



# 19. Banaba



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# CONTENTS

19.	Banaba	1
	SUMMARY OF MAIN SOCIOECONOMIC INDICATORS – BANABA.....	1
	Physical features .....	2
	Population .....	4
	Land and Marine Resources.....	6
	Land ownership and use.....	6
	Water resources.....	6
	Marine resources .....	7
	Energy .....	7
	Environment.....	7
	Education .....	7
	Health.....	8
	Island Economy .....	8
	Agriculture .....	8
	Transportation .....	9

## SUMMARY OF MAIN SOCIOECONOMIC INDICATORS – BANABA

	Banaba					All other outer islands					South Tarawa including Betio					All Kiribati				
	2005	2010				2005	2010				2005	2010				2005	2010			
Population (Census)	301	295				51,921	52,581				40,311	50,182				92,533	103,058			
Percent of national population	0.3%	0.3%				56.1%	51.0%				43.6%	48.7%				100%	100%			
Land area, km <sup>2</sup>	6.29	6.29				704.29	704.29				15.76	15.76				726.34	726.34			
Population density, people per km <sup>2</sup>	48	47				74	74				2,558	3,184								
		2005-10					2005-10					2005-10					2005-10			
Population growth		-6					660					9,871					10,525			
Annual rate of growth of population, %		-0.4%					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	92	95	58	39	11	19,973	13,829	9,445	6,201	3,133	17,119	15,784	8,959	5,813	2,507	37,184	29,708	18,462	12,053	5,651
Population by age group, %	31%	32%	20%	13%	4%	38%	26%	18%	12%	6%	34%	31%	18%	12%	5%	36%	29%	18%	12%	5%
	2005	2010				2005	2010				2005	2010				2005	2010			
Number of private households	61	57				8,693	9,281				5,245	6,705				13,999	16,043			
Number of persons in private households	301	295				49,157	50,415				39,186	49,250				88,644	99,960			
Average household size	4.9	5.2				5.7	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	47	10	0	57	80	4,799	3,656	0	4,569	12,050	8,594	2,487	0	6,826	13,545	13,440	6,153	0	11,452	25,675
Labour force status %	24%	5%	0%	29%	41%	19%	15%	0%	18%	48%	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	5	60	58	74	6	4,190	11,798	7,265	8,630	725	2,418	8,125	7,570	13,626	1,324	6613	19983	14893	22330	2055
Education attainment %	2%	30%	29%	36%	3%	13%	36%	22%	26%	2%	7%	25%	23%	41%	4%	10%	30%	23%	34%	3%
			2010					2010					2010						2010	
Literate in [te taetae ni] Kiribati %			95%					90%					93%					91%		

## PHYSICAL FEATURES

Banaba is the only raised limestone phosphate island in Kiribati. It rises 81 metres at its highest point above sea level, has a land area of 6.9 sq. km and a circumference of around 10 kilometers. It is surrounded by a fringing reef and is without a lagoon.

The physical features of Banaba today have been shaped by its history. In this Update, it is not possible to give a good account of the history of Banaba, and readers are referred to the Island Report 2008, which in turn has references to many other important historical records from Banaba. However a brief overview of history is essential to understanding any of the current physical or social features of Banaba Island.

The first Europeans to visit Banaba in the early 19<sup>th</sup> century described an island rich in plant and bird life and supporting a thriving community with close links to Kiribati, but also some unique differences in appearance, language and lifestyle.

Banaba has always been prone to drought, as it is a high island with no natural streams and no water lens. A three year drought starting in 1873 killed over three quarters of the population and wiped out almost all the trees; many of those who survived left the island on passing ships to escape the drought, and only some were able to return, often years later.

With the discovery of phosphate on the island and the subsequent mining of it from the early 20th century, rock pinnacles are now observably the main physical feature of the island along with derelict phosphate mining infrastructure and the abandoned homes of those who once lived and worked on Banaba. The island was a Japanese base during World War Two, and at this time almost all the population was evacuated or killed. After World War Two, the people evacuated from Banaba were not allowed to return and were instead relocated to Rabi island in Fiji. This removed the last constraints on phosphate mining, which was resumed after the war by the British Phosphate Commission and continued until 1979, by which time almost all of the island had been mined out and reduced to a wasteland of rock pinnacles.

The woodland of Banaba is now limited to the coastal area and is made up mostly of mangoes, flame trees, guavas, tapioca and common Kiribati shrubs such as the saltbush and legumes amongst others. Having been mined for over 80 years, the centre of the island is uninhabitable and the villages of Tabiang (Antereen) and Tabwewa, which once were bustling with miners and their families from the Gilbert group including people from Tuvalu, Chinese and Aborigines, stand desolate and eerie. The village of Buakonikai ('Te Aonoanne') has also been totally mined out leaving a mere plot amidst the rising rock pinnacles.

Banaba had three inhabited villages in the 2010 census; Tabwewa, Antereen (also called Tabiang) and Umwa. All three are located along the coast and can be accessed by a modern coal tar road on pushbikes, motorbikes, trucks or simply by walking.

The phosphate storage tanks are slowly rusting away while the cantilever has broken down. The boat harbor on the other hand is still as practical as ever and still provides a safe haven of anchorage for visiting ships and boats to the island. Devoid of wells due to its physical feature, water can and has been a problem in drought years. During the phosphate mining

days, ships would arrive with a ballast of fresh water which was pumped into massive storage tanks at the port, this water was then strictly rationed among the population.

The caves that can be found in specific places below the island should have been an oasis of water for the islanders but the depth of the caves make the water inaccessible and somehow, once this water reaches the open air above, it undergoes surprising changes so rapidly making it foul and smelly rendering it useless for consumption.

Access to the caves involves having to descend into holes well over 50 metres deep and carrying torches or as popularly used – a pressure lamp. The caves have ladders that were in-built during the phosphate mining years and maintained over the years by clan families who own the caves. In other caves, the steep descend requires ropes where there are no ladders. They provide popular sightseeing sites for visitors to the island of Banaba.

There is no airstrip on the island and no scheduled boat service. Transport to and from Banaba is by charter vessel, and the island is very isolated and at times runs short of food and other essential supplies when ships fail to arrive.



**Banaba, Kiribati**

Antereen

Tabewa Primary School

Medical clinics

Tabewa

Jss

Umwa

Seaport

Schools(Primary/Jss)

Medical Clinics

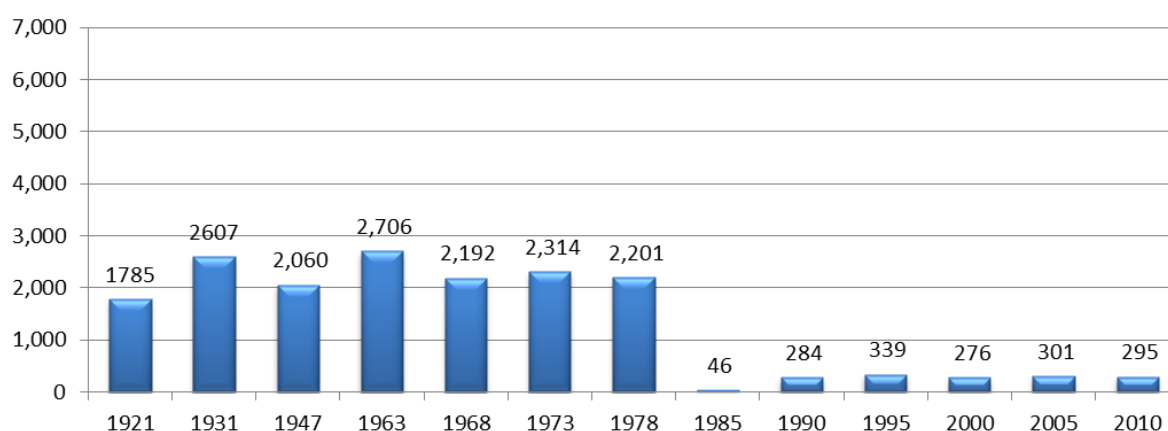
Island Council office

The map shows the island of Banaba, Kiribati, with a compass rose indicating North (N), South (S), East (E), and West (W). Key locations and facilities are marked with arrows and symbols: Antereen (top left), Tabewa Primary School (center), Medical clinics (red cross symbol), Tabewa (bottom left), Jss (bottom center), Umwa (bottom right), and a Seaport (red ship symbol). A legend at the bottom left defines the symbols: Seaport (red ship), Schools(Primary/Jss) (red flag), Medical Clinics (red cross), and Island Council office (red star).

The population of Banaba in the 2010 census was 295. Since 1990, the island has been home for around 300 people, many of whom have close links to Rabi island in Fiji, where over 5,000 descendants of the original Banaba islanders live. Prior to 1979, Banaba was mined for phosphate and many workers from across Kiribati and overseas were based there.

In the 1931 and 1947 censuses, Banaba had the highest population of any island in Kiribati, roughly equal to North Tarawa and South Tarawa combined.

Figure 19.2: Banaba population 1921-2010



Banaba has a combined land area of 6.29 square kilometers and a population (in 2010) of 211, giving a population density of 34 people per square kilometer. Compared with other islands in Kiribati, Banaba is almost the least densely populated island - only Kiritimati, the largest atoll in the world, has a lower population density. This is because most of the island's land area is unusable due to phosphate mining. The majority of the people are living along the coast mainly in Umwa.

Banaba	Village	Population
	Tabewa	57
	Antereen	83
	Umwa	155
<b>Banaba total population</b>		<b>295</b>

Of the 295 people on Banaba counted in the 2010 census, 165 of them are Banabans while another 125 people are from the other Kiribati islands, and a further 5 from other Pacific islands, who either are working there as seconded officers to the Banaba Island Council or married to a Banaban.

	Home island is Banaba	From another island of Kiribati	From another country	Total: Population of Banaba
Live on Banaba	165	125	5	295
Live on another outer island	45			
Live on South Tarawa	173			
<b>Total: People living in Kiribati who are from Banaba</b>	<b>383</b>			

Most of the descendants of the Banabans now live on Rabi in the Fiji Islands, where the people of Banaba were relocated by the British Phosphate Commission after World War II. Rabi now has a population of over 5,000 people, who speak Kiribati and hold both Fiji and Kiribati passports. There are also 173 people living on South Tarawa who are from Banaba, and 45 people from Banaba living on other islands of Kiribati.



## LAND AND MARINE RESOURCES

The island's main resources can still be found in its phosphate-rich soils, its surrounding ocean abundant with marine life, limited coastline woodland and its own people.

Some phosphate resource remains on Banaba as the mining methods used by the British Phosphate Commission were not especially efficient. However it is unclear whether it is economically viable to resume phosphate mining, even if the difficult governance issues could be resolved.

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## LAND OWNERSHIP AND USE

In Banaba, the females were landowners and when married, the husband went to live with the wife's family instead of the traditional Kiribati custom of the wife going to live with the husband's family. This tradition is most probably due to the fact that water was a lot more precious than fish and since the water fetching is the woman's job, it was culturally accepted for men to go and live with the women as then the women would not have to leave their families and deprive them of the most precious item of all – water.

Most of the original landowners of Banaba now live on Rabi Island in Fiji. Their interests are represented by the Rabi Council of Leaders which has various rights on Banaba including the right to allow the occupation of land or dwellings formerly under the control of the British Phosphate Commission, and the right to appoint the Banaban representative to the Kiribati Parliament.

Today, most of the households currently living on Banaba live on land that is either leased or subject to some other arrangement – only a small minority live on the land that their families own. Houses are generally constructed of permanent materials, as there is a shortage of coconut and pandanus on the island for making local houses and an abundance of abandoned wooden and concrete block buildings.

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## WATER RESOURCES

The main water source for drinking and sanitary purposes on Banaba is rainwater. There are no wells on the island. The underground caves which in Banaba's early history provided an alternative source of water are dangerous and inaccessible to the general public on Banaba. Most remain untouched and unusable.

A desalination plant was constructed in 2000 but this is expensive to run, as it uses imported diesel, and is prone to break-downs at which time the people have to use reserved rainwater. During the rainy seasons, old water cisterns at the numerous uninhabited houses of the British Phosphate Commission are also filled with rain which is used to supplement the lack of water at individual homes.

In 2012, two huge storage tanks located at the wharf were rehabilitated and connected to rainwater guttering from nearby large buildings, including the desalination plant building. These tanks are already full and provide a reservoir of water for the community in case of future drought.

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## MARINE RESOURCES

Banaba has no lagoon and the narrow fringing reef is directly exposed to the ocean, although the bite-shaped bay is sheltered from the prevailing wind and swells. There is a safe boat harbor and wharf, developed during the phosphate mining days. The oceans around Banaba are abundant with fish, although there are concerns that ocean fish stocks are being depleted through illegal fishing in Banaba's waters.

One third of households have at least one canoe, and there are also several boats on the island. Most households go fishing, both on the reef and in the open ocean, and it is also common to collect food from the reef.

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## ENERGY

Firewood is the main source of fuel for everyday use, and finding enough firewood is never an issue in Banaba due to its limited population and woodland that is abundant with drought affected trees. But now that people are resorting to the use of modern technology to provide energy to meet their needs, there is growing demand for kerosene, benzene and diesel. Transport of these to the island of Banaba is costly and can be unreliable.

## ENVIRONMENT

The mining of Banaba resulted in land degradation of the central part of the island and an environmental issue since phosphate was initially mined. With the phosphate dug and exported, the sound base for vegetation to grow was also disrupted. The remaining rock pinnacles stand isolated posing risks for those requiring to hike into the centre of the island, plants cannot grow on the rocks but instead are growing at the rock bases. In the long run, were it overgrown with shrubs and other vegetation, this could be dangerous and stepping unknowingly into shrubs could mean a fall of 4-6 metres.

A significant environmental problem on Banaba is the toxic asbestos roof slats that were used in a lot of the BPC company houses and buildings. A plea has been taken up to the Government of Kiribati to get rid of all those roof slats and in the meantime, the Banabans have been advised to stay away from such roofed houses.

Other materials including lead paints, industrial chemicals and other toxic materials were also used on Banaba and as the infrastructure left by the British Phosphate Commission slowly rusts away, these represent an increasing threat to the island environment and to the health of the community. Already the reef is full of rusting iron from the broken down buildings and machinery. The cantilever, rainwater tanks, workshops, boat harbor offices and all the buildings in general are breaking down where they stand creating injury risks and marine life poisoning.

## EDUCATION

There is only one primary school on Banaba called Nei Kuana Primary School situated at Antereen. The school was originally established in 1948 for the children of phosphate

workers, and now has a small roll of 39 students; 19 boys and 20 girls. Banaba JSS has 40 students.

## HEALTH

There is one clinic on Banaba, staffed by the island's Medical Assistant. The people of Banaba visit the clinic quite often, almost five times per year per person. Rates of serious diseases are high on Banaba compared with other islands of Kiribati, with high rates of diarrhoea and dysentery, respiratory infections and fever, as well as hypertension (high blood pressure) and diabetes.

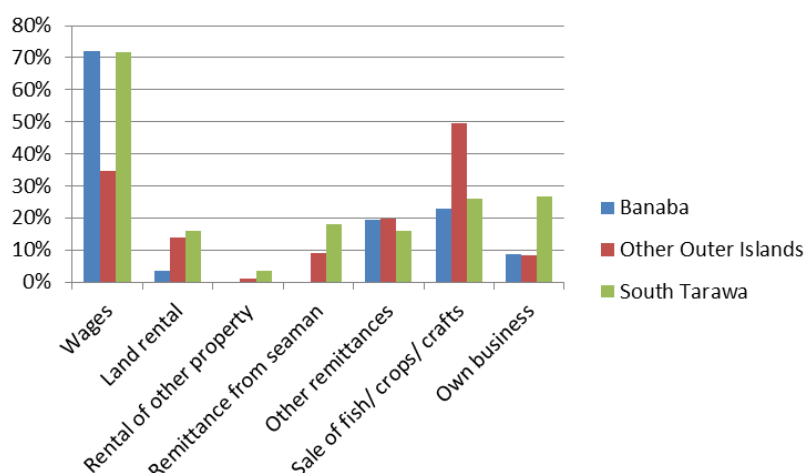
The people of Banaba have the highest rate of kava use in Kiribati, with 43% of all adults drinking kava "regularly" or "sometimes". Alcohol on the other hand is not so popular; only 20% of the population drink alcohol. 41% of adults are smokers, which is not high in comparison with other islands of Kiribati but still represents a significant health problem.

Apart from the small clinic, there are no health services on Banaba and people with serious health problems need to leave the island as it is not possible to get to a hospital quickly in an emergency; even if a charter vessel is available the round trip takes up to six days.

## ISLAND ECONOMY

The economy of Banaba is quite different from other outer islands, as most households (71%) receive wages. The main employer on the Island is the Banaba Island Council which in 2010 had 20 staff positions (including positions funded by the Ministry of Internal and Social Affairs) or one staff member for every 15 of the island's population of 295 people. Other employers on Banaba are the Ministry of Education and the Rabi Council of Leaders.

Figure 19.3: Sources of cash income, Banaba households



Source: 2010 Census

## AGRICULTURE

The resources needed to support a subsistence lifestyle are scarce on Banaba. There are not enough coconut and pandanus trees in the village areas to support the community's needs, and the mined-out areas have only sparse and scattered vegetation. Unfortunately for the Banabans, copra cutting cannot subsidise their way of living as they barely have any

coconut trees left that can collectively give them a good enough harvest for income, and the problems of transporting copra are just too difficult.

Vegetable gardens are maintained by the locals with the assistance of the nurseryman. The replanting of coconut trees on the island is not part of the Agricultural national coconut replanting scheme but the locals own initiative in their efforts to replant their lands with the islands 'trees of life' (coconut, pandanus and breadfruit). Other plants, unknown on the atoll islands of Kiribati, grow well on Banaba especially mango and guava.

Only about half of all households keep pigs, and only about a quarter keep chickens. There are also very few dogs on Banaba; only 6 at the time of the 2010 census.

With a history of droughts made more difficult by the absence of wells, agricultural activities on Banaba are limited and vary between the dry and wet seasons. Keen vegetable garden farmers, what the Banabans do is wait for the rainy season when vegetable gardens again can be replanted besides homes. One of the difficulties of farming in Banaba is the rockiness of the island that makes digging vegetable beds or plant holes the hardest part of the agricultural activities. Almost all cultivation is done close to the houses, in the village areas; the mined-out area is unproductive and unsafe and is not used for agriculture.

## TRANSPORTATION

As a high island, pushbikes are not that common on the island but instead motorbikes are the most common means of transport. Banaba has a modern road made of coal tar and running all the way from Tabwewa to Umwa, basically the length of the island where all mining activities were carried out.

Banaba has a really modern boat harbor compared to the outer islands of Kiribati who have none at all and this infrastructure makes Banaba an easy place to transport in big vehicles such as trucks, cars and buses. However there is no maintenance facility or source of spare parts. At the time of the 2010 census, none of the households had their own car, truck or bus in working order. However the Council has a truck provided by the Taiwanese Government which is used to transport pupils to school. With its limited population and limited activities, land transport is not a problem on the island.

However Banaba is very isolated and transport to and from the island is a real problem. There is no runway on Banaba and no air service. Ships do not routinely go to Banaba, and even if there is a ship, the trip to Tarawa takes 2-3 days.

Communication is also a problem as there is no phone or internet service. Radio broadcasts from Tarawa can be heard in Banaba, and there is a two-way radio connection with the Island Council.