



TAMANA ISLAND



2008

SOCIO-ECONOMIC PROFILE

PRODUCED BY THE MINISTRY OF INTERNAL AND SOCIAL AFFAIRS,
WITH FINANCIAL SUPPORT FROM THE UNITED NATION DEVELOPMENT PROGRAM,
AND TECHNICAL ASSISTANCE FROM THE SECRETARIAT OF THE PACIFIC COMMUNITY.



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TAMANA ANTHEM

NATIN TAMANA

Natin Tamana ni bane aika kam tangiraki
I aoni kawaimi n nako
Uringami ae bati

Tina atongnga ae kangai
Tia kaboo n te tai rimwi
E na kairiri ngkami
Angatain te Atua

Natiu kona kekeiaki
Man nano korakora
Ibukin aran Atuam
Ao ibukin abam

TAMANA MATEN NANOU

Abau ae tangiraki irou boni mamaten nanou
Ni koaua n au makuri aika a tamaroa nanou ma
Korakorau boni kamoamoam bon au kantaninga
Tingkoe abau ae tangiraki.

Karekaren angibuaka ma ititini karawa
A rurunga naoni marawa aika a korakora
A bon aki tuka naba rikiraken te iango
Teirake n neboa I eta abau ae tangiraki

Natin Tamana ni bane bwaina te nano n aba Tai
muuti tai bwerengaki n taian angibuaka
Tabeka rake abara n aromi aika raraoi
E na riki bwa te ota ae bon raneanea

SONS OF TAMANA

Sons of Tamana most beloved
On your journeys away
You are always remembered

Let us say together
Farewell until later
May you always be led
By the right hand of the Lord

Son try your very best
Always strengthen your mind
For your God
And for your island

MY BELOVED TAMANA

My beloved island that I truly love the most
With honesty and good deeds from my heart
My strength, to be your pride will be my purpose
My beloved island you will always be

Stormy winds and lightning storms
Will thunder in a stormy ocean
These will not prevent development ideas
Stand up and praise my beloved land

Sons of Tamana be patriotic in your dealings
Do not budge, endure the storms of life
Raise your island in all you do
So it will shine like the brightest light ever

FOREWORD

*By the Honourable Amberoti Nikora,
Minister of Internal and Social Affairs, July, 2007*

I am honored to have this opportunity to introduce this revised and updated socio-economic profile for Tamana Island. The completion of this profile is the culmination of months of hard-work and collaborative effort of many people, Government agencies and development partners particularly those who have provided direct financial and technical assistance towards this important exercise.

The socio-economic profiles contain specific data and information about individual islands that are not only interesting to read, but also more importantly, useful for education, planning and decision making. The profile is meant to be used as a reference material for leaders at both the island and national level, to enable them to make informed decisions that are founded on accurate and easily accessible statistics. With our limited natural and financial resources, it is very important that our leaders are in a position to make wise decisions regarding the use of these limited resources, so that they are targeted at the most urgent needs and produce maximum impact.

In addition, this profile will act as reference material that could be used for educational purposes, at the secondary and tertiary levels. This is one of the intentions when the revision exercise was conceived in the first place. In its new format, the profile contains valuable information on the history, geography, demography, commerce and trade, natural resources, the environment, and many other important facts about the islands. The vision to make the island profile important reference material will be further enhanced with the launching of the Ministry's website. This is indeed a revolutionary step in the sense that such valuable information will be made accessible on the internet, for everyone to use in and outside Kiribati.

The profiles have potential economic value because they provide the kind of information that local and foreign investors need. This aspect of the profiles will be improved with time, as better information on marine and land resources becomes available and incorporated in the book.

One of the new features of the revised profiles is the incorporation of Millennium Development Goals indicators (MDGs). The importance of working with MDGs is that it keeps Kiribati on track in its commitment towards the Millennium Declaration of 2000. Secondly, the issues embodied in the MDGs are the same issues contained in the Operational Plans of various ministries, and therefore are important national concerns. While the National Development Strategy 2004-2007 does not incorporate MDGs, the current NDS review exercise is placing the MDGs high on its agenda. As far as the island profiles are concerned, they will serve the purpose of being a monitoring and evaluation tool both for Kiribati and relevant agencies of the United Nations, since the MDG indicators will be updated, biannually at the most.

The island profiles are useful development documents for individual islands and the nation as a whole. Whether they are used by students, businesspersons, tourists, politicians, or planners, I can say with conviction that it will prove a useful resource on Kiribati.

Te Mauri, Te Raoi and Te Tabomoa to everyone.

ACKNOWLEDGEMENTS

The preparation of this profile involved the hard work and commitment of various individuals, Government ministries and external development agencies. At the outset, the initiative and financial support of the United Nations Development Program (UNDP) must be acknowledged with deep appreciation. UNDP financed the revision of the profiles through a joint UNDP-GoK project known as *Strengthening Decentralized Governance in Kiribati (SDGiK)*.

Other regional organizations that have been very supportive to the profiling exercise include the South Pacific Geo-science Commission (SOPAC), who provided technical support in relation to the incorporation of GIS and CHARM in the project. The South Pacific Commission (SPC), who assisted in the establishment of POPGIS for use in data sourcing and analysis, provided input to the structure of the profiles, recommends the incorporation of valuable data and information, and generously offered to publish the profiles. The Kiribati Adaptation willingly came on board after the SDGiK ended, to continue funding completion of the outer island profiles and to incorporate Climate Change and Sea level rise information in the profiles that were otherwise non-existent. Without all the above assistance, the profiles as you see them now would not have attained such a high quality in terms of content and appearance. The Ministry of Internal and Social Affairs owes much gratitude to these organizations particularly their concerned staff, for their readiness to assist even if it was beyond their terms of engagement.

The project office of the Commonwealth Local Government Forum (CLGF) based in Fiji, through its Pacific Project, also contributed invaluable assistance to the project, in particular to Component 3, which focused on capacity development of local government bodies on the outer islands. Several of the activities under this component were jointly funded by CLGF, thereby absorbing much in terms of financial costs and time. For these contributions, we are very much thankful.

The various ministries of Government have helped in one way or another, especially in the furbishing of valuable data and information used in this profile. The project has been successful in maintaining the good relationship that had developed with other ministries and civil organizations. In addition, inter-agency committees were established for monitoring and technical support during the implementation phase of the project. The most important of these committees is the Outer Island Project Coordinating Committee (OIPCC), which serves as the overall steering body of SDGiK. Other technical working committees were also instrumental in getting some of the difficult tasks done. These working committees include the committee on the review of the Local Government Act, and the committee on the review of development procedures. One of the important lessons learned from the establishment of these committees is that it is possible to cut across borders to get the kind of commitment and cooperation that are reflected in the achievements of the project.

Hopefully the network of cooperation, which is necessary in sustaining and improving the profiles in future, is maintained between the various ministries of Government. As the leading agency in the production of this profile, the Ministry of Internal and Social Affairs must ensure that the linkages between the statistical units of various government departments remain intact.

Due to its multi-dimensional nature, far too many people are involved in the profiling exercise to allow acknowledgement on a personal level. It is hoped that by according merit to their respective agencies will somehow convey the deep sense of gratitude, which the project owes to these committed individuals. With this in mind, we would like to acknowledge the great contribution and support of the Ministry of Internal and Social Affairs (MISA), in particular the Rural Planning Division (RPD), the Local Government Division (LGD), the Community Development and Services Division (CDSD), and the Accounting Unit, who spearheaded the various activities related to their areas of expertise. The successes that have been achieved in the different project components are indeed the result of their

collective work.

Ultimately the greatest contribution and sacrifice in the production of these revised Island Profiles is offered by a few committed individuals, both within the Ministry as well as from outside who deserve to be acknowledged. Nei Terautete Tareti, the computer operator in the Rural Planning Division who collected the initial data, Nei Buraieta Tekabwaara who worked hard to collect and update data required for the profiles as well as the GIS data maps. Nei Ruta Ioata, who assisted in data collection, designed the graphic formats in the profiles, willingly assisted in collection of outer island data and pictures and had to work extra hours to complete her profile responsibilities.

Phil Bright and his colleagues at SPC in Noumea generously offered to edit and publish the profiles, besides arranging for a work attachment with SPC for two of MISA staff. The profiles will have not attained the very high quality in which you see them now without their assistance. In addition, the improved layout and presentation of information is also based on their professional views and guidance.

The strong support and leadership of the Minister of Internal and Social Affairs, Honorable Amberoti Nikora has been a significant factor in the successful undertaking and completion of the profiling exercise, and for the whole SDGiK project for that matter. His support would have not been that strong without the equally solid support and guidance of the former Secretary of MISA, Karib'aiti Taoaba, and Rikiau Takeke, the current Secretary.

The Deputy Secretary, Manikaoti Timeon spearheaded the profiling and completed the first prototype on Makin after which project staff continued drafting the other outer island profiles. His immense effort and guidance in the profiling is a major contribution to the completion of these profiles. The unwavering efforts and dedication of Nei Erimeta Barako in the completion of the profiles even after the SDGiK project had ended culminated in the completion of these outer island profiles. Tebwania Taateri came in later and assisted in data collection and compilation. Ultimately, the KAPII project under the directions of Kautuna Kaitara, the KAPII Coordinator, Kaiarake Taburuea, the Project Manager and Paul Craig, provided the required funds and support in the eventual completion of the profiles.

To everyone who have contributed in one way or another to the production of this useful document, including the many people and island councils on the outer islands, the Government of Kiribati is deeply indebted, and wish to thank you immensely for your useful contributions.

AMI BAU TE MAURI TE RAOI AO TE TABOMOA.

KAM BATI N RABWA.

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LIST OF ACRONYMS

SDGIK	Strengthening Decentralized Governance in Kiribati
MDGs	Millennium Development Goals
MOP	Ministry Operational Plan
NDS	National Development Strategy
UN	United Nations
GOK	Government of Kiribati
SOPAC	South Pacific Geo-Science Commission
CHARM	Comprehensive Hazard and Risk Management
GIS	Geographic Information System
CLGF	Commonwealth Local Government Forum
OIPCC	Outer Island Project Coordinating Committee
MISA	Ministry of Internal and Social Affairs
RPD	Rural Planning Division
LGD	Local Government Division
CDSD	Community Development and Services Division
SPC	Secretariat of the Pacific Community
MOH	Ministry of Health
MELAD	Ministry of Environment Land and Agricultural Development
MEYS	Ministry of Education Youth and Sport
MFED	Ministry of Finance and Economic Development
POPGIS	Population GIS
RC	Roman Catholic Church
KPC	Kiribati Protestant Church
SDA	Seventh Day Adventist Church
LDS	Church of Jesus Christ of Latter Day Saints
COG	Church of God
KHLP	Kiribati Handicraft and Local Produce Company
KSECL	Kiribati Solar Energy Company Limited
JSS	Junior Secondary School

CHAPTER 1: INTRODUCTION

The first Island Profiles were published in the late 1980s, about 20 years ago. Apart from being used as a resource book by project personnel in the Rural Planning Division, it remained largely unutilized, and the information quickly became obsolete as the years passed without any attempt to update a lot of the statistics contained in them. This is the first time that the profiles are being updated and upgraded to suit today's need for information. In addition to the upgrading exercise, the profiles will also be updated, annually if possible, depending on the regularity and availability of reliable statistics. The current revision is based on a mixture of methodologies including importation of data from different government ministries (MOH, MELAD, MEYS, and MFED), the use of PopGIS software to analyze and map data, face to face interviews, questionnaire surveys and the use of reference materials and the internet. While the purpose of the profiles is to serve as the basic information tool for planners and decision makers, it can also be used to meet the needs of students, business people, politicians, tourists, planners, and the public in general. This is possible due to the fact that it contains unique and interesting information on the island's culture, economy, natural resources, environment, infrastructure, social services and various other features. With the incorporation of MDG indicators in this new version, the profiles will now serve a very useful purpose of becoming an important tool to monitor the country's performance in respect of achieving MDG targets. Island-level statistics enables more specific analysis of the situation faced by Kiribati in the different sectors of health, education, poverty reduction, gender equality, the environment, and HIV/AIDS. These are the issues embodied in the eight goals set by the United Nations which countries are expected to achieve by the year 2015.

Another new feature of the profiles is the introduction of a computerized back-up system, which is made up of an electronic copy of the profile, as well as a GIS program, which enables detailed analysis of statistics right down to the village and household levels. The ultimate objective of the whole exercise is to have an efficient and reliable source of information about the outer islands, that is not only available in hard copy, but better still one that could be accessed immediately by the push of a keyboard button. This will enable professionals and lay people alike to acquire information quickly, for whichever purpose they may have. The profiles will be made available on the Ministry's website – www.misa.com, or alternatively through PRISM. This will enable international access to the profiles for the use of traveling officials, overseas students, potential investors and visitors. Apparently the website will contain information other than the island profiles, from the various divisions of the Ministry and perhaps additional relevant information from other government ministries. Upon completion of the website two goals will be achieved, first, that the information will be available on line for the first time and, second, that such useful information will be accessible from anywhere in the world in electronic form. This is going to be a significant achievement in itself.

The continual usefulness of the profiles, and other information contained in both the hard and electronic versions, will depend to a great extent, on a reliable system of updating and upgrading. After all, information changes all the time, as do the technology upon which it depends. Finally, it is hoped that the profiles in their new format and accompanying electronic features will serve the purpose for which they are designed, and much more. We wish every user of this profile enjoyable reading, and trust that they find it interesting and rewarding.

1.1 Summary of Main Socio-Economic Indicators

	NATIONAL			TAMANA		
	Total	Males	Female	Total	Male	Female
Total population (November 2005)	92533	45612	46921	875	408	467
Urban population	40311	19435	20876			
Percent of national population				0.95	0.89	1.00
Percent urban (%)	43.6			NA	NA	NA
Rate of Growth (%) of total population 2000-2005				NA	NA	NA
Population density	127			185	NA	NA
South Tarawa population density	2558			372	NA	NA
% population younger than 15years	37	38	36	33	38	30
% population 15-24 years	21	21	20	15	16	13
% population 15-59 years	58	57	58	57	57	58
% population 60 years and older	5	5	6	10	6	13
Age dependency ratio	74			75	77	74
Households				NA	NA	NA
Number of private households	13999			196	NA	NA
Number of persons in private households	88644	43749	44895	875	NA	NA
Average household size	6.3			4.5	NA	NA
Number of institutions (non-private)	43			NA	NA	NA
Number of persons in institutions	3889			NA	NA	NA
Labor market activity	36969	20013	16956	NA	NA	NA
Employed population	34715	18883	15832	584	255	329
Cash workers	13133	8095	5038	75	45	30
Village workers	21582	10788	10794	378	165	213
Unemployed	2254	1130	1124	17	13	4
Non-labor market	21069	7926	13143	NA	NA	NA
Students	7323	3496	3827	30	13	17
Persons engaged in home duties	6077	793	5284	17	3	14
Inactive persons	3662	1996	1666	15	8	7
Retired persons	3227	1179	2048	50	8	42
Disabled or sick persons	709	398	311	2	0	2
Prisoners	71	64	7	0	0	0
Labor market participation rate (%)	63.6	71.5	56.3	80	87	75
Real Employment-population rate (%)	22.6	28.9	16.7	NA	NA	NA
Unemployment rate (%)	6.1	5.6	6.6	84	NA	NA
Education						
School enrolment rates 6-15 year olds (%)	91.0	89.1	93.0	NA	NA	NA
Proportion of population 15 years and older with secondary or higher education	50.5	51.6	49.5	NA	NA	NA
Proportion of total population with secondary or tertiary qualification	19.4	18.2	20.5	NA	NA	NA

CHAPTER 2: GENERAL BACKGROUND

2.1 LOCALE

2.1.1 Location, Size and Land Area

Tamana is second southern-most island in the Gilbert group and the smallest island in the country. The island is approximately 300 km from Tarawa.

Alternative Names:	Rotcher Island, Chase Island
Area / Country:	Southern Gilbert group, KIRIBATI
Coordinates:	Latitude (DMS): 2° 29' 55.26" S Longitude (DMS): 175° 59' 00.14" E (Degrees, minutes and seconds)
Area:	Total land area: 4.73 sq.km Width: 1 km Length: 6 km

2.1.2 Physical features

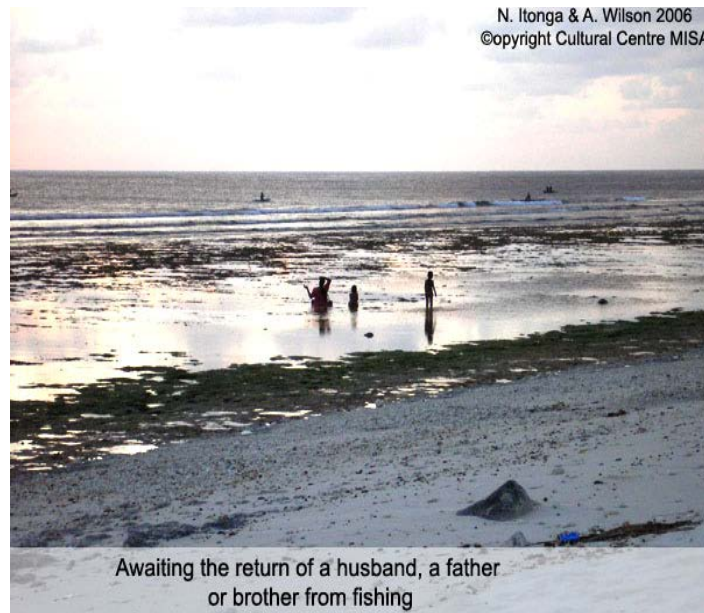
Tamana is the smallest island in the Kiribati Group located on latitude 2 degrees 30'south and longitude 175 degrees 58' east. It is surrounded by coral reef and has a width of about 1km and length of approximately 6 km.

Tamana has only one minor road and a network of tracks running into the bush from this main road that runs all the way around the island. These network tracks are used for accessing lands and transporting coconuts, pandanus and to get from one end of the island to the other.

The Island Council (Government station) is located at Bakaakaa, the central village of the island and is also where the rest of the Government facilities are located such as the CB radio for inter-island communication, the hardware, and the fuel depot. The schools

(Primary and JSS) and the Medical facilities are also located in the same village but can be found further inland towards the uninhabited side of the island.

The church is the main infrastructural feature of the island because of its size and age. It is located near the Island Council. There is also a big rock jutting out of the coastline at the northern end of the island and according to legend, marks the grave of Tabutoa, the brother of Uamumuri and Nanikain, and sister of Nei Nimanoa. The three brothers and sister were making land conquests at the islands visited and



were taken away by force by Nei Teweia, a woman of great beauty from Beru. This action was against the liking of Ten Tabweka of Tabiteuea, who threw a large stone and hit the sail of their canoe that crashed down and killed Tabutoa. As they were near Tamana at the time, they landed there and buried their brother.

2.1.3 Climate

With the exception of Tarawa that has its own meteorological office, the non-availability of rainfall measuring equipment on the outer islands has resulted in the lack of rainfall data for all the outer islands of Kiribati including those in the Phoenix and Line group and Onotoa.

Tamana, like the other islands scattered astride the equator, have a tropical climate. It is hot and humid all year round with east trade winds moderating the temperatures throughout the year. November to April is the rainy season, with high humidity and stronger winds.

Like most Kiribati islands, the strong influence of El Nino and La Nina events on the climate is prevalent throughout and Tamana is no exception. El Nino Southern Oscillation (ENSO) variability is defined by the Southern Oscillation Index (SOI) that measures the difference in pressure between Darwin, Australia and Tahiti. Simply defined, El Nino is the warming of the sea-surface temperatures in the equatorial Pacific Ocean that influences the atmospheric circulation and consequently rainfall and temperature in specific areas around world. Depending on this complex interplay of sea surface temperatures (SSTs) in the equatorial Pacific ocean, atmospheric circulation is affected which either then moves eastward or westward producing either of the two events, El Nino or La Nina which in turn either results in rain or drought on the islands depending on where the atmospheric circulation is headed.

(http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/ensostuff/nino_regions.html)

Drought spells in Tamana have been a common occurrence and has been documented as having been so bad in the 1800s that the people were happier to get away from the island even though it meant having to get on black birders.

Generally in Kiribati, the wet season, according to records, falls between the months of September to February, while the dry season begins in March and ends in August. The temperature ranges between 28° Celsius at dawn to 32° Celsius in the early afternoon but have been known to get hotter or warmer than 32° C. Cool ocean breezes play an important role in keeping the temperature down during hot days.

2.1.4. Soil

Kiribati atoll soils are derived from the underlying coral reef and thereby consist mainly of calcium and magnesium carbonates (Town 1982). The soils tend to be shallow and alkaline with large soil (grain) particles rendering it highly permeable with low capacity to hold water, highly porous (J. Barr 1991). Top soil nutrients are therefore easily washed down the layers of soil or away making the soils very infertile.

As a low lying coral rising not more than 2 feet above sea level, the soil is vulnerable from the dangers of sea level rise and soil erosion. Due to its porous nature, soil nutrients are easily washed down and away leaving the atoll soils one of the most infertile soils in the world.

Fig 1: A geographical map of Tamana



2.1.5 History and Culture

Traditional legends tell of Tamana as having been created out of a piece of land that one of the legendary female gods, Nei Tituabine had cut out of Banaba to use as a float when she had fled Banaba after fighting with her husband, Auriaria. Where she left that piece of land, it later grew to be Tamana and as for Banaba, instead of it being fully round, is dented on one side looking like a chewed cookie.

Before Christianity arrived on Tamana, the people used to be pagans, practiced magic and sorcery in their everyday life. A mwaneaba called the 'Roobung' is told as the only mwaneaba on the island. What was unusual about this mwaneaba was that it had only one main post in the centre that supported the whole roof and was owned by spirits ('anti'). This was where all community activities were then carried out as managed by the 'unimwane' under the direction of the spirits. These activities included Kiribati dancing, local medicine treatment, fishing plans etc of which all were normally shrouded in a lot of magic and rituals. The spirits were said to also demand 'mwaneaba' contributions of 'bwabwai', fish and pandanus creamed paste that usually resulted in beheading of those who did not provide the requirements. The arrival of the LMS missionaries was tolerated as most were not ready to turn away from the ways of the 'Roobung' out of preference and fear. Knowing the futility of trying to convert the pagans, the missionaries then went to the mwaneaba where the people gathered daily and eventually



overcame the spirits. What happened next was that the main post of the 'Roobung' disintegrated and the whole mwaneaba fell down. Considered so powerful, the disintegration of the mwaneaba convinced the islanders that the LMS god was more powerful than their own and thus were all converted in that instant. The 'unimwane' then took over and convinced the whole island to convert to the new religion and also made the promise that rendered LMS now called the Protestant, as a monopolistic church for the island. 'All our magic, our dancing skills and songs, our local medicines and massages were all lost with the disintegration of the 'Roobung' (Tabweetu pers. comm. 2006). In its stead, the people welcomed Christianity into their lives that have been maintained throughout the generations to this day. Where the 'Roobung' disintegrated, one of the most beautiful churches was built and still stands as the main predominant infrastructure of the island.

One event of importance in the history of Tamana was the exploitation of its population by black birders in the late 1860s. It is estimated that about 300 people mostly men were shipped away and enslaved to work on plantations in the West Indies and in Queensland. Records showed that the drought of the 1860s had reached its peak in 1870, which might have made the work of the black birders easier as the majority of the people were willing to leave the island. The same case also happened at Arorae and Onotoa, the most stricken islands and Tamana's 2 nearest neighboring islands. The seriousness of the droughts on Tamana lives on in the story of 'Nei' Nimaningning who had to singly look after her two children. In order to feed them, she cut off pieces of her own flesh, cooked and fed her children with it. By the time the missionaries arrived, Nimaningning had just about cut off all she could and did not live to see the life that the missionaries brought with them. Her two children however survived and lived to bear their own children.

Missionaries from the London Missionary Society landed on Tamana to preach Christianity and were accepted by the islanders. A promise, (embodied in a stone at the landing site, Bakaakaa, where the council station is now situated), was made between the missionaries and the people of Tamana that there will be no other religion on Tamana but the Protestant Church alone. This promise has been printed on metal and has been honored ever since. However, people of all religions can go and work or live on the island but since there is no other church but Protestant, most get involved in the church activities even though they do not go to church but at times have no choice but attend the church

services especially during Easter and Christmas.



Sundays are taboo when nobody works at all but either go to church or just spend the day relaxing or preparing for church group meetings. Every morning and evening from 7.00 to 7.15 in the morning and evenings, a bell tolls that reverberates through the island as a sign for morning and evening prayers. This religious tradition is still highly respected and the community endeavors to be home before the bell tolls

however, if caught on the road, people will stand in silence until the bell tolls again signifying the end of prayer times. Fishermen return home before 12 midnight in Saturdays because Sunday begins thereon.

The first LMS Missionaries that came to Tamana banned dancing as they were considered pagan rites and since most of the dancing rituals went with the 'Roobung', the people of Tamana not only forgot the dancing songs but the moves and the skills. Their dance of the 'taubwati' and 'fatele' were later introduced in the early 1900s from returning workers of the phosphate mining companies in Nauru and Banaba. Tamana and including Arorae are also generally known as the southern islands of Kiribati that are like the northern islands. This, being the fact that where it is embarrassing to be seen eating at anyone's home, in Tamana and including Arorae, it is actually a habit of the people to just go around and eat wherever they go. Where smoking used to be a social pastime generally throughout Kiribati, eating and feeding others is a social pastime of the people on Tamana. The people are very friendly, hospitable, well built, very loud, liable to swear and hardworking. They are well known for their skills in reef fishing with canoes, in toddy cutting and group mat weaving of 'te tourobwa'.

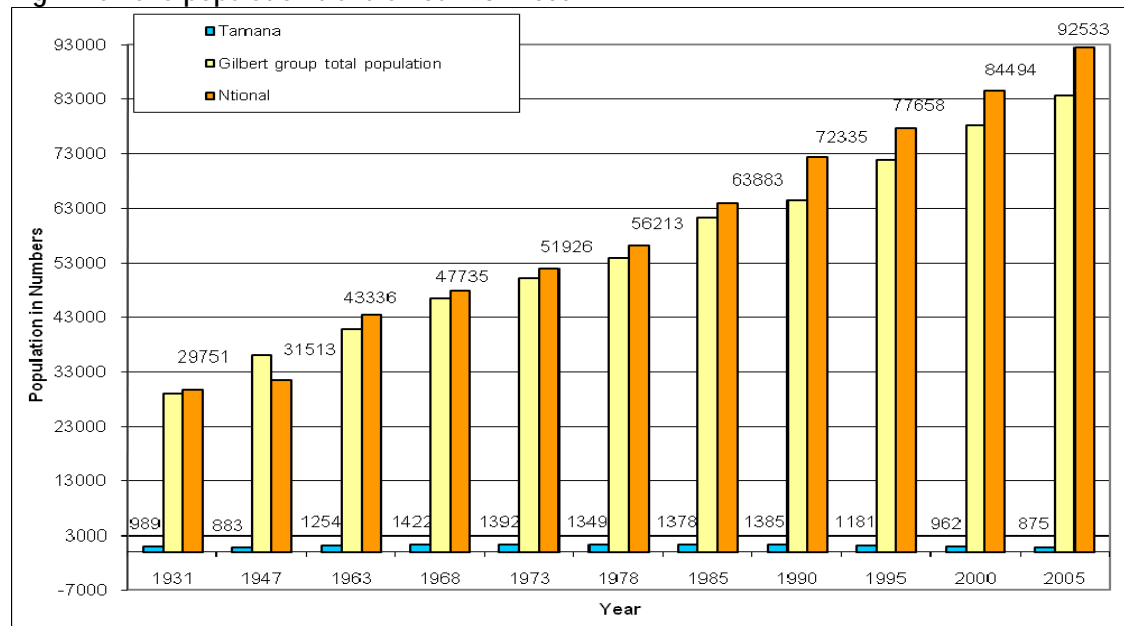
CHAPTER 3: TE MAURI – ENVIRONMENT, RESOURCES AND SOCIAL SERVICES

3.1 DEMOGRAPHY

3.1.1 Total population

The 2005 census recorded a total population of 875 people on the island, a decrease of 87 people since the 2000 census when the population was 962. Of this 875, there are 408 males and 467 females scattered throughout the island's three (3) villages of Barebuka, Bakaakaa and Bakarawa.

Fig 2: Tamana population trend since 1931-2005



The population of Tamana represented 0.9% of the total 92,533 population of Kiribati with South Tarawa having the greatest number of people at 43.56%. As evident from the 2005 census, the population of Tamana was greatly reduced by 87 people since the 2000 census, a decrease of nearly 10%. Its population trend has fluctuated between 800 and 1500 since 1931 with lowest count of people being in the 2005 census. The second lowest count was in 1947, which was around the time when recruitments for work in the phosphate companies in Nauru and Banaba were carried out after the end of WWII. Tamana's population has been steadily decreasing since 1990 where it was at a count of 1385 people, it decreased in the 1995 census by 204 and still further decreased in the 2000 census by 219. Migration from the outer islands is generally attributed to the search for better education, business and employment opportunities in South Tarawa, the Line group and recently in New Zealand.

3.1.2 Growth rate

On its own, Tamana's population has reversed island population growth rates as it has instead decreased in growth between 1990 and 2005. Its most recent recorded population decrease between 2000 and 2005 of 87 people is at an annual growth rate of -1.9% ($\text{Population difference of 2000 and 2005} / 2000 \text{ total population} \times 100 \Rightarrow 87 / 962 \times 100$). Compared to its previous population change of a decrease of a considerable 219 people at -18.5%, Tamana population decreased further since the 2000 census by 87 people. Tamana is also another of the islands in Kiribati where people are slowly

migrating away from the island in search of better education, business and employment opportunities and has actually the 2nd highest rate of decrease in the Gilbert group, Beru coming first at a decrease in population of -4.6%. Nationally, the Gilbert islands population growth was 1.7% in 2000 and 1.8% in 2005. Kiritimati in the Line Group has the fastest national growth rate of 8% on average (*2005 Analytical report*)

3.1.3 Population Density

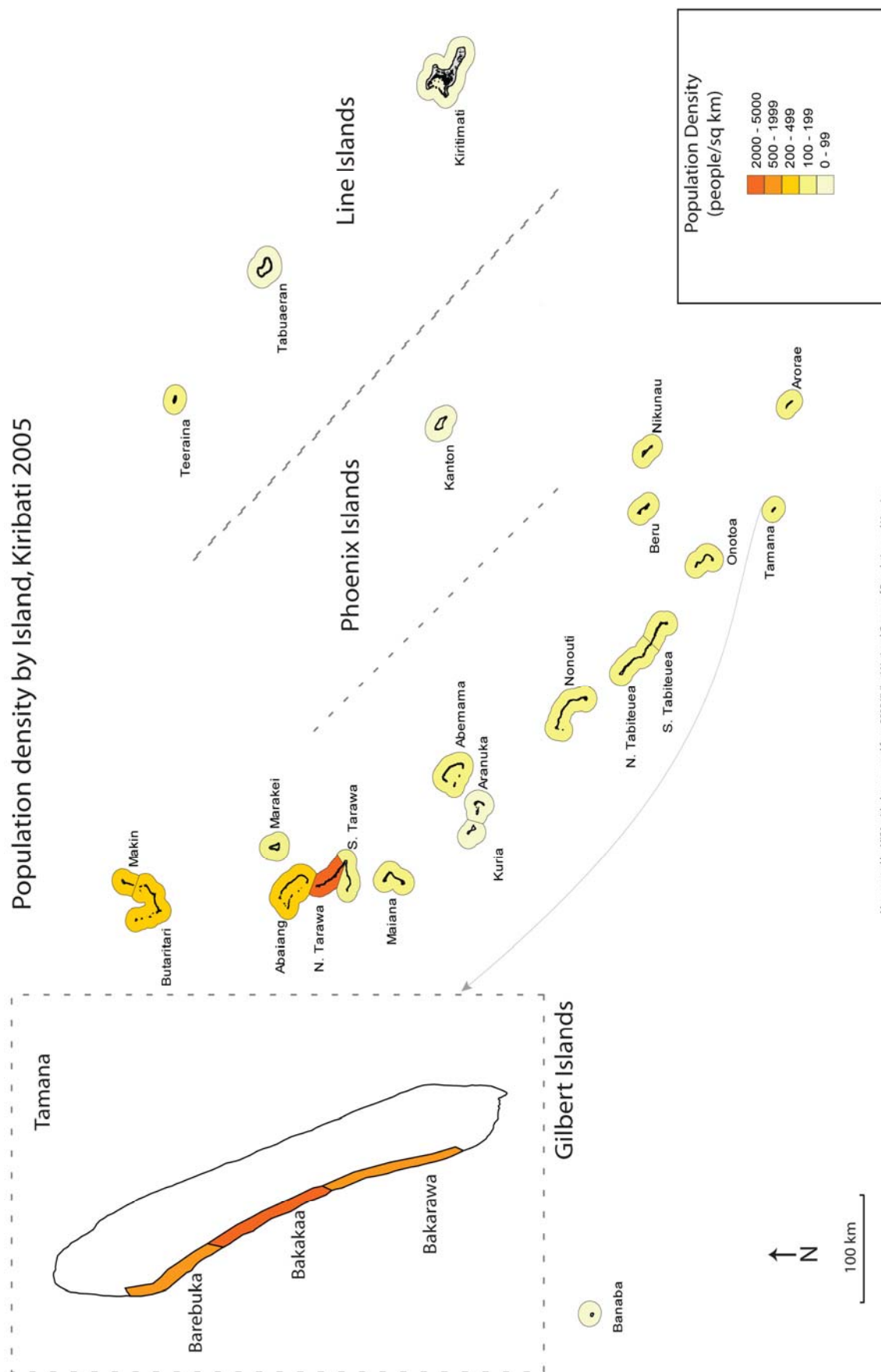
Population density is defined as the number of people living within a square kilometer of land that is calculated by dividing the number of people in a given location with the area of land. Table 2 below presents the population density on Tamana throughout the years since 1995, showing that the density has been slowly decreasing over the last years meaning that there is more land and less people living on it.

Table 1: Population Density by village (2000 & 2005)

Island	Land Area	1995 Density	2000 Density	2005 Density
Tamana	4.73	250	203	185

Source: 2005 Analytical report

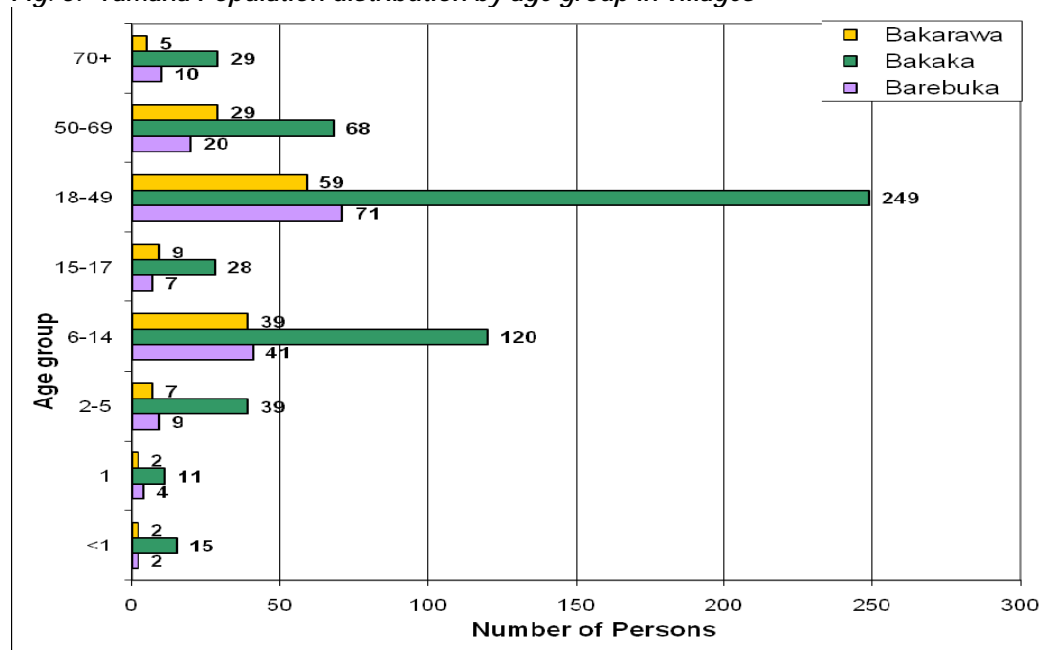
Tamana has a land area of 4.73 sq. km of which approximately 0.56 sq. km (PopGis 2005) comprises the village areas and an approximate 4.17 sq. km free owned arable land. Concurring with the slowly decreasing trend in population, so has the density and where there were 250 people living on a square kilometer of land in the 1995 census, the density decreased to 203 in the 2000 census with the 2005 census eventually calculating 185 people living on a square kilometer of land on Tamana – a decrease of more than a quarter the density since 1995.



3.1.4 Breakdown of Population

The following chart depicts the breakdown of the population throughout the three villages of Tamana.

Fig. 3: Tamana Population distribution by age group in villages



Source: 2005 Census of Population, NSO/MFED, 2007

Most of the mature population aged 18 to 49 numbering 249 can be found in the village of Bakaakaa, the central village where most of the population is residing. 29 of the oldest 44 people aged 70 years and over live Bakakaa, 10 in Barebuka and the rest 5 in Bakarawa. Of the 875 total population, there are 352 (40.3%) of people in the age dependency group (age dependency group defined as those below 15 years and those over 64 years of age). From this figure of 352, the age dependent population, there are 291 younger than 15 and 61 elderlies older than 64 years old (PopGis 2005).

Table 2: Tamana age group population distribution in villages

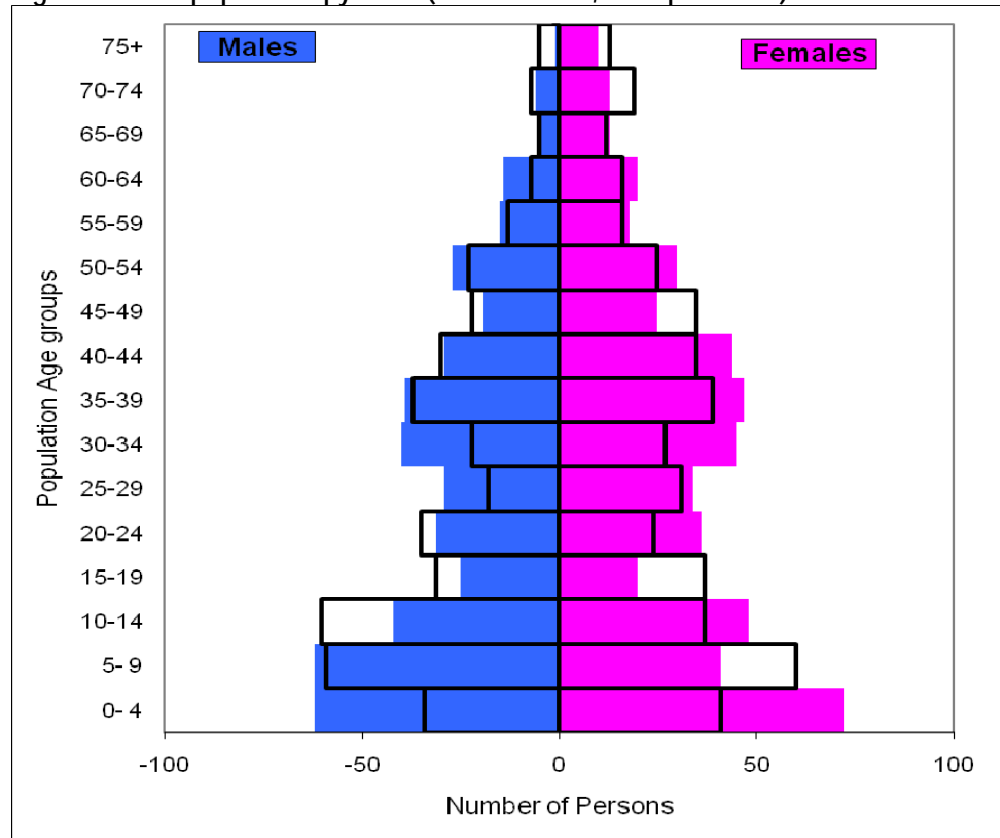
Tamana	Total	<1	1	2-5	6-14	15-17	18-49	50-69	70+
Barebuka	164	2	4	9	41	7	71	20	10
Bakaka	559	15	11	39	120	28	249	68	29
Bakarawa	152	2	2	7	39	9	59	29	5
	875	19	17	55	200	44	379	117	44

Source: NSO 2005 census

3.1.5 Population by Gender

Statistics indicate that in 2005, males were outnumbered by the females by 59 (467-408) and as depicted in the population pyramid in Fig 12 for Tamana, (*Kiribati 2005 Census2: Analytical Report*, SPC, Noumea, 2007), the sex ratio for Tamana is 87 males to 100 females – (total number of males/total number of females * 100 => 408/467*100).

Fig. 4: Tamana population pyramid (2005 outlined, 2000 patterned)



Source: based on the 2005 Census Analytical Report, SPC, 2007

Tamana has got a young population with the majority aged between 0 years and 49 years old at 714 (81.6%) of the total 875 population. However, there has been a significant decrease in the number of children born in 2005 by nearly half the number since the 2000 census, a significant increase of females less than 10 years old, a significant increase in the number of JSS aged males and increases of high school leavers aged 15-19. There is also an increase of the older generation aged 70 years and over. The improvement of the education system in the establishment of a JSS and provision of qualified teachers to both primary and junior secondary schools has allowed 12-14 year olds to stay back in the outer islands including those on Tamana to complete their junior secondary education before attending high schools elsewhere.

3.1.6 Population distribution by religion

Concurring with the LMS promise, the 2005 census showed that the Tamanans are predominantly Protestant with 855 followers (97.7%) of the total 875 Tamana population leaving a total of 20 people belonging to other churches. The Protestants are followed by 14 (1.6%) Roman Catholic followers, 4 (0.5%) Bahai followers and 2 (0.2%) followers of the Church of the Latter Day Saints (Mormons). The rest of the other religions such as Assemblies of God, Seventh Day Adventist, Jehovah's witness etc still have to make their presence known on the island. Judging from the people's religious tradition and congregation, it would take some time to introduce and establish other churches on the island if at all.

Table 3: Tamana Population by Religious denomination 2005

Religion	Number	% Religion of Tamana Population	% National Church Representation
Kiribati Protestant Church	855	97.7	2.6
Roman Catholic	14	1.6	0.03
Seventh Day Adventist	Nil	Nil	Nil
Bahai	4	0.5	0.2
Church of God	Nil	Nil	Nil
Mormon	2	0.2	0.07
Other	Nil	Nil	Nil
None	Nil	Nil	Nil
NS	Nil	Nil	Nil

Source: 2005 Census of population, NSO/MFED

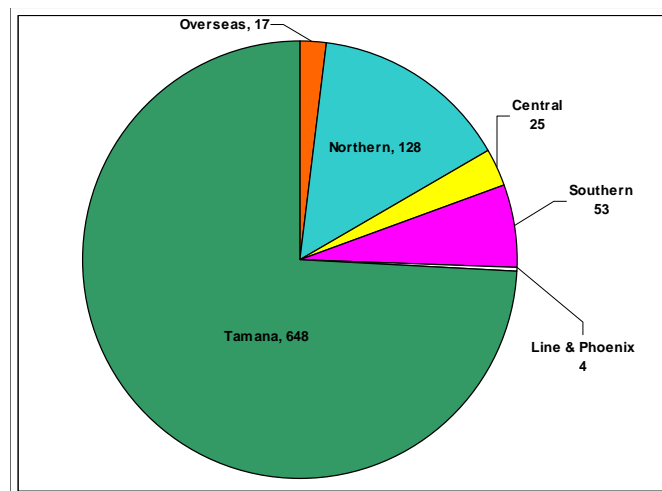
Most of the people on the island belonging to other churches other than Protestant are Government employees seconded to the island council and those married or adopted to a local of Tamana. These other denomination members on the island have to carry out their own services and prayers in their own homes as not only are there no other churches on the island but it would be culturally insensitive to try and go against the island religious tradition.

The Protestant church followers represent 2.6% of the overall 33042 total national KPC congregation. The Roman Catholic congregation on Tamana represents 0.03% of the national 51144 RC followers, 0.2% of the 2034 national Bahais with the rest denominations of SDA and others making up the rest of other different minority church followers on the island.

3.1.7 Migration

If the steady decrease of people from the island is anything to go by, it would indicate that over a span of 15 years, the 510 decrease in population could be an indication of the migration of the people of Tamana giving a rough estimation of out-migration from the island of 36.8% of the 1990 population of 1385.

Fig 5: Tamana population makeup



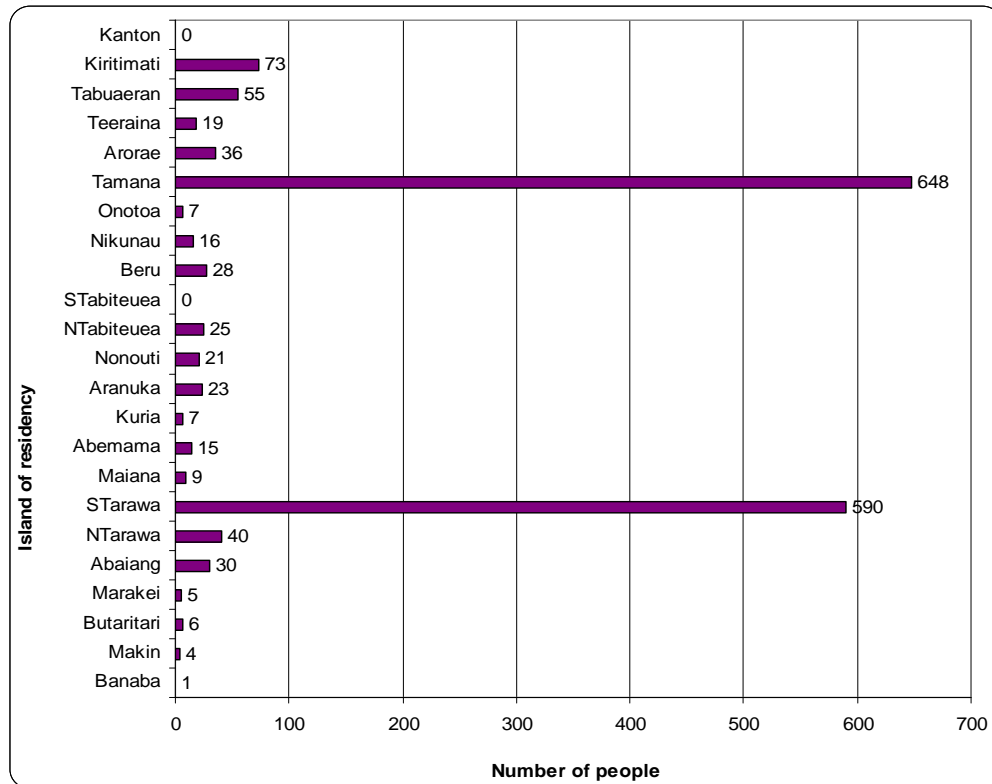
According to the 2005 census, of the 875 population in Tamana at the time of the census, 648 were Tamanans, 128 were from the northern district islands, 25 were from the central islands, 53 were from the southern islands, 17 were foreigners and 4 were from the Line and Phoenix group.

A recorded 1,658 (1.8%) Tamanans make up the Kiribati population of 92533 and where 648 reside on Tamana, the rest 1,010 are scattered all over the rest of the Kiribati islands either as Government employees working on these

islands, through marriage to people from the other islands, adoption, attendance of higher education schools and general family visiting amongst other reasons. The distribution of the Tamanans during the

2005 census is further displayed in the following chart.

Fig 6: Tamana population distribution by island



Source: NSO 2005 census

In 2005, of the 1,010 Tamanans scattered over the other islands, 590 (58%) were residing in South Tarawa while a significant number had migrated to Kiritimati and Tabuaeran in the Line group. However, it should be noted that the Line group of islands were opened for leases and migration in the early 1970s when people from all over the Gilbert group were resettled there. Unfortunately, the census does not indicate when these people arrived on the islands that were otherwise not their initial homeland for a more detailed expression of in and out migration from individual islands.

3.2 LAND RESOURCES

The island's main resources like the rest of the islands are its limited tree resources predominantly coconut trees, pandanus and a variety of shrubs and grass.

3.2.1 Terrestrial Flora

Plant life plays a great role in livelihood of the islanders and as limited as they are, they all have significant uses as sources of:

- Subsistence and commercial materials and products
- Ingredients for medicines
- Symbols of individual welfare
- Ingredients in traditional cultivation
- Materials for toys

Coconut trees (*Cocos nucifera*) are generally the trees of life for islanders as all parts of the tree provide their mainstay of food, shelter, medicine and income for the people in Kiribati including the people of Tamana. Coconuts have adapted well to atoll and dry conditions and will still remain standing after years of drought even though they may not be producing fruit. However, without fruits, these trees during drought times can still provide toddy spathes that have provided the people for centuries with their initial source of vitamin C found in the toddy. The people from Tamana are keen and well known toddy cutters as well as ocean fishermen.

The pandanus tree (*Pandanus tectorius*) comes second after the coconut as one of the very important tree crops on the islands that people hack their living out of.



There are two distinct species of breadfruit, the common breadfruit (*Artocarpus altilis*) and the Mariannas breadfruit (*A. mariannensis*) plus a hybrid of the two. The breadfruit tree comes third after the pandanus as the popular fruit trees in the islands but unfortunately the most vulnerable to prolonged droughts (R.R. Thaman 1990). These are therefore cultivated and looked after carefully around the homes where it is easier to look after and rarely found inland and away from homes.

Cultivating 'bwabwai' in Tamana is very difficult as prevalent in the southern islands due to the southern islands being prone to drought. 'Bwabwai' requiring a great amount of water to grow has made 'bwabwai' a luxury food item in the southern islands including Tamana, that is not included in the daily staple food but instead cultivated and reserved for very important functions. Bwabwai pits in the southern islands have to be dug to the water lens in order for this root crop to grow contrasting to the northern and central islands where the water table is quite high and 'bwabwai' crops grow all over the island. So where 'bwabwai' pits in the southern islands are guarded, rarely seen as all are located in the bush, and very private properties, the Northern island bwabwai pits can be seen in abundance alongside the road and in the extreme northern islands, are known to be community owned. The location of the 'bwabwai' pits deep in the forest is because its cultivation is surrounded in traditional secrecy and intensive care. As such, it is exclusively reserved by the islanders for ceremonial purposes only (R.R. Thaman 1990).

Other general flora comprise papayas, local fig, bananas, uri (*Guettarda speciosa*), casuarinas, leucaena, non (*Morinda citrifolia*), saltbush (*Scaevola sericea*), heliotropes (*Tournefortia argentea*), Alexandrian laurel (*Calophyllum inophyllum*), sea trumpet (*Cordia subcordata*), iron tree (*Pemphis acidula*), beach almond (*Terminalia samoensis*), great lettuce tree (*Pisonia grandis*), privet (*Clerodendrum inerme*) and a variety of ornamental plants, grass and weeds. The flower of the *Guettarda* locally called 'te uri' is the national flower of Kiribati. Individually, all these plants play a great role in the subsistence and economic life of the people on Tamana and Kiribati as a whole.

3.2.2 Terrestrial Fauna

Like the rest of the Kiribati islands, Tamana is not rich in its land fauna and comprises the common pigs, chickens, dogs, cats, birds and island insects such as rats, lizards and ants amongst others. The marine fauna has its share of fish, octopus, flying fish, tuna, sharks, lobster and oil fish to name a few.

The local pigs and local roosters are generally priceless domestic animals that all households have to own and they are kept and managed well. Introduced breeds of pigs, chickens and other livestock (goats and ducks) have been introduced to the islands by the Division of Agriculture but have limitations. Dogs are also kept domestically and to a lesser extent cats. Where dogs are kept as pets because of their role in guarding territories, cats are kept to control rats around the home as rats are abundant throughout Kiribati and in some places such as in the northern islands, they are devouring more coconuts and pandanus fruits than can be harvested for consumption and copra.

3.2.3 Land Tenure, Use and Ownership

During colonial times, people of all the Kiribati islands were brought together for easier census and administration resulting in the formation of villages throughout the islands in the country. There is no specific land tenure for Tamana but generally, people regard the beach areas near their houses as part of their household land claims and build homes in the villages and rarely on other pieces of land away from the villages. The rest of the island, not used for settlements or infrastructure (airport) is agricultural land where coconuts, pandanus, and bwabwai are cultivated.

Some acres of freehold land are leased by the Island Council to accommodate its administrative buildings, schools and health centers. Disputes over land ownership and boundaries are settled in Lands Court. The area where the church stands was freely given away during the initial establishment of the LMS on the island in the early 1870s.

Land is owned by families and inheritance is the common form of conveyance of title with the eldest receiving more lands and male heirs given preference over females. 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. Some lands have been disposed by sale but is rare in Tamana or in the Southern islands contrasting to the central and northern islands where sale of lands is quite a common pursuit of both the landowners and the buyers. Land are mostly inherited as willed from the parents and has changed dramatically where once it used to be a preference that lands were willed to male heirs only because of the tradition of women going to live with the husbands. Nowadays, anybody can inherit lands regardless of whether they are sons or daughters but this depends on the parents, the landowners.

3.3 MARINE RESOURCES

3.3.1 Size of reef and Lagoon area

Table 4: Size of Reef Size

Island	REF(sq/km)	REF base (sq/km)	LGN (sq/km)	LAND (sq/km)
Tamana	1.68	5.2	No lagoon	4.73

3.3.2 Fish resources and status

It is difficult to quantify the fish resources of Tamana, or any island for that matter. However, it is generally accepted that the bigger the reef area the larger the fish resource, particularly reef fish. It could therefore be concluded that due to its limited reef area as it is without a lagoon, Tamana also has limited reef marine resources. However, free migratory fish such as skipjacks and yellow fin tuna (*Katsuwonus pelamis*, *Thunnus albacores*) flying fish (*Cypserulus sp.*), shark (*Ginglymostoma ferrugineum*), oil fish (*Ruvettus pretiosus*) and lobsters (*Panurillus sp.*) are always abundant.

The main and major source of protein to atoll islanders is ocean and reef fish as hardly any other animal apart from pigs and chickens can live and survive in the atolls with their limited vegetation. Pigs and chickens on the other hand take time to grow and are normally kept for special functions or family celebrations. Fish is therefore a daily protein that the men endeavor to get daily for their family own livelihoods on the island as well as for relatives on other parts of Kiribati specifically those on South Tarawa.

3.3.3 Pattern of fishing

Fishing is largely a man's responsibility even though women are not restricted from fishing. Not every man owns a canoe or boat but the majority of households own a canoe or have access to one. Boats, until most recently were prohibited on the island as it was believed to chase away the fish.

Canoes are highly priced items as they are hard to make and equally hard to get materials to construct one. The frames and planks are made up from imported timber obtained from Banaba, Nauru and South Tarawa while the outrigger is made from local wood mostly those that are light most of the time breadfruit, sea trumpet ('kanawa') and the great lettuce tree trunks. Being skilled fishermen, the men fish daily or whenever there is a need except for Sunday when all is quiet after going to church. Over the years, the men have become so skilled in accessing the ocean without a passage and owing to their quaint reef size, men can go fishing to get their daily fish 2 hours before sunset and come back with enough to feed the family before sunset.

The women do fish of which their fishing comprises walking the reef area during low tide and overturning stones to catch the fish under the stones. This form of fishing locally called 'te urakaraka' is specifically carried out by the women only as ocean fishing is the men's domain.

Fig 7: Households place of fishing

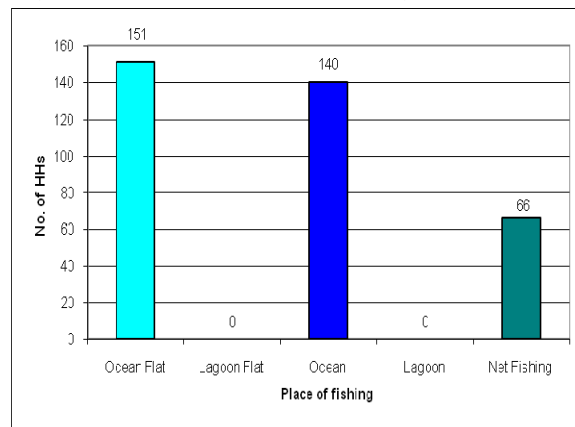


Figure 4 (right) categorizes household fishing patterns by the households. The majority of the households of 151 (77%) fish on the ocean flats, followed by 140 (71%) households fishing in the ocean and 66 (34%) involved in net fishing on reef flats during high tide. Fishing in the ocean flats include spearing, net fishing and night fishing (kibee).

The fishing catches are normally used for subsistence living only and where surplus, they are either shared with neighbors, sold to local consumers mostly Government council staff or

salted and preserved for later consumption, sale and sending to relatives outside the island specially those in South Tarawa. The completion of an ice-plant in 2007 has allowed fishermen to also sell their

surplus catch to the plant.

The most common forms of fishing other than net fishing and 'te urakaraka' are:-

- Deep bottom fishing ('katokitoki')
- Hand lining ('katiki')
- 'Tabo n Ao'
- Trolling ('kauaaki')
- Spearing ('katebe')
- Octopus catching

There is only one boat channel on the island located at the capital village of Bakaakaa. This channel provides safe passage for transportation of cargo and passengers from visiting ships as well as for local fishermen alike.

3.3.4 Marine Developments

The Ministry of Fisheries & Marine Resources Development is responsible for marine development nevertheless; Island Councils on individual islands have their own marine developments. The most recent popular development by the Ministry of Fisheries & Marine Resource Development (MFMRD) is the promotion of sea cucumber harvesting for income generation purposes. Unfortunately for Tamana, there is a very limited number of sea cucumbers for them to be part of the latest development in sea cucumber export.

The Fisheries Division has tried to assist the fisheries of Tamana and including other islands in the provision and anchorage of buoys at certain fishing sites on the islands reef. These buoys were expected to provide feeding grounds for fish that would make fishing easier for the islanders. However, these have broken and drifted away twice, again needing new ones to be provided and anchored. The success of the buoys in providing feeding grounds had made fishing nearer thus easier for the fishermen as well as the women who could watch their men from their homes and did not have to keep up their frequent trips to the beach to see if their husbands were coming. Twice, the buoys were provided and anchored by the Fisheries Division and twice these buoys drifted away. Locally, it was attributed to the lack of consultation of the Fisheries Officers with the islanders who knew their reef and ocean well to know which locations would be the best to anchor the buoys and how best to keep them from drifting away.

Trainings have also been carried out to Tamana fishermen on deep bottom fishing and trolling.

Boats were for a time prohibited by consensus of the islanders and not written down as a bye-law but it has been lifted recently in the late 2006s and people can now bring in boats.

3.3.5 Issues facing fishing and development of marine resources

Nonetheless, there are still fishing development issues facing the Tamanans such as:-

- 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
- The continuous drifting away of buoys

3.4 THE ENVIRONMENT

3.4.1 Environmental Issues

Consistent with climate change, the most threatening environmental issue on the island is soil erosion, which fortunately for Tamana is not that much of an issue. Other issues though exist in the form of safe dumping of rubbish and droughts.

Drought is an ever-present threat to the Southern islands of Kiribati including Tamana. Drought kills off land vegetation and where it does not, the fruits are affected in size and production, wells providing the main source of water for the islanders turn brackish and the dry vegetation makes the bush vulnerable to bushfires.

Kiribati has been assessed and considered as being at relatively low risk from cyclones but storms can create major damage to food crops on the islands that are mostly mere strips of rocky coral land between the ocean and a lagoon (*SPDRD Case studies of the Pacific 2002*). These storms concur mostly with the rainy seasons which are towards the end of the year until the early months of the year and most experienced as strong winds that could uproot or break coconut trees and even known to blow roof houses off. Otherwise, Tamana, small as it is, is perfectly sheltered from cyclones just as the rest of the islands in Kiribati.

3.5 EDUCATION

The data used in this section are derived from the Educational Statistical Yearbook for the years 2004 to 2006, census data from the National Statistics Office (NSO) and SPC 2005 PopGis statistics derived from the NSO data. The National Statistics collects such data during census times while the education data are compiled by head-teachers and, submitted to the Statistical Unit of the Ministry of Education who update their database every year from the received data from the outer island schools. All the islands of Kiribati now have several primary schools and one junior secondary school on them with the number depending on the population and land size of the islands i.e. there is one Primary school and one JSS in Tamana. There is no pre-school as yet on Tamana and thus children start their formal education in their 6th year when they start primary school.

There are 4 types of schools (not counting tertiary schools) within the formal education system in Kiribati, namely primary, junior secondary, combined junior/senior secondary, and senior secondary. The first 2 types of school, primary and junior secondary are independently located on every island for accessibility by all children of school age. However, pre-schools are not yet included in the Government school system as yet even though they support them anyway. The Island Councils as such promote their own pre-schools and pay their own pre-school teachers. The national/universal junior secondary schooling program started in 1998 initially with four schools established on different islands and by 2002, all islands in Kiribati had one JSS established whence free absorbing of primary school pupils straight into junior secondary school. Class 1 to Form 4 are free education services by the Government of Kiribati to the nation.

Pre-school attendance generally starts at the age of 3 when the children are still learning to talk and continue until the child is 5 years old. At 6, formal education officially commences at Class 1 in the primary school for the children until they reach Class 6 at the age of 11. At the age of 12, the children then automatically enter Junior Secondary School after completing Class 6 in Primary schools. They remain in JSS for 3 years (Form 1-3) before competing for a place in Form 4 in one of the various Senior Secondary Schools located mostly in South Tarawa and the outer islands of the Gilbert group including Kiritimati in the Line group. There are several church schools belonging to the Roman Catholics, Kiribati Protestants, Mormons and the SDA respectively that are located mostly in South Tarawa, Kiritimati island and others on the outer islands of Kiribati. The Government, after KGV/EBS located in South Tarawa also has another high school, Teabike in Tabiteuea North.

To teach in primary school, one has to have at least reached Form 5 (minimum qualification) to be eligible to enter the Teacher's college whereas to teach at junior or senior secondary schools, one has to have at least reached Form 7 in senior high school. Having undergone the required trainings and having attained the minimum academic qualifications required by the national authorities to be qualified to give classes at schools (*Education Digest 2006*), teachers can then enter the education system as qualified teachers. Teacher trainings are given out at the Kiribati Teachers College in South Tarawa that requires a minimum two year intensive training to be qualified or certified to teach classes in schools. Prevalent on the outer islands in the education system is the recruitment of so called 'monitors' (those who have not undergone or attained qualification to become teachers) to assist in teaching the children especially when teachers are lacking due to transfer and traveling problems.

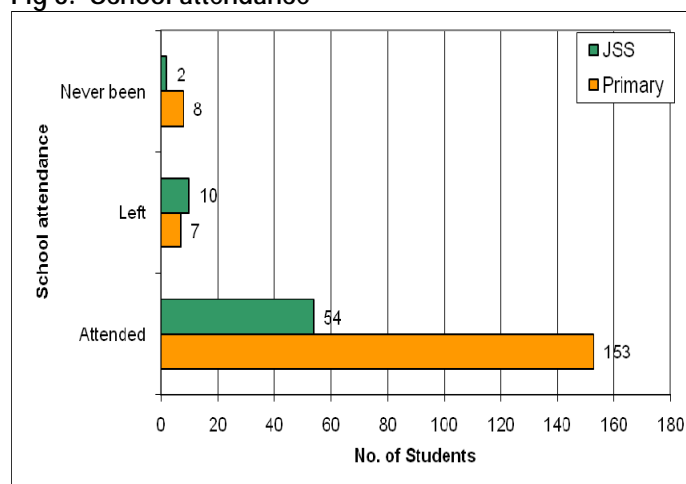
Table 5: Senior secondary schools in Kiribati

	Name of School	School Type	Location
1	Chevalier School	Senior Secondary (SS)	Abemama
2	Church of God High School	SS	South Tarawa
3	George Eastman High School	SS	Nonouti
4	Hiram Bingham High School	SS	Beru
5	Immaculate Heart College	SS	North Tarawa
6	Kauma High School	Combined Junior & Senior (CS)	Abemama
7	King George V & Elaine Bernacchi	SS	South Tarawa
8	Meleangi Tabai High School	SS	Tabuaeran
9	Moroni High School	CS	South Tarawa
10	Sacred Heart High School	SS	South Tarawa
11	St Joseph's College	SS	Abaiang
12	St. Francis High School	SS	Kiritimati
13	St.Louis High School	SS	South Tarawa
14	Stephen Whitmee High School	SS	Abaiang
25	Teabike College	SS	Tabiteuea North
16	William Goward Memorial School	SS	South Tarawa

3.5.1 Number of school age children, proportion enrolled in schools

A total of 166 children enrolled in the Margaret Field Primary School in 2005 (PopGis) of which there were 92 males and 69 females distributed in Classes 1 to 6. The Nawai JSS students numbered 66 with 34 boys and 32 girls.

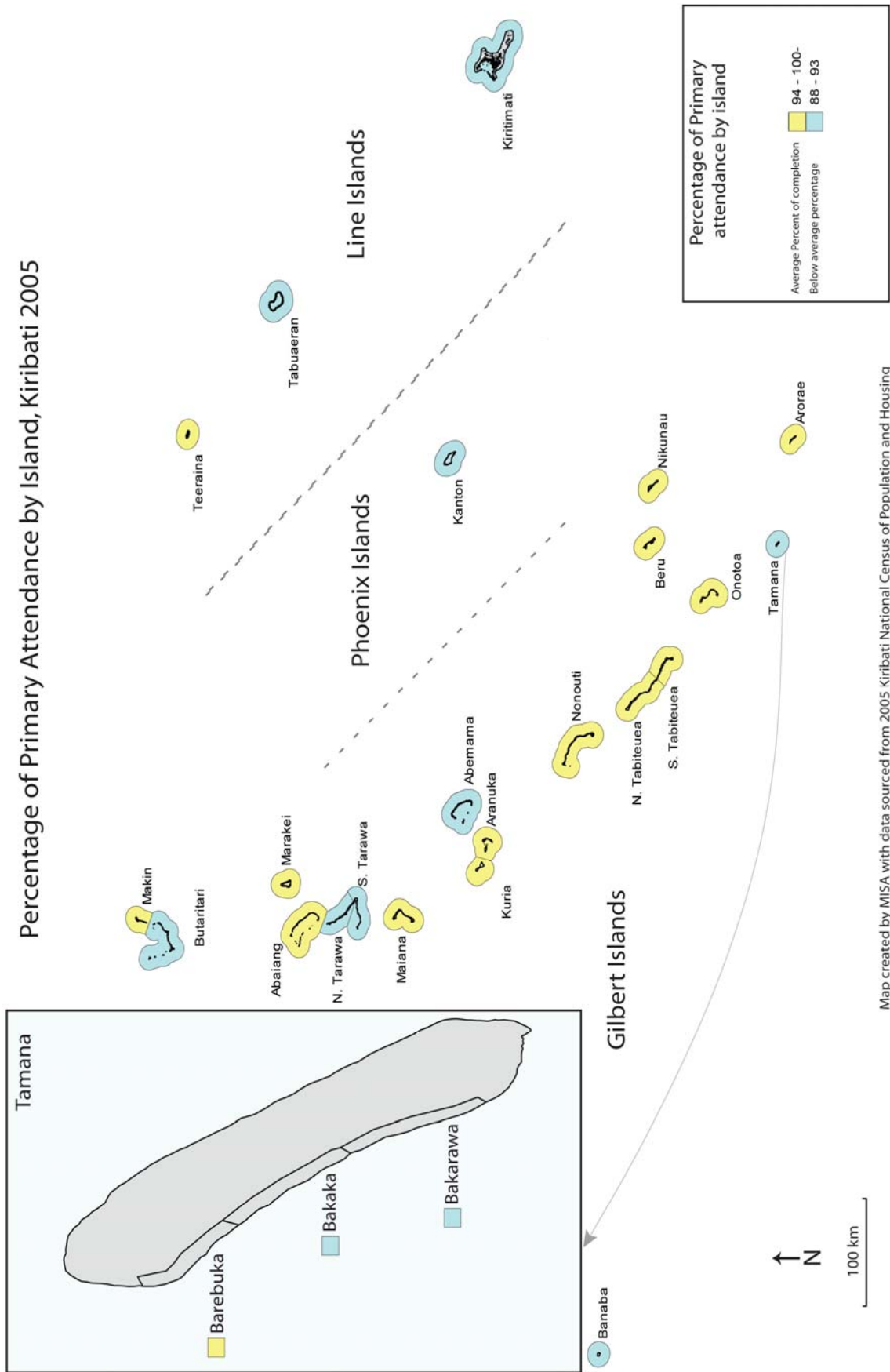
Fig 8: School attendance

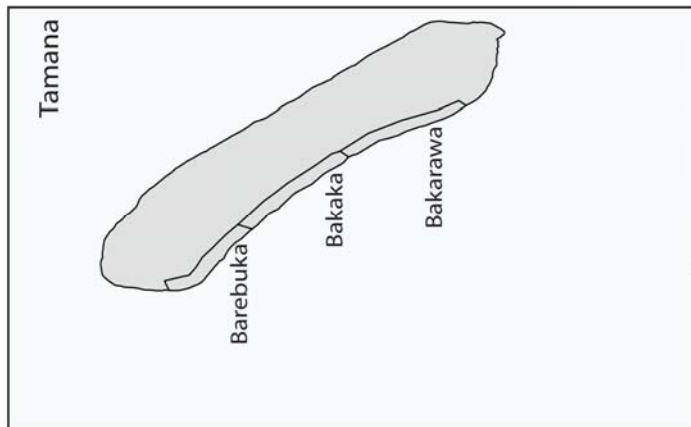


The chart on the left depicts the proportional attendance of the Margaret Field primary school pupils as against Nawai JSS students on Tamana. Due to the great difference in the number of students in the different schools, a justifiable comparison cannot be explained without undermining the attendance of the Nawai JSS as there are nearly three times the number of Primary school pupils than JSS students.

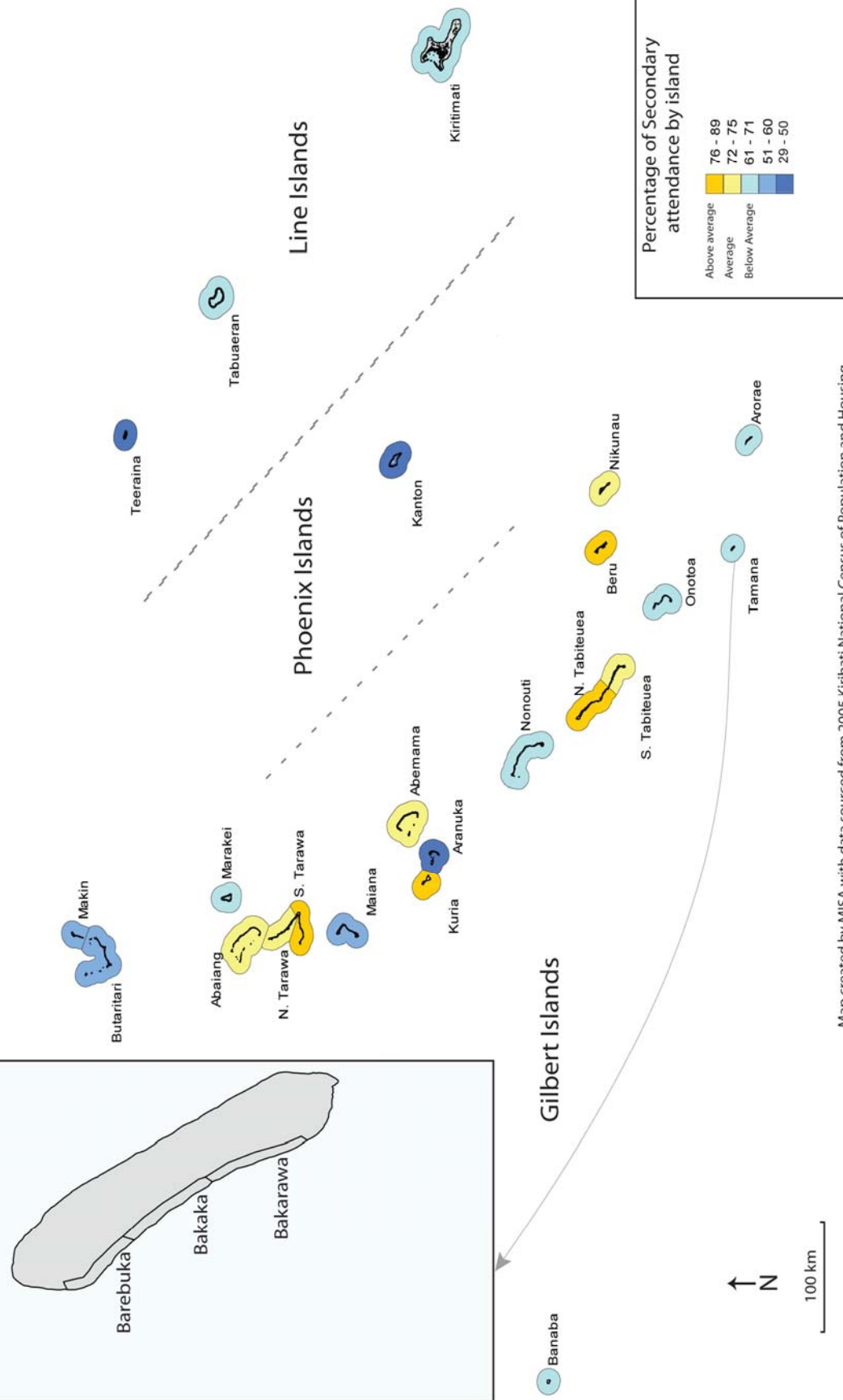
However, on their own (Primary and JSS), proportional attendance of primary school pupils against those who left and those who have never been to school is quite high in favor of the number who attended primary school. From a record of 168 pupils, 91% indicated that 153 pupils enrolled and attended the Margaret Field Primary in 2005. 7 (4%) left school without completing primary and 8 (5%) never went to school at all. Overall, 94 (56%) boys and 59 (35%) girls attended primary school, 2 (1%) boys and 5 (3%) girls left primary school, while 3 (2%) boys and 5 (3%) girls never went to the Margaret Field Primary School in 2005.

On the other hand, out of the 66 JSS students, 54 (82%) attended JSS while 10 (15%) left JSS without completing it and the rest 2 (3%) never went to JSS at all. Of these 66 JSS students, 25 (38%) boys and 29 (44%) girls attended JSS while 7 (11%) boys and 3 (5%) girls left JSS without completion and 2 (3%) boys never attended JSS at all.





Percentage of Secondary Attendance, Kiribati 2005



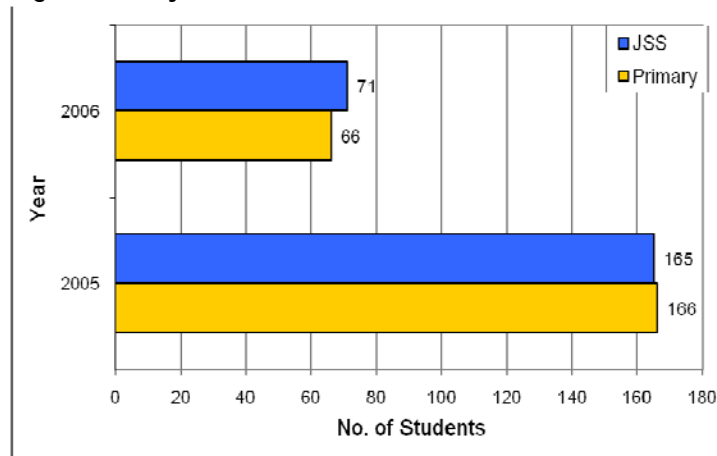
Map created by MISA with data sourced from 2005 Kiribati National Census of Population and Housing

Generally, among reasons such as being disabled, poor beyond reason or plain parental ignorance of the importance of education, it is interesting to know that in this present age that there are still children who are not attending school. The Gilbert group trend in the last years of families and parents inviting and sending children to South Tarawa to access schools there that are believed to offer quality training than on the outer islands has slowly been solved through the upgrading of present teacher training and existing teacher qualifications. The establishment of JSS on the outer islands has also helped considerably in stemming the flow of junior secondary students from the outer islands. Another reason for children having left school includes having parents as Government employees being transferred to another location on another island within the country or migrating to the other island in Kiribati or New Zealand under the Pacific Access Category.

3.5.2. Breakdown of school enrolment at different levels

There is only one Primary and JSS on Tamana, the Margaret Field Primary School and Nawai JSS. Both are located at the centre of the island in between the Island Council and Medical centre (see geographical map of Tamana P.5) for location of primary and JSS schools on the island.

Fig 9: Primary and JSS school enrolment



The 2005 census recorded a number of 166 pupils as having been at the age to be in the initial formal education. Of this 153 (92.2%) enrolled Margaret Field Primary School, 7 (4.2%) left school and a further 8 (4.8%) did not attend school at all. Those who left school without completing their primary education comprised 2 males and 5 females. From the 8 who had never been to school, there were 5 girls and 3 boys.

On the other hand, out of a recorded 66 JSS students, 54 (82%) of them attended school, 7 (15%) left and 2 (3%) never went to school at all. Those who left comprised 7 males and 3 females while the who never went to school were both males. In 2006, there was an increase of pupils to 165 attending the Margaret Field Primary School. Of this 165, there were 75 (45.5%) females and 90 (54.5%) males enrolled in the different classes, 1 to 6. JSS students on the other hand also increased to 71 of which there were 29 female and 42 male students. There were 53 (32%) enrolled in Form 1, 52 (31%) in Form 2 and 61 (37%) in Form 3.

3.5.3 Teacher:Pupil ratio

The national teacher pupil ratio was 26 pupils to one qualified/certified teacher in 2006 however, the teacher: pupil ratio on Tamana was over by one i.e. 1:27 and very much below the standard ratio for JSS teacher pupil ratio at 1:16 as displayed in the following table.

Table 6: Teacher:Pupil ratio

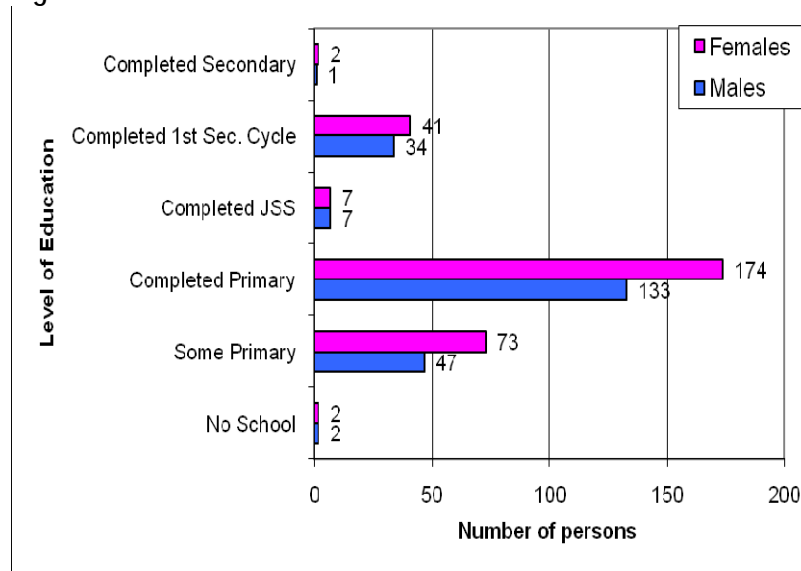
School	No. of Students	No. of Teachers	Teacher: Pupil Ratio
Margaret Field Primary School	191	7	1:27
Nawai JSS	47	3	1:16

3.5.4 Percentage of pupils completing Primary and JSS

Unfortunately, completion of Primary and JSS school data are not available to clarify the completion percentage of the above stated school students.

However, the PoPGis data showed that in 2005, 523 islanders (aged over 25 years) level of education was recorded. Of this, 523 who went to school, 4 (0.8%) never went to school, 120 (22.9%) had some primary education, 307 (58.7%) completed primary school, 14 (2.7%) completed JSS, 75 (14.3%) completed at least the first secondary cycle and 3 (0.6%) completed senior high school.

Fig 10: Education level



The above chart displays the levels of education that the 523 people had had comprising 299 females and 224 males. 307 (59%) of them completed primary school, 14 (3%) completed JSS and a mere 3 (0.6%) completed senior secondary school. However, two others were also recorded as having had tertiary education and had actually graduated (PopGis 2005).

3.5.5 Number of schools, type and state of facilities

Tamana has three types of school, pre-schools, primary school and a junior secondary school. All these schools are located in the middle of the island and are all easily accessed by the children on the island. The JSS truck has also made access to the schools very easy.

Margaret Field School has been there longer when compared to the JSS school which were all established in the late 1990s and are therefore new and in pretty much good condition. School desks and chairs are however lacking in Margaret Field Primary School as in most of the outer island schools

thus children sit on the floor on mats woven from coconut fronds or pandanus leaves. Fortunately all classrooms are equipped with blackboards, the main teaching instrument as whiteboards are a recent development and the schools do not have a generator to use media as an alternative teaching instrument.

The Nawai JSS on the other hand is better equipped with toilets and furniture i.e. desks and chairs however there are some school facilities still lacking at Nawai JSS such as a library, science laboratory, toilets and also rainwater tanks.

As a legal requirement for all schools, they are to be provided with safe and appropriate toilet facilities. The following toilet / person ratios were deemed appropriate for Kiribati conditions including Tamana:

- 1:40 for girls;
- 1:60 for boys; and
- 1:25 for teachers in urban schools only (it is assumed that teachers in all other schools will have access to toilets at their quarters).

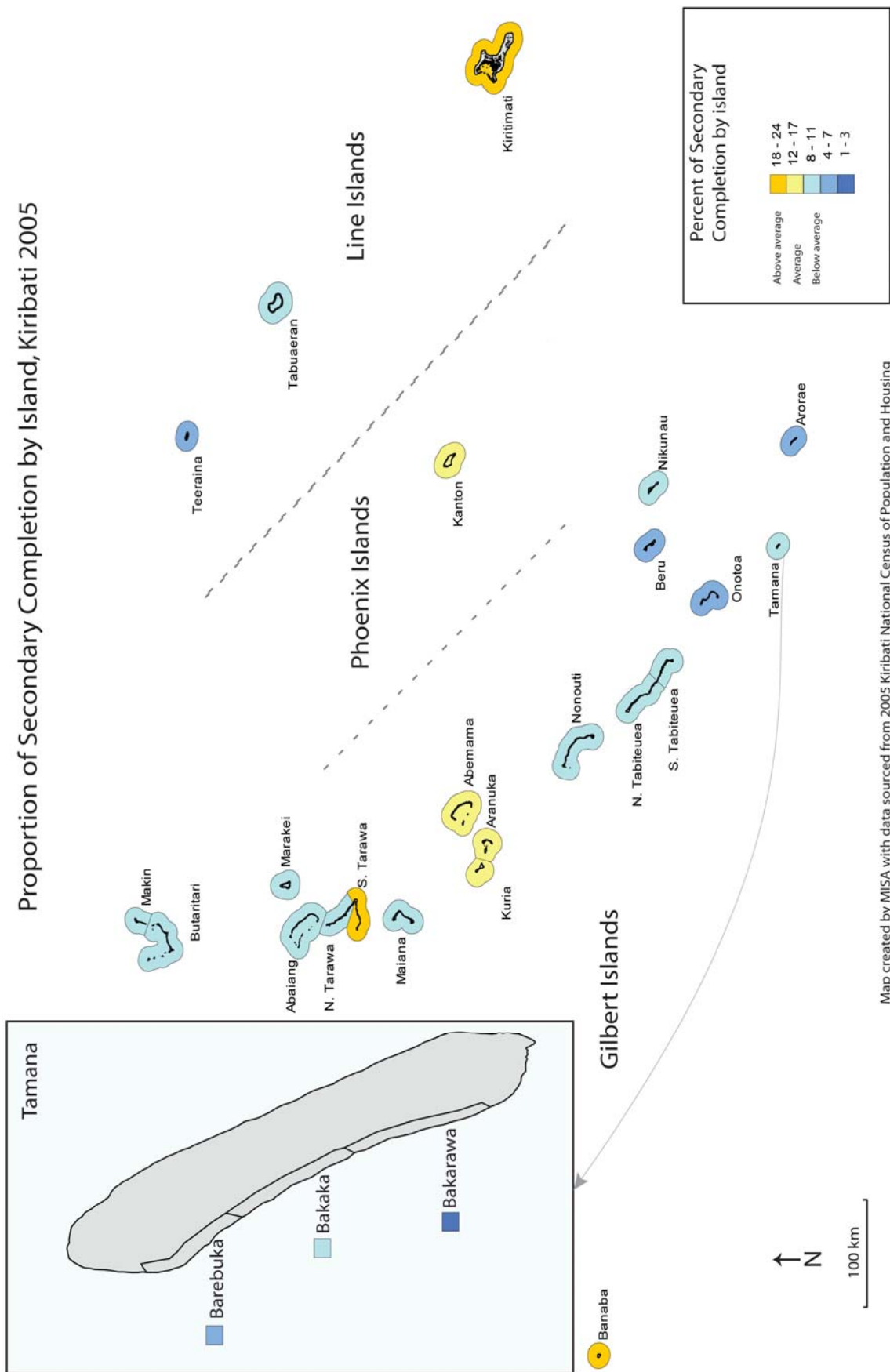
Teacher living quarters at the different schools are all located around the school compounds and are maintained by the Council and funded by the Government. Updates or information requiring maintenance work to be carried out is collected annually by officers from the Ministry of Works and Energy who have to include the maintenance costs in the following year's budget. Funds for local houses maintenance are sent to the Island Council whereas materials are bought and sent to the island council who then supervises maintenance of the buildings with the islanders.

3.5.6 Performance of Pupils in national tests/exams

In the formal education sector, children at pre-school and primary school levels transit to primary and JSS respectively without having to sit entrance examinations. This policy supports the concept of compulsory and accessible education for every child, especially at the early stages of formal education.

With the introduction of preschools, children on Tamana are now starting their formal education at the age of three before they attend primary school at the age of 6. Primary school lasts for 6 years at which time, the children enter JSS straight away. At the end of JSS at Form 3 level, students must compete with each other nationally for the limited places available in Form 4 in any of the few Senior Secondary Schools in the country (See Table XX above). The students of Teeraina JSS therefore have to compete with all Form three students from all over Kiribati to secure entrance to Form 4 in the senior high schools. Generally, students in the Line Group tend to select Meleangi Tabai Secondary School in Tabuaeran and recently St. Francis and Spivey in Kiritimati but some still elect to further their studies in the Gilbert group of islands most of the time in the South Tarawa senior schools. Students in the Gilbert group including tend to select any of the high schools in South Tarawa of which KGV/EBS is the only Government high school.

The Digest of Education Statistics does not provide information on the performance of pupils in national examinations, and to this effect, the Ministry of Education has been requested to provide this important information for inclusion in the profiles.



3.5.7 Community involvement to improve standard of education

Normally the community does not interfere with the school curriculum, as it is the responsibility of Government to design them to suit the ages being taught to and ensure their effective implementation. However the community, through the school committee, often takes the initiative to address a wide range of other issues, such as children and teachers comfort, security, staffing, sports, and even school infrastructure. In a lot of cases, the teachers have to take the initiative and assign each pupil a specific task to do for a class activity or a school project at which times, the children always seek and are given help and support from families. This kind of help and support from individual families can take the form of money, food or their own involvement such as in the building of a school mwaneaba or singing in a school dancing practice and competition etc.

Over the past years the community has assisted both the primary and junior secondary schools especially in performing critical maintenance work on classrooms, offices and teacher residences. These buildings are by right the responsibility of Government who, in many cases has been very slow in providing the financial support needed to keep school infrastructure in good shape. Onotoa is not an exception in these slow provisions of financial support from the Government, Despite this, the community continue to support their school children and their schools by being guardians of the school property as well as in provision of pupil/student's school needs for school activities or other school requirements as may arise from time to time. Fundraising activities carried out are normally in the form of raffle tickets, cleanup activities for individual households and sale of local brooms and frond mats.

There is also a school committee on most of the outer islands who plan school development activities including fundraising activities and projects. This committee is normally made up of the teachers themselves who when required, raise their needs to the Island Council or the island community whenever their support are needed for their school projects.

3.6 HEALTH

"The Ministry of Health and Medical Services will provide optimal level of health to the people of Kiribati using a Primary Health Care (PHC) approach that promotes both prevention and curative services to improve outcomes through accessible, affordable, integrated, and quality services at every level of the health delivery system". This is the mission statement of the Ministry of Health and Medical Services contained in its Operational Plan for 2004-2007, which reflects the overall responsibility of the Ministry of Health and Medical Services for the nation as a whole.

3.6.1 Health Facilities & Staff

There is one medical facility on the island that caters for the medical needs of the people on Tamana. The clinic is staffed with a medical assistant and assisted by nursing aides, the latter are employed by the Island Council.

As with the rest of Tamana Island Council service facilities, the health centre is located in the centre of the island on the ocean side or the uninhabited side of that part of the island. It is made of permanent materials and is quite a huge facility when compared to other old health centers throughout the islands. However, this health center does not include an operation theatre or any other sophisticated medical facilities but is roomy enough for a dispensary, clinical and a couple of wards.

3.6.2 Most Common Health Problems

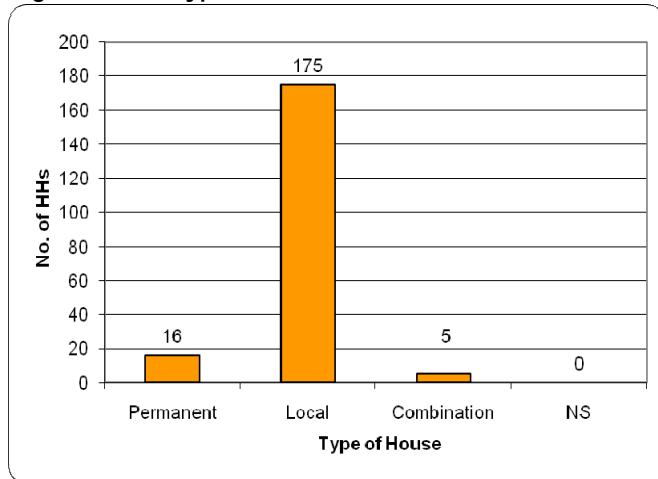
Health data for the island is not available and thus will not be included in this profile.

3.7 HOUSING

3.7.1 Total number of residential houses, type and status

There are 196 households on Tamana and 175 (89.3%) of these 196 households are made from local materials. There are 16 (8.2%) households constructed from permanent materials only and amongst

Fig 11: House types



these is the pastor's house which is constructed from pure limestone just as the church is built from limestone as well. The rest 5 (2.6%) are made from a combination of imported and local materials shows that the people of Tamana still prefer local houses and are willing to endure the hard work of maintaining one's home. This however is good exercise for the men and women alike as the women have prepare thatches, string and mats made out of pandanus leaves while the men have to put the thatches on and renew the wood

where it is rotten. These local houses have to be maintained every 2-4 years, depending on the roof material (thatch) and wood used. Pandanus roof thatches generally last longer than those made out of coconut fronds thus women and men alike prefer pandanus thatches than coconut thatches. Just as likely, wood materials from coconuts and pandanus generally last longer than those from *guettarda* and *heliotropes* do.

Local households on Tamana comprise:

- Sleeping quarters –this is used for sleeping and houses sleeping mats and accessories. Suitcases, entertainment accessories such as tape recorders, photographs are also kept in the sleeping quarters. It is normally of a 'buia', a raised housed floor type but a lot larger than the common small 'buia' seen outside homes.
- Storehouse ('bata') – A ceiling is constructed to half or all of the roof part with an inbuilt attic door. It is used as a storehouse for salted fish, string, thatches and wood.
- Shelter house ('bareaka') – initially this is used to shelter canoes from the rain and sun, fishing equipment such as fishing nets and diving gear, and also for cooking and eating. Nowadays, it is also used as social meeting place for the people and their friends (picture above)
- Toilet ('roki') – Toilet facilities normally consist of a housed latrine that is used for both sanitary and bathing purposes



Household tradition differs from island to island and where the

women are not counted as heads of the households in Tamana, they are counted on some islands as heads and have households of their own. Households in Tamana however, are counted on an individual basis as most are a measure of welfare in the sense of how organized, hardworking and healthy one is.

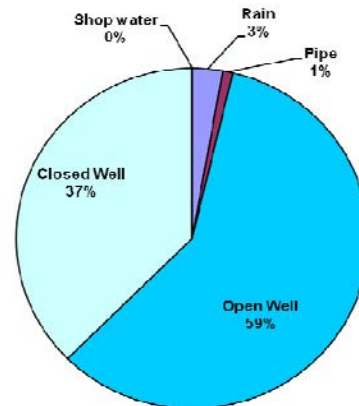
Of the 196 households, 173 (88.3%) are privately owned, 11 (5.7%) are Council owned and 12 (6.2%) are Government owned. Council owned households are those belonging to council staff while Government owned houses are mostly schools, medical and council offices.

Fig 12: Water supply sources

3.8 WATER

3.8.1 Water Supply Sources

The main water sources for drinking and sanitary purposes on the island are groundwater and to a small extent, rain. Piped water is basically introduced water systems where PVC pipes provide the means of transporting manually pumped water to cooking areas and toilets. Full piping systems however are rare on the outer islands and can be found mostly in Council households and Government infrastructure. The community piping systems comprise PVC pipe manual pumps (Tamana pumps) that branch out to other areas of the household area such as the toilet and kitchen.



From the 2005 census, 127 (59%) households main source of water were open wells, 81 (37%) households were using closed as their main source of water, 6 (3%) households were using rainwater as their main source of water, 2 (1%) were using piped water as their main source of water while there was not anyone using bottled water.

Groundwater in atolls occurs as a lens of freshwater floating in hydrostatic balance on salt water below it. Toward the center of the atolls, the water is generally potable and is where most of the wells used for drinking are dug (Preston E. Cloud Jr. 1952). Wells for other general purposes such as washing, cleaning and gardening are dug next to households for convenient use. The fresh water wells however are subject to brackishness during times of drought. During these times, potable water can be fetched from as far as a kilometer away.

Rainwater tanks are not abundant on the island and where available, the rainwater is normally a guarded commodity that is rarely used except for cooking and drinking. The rainwater is normally saved for times of drought when the wells turn brackish. During rainy seasons, the rainwater can be used for washing, cooking, cleaning and bathing. Most of the water tanks anyway are owned by church groups, the Island Council and some individuals who own brick

