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Nauru, Dietary Diseases

### **Nauru: Encouraging Change to Combat Obesity**

The Republic of Nauru is a 21-square-kilometer island nation in Micronesia with a population of approximately 10,800 (CIA World Factbook, 2023). Nauru faces obesity rates above 60 percent with widespread non-communicable diseases and a declining life expectancy rate. This issue is multifaceted, yet stems from the history of phosphate mining degrading their land and transitioning the culture towards a more “Westernized” diet. The country’s wealth once stemmed from extensive phosphate mining, but decades of extraction left lasting scars. By the late twentieth century, nearly 80 percent of Nauru’s surface was stripped of vegetation, exposing jagged coral pinnacles and leaving the land largely infertile and biologically barren (Gowdy & McDaniel, 1999; Northwestern University, n.d.). The ecological consequences included diminished soil fertility and fragile ecosystems exacerbated by water scarcity.

The collapse of domestic production of food products like native fruits and fish directly reshaped Nauru’s food system. In fact, there is no official form of commercial agriculture on the island. Where communities once depended on subsistence fishing and the cultivation of taro, pandanus, breadfruit, and coconuts, they now rely on imports that supply close to 90 percent of the nation’s food (FAO, 2012). These imports are overwhelmingly ultra-processed, and ultimately chosen because they are cheaper, calorie-dense, and easier to transport and store. Local markets are dominated by canned meats, instant noodles, refined oils, and sugar-sweetened beverages (Pacific Community, 2025), while fresh produce and whole grains are scarce, costly, and inconsistently available.

This nutritional shift has had severe health consequences. Nauru consistently ranks among the most obese countries in the world, with more than 60 percent of adults classified as obese and nearly one-third affected by type 2 diabetes (World Obesity Observatory, 2025). These conditions increase risks of cardiovascular disease, kidney failure, premature mortality, and other related non-communicable diseases.

Economic pressures compound the health and ecological challenges. Unemployment remains high, around 23 percent (CIA World Factbook, 2023), and national revenue is heavily dependent on Australian aid and the offshore processing of asylum seekers. Such reliance limits fiscal space for sustained public health or agricultural investment. At the same time, food dependency undermines cultural continuity. This means that younger generations grow up with processed imports in place of heritage foods, eroding traditional dietary practices once central to Nauruan life (Çenet & Ayşe, 2023).

These dynamics show that obesity in Nauru is not solely a medical issue but a structural one, rooted in the environmental degradation of their land, dependency on foreign imports, and cultural shifts. Efforts such as agricultural rehabilitation and nutrition education are valuable

solutions but are constrained by ecological realities and limited state resources. Addressing the crisis requires a policy capable of reshaping food availability and affordability. A targeted fiscal policy using tariffs on unhealthy imports and subsidies for nutrient-dense foods offers a strategy to improve the current system.

## **Existing Solutions**

Nauru has pursued a range of programs designed to improve food security and public health through the efforts of the community, government, and assistance from organizations like Pacific Community.

One area of intervention was nutrition education and school feeding programs. In 2021, the Department of Commerce, Industry, Trade, and Environment integrated dietary guidelines into school curricula, while also certifying cooks in food safety and balanced menu preparation (Department of Commerce, Industry, Trade & Environment: Nauru, 2021). These programs represent important steps in cultivating healthier habits among children, but their effectiveness was undermined by affordability as the cheapest foods available on the island remain ultra-processed imports. Without a shift in market dynamics, the education campaigns alone cannot overcome the financial and logistical barriers to consuming fresh produce and lean proteins.

Physical activity campaigns were also introduced to complement nutrition-focused efforts. For example, the “Walk Against Cancer” event in 2010 attracted widespread participation before being curtailed for security reasons, and grassroots exercise groups remain active (Aguirre). These programs are valuable for encouraging healthier lifestyles, yet like education efforts, they address only one dimension of the problem and do not alter the structural dominance of processed imports.

Another area of effort has focused on agriculture. The Nauru Climate Smart Agriculture Plan (NaCSAP 2021–2025) identifies four pillars—soil rehabilitation, water management, backyard gardening, and agroecological training—as the foundation for reviving limited domestic food production (Pacific Community & Government of The Republic of Nauru, n.d.). The establishment of the Max Dowedia Organic Learning Farm Centre in 2023, as part of the Pacific Organic Learning Farms Network, has expanded training opportunities in composting, crop rotation, and seed saving (The Kiwa Initiative, 2023). This farm serves as a learning center, enabling interested farmers to gain knowledge and skills in organic practices. Agricultural activities in Nauru are primarily subsistence-based. According to the most recent census, about 13% of households, totaling over 250, engage in some form of food cultivation (Republic of Nauru, 2014). Community-level initiatives like the learning centre, including backyard gardening supported through micro-grants and workshops, have successfully attempted to reconnect and encourage more households toward self-sufficiency and growing traditional food crops.

Agricultural and sustainable initiatives and approaches like these were beneficial to the community and ecosystem but can be projected to complications in the long run due to the nature of their current environment. Nearly 80 percent of Nauru’s land remains infertile due to

phosphate mining, leaving only narrow strips of coastal soil suitable for cultivation (Gowdy & McDaniel, 1999). Even where soil rehabilitation is attempted, the process requires significant resources, long time frames, and consistent water inputs that the island cannot guarantee. Nauru's water supply is almost entirely reliant on costly desalination or imports, as rainfall is irregular and groundwater is minimal (Pacific Community, 2007). This scarcity limits irrigation options, constraining both backyard gardening and larger-scale farming projects. Although the NaCSAP outlines strategies to adapt to these conditions, ecological realities sharply reduce the potential scale of local food production.

Barriers such as infertile soils, water scarcity, and import dependency constrain what these initiatives can achieve on their own. They also reveal the importance of linking future reforms to existing programs. For instance, revenue generated from fiscal policy could directly support NaCSAP's soil rehabilitation and backyard gardening pillars, while also funding nutrition education that aligns with price incentives for healthier foods. In this way, a targeted tariff-and-subsidy plan would not replace existing efforts but rather enhance and integrate them. This would address the market imbalance that continues to drive Nauru's dependence on unhealthy imports.

## **Recommendation**

Nauru's food environment cannot be transformed by education or agricultural projects alone; it requires a structural reorientation of prices to make healthier foods more affordable and unhealthy imports less attractive. By altering the relative affordability of foods, the policy would leverage price sensitivity to shift consumer demand. This strategy would impose higher import duties on ultra-processed foods while simultaneously subsidizing nutrient-dense staples.

Defining "healthy" and "unhealthy" foods must be grounded in scientific criteria rather than subjective preference. The World Health Organization (2018) defines a healthy diet as one that limits free sugars to less than 10 percent of total energy intake, keeps fats below 30 percent (with saturated fat less than 10 percent and trans fats less than 1 percent), restricts sodium intake to under 2 grams per day, and emphasizes fiber-rich foods such as fruits, vegetables, legumes, and whole grains. Using this standard, nutrient-dense foods of the region include brown rice, oats, cassava, papaya, bananas, and tuna, while ultra-processed foods such as instant noodles, canned corned beef, and sugar-sweetened beverages fall on the opposite end of the spectrum. "The Nutrition Source" from the Harvard T.H. Chan School of Public Health (2025) further emphasizes that whole grains improve metabolic health, reduce risk of non-communicable diseases, and provide sustainable energy, making them ideal candidates for subsidy.

To illustrate how the system might work in practice, consider current price levels. A one-liter bottle of soda retails for roughly AUD 1.50 in Nauru; applying a 50 percent tariff would increase the price to around AUD 2.25. Economic evidence shows that this level of price change can meaningfully reduce consumption, particularly among price-sensitive populations (Andreyeva et al., 2022; Walby et al., 2024). In contrast, nutrient-rich bananas are not produced domestically as Nauru reported zero banana exports in 2023 according to the Observatory of

Economic Complexity (OEC 2025). So, all bananas must be imported which raises their cost due to transportation and supply chain markups. Imported bananas typically sell for approximately AUD 1.30–1.80 per kilogram at retail outlets, though prices fluctuate depending on shipping costs and availability (Campos, 2025). A 50 percent subsidy could lower the consumer price to about AUD 0.65–0.90 per kilogram, making these fruits more accessible while offsetting the high import burden. Similarly, brown rice, another imported staple costing roughly AUD 6–8 per kilogram, could be reduced to AUD 4–5 per kilogram through targeted subsidies and duty reductions (Campos, 2025; Walby et al., 2024). These pricing adjustments, while modest individually, could cumulatively shift household food baskets toward nutrient-dense, healthier options, aligning with WHO dietary guidelines.

Revenue generation is also a central component of the strategy. Tariffs on ultra-processed imports would raise funds that can be secured into a Health and Food Security Fund. As the World Trade Organization (2006) notes, tariff revenue is a stable and legally recognized source of government financing, particularly in small economies where income and sales taxes are limited. These revenues would then finance subsidies for nutrient-dense imports and support existing initiatives such as the Organic Learning Farm Centre (Pacific Community, 2024) and the Climate Smart Agriculture Plan (Pacific Community & Government of Nauru, n.d.). By recycling funds from unhealthy to healthy foods, the fiscal strategy achieves both revenue neutrality and health promotion.

### **Global and Regional Evidence**

The effectiveness of fiscal measures in shaping dietary patterns is well established in global research. A systematic review and meta-analysis titled “Evaluation of Economic and Health Outcomes Associated with Food Taxes and Subsidies” from the JAMA network (Andreyeva et al., 2022) analyzed multiple real-world and simulated price interventions. The study found that a 10 percent reduction in the price of fruits and vegetables increased consumption by roughly 20 percent, while a 10 percent tax on sugar-sweetened beverages reduced intake by 15 percent. This demonstrates the measurable impact of price changes on dietary behavior. These elasticity estimates are particularly pronounced in low- and middle-income settings, where consumers are highly price-sensitive. This global evidence is directly relevant to Nauru, where reliance on imports and limited household incomes mean small shifts in affordability can quickly reshape demand.

“Food Tax Policies in Pacific Island Countries and Territories: Systematic Policy Review” (Walby et al., 2024) from the *Public Health Nutrition* Journal published by the Cambridge University Press reviewed food tax policies across the Pacific. The study systematically identified and analyzed 279 individual food taxation policies by reviewing legislation, government reports, academic literature, and consulting key informants from each PICT. The review found that 14 Pacific Island Countries and Territories (PICTs) had food taxation policies, with 5 introducing excise taxes. Excise taxes can be imposed on a specific good which the manufacturer, importer, retailer, and consumers pay (IRS). Notably, Fiji's policy of removing tariffs on root crops and imposing taxes on sugar-sweetened beverages was highlighted as a successful example. This approach led to increased consumption of nutritious local foods and

supported domestic production, demonstrating the practical feasibility of such policies in a similar regional context. These findings suggest that a well-designed tariff and subsidy scheme can generate real health improvements while reinforcing traditional diets. The study provides valuable insights into the implementation and outcomes of food taxation policies in the Pacific region.

Nauru's food choices are also deeply shaped by regional trade flows. Much of its food supply originates in Australia, New Zealand, and Fiji, which dominate shipping routes in the Pacific (FAO, 2024). As a result, fiscal measures must align with regional import patterns, ensuring that subsidies cover widely traded healthy staples such as root crops, fruits, and whole grains that are available from neighboring countries. This regional integration not only ensures consistent supply but also strengthens trade partnerships across the Pacific. These examples show that Nauru's proposed fiscal strategy is not theoretical but grounded in established economic and health evidence. By following WHO's definition of nutrition and leveraging tariff revenues responsibly, the government can reorient the food environment in a way that aligns health goals with economic stability and cultural identity.

### **Challenges and Mitigation**

While the proposed fiscal strategy holds promise, its implementation in Nauru would inevitably face a series of challenges. One of the most immediate concerns is equity. Tariffs on ultra-processed imports would likely raise the price of popular staples such as instant noodles and canned meats. This would disproportionately affect low-income households that rely on these items for affordable calories. From the JAMA Network *"Evaluation of Economic and Health Outcomes associated with Food Taxes and Subsidies"* (Andreyeva et al.) warns that poorly designed fiscal policies can increase food insecurity if subsidies are not sufficient to offset rising costs. To prevent this, Nauru's government would need to ensure that tariff revenues are recycled into subsidies targeted at affordable and accessible nutrient-dense foods, such as subsidizing rice, bananas, and root crops. Additional mechanisms such as food vouchers for vulnerable households could further reduce regressivity.

Another significant challenge is consumer resistance. Dietary preferences in Nauru have shifted over decades of reliance on imported processed foods, creating cultural familiarity with items like corned beef and soft drinks. Shifting these preferences will not happen overnight. Behavioral economics suggests that simply making healthier foods cheaper is not enough; policies must be accompanied by public information campaigns that emphasize cultural pride in traditional diets and demonstrate the taste, convenience, and health benefits of healthier alternatives (CDC, 2024). Cooking demonstrations in schools and church-based outreach could help bridge the gap between policy intent and everyday food choices. Past campaigns like the *Walk for Cancer* event in 2010 or the Max Dowedia Organic Learning Farm reflect the goals and willingness of the community to combat obesity and other related health challenges in a healthy and sustainable way.

Administrative capacity also poses a risk. Managing tariffs and subsidies requires accurate nutrient profiling, transparent customs enforcement, and effective fund distribution.

Nauru's government has historically struggled with limited bureaucratic capacity and dependence on foreign aid (CIA, 2023). However, partnerships with regional organizations such as the Pacific Community and technical assistance from FAO could help address these gaps.

The broader structure of Nauru's food economy introduces further complexities. Because over 90 percent of the country's food is imported (FAO, 2012), fiscal measures are highly dependent on the cooperation of regional suppliers. If tariffs make some processed foods less profitable, importers may reduce shipments, creating risks of supply disruptions. To mitigate this, the government should phase in tariffs gradually, starting with a narrow set of products such as sugary drinks and canned meats before expanding to other categories. This would allow time for supply chains to adjust and for consumer habits to begin shifting.

## **Conclusion**

Nauru's overlapping crises of obesity and environmental degradation demand solutions that are practical as well as multi-faceted. Existing efforts in nutritional and agricultural education, as well as sustainable and organic farming have already laid an important foundation for community resilience. However, although the people of Nauru want to move forward in making healthier choices, their markets are still saturated with the same unhealthy foods and pricing them out of healthy choices leaving most families with no other choice. Without making healthy foods more affordable, these initiatives cannot achieve their full impact.

A targeted fiscal policy that taxes unhealthy imports while subsidizing nutritious alternatives offers the strongest way forward. By defining healthy diets through WHO standards, channeling tariff revenues into subsidies and agricultural projects, and aligning with regional trade systems, Nauru can shift consumer choices while reinforcing local food production. Evidence from regional examples such as Fiji shows that such policies can work in contexts marked by high health burdens and limited resources.

The challenges such as equity, political will, supply chains, and capacity are significant, but they are not insurmountable. With phased implementation of the fiscal plan, a strong engagement from the community and other stakeholders this strategy could be effective. This approach represents a decisive step toward reclaiming food sovereignty, and building a healthier, more sustainable future for Nauru.



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