



9. Kuria



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PHYSICAL FEATURES

Kuria is made up of two islets with the main islet consisting of Marenaua, Bouatoa, Buariki, Tabontebike and Norauea villages. These villages are connected to Oneeke by a ten meter bridge replacing the old causeway that ran across the former reef passage between the two islets. The two islets are relatively wide as compared to most islands in the Gilbert group. The widest portion measures 4.26 km from lagoon to the ocean side and the length from north south is 8.94 km. There are two natural two brackish-water ponds at east-southern tip of the main islet. The total land area of Kuria is of 15.48 sq.km, which is close to the average size for an island of Kiribati, but the population in 2010 was fewer than 1,000 people, making Kuria one of the least populated islands in Kiribati.

Five villages lie alongside the shoreline of the main islet, one is at Oneeke (see map for details). A causeway (now replaced with a bridge) connecting two islets is presumed to cause the disappearance of 'te anaa', a short mouthed garfish (*Euleptorhanphys viridis*) that was abundant before the closure of the passage.

A gravel road stretches across and around Kuria main islet, and another around Oneeke. These provide access to most inner parts of both islets.

Kuria has no lagoon, hence shellfish are scarce but reef fish and other marine resources are plentiful. Fish are abundant despite ciguatera which is present on the western reefs of the main islet and makes some species toxic for human consumption. Kuria is well known for greasy and fatty fish; the popular humped back red snapper (*Lutjanus gibbus*) and black trevally (*Caranx lugubris*). Locals attribute the deliciousness of their fish to a reddish/orange algae that is found in the sea of Kuria at certain times of the year. The appearance of the reddish algae according to locals is an 'oily season'; all fish this time are fatty and oily.

POPULATION

The population of Kuria in the 2010 census was 980; this is 1% of Kiribati's total population.

Compared to the 2005 population of 1,082, the population seems to be declining but the long term trend is for Kuria to have a stable population of around 1,000 people.

Figure 9.1: Kuria Population 1947-2010

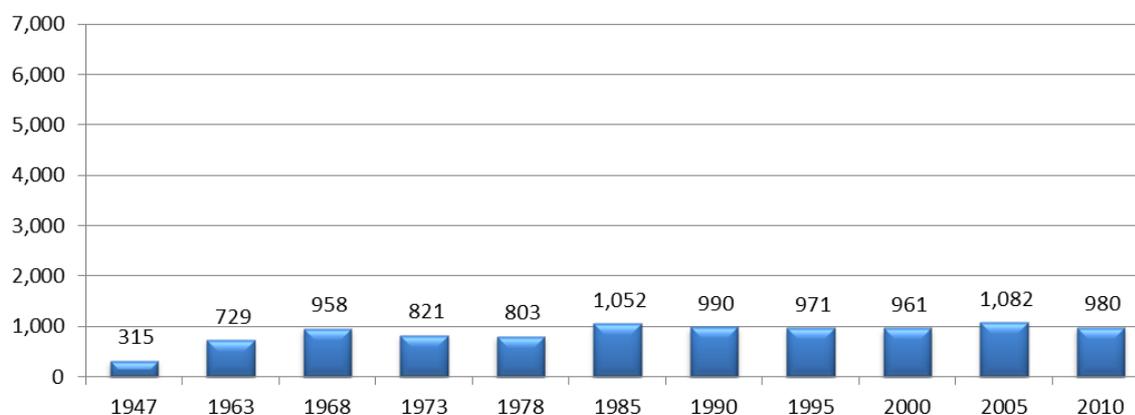
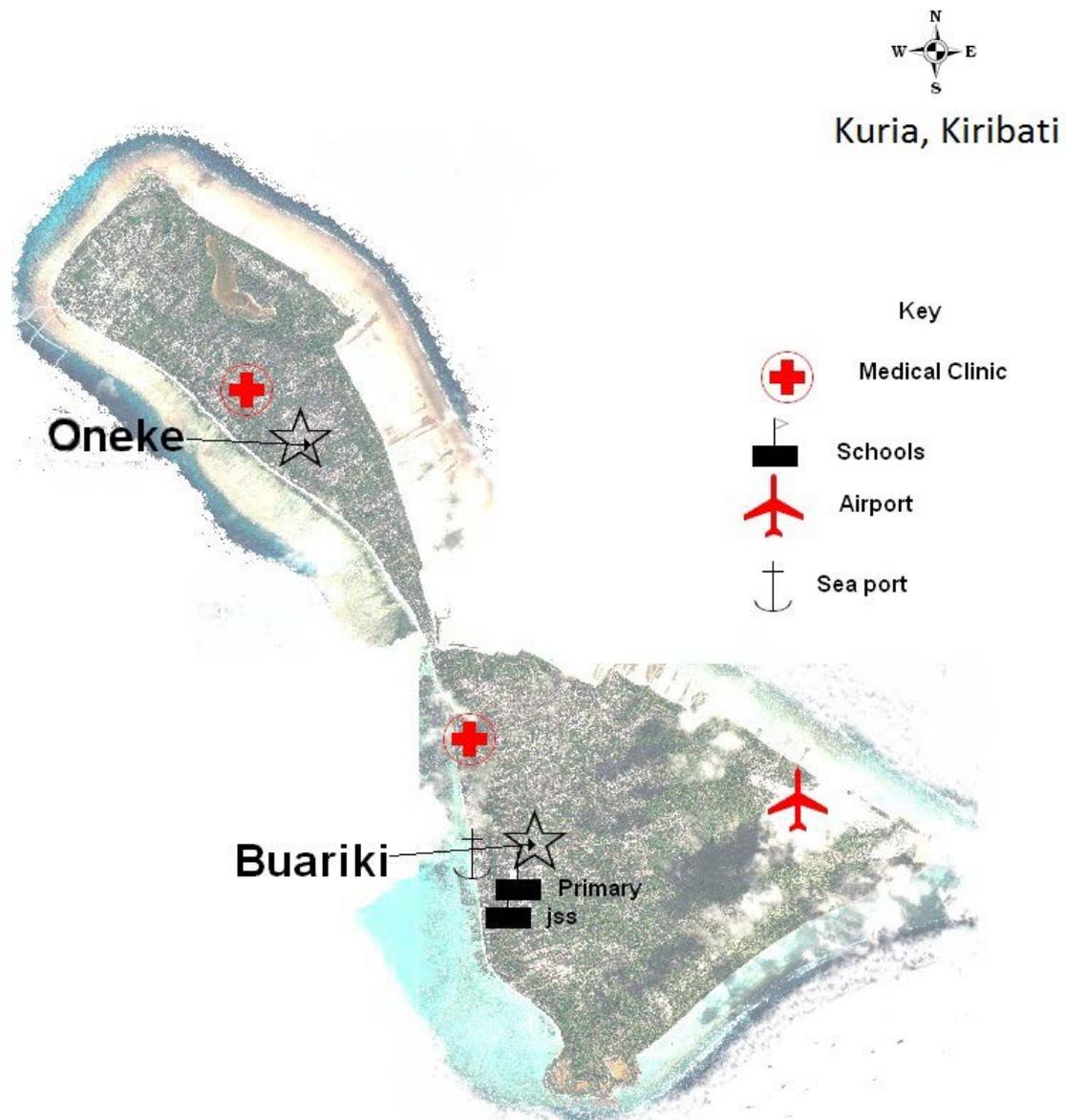


Figure 9.2: Map of Kuria



Note: Refer to Kuria Island Profile 2008 for problems areas and sites of significance.

Kuria has a combined land area of 15.48 square kilometers and a population (in 2010) of 980, giving a population density of 63 people per square kilometer. Compared with other islands in Kiribati, Kuria is one of the least densely populated islands.

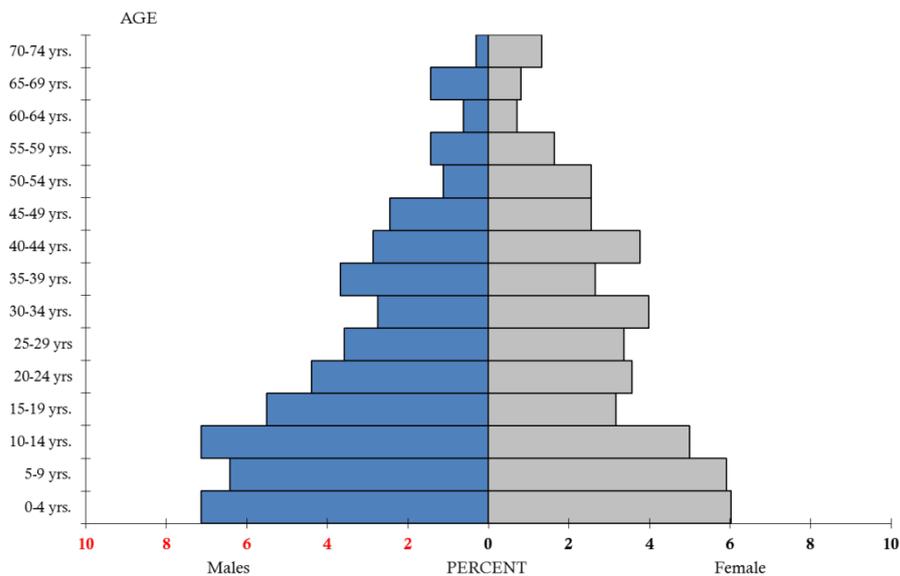
The most populous village is Norauea followed by Marenaua. These two villages are on the main islet of Kuria, are most accessible to Bouatoa village which is the location of the Kuria Island Council and the main hub for Island Council and government businesses and services.

Table 9.1: Kuria Population by Village 2010

Kuria	Village	Population
	Oneeke	154
	Manenaua	191
	Tabontebike	91
	Buariki	169
	Norauea	247
	Bouatoa	128
Kuria total population		980

There are 190 households in Kuria, and the average household size is 5.2 people. The age structure of the population is relatively even, which is consistent with a stable overall population. It is interesting that there are more young boys on Kuria than young girls, and more older women than older men; however this is probably a random effect because the population is quite small.

Figure 9.3: Kuria Population 2010 by Age and Sex



LAND AND MARINE RESOURCES

LAND RESOURCES

Poor soil limits the number of agriculture crops that can be grown, but many households cultivate banana and pawpaw and some have gardens growing cabbage and other crops for their own consumption. The sparse population means people have access to coconut trees, pandanus and breadfruit, and most families cultivate *bwabwai* (swamp taro) in plantations which can be scattered quite widely around the island.

WATER

The only and main water source for drinking and sanitary purposes on the island is groundwater. Only 2% of households use rainwater for drinking as most houses are of local construction with thatched roofs which are not suitable for collecting rainwater.

Supply of water from the wells are dependent on the amount of rainfall that falls and Kuria, located in the central group, still suffers from drought but not to the extent that the southern islands suffer. Still, water becomes an issue during times of drought when the freshwater lens sitting atop the seawater in wells is depleted without rain restoring the lens.

MARINE RESOURCES

With land resources so scarce, locals rely on the island's abundant marine resources for their livelihood. Fishing catches are generally used for subsistence living only, surpluses are either shared with neighbors, sold to local consumers mostly government and island council workers, or teachers of both primary and junior secondary schools.

Table 9.2: Size of Reef/Lagoon Size, Kuria

Island	Reef (square km)	Reef base (square km)	Lagoon (square km)	Land (square km)
Kuria	13.02	12.7	Nil	15.5

Source: Ministry of Fisheries & Marine Resource Development

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

- No lagoon, hence limited ability to fish in poor weather or without boats
- Lack and cost of fishing equipment;
- Poor inter-island transportation has eventually led to the closing down of their ice-plant
- Depleting ocean resources in the nearby ocean area especially 'te anaa', the long-billed garfish (*Rynchorhamphus georgi*)
- Establishment of legally binding bylaws for use of marine resources by visiting ships/companies and the island community as well.

Locals blame the establishment of the bridge connecting the mainland Kuria to Oneeke for the depletion and disappearance of a local species of garfish (*te anaa*).

ENVIRONMENT

The most threatening environmental issue on the island is coastal erosion, and flooding of land during high sea surges. Other issues also exist; there is no rubbish collection or site for the safe dumping of rubbish, and there is a lack of proper sanitation facilities that will not affect the water lens. Then environment becomes dusty during years of drought.

The recent increase in coastal erosion around the island has motivated the Kuria Island Council and island community to make plans to remove the 'Itintoa' bridge, blaming it for the issue. Not only is this bridge blamed for the increased coastal erosion around the island since construction but also for the disappearance of a fish known locally as 'te anaa', the long-billed garfish (*Rynchorhamphus georgi*).

Structures are only one of the causes of problems relating to reduction of marine resources or coastal erosion, the main causes of problems relating to these resources are people whose actions for example fishing, removing mangroves and other plants, and taking sand and gravel, make the coastlines vulnerable to change and erosion.

ENERGY

The most common form of fuel is firewood, mainly in the form of coconut husks, dry coconut leaves and dead wood of existing vegetation and trees. However, people still use kerosene stoves especially during rainy days or functions. Diesel and petrol are also imported to Kuria, to power trucks, outboard motors, motorbikes and generators.

EDUCATION

There are only three schools on Kuria, two primary schools and a Junior Secondary School.

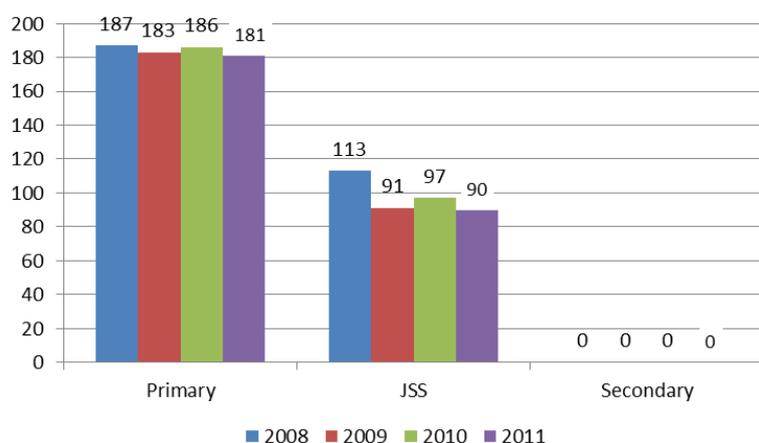
Table 9.3: Primary School Enrollments, Kuria, 2011

Kuriah	No. of Pupils			No. of Teachers		
	2011		Total	2011		Total
	F	M		F	M	
Linda Burns Primary School	62	79	141	6	2	8
Oneeke Primary School (Satellite)	19	21	40	3	0	3
Total	81	100	181	9	2	3

Source: Kiribati Education Digest 2011

Both Linda Burns Primary School and Nibwan-Te-Waaki JSS are situated on Kuria main islet. Oneeke is a satellite school which only takes Classes 1-3. Enrollments are stable over time, consistent with Kuria's stable population.

Figure 9.4 School Enrollments 2008-2011, Kuria



Data source: Kiribati education digest 2011

HEALTH

One Medical Assistant and 2 qualified Nurses are stationed on the island. Like other government employees working with the island council, these health officers as well as teachers are shuffled every 2-4 years. There is one main clinic on the island located on the mainland Kuria and another smaller clinic on the islet of Oneeke. This main clinic caters for the five villages on mainland Kuria, the Oneeke clinic caters for patients on Oneeke.

Each village has its own Village Welfare Group, whose responsibility is helping the medical staff promoting health issues and activities. The foremost active members of these welfare groups are the women.

The most common illnesses on Kuria, as throughout Kiribati, are diarrhea, respiratory infections and fever. People on Kuria visit the clinic with these illnesses more often than the average for Kiribati, and are also more likely to visit the clinic with problems related to diabetes and hypertension (high blood pressure).

ISLAND ECONOMY

SUBSISTENCE

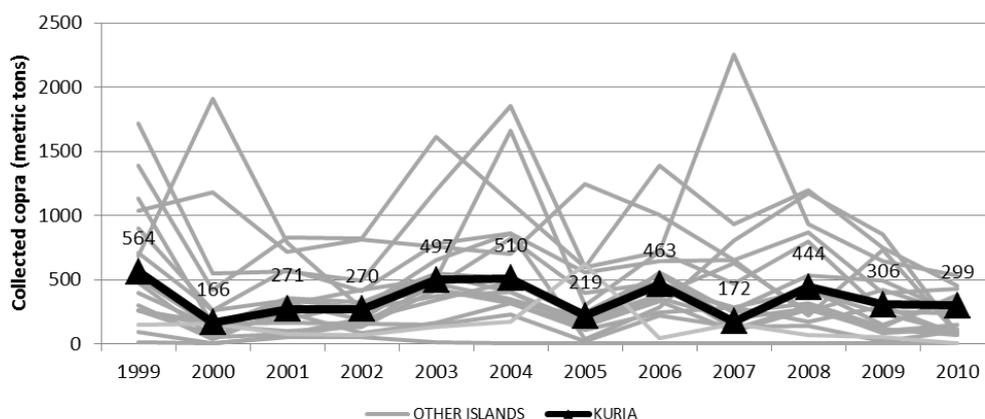
Typical subsistence activities include fishing, toddy cutting, cultivation and harvesting of food crops mainly coconut, pandanus, breadfruit and bwabwai, weaving mats, making thatches, rolling string, fetching water, collecting firewood, making fish traps and hooks, cleaning and washing, cooking and house construction amongst others.

COPRA

The production of copra is an important economic activity on the Island. It was the major source of income before seaweed farming was introduced. It is a common occurrence for copra funds to be depleted and this has led to complaints by copra cutters on Kuria. The

majority of the people derive income from copra cutting activities with coconut being the most common agricultural crop on the island.

Figure 9.5: Kuria Copra Production (collected copra) 1999-2010



Data source: Statistics Unit, MFED

Copra production on Kuria is high when considered against the small population of the island, and copra provides an important source of income, usually between \$100 and \$200 per person per year. However copra production is quite variable, so the income is also variable. The best year of copra production for the island in recent years was in 2004 when their production reached a tonnage of 510 bringing in an income of \$306,000. The worst year of copra production was in the year 2000 when its annual production was a mere 166 tonnes that brought an income of \$74,700.00 even though copra prices by the year 2000 had risen to \$0.60/kg. The most recent statistics on the island copra production was at 299 tonnes in 2010, bringing in just over \$200,000.

AGRICULTURE

Agricultural activities on Kuria include cutting toddy, cultivation of bwabwai, planting of breadfruit, bananas, pawpaw, 'te bero', pandanus and vegetable home gardens, and caring for pigs and chickens. Government and the Island Council assist with animal health schemes, provision of seeds, seedlings (coconuts) and breadfruit cuttings, and coconut replanting schemes. Generally, the latter scheme (coconut replanting) however has not been fully supported by the islanders as it is deemed a waste of time and effort due to most of the replanting schemes not bearing as much fruit as expected. Besides, people have their own traditional cultivation methods that are most of the time linked to phases of the moon and considered more successful than the agricultural methods of spacing amongst others that only result in a lot of wasted space according to the islanders.

EMPLOYMENT

The Island Council is the biggest employer for the people of Kuria, engaging about 30 islanders. Apart from a handful number of jobs offered by the Island Council in its limited budget, the opportunity for paid employment for the islanders is otherwise non-existent. The

Cooperative also employs a few other people to run its only branch situated on mainland Kuria.

TRANSPORTATION

The main road runs around the two islets (mainland Kuria and Oneeke) including a network of bush tracks. Pushbikes and motorcycles are the most common means of transport on the island. There are also four trucks on the island– two owned by each the Kuria Island Council and Teirao Cooperative Society.

ENVIRONMENTAL AND CLIMATE CHANGE CONCERNS OF REPRESENTATIVES FROM KURIA ATTENDING THE 2011 NATIONAL SUMMIT ON CLIMATE CHANGE AND THE KIRIBATI DEVELOPMENT PLAN

ISSUES	PROBABLE CAUSE/S	SOCIETAL IMPACT	REMEDIAL ACTION	SUSTAINABILITY (EFFECTIVENESS)
Coastal Erosion	-surge storms and natural beach movements	-north western end of Oneeke village is affected -Buariki is also affected	-not quite a problem ,but contributions from other govt. Sectors in the areas of engineering, biodiversity, water resource will enhance coastal protection	-quite alright, contributions will be sustainable when accomplished
Reduction in marine Resources	-causeway in the middle of the island -closure of the passage -overfishing	- gar fish had gone -lost of marine and terrestrial resources	-reconsider construction methods, review policy and design of causeway and reopening of the causeways to bring back lost marine and terrestrial resources	-sustainable but costly
Water	drought	-Fruit trees and vegetation affected	-water reservoirs be identified for future use -water catchment is encouraged -water and sanitation management ensures quality of water -waste management plan be in place	-when accomplished it will be sustainable, however costly

ISSUES	PROBABLE CAUSE/S	SOCIETAL IMPACT	REMEDIAL ACTION	SUSTAINABILITY (EFFECTIVENESS)
Less Agricultural Activity	-superficial commitment to agricultural activities	-unbalanced diet	-increase awareness and importance of livestock and agricultural activity through Agricultural Division and Taiwan Technical Mission	-it can be sustained
	-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 supply of land protein	-provide funding - use of local plants, marine seaweed mixed with breadfruit to supplement imported feed	 -Can be done, cheap and sustainable, needs creativity
Capacity building on CC and SLR	-no consultation previously conducted -no funding for training at island council level	-islanders are unaware of Climate Change and Sea Level Rise -island council employees not familiar with training of village people	-intensifying training and consultation -media training	-sustainable through funding sources -must continue at paced intervals

ISSUES	PROBABLE CAUSE/S	SOCIETAL IMPACT	REMEDIAL ACTION	SUSTAINABILITY (EFFECTIVENESS)
			-contributions from respective govt. Ministries towards Climate Change and Sea level rise.	