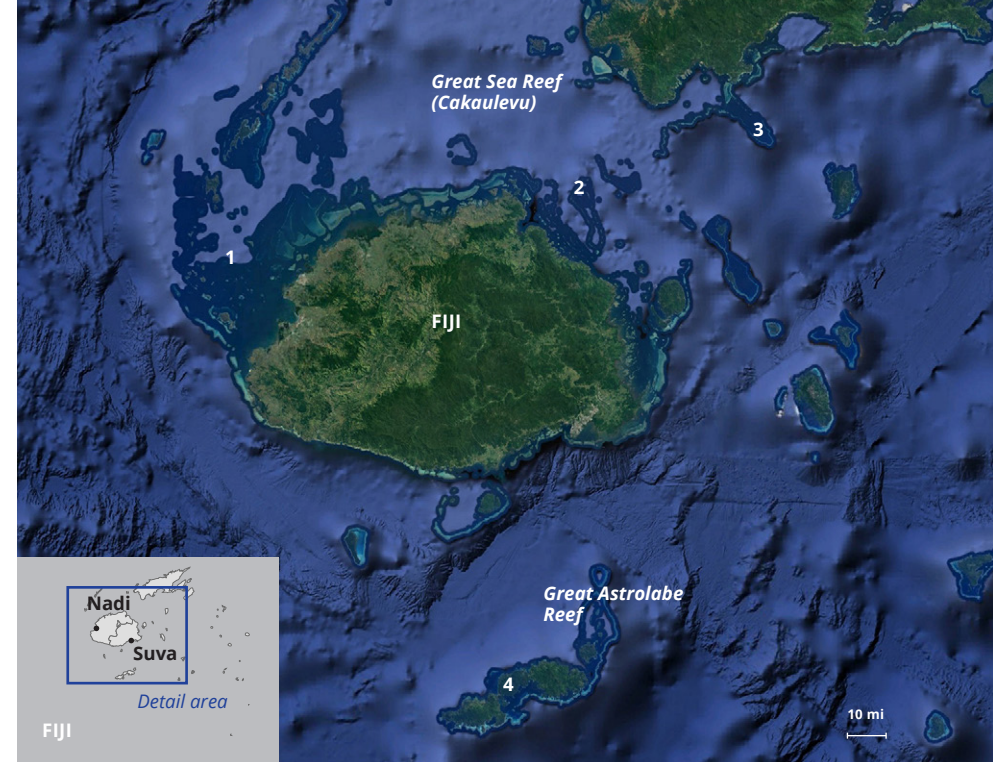
### CASE STUDY

# Fiji

There is no systematic monitoring of coastal water quality in Fiji. While the Environmental Management Act of 2005 gives the Ministry of Waterways and Environment (MWE) the authority to monitor and regulate coastal water quality, the agency does not have the capacity to do this systematically. There are other operational water laboratories in Fiji, including at the Water Authority of Fiji, the Fiji Ministry of Health and Medical Services, and the Institute of Applied Sciences at the University of the South Pacific, which could be engaged for more regular monitoring.

### COUNTRY OVERVIEW

With a population of 850,000, Fiji is one of the most populated island nations in the South Pacific. Indigenous Fijians own 87 percent of the country's land, with leases on land administered by the iTaukei Lands Trust Board (TLTB). According to the Fiji Hotel and Tourism Association, tourism contributes more than 40 percent of gross domestic product. Fiji is home to Cakaulevu Reef (also known as the Great Sea Reef), one of the largest barrier reefs in the Southern Hemisphere. The major reefs of Fiji also include the barrier reefs around Namena and Vatu-i-Ra islands on either side of the Vatu-i-Ra Passage, the Great Astrolabe Reef (also a barrier reef) at Kadavu, and the Nuku Reef in the Mamanuka Island Group of Fiji.



(facing) Development in Nadi, Fiji. Source: iStock / tobiasjo; (above) Satellite view of Fiji islands. Labeled islands: 1. Mamanuka Islands, 2. Vatu-i-Ra, 3. Namena, 4. Kadavu. Source: Google Earth; Foraging for seafood on the reef, Fiji. Credit: iStock / Peacefoo

## Only 21% of households in Fiji are connected to a piped sewer system.

### POLLUTION SOURCES

Coastal development is a major threat to Fiji's reefs. Logging is an ongoing challenge and contributes to sediment flows into reefs. The Fiji Department of Forestry has set the goal of preserving 40 percent of remaining natural forest (about 20 percent of Fiji's original natural forest), but the country lacks capacity for forest and land management. Sewage is another threat to Fiji's reefs. As of the 2017 census, 21 percent of households in Fiji were connected to a piped sewer system and 63 percent were connected to a septic tank system. The remaining 16 percent of households surveyed rely on various forms of pit latrines.

### WATER QUALITY MONITORING

There is no regular monitoring of coastal water quality by the MWE or any other government agencies in Fiji, though some spot water quality monitoring is done as required for environmental impact assessments (EIAs) and development permits. The Water Authority of Fiji (responsible for water provision and wastewater services) does some monitoring of water quality for surface water sources in Fiji. The Water Authority of Fiji operates 11 wastewater treatment plants in Fiji. According to the Water Authority, effluent is treated based on standards set by local regulatory authorities or the World Health Organization prior to disposal to receiving waters, including the ocean.

### COASTAL WATER QUALITY MANAGEMENT

Fiji's Environment Management Act of 2005 requires an EIA prior to the approval of any "development activity or undertaking."<sup>1</sup> Each EIA must specify any significant environmental impacts from the proposed development activity, which would include impacts of any pollutants stemming from the activity on marine resources. The MWE reviews each EIA before approving any development activity. The MWE has the authority to require ongoing monitoring of environmental impacts from the developer as a condition of approval for any EIA. In theory, this gives the MWE the authority to regulate coastal pollutants and require ongoing monitoring of coastal water quality. In practice, there are

1. Any activity or undertaking likely to alter the physical nature of the land in any way, and includes the construction of buildings or works, the deposit of wastes or other material from outfalls, vessels or by other means, the removal of sand, coral, shells, natural vegetation, sea grass or other substances, dredging, filling, land reclamation, mining or drilling for minerals, but does not include fishing.

a number of challenges that limit the effectiveness of the permitting process, including no standard qualification requirements for EIA consultants and limited staffing resources to follow up on monitoring of permits approved with conditions.

### SUGGESTED RESOURCES

- Belson, K. (2018). *Paradise Threatened: Fiji's War Against Climate Change*. The New York Times.
- Burke et al. (2011). *Reefs at Risk Revisited*. World Resources Institute.
- Fiji Islands Environmental Management Act of 2005*
- Fiji: Ocean Health Index*
- Olson et al. (2010). *Priority Forests for Conservation in Fiji: Landscapes, hotspots and ecological processes*. Oryx, 44(1), 57–70.
- Population and Housing Census – Release 3. 2017. Fiji Bureau of Statistics*.
- Torres-Bennett, A. (2018). *As warming threatens reefs, fragile Fiji explores inland tourism*. Reuters.
- Water Authority of Fiji*

Fiji Reef. Credit: Jayne Jenkins / Coral Reef Image Bank

