



15. Nikunau



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SUMMARY OF MAIN SOCIOECONOMIC INDICATORS – NIKUNAU

	Nikunau					All other outer islands					South Tarawa including Betio					All Kiribati				
	2005		2010			2005		2010			2005		2010			2005		2010		
Population (Census)	1,912		1,907			50,310		50,969			40,311		50,182			92,533		103,058		
Percent of national population	2.1%		1.9%			54.4%		49.5%			43.6%		48.7%			100%		100%		
Land area, km ²	19.08		19.08			691.5		691.5			15.76		15.76			726.34		726.34		
Population density, people per km ²	100		100			73		74			2,558		3,184							
Population growth			2005-10					2005-10					2005-10					2005-10		
Annual rate of growth of population, %			-5					659					9,871					10,525		
			-0.1%					0.3%					4.4%					2.2%		
	<15 years	15-30	30-45	45-60	over 60	<15 years	15-30	30-45	45-60	over 60	<15 years	15-30	30-45	45-60	over 60	<15 years	15-30	30-45	45-60	over 60
Population by age group	794	389	365	228	131	19,271	13,535	9,138	6,012	3,013	17,119	15,784	8,959	5,813	2,507	37,184	29,708	18,462	12,053	5,651
Population by age group, %	42%	20%	19%	12%	7%	38%	27%	18%	12%	6%	34%	31%	18%	12%	5%	36%	29%	18%	12%	5%
Number of private households	2005		2010			2005		2010			2005		2010			2005		2010		
Number of persons in private households	335		365			8,419		8,973			5,245		6,705			13,999		16,043		
Average household size	1,912		1,858			47,546		48,852			39,186		49,250			88,644		99,960		
	5.7		5.1			5.6		5.4			7.5		7.3			6.3		6.2		
	Labour market activity, people 15+					Labour market activity, people 15+					Labour market activity, people 15+					Labour market activity, people 15+				
	Cash work - formal	Cash work -market oriented	Voluntary or subsistence work	Unemployed	Not in labour force	Cash work - formal	Cash work -market oriented	Voluntary or subsistence work	Unemployed	Not in labour force	Cash work - formal	Cash work -market oriented	Voluntary or subsistence work	Unemployed	Not in labour force	Cash work - formal	Cash work -market oriented	Voluntary or subsistence work	Unemployed	Not in labour force
Labour force status	141	190	1	73	115	4,705	3,476	0	4,553	12,015	8,594	2,487	0	6,826	13,545	13,440	6,153	0	11,452	25,675
Labour force status %	27%	37%	0%	14%	22%	19%	14%	0%	18%	49%	27%	8%	0%	22%	43%	24%	11%	0%	20%	45%
	Education attainment, people 15+					Education attainment, people 15+					Education attainment, people 15+					Education attainment, people 15+				
	No school completed	Primary leaving certificate	Form 3 certificate	Senior secondary certificate	Post secondary study or qualification	No school completed	Primary leaving certificate	Form 3 certificate	Senior secondary certificate	Post secondary study or qualification	No school completed	Primary leaving certificate	Form 3 certificate	Senior secondary certificate	Post secondary study or qualification	No school completed	Primary leaving certificate	Form 3 certificate	Senior secondary certificate	Post secondary study or qualification
Education attainment	85	494	190	267	77	4,110	11,364	7,133	8,437	654	2,418	8,125	7,570	13,626	1,324	6613	19983	14893	22330	2055
Education attainment %	8%	44%	17%	24%	7%	13%	36%	23%	27%	2%	7%	25%	23%	41%	4%	10%	30%	23%	34%	3%
Literate in [te taetae ni] Kiribati %			2010					2010					2010					2010		
			88%					90%					93%					91%		

PHYSICAL FEATURES

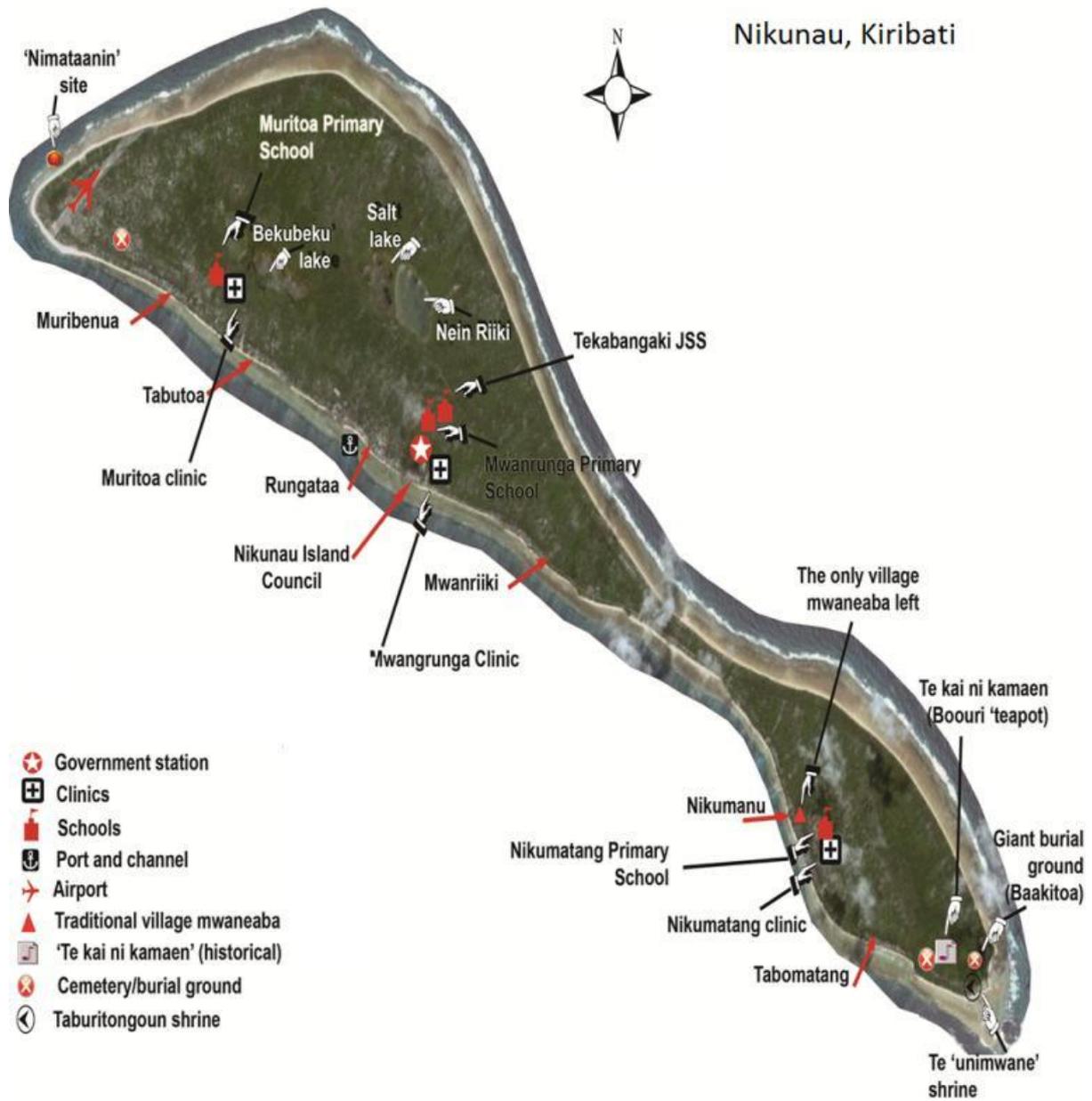
Nikunau is one of the southern islands in the Gilbert group. It has an area of 17.63 sq.km. It is about 14.12 km from one end to the other and is 2.6 km wide at its widest point, and 0.26 km at its narrowest. The island is split into two parts connected by a narrow strip of land in the middle. The northern part accommodates the main service infrastructures such as the Council offices, airstrip, seaport and the villages of Muribenua, Tabutoa, Rungataa and Mwanriiki. The southern part accommodates the remaining two villages of Nikumanu and Tabomatang. The Nikunau Island Council is located at Bukerua in the village of Rungataa.

Nikunau has several landlocked, hyper-saline lagoons located within the island, measuring about 0.3 km² in area. The largest of these is called 'Riikis lake', north of Riiki's lake are 'Kabangaki' also known as the 'Salt lake', 'Bekubeku' and 'Tabakea' lakes. The island is surrounded by a narrow fringing reef while the tip of Nikunau, located near the airstrip, has the largest waves on the island and is the point where two tides meet, clashing one wave with another, thus creating amazing tides, waves, and currents.

Nikunau, like most of the outer islands has one main road that run along the island with sidetracks into the bush and other areas of the island. Due to its width, the road runs along and around the two parts of the island.

The Island Council (Government station) is located at Rungataa along with the medical centre, Mwanrunga Primary School, Tekabangaki JJS next to it and most of the Government and Council infrastructures such as Police headquarters, mechanical workshops, and rest-house etc. Medical and teaching facilities are shared between two villages thus Muribenua and Tabutoa (Muritua), Rungataa and Mwanriiki (Mwanrunga) and Nikumanu and Tabomatang (Nikumatang) share a primary school, a medical facility and a preschool. The airstrip is located north of the northern village of Muribenua.

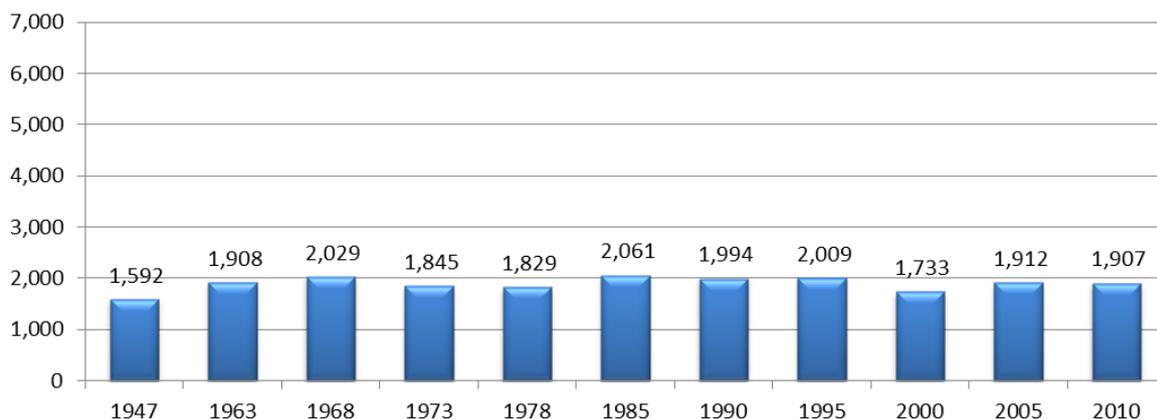
Figure 15-1: Map of Nikunau



POPULATION

The population of Nikunau in the 2010 census was 1,907 which is almost exactly the same as the population in 2005 of 1,912. The population of Nikunau has in fact been stable for decades, the current population being basically equal to the population in 1963 of 1,908 people.

Figure 15-2: Nikunau population 1947-2010



Nikunau has a combined land area of 19.08 square kilometers and a population (in 2010) of 1,907, giving a population density of 100 people per square kilometer. Compared with other islands in Kiribati, Nikunau is the 16th most densely populated island.

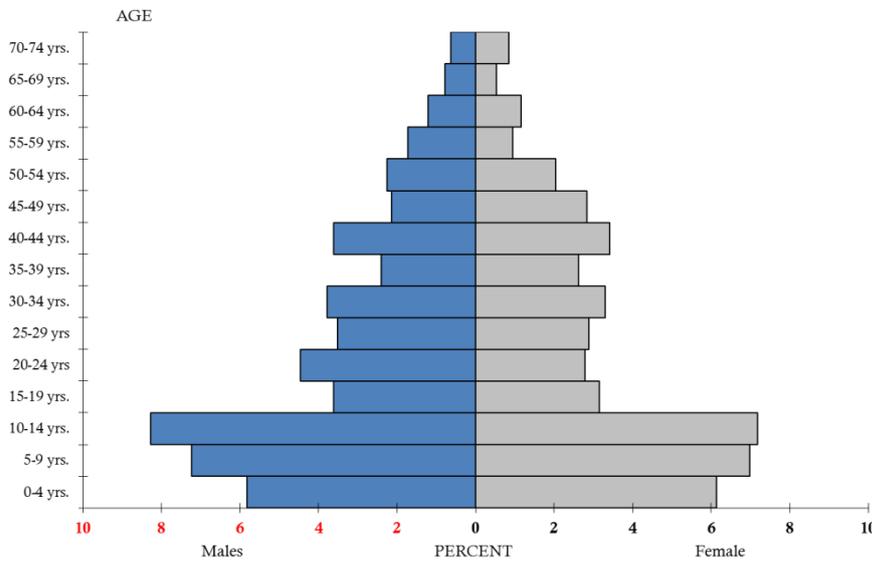
Over half of Nikunau's population (976 people) live in the village of Rungata. Rungata is also the location of the port and channel. The Island Council office, the schools Mwangrunga Primary and Nikunau JSS, and the island's main clinic are located partway between the village of Rungata and neighboring Manriki.

Table 15.1: Nikunau population by village

Nikunau	Village	Population
	Muribenua	240
	Tabutoa	154
	Rungata	976
	Manriki	184
	Nikumanu	265
	Tabomatang	88
Nikunau total population		1,907

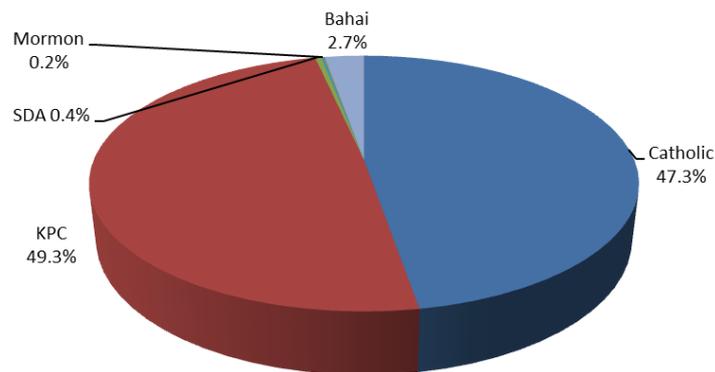
The age distribution of Nikunau's population is quite unusual, although this may not be especially significant given that the island's total population is quite small. The largest single group is young people aged 10-14 years who make up 15% of the population. There are very few young people aged 15-19, probably because there is no secondary school on Nikunau so many people in this age range will have left Nikunau to attend school on other islands. In most age ranges there are slightly more men than women, apart from the elderly

(those aged over 70) where women outnumber men. Overall there are 993 men and boys on Nikunau, and only 914 women and girls.



Roughly half the population of Nikunau are members of the KPC Protestant Church, and half are Catholic, with only a few members of other religions on the island.

Figure 15-3: Nikunau population by religious affiliation



Data source: 2010 Census

Most people living on Nikunau also identify Nikunau as their home island (1,586 people out of a population of 1,907). There were also 316 people from other islands of Kiribati and 5 foreigners living on Nikunau at the time of the 2010 Census.

However many people who identify Nikunau as their home island live elsewhere in Kiribati, in fact there are more people living on South Tarawa who identified themselves in the Census as “from Nikunau” (2,210) than there are people living on Nikunau whose home island is Nikunau (1,586). Overall, about a third of people living in Kiribati who identify themselves as being “from Nikunau” lived on Nikunau at the time of the 2010 census, a third lived on South Tarawa and another third lived on another outer island of Kiribati.

Table 15.2: People whose home island is Nikunau, by place of residence at 2010 Census

	Home island is Nikunau	From another island of Kiribati	From another country	Total: Population of Nikunau
Live on Nikunau	1,586	316	5	1,907
Live on another outer island	1,221			
Live on South Tarawa	2,210			
Total: People living in Kiribati who are from Nikunau	5,017			
	% of people identifying as 'from Nikunau' who live on Nikunau			32%

Data source: 2010 Census

LAND AND MARINE RESOURCES

LAND RESOURCE

The main resources of Nikunau, like the rest of the islands of Kiribati, are its limited tree resources predominantly coconut trees, pandanus and breadfruit, and its marine resources. The climate is dry so breadfruit trees, and other trees such as pawpaw and banana, must be grown close to the houses so they can be cared for in times of drought. Most households cultivate *bwabwai* (swamp taro) on family lands away from the main villages. *Te bero*, a sort of local fig, is also an important food source on Nikunau though it requires a lot of preparation before eating.

Land is owned by individual landowners and inheritance is as willed by the parents. However, land can also be conveyed as gifts especially when one has done the landowner a big assistance such as in looking after an elderly till death because he was neglected by his own next of kin. Some can be given away to adopted ones who also can inherit lands from their own biological parents.

WATER RESOURCES

The only water source for drinking and sanitary purposes on the island are groundwater and to a small extent, rain. The 2010 census found that 57% (207) households use open wells as their main source of drinking water, 36% (131) households use closed wells as their main source of drinking water while a mere 4% (16 households) are using rainwater as their main source of drinking water. For washing, almost all households use groundwater.

MARINE RESOURCES

Nikunau has no lagoon, however it does have a large reef area and the deep waters around Nikunau provide abundant resources of migratory fish such as skipjacks and yellow fin tuna, flying fish, shark and oil fish. There are over 150 canoes on the island and about 20 boats, and most households (62%) fish in the open ocean as well as fishing, and collecting lobsters and shellfish, on the reef.

An important feature of Nikunau island is the tendency for schools of small fish ('ika buti') and octopus to be found in great abundance around the island on the reef every now and

then. These times of abundance in such marine resources are locally said to occur during times of drought or extreme heat which is a common climatic feature of Nikunau.

Issues facing fishing and development of marine resources include the following:

- Lack of fishing equipment
- Remoteness of the island makes it hard for them to access fish markets in South Tarawa
- Absence of an ice-plant has made salting, their only way of preserving fish
- Depleting ocean resources in the nearby ocean area (sea cucumbers)

ENVIRONMENT

The most threatening environmental issue on the island is coastal erosion, and flooding of land during high sea surges. Other issues also exist in the form of safe dumping of rubbish and lack of proper sanitation facilities that will not affect the water lens.

Flooding during high tides is not common on the island as it is higher than other islands. Nikunau is a reef island, without a lagoon and therefore tends to be higher than islands with lagoons. The whole capital village of Rungataa seems to have had seawalls erected over the years and some of these seawalls were built generations ago, which can only mean that the island has suffered coastal erosion for generations or the islanders picked up on land reclamation long ago.

Brackish wells are also a common occurrence during long periods of drought on the island. The people however have freshwater sites further inland. As a broad island, there is always an abundance of potable water further away from the eroding coastline.

Details of environmental issues identified by Nikunau participants at the 2011 Kiribati National Summit are included at the end of this report. Further detail including problem areas and sites of significance where coastal erosion, water shortages and other climate change impacts are being felt are available in the Nikunau Island Profile 2008.

ENERGY

The traditional form of fuel is firewood, mainly in the form of coconut husks, dry coconut leaves and dead wood of existing vegetation and trees. Firewood is never an issue on the island due to its limited population, vast coconut land and daily copra cutting.

The island is increasingly dependent on imported fuel as more households purchase outboard motors, motorbikes, generators and kerosene lamps and stoves. In 2011, Nikunau was supplied with 112,800 litres of unleaded petrol (*bentiin*), 9,600 litres of diesel and 9,600 litres of kerosene.

EDUCATION

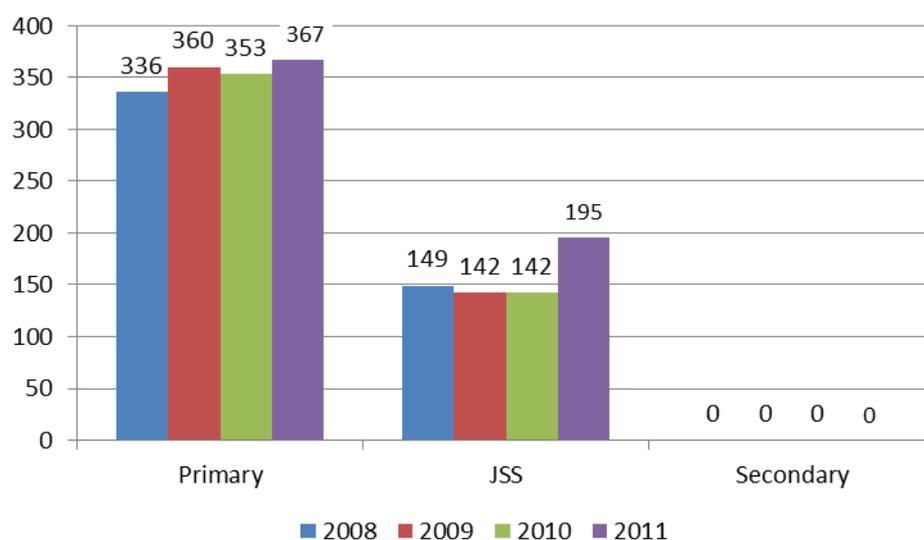
Nikunau has three primary schools and one junior secondary school. The three primary schools are strategically located at the most convenient locations for villages to each share a primary school. Muritua Primary School accommodates primary school children for the villages of Muribenua and Tabutoa, Mwanrunnga Primary School accommodates those from the villages of Mwanriiki and Rungataa while Nikumatang Primary School accommodates those from the villages of Nikumanu and Tabomatang.

Table 15.3: Nikunau primary school enrollments 2011

Nikunau	No. of Pupils			No. of Teachers		
	2011		Total	2011		Total
	F	M		F	M	
Muritua Primary School	33	28	61	3	0	3
Mwanrunnga Primary School	117	115	232	9	2	11
Nikumatang Primary School	32	42	74	3	0	3
Total	182	185	367	15	2	17

In 2011, a total of 367 children were enrolled in the three primary schools on Nikunau – Muritua, Mwanrunnga and Nikumatang Primary Schools. This number comprised 185 (50.4%) boys and 182 (49.6%) girls. School enrollments are relatively stable, though there was an increase in JSS enrollments in 2011 which is likely to be linked to the unusual age distribution of the population, with many young people aged 10-14 years.

Figure 15-4: School enrollments, Nikunau 2008-2011



Generally throughout the country, the JSS schools, which were all established in the late 1990s are in better/good conditions and adequately furnished while primary schools are generally lacking in status and furniture. Most classrooms are however, equipped with blackboards, the main teaching instrument for schools on the outer islands.

HEALTH

There are three health centers on the island namely, Muritua, Mwanruna and Nikumatang Health Clinics. Fortunately for the island, the EU health clinic construction project has already visited their island consequently resulting in three newly erected health clinics (pictured above) for the islanders. These new clinics accommodate the clerical and clinical office, the dispensary and the obstetric theatre in one building while the toilet is placed outside and separately from this main clinical building. The three clinics are all equipped with solar lighting and a motorcycle for out-patient visits.

In general, the people of Nikunau seem to enjoy good health as they only visit the clinic, on average, twice a year and are less likely to suffer from most illnesses. Conjunctivitis in the southern islands is common and is somehow connected with long periods of drought, most probably due to the high amount of dust resulting from the dry conditions of the islands. Diarrhea is also quite a common ailment throughout the islands in which all age groups are affected. Reasons for incidences of diarrhea are numerous but one of them includes the spread of waterborne diseases due to the way and life of the people and their dependence on a fragile water lens which is just underground in the village areas.

Smoking is very common on Nikunau; 59% of all adults (over 15) smoke “regularly” or “sometimes”. 30% of adults drink alcohol which is also a high rate in comparison with other islands of Kiribati.

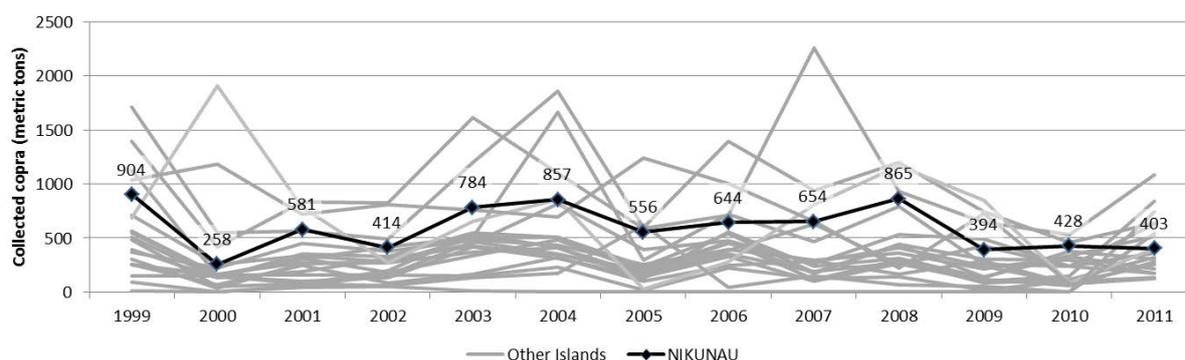
ISLAND ECONOMY

The economy of Nikunau is based on subsistence activities including fishing, toddy cutting, cultivation and harvesting of food crops mainly coconut, pandanus, breadfruit and bwabwai, weaving mats, making thatches, rolling string, fetching water, collecting firewood, making fish traps and hooks, cleaning and washing, cooking and house construction amongst others. Where most of the fishing was done for subsistence, it is now sold where there is a surplus or given freely to relatives, preserved for later consumption or sale. There was an ice plant constructed on Nikunau but this has been out of action for some years now, so preservation is by the traditional methods of salting and drying.

COPRA

Like the other outer islands of Kiribati, other than fishing, copra cutting is the mainstay of the people on Nikunau. Nikunau, like other Southern islands, is vulnerable to droughts, but the island's wide land feature means that the water lens in the centre of the island is not depleted even in severe droughts, enabling coconuts to grow well throughout these dry periods and thus provide a continuous though decreased copra harvest.

Table 15.4: Nikunau Copra Production 1999-2011



The best year of production for Nikunau was in 2008 when their production reached a tonnage of 865 tonnes bringing in an income of \$502,627, earning almost \$1,500 per household. On the other hand, its worst year of copra production was in the year 2000 when its annual production was 258 tonnes that brought in an income of \$116,100.

If droughts were the only reason for the variations in copra production, the copra charts would have provided good indicators for times of drought. However prices also have an impact on copra production, with the producer subsidy slowly increasing from AU\$0.30/kg in 1990 to AU\$0.80/kg in November 2011. Generally an increase in price will spur an increase in copra production, though this may not always be lasting.

AGRICULTURE

Agricultural activities are greatly hindered by drought at times restricting the activities of agricultural outreach workers to teaching home gardens, provision of pigs and chickens, animal health schemes, provision of seeds, seedlings (coconuts) and breadfruit cuttings, and coconut replanting schemes. Crops on Nikunau are basically limited to the traditional tree crops of coconut, breadfruit and pandanus (*te tou*), along with swamp taro (*bwabwai*) and a local fruit related to the fig (*te bero*).

Almost all households raise pigs and chickens, with most households (67%) having at least three local pigs. There are over 1,000 pigs, and over 1,200 chickens on the island, along with 343 dogs or on average one dog per household.

TRANSPORT

Island Council trucks provide the main transport for Primary and JSS students to and from their schools and for general use by the Council. Trucks are also available for hire by villagers. The most common form of land transport is the pushbike (67% of households have one or more pushbikes) followed by motorbikes and trucks.

Air Kiribati flies to Nikunau weekly on a Monday, although the ticket cost of \$170 one way is out of reach for most households except for essential trips. Boat travel is cheaper, but unreliable as there is no published schedule of boat visits and some boats lack safety equipment or are overloaded.

The issues of transportation include the following:

- Insufficient transport services to and from the island
- High cost of pushbikes, motorbikes and boats
- Lack of properly equipped mechanical workshops

Table 15.5 Environmental issues documented by Nikunau representatives at the Kiribati National Summit 2011

ISSUES	PROBABLE CAUSE/S	SOCIETAL IMPACT	REMEDIAL ACTION	SUSTAINABILITY (EFFECTIVENESS)
Water	drought	-well water turn brackish -availability of potable water at the centre of the island -kills vegetation and fruits are affected	-future plans for concrete cisterns -increase water catchment such as water tanks -water systems, overhead tanks and solar pumps -encourage iron roofing or aluminium roofing for dwelling -refer to KIRIBATI WATER AND SANITATION PLAN	-costly but sustainable
Coastal erosion	-surge storms -high tides -numerous seawalls	-threat to properties and welfare of the people -disturbance to settlements, arable land, coastal ecosystems and water lenses	-relocation of infrastructures (roads, buildings) -construction of seawalls	Costly and effective Costly and may have side effects
Marine issues ❖ Lack of fishing gear ❖ Remoteness to fish markets at South Tarawa	-low income	-unable to catch enough fish	-increase income generating projects -find solutions at village and council level	-viable projects and can sustain -once solved it can sustain

ISSUES	PROBABLE CAUSE/S	SOCIETAL IMPACT	REMEDIAL ACTION	SUSTAINABILITY (EFFECTIVENESS)
❖ Absence of ice-plants	-geographical set up	-unable to market commercial marine products		
❖ Depletion of sea cucumber at nearby ocean areas	-no funding availability -overfished	-salting only way to preserve fish -decrease in income	-devise project thru island council -breeding of sea cucumbers	-can sustain when approved -takes time
Agricultural Activity	-superficial commitment to AA -shortage of feed for pigs/piglets due to delay in receiving orders from abroad -limited funding -mismanagement of livestock -pigs slaughtered before they are bred	-no balance diet -no supply of land protein	-increase awareness and importance of livestock and agricultural activity through Agricultural Division and Taiwan Technical Mission -provide funding - use of local plants, marine seaweed mixed with breadfruit to supplement imported feed	-it can be sustained -Can be done, cheap and sustainable, needs creativity

