

access to toilets at their quarters).

Teacher living quarters at the different schools are all located in the school compounds which 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 maintenance work whereas materials are bought and sent to the island council where school buildings are of permanent material.

### ***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 Onotoa 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 when they are ready.

### ***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, clean up activities for individual households and sale of local brooms and frond mats.

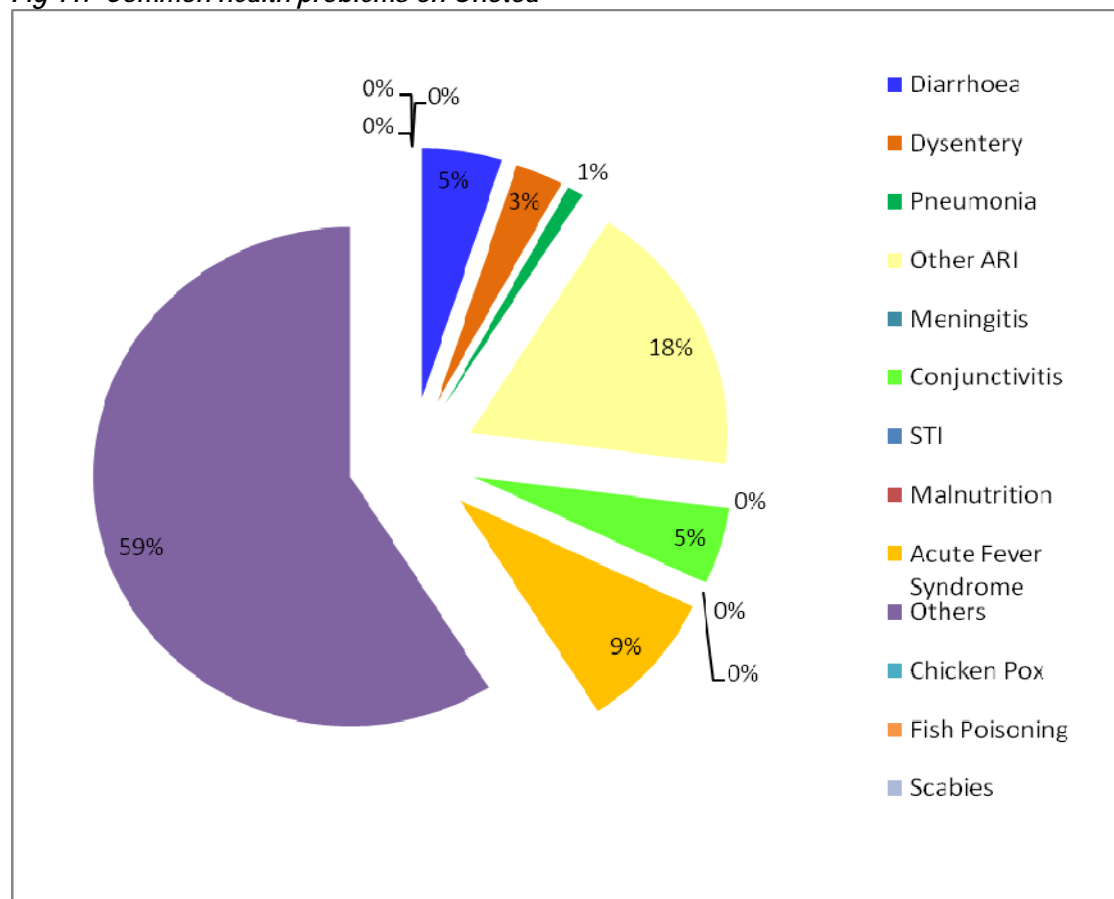
### 3.6 HEALTH

*"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.

#### 2.6.1 Health Facilities & Staff

The 7 villages of Onotoa each have a medical facility or clinic including a central one located at the Council Office in Buraitan. All clinics are staffed with qualified nurses and assisted by nursing aides, the latter are employed by the Island Council. A Medical Assistant (MA) oversees the central clinic at the Island Council while another MA oversees the medical clinic in Tabuarorae.

**Fig 11: Common health problems on Onotoa**



Similar health data from the outer islands seem to have the same health results in which the most common form of health problem is categorized under 'Others' and followed by acute respiratory infections (ARI). There a variety of health problems that could be grouped into 'others' of which some include general sores/injuries/wounds etc. However, these were not clarified in the data collected and thus cannot be further elaborated to show what the problems are. The same goes for other ARI as it involves the respiratory tract and would also include ailments such as pneumonia. On its own, ARI, according to WHO (February 2009), is still the leading cause of acute illnesses worldwide and remain

the most important cause of infant and young children mortality, accounting for about two million deaths each year.

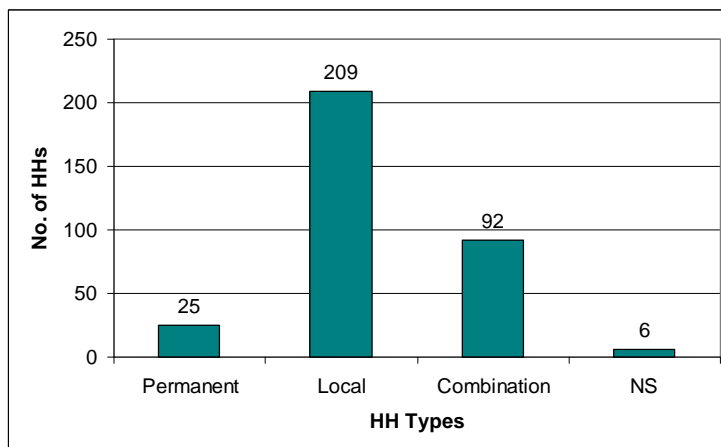
In relation to sexually transmitted infections (STI), the Ministry of Health and Medical Services believes that due to fear of social ostracism, STIs and HIV AIDS are usually difficult to detect since people keep them secret. Therefore while there may be no record of patients with such diseases, there is no guarantee that there are actually no people infected and living with such illnesses on the island. People are more likely to hide the fact that they are suffering from a STI than acknowledge that they require treatment and counseling.

*Fig 12: Household types*

### 3.7 HOUSING

#### 3.7.1 Total number of residential houses, type and status

The majority of the 332 households are made from local materials. The 92 households constructed from a combination of imported and local materials shows the increasing preference of building households that can be observed throughout the rest of Kiribati. Given cheap imported building materials and higher income generations of households, most would most likely to turn to imported materials especially the roofing as the local thatches not only take time to make but also requires skills to make and then have to be maintained every 2-4 years depending on the thatch material used.



Local households on Onotoa comprise of:

- 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.
- 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 and general family daily unit chores and meals.
- Shelter house ('bareaka') – initially this used to shelter canoes from the rain and sun but with the use of boats and other convenient fishing equipment such as fishing nets and diving gear, canoes are slowly being replaced. It is also used as a place to hang clothes and as a shelter for other local accessories such as drying pandanus leaves, copra, thatches, pushbikes etc.
- Cooking house ('umwa') – this is where all meals and other cooking requirements are carried out and as such, houses firewood, cooking equipment and utensils.
- Toilet ('roki') – Toilet facilities normally consist of a housed latrine that is used for both sanitary and bathing purposes



Households in Onotoa are a measure of welfare and in the Onotoan sense, a household comprise parents (specifically the father) and all their children. As such, children, specifically sons may have their own homes with families of their own but will effectively still be part of their father's household, only if the father is still alive. Once the father is deceased, individual sons are then counted as separate households on their own. This is a traditional system that is linked with community contributions for the villages or island as a whole. Such kind of contributions

are generally required for island functions and developments such as in mwaneaba requirements or in Onotoa's case for the purchase of the island sea vessel, 'Bwaan te Tangira' (*The rock of love*). This tradition differs from island to island and where the women are not counted as heads of the households in Onotoa, they are counted on some islands as having households on their own and as such have to provide village or island contributions separately from the husband.

The coconut storage house pictured above is unique to the island that reflects their strong tradition of saving for later need.

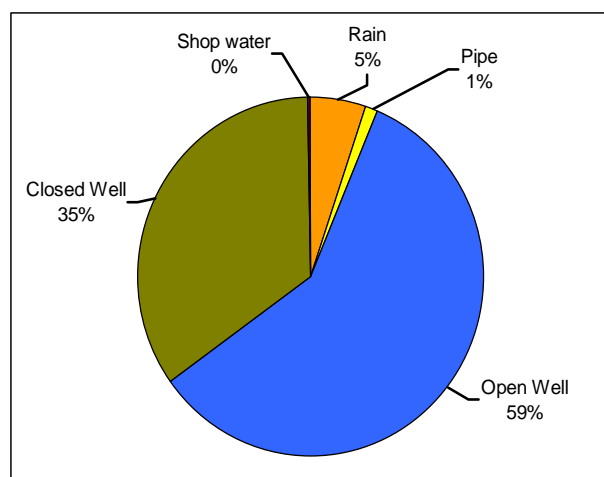
### 3.8 WATER

#### 3.8.1 Water Supply Sources

The main water sources for drinking and sanitary purposes on the island are groundwater and rain. Piped water is basically introduced water systems where PVC pipes provide the means of transporting pumped water to kitchens and toilets. Full piping systems however are rare on the outer islands and can be found mostly in Council households and 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, all 332 house-holds main source of water are from open wells. Groundwater in atolls occurs as a lens of freshwater floating in hydrostatic balance on salt water below it. Toward the center of the Onotoa, the water is generally potable and is where most of the wells used for drinking are dug. 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 drought times. During these times, potable water can be fetched from as far as a mile away.

Figure 13: Household source of water



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 houses and aluminum roof slats.

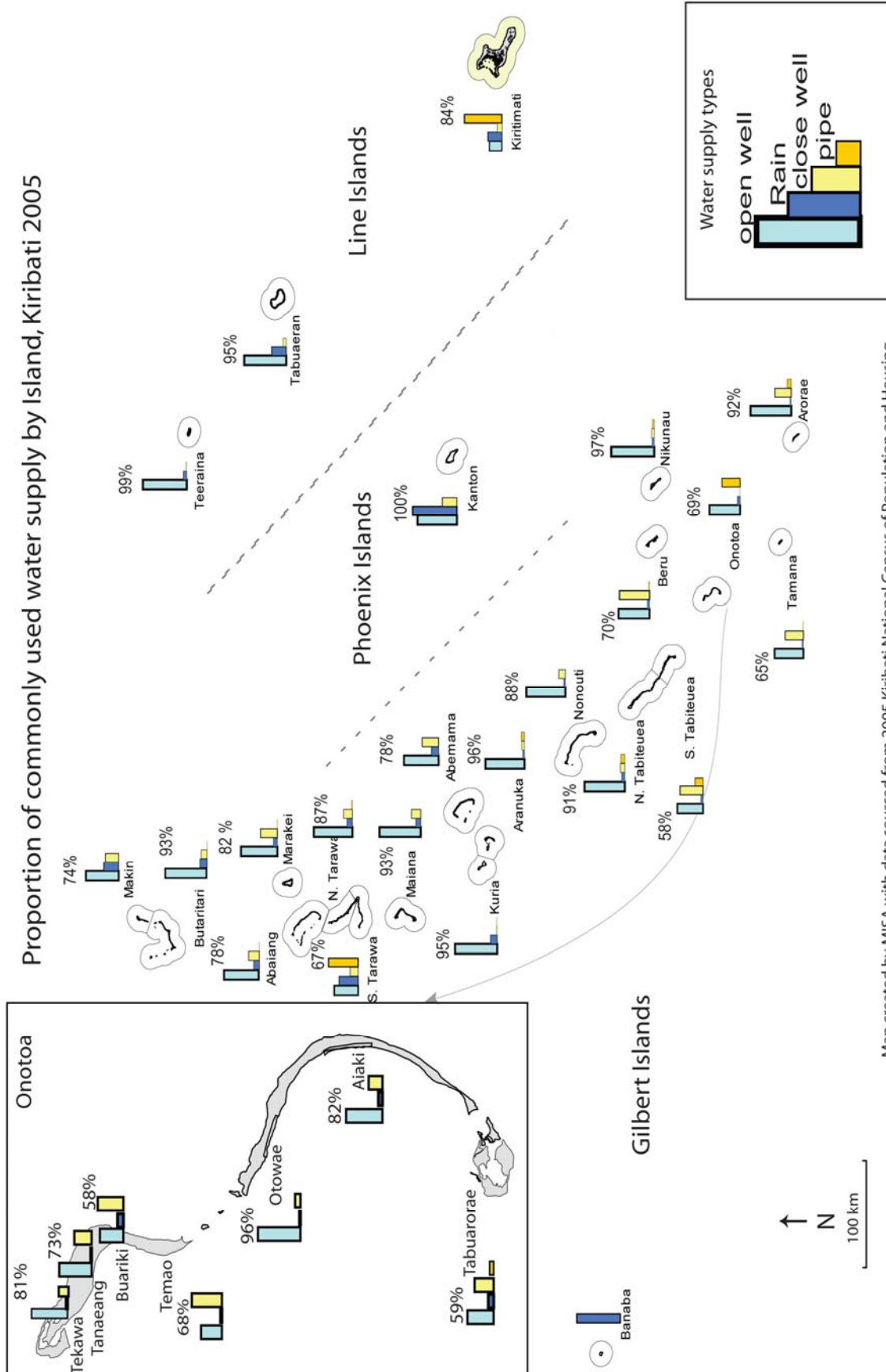
Open wells are those without lids and thus left open all the time while closed wells comprise those that have lids or have been closed off. With the introduction of pumping and piping systems, wells are closed once pumps and piping systems have been installed. Rainwater consumption is dependent on the number of rainwater catchments available on the island which are quite a few with most owned by the council, schools, clinics and churches. Relying on shop water is not a normal practice on the outer islands especially when shop water is rarely ordered if at all, by the shops on the island.

### ***3.8.2 Status of Water Supply***

Supply of water from the wells are dependent on the amount of rainfall that falls and with Onotoa being a dry island, water becomes an issue during drought times when the freshwater lens sitting atop the seawater in wells are depleted without rains restoring the lens. Data collected from a 1991 hydrology on Onotoa by the Atoll Project of the National Research Council's Pacific Science Board in Hawaii indicated that a well placed toward the center of the wider (>1000 feet) parts of the island has a good chance of producing a continuous supply of potable ground water. On the other hand, wells in narrower parts of the island are apt to be brackish.

Water is and will always be available from the underground water table but it is more a matter of the quality of the water that becomes an issue to those on the island. As familiar by now, located in a dry zone, TabNorth suffers from long periods of drought and thus brackish wells that in turn results in people having to go farther and sometimes far to get potable drinking water.

Like most of the outer islands, TabSouth has benefited from various water development projects in the form of poly-tanks, rainwater catchments, hand pumps and several solar pumps. Water pump systems had been installed in the mid 1970s but these have however been broken down years ago due to lack of maintenance and local expertise to repair the pumps. Presently, the Ministry of Works & Energy continues to carry out water assessments and install systems presently in all schools on the outer islands including Onotoa.

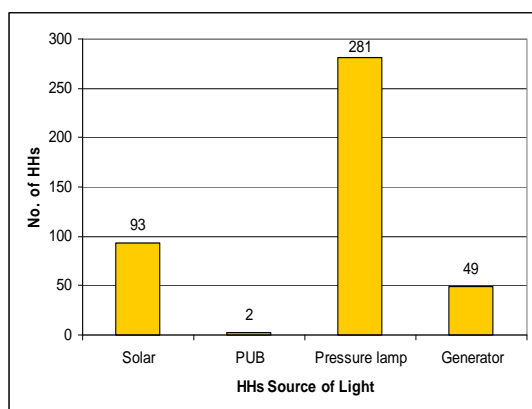


Map created by MISA with data sourced from 2005 Kiribati National Census of Population and Housing

### 3.8.3. Lighting

The main source of light for the people on Onotoa is the pressure lamp and as depicted in the chart below, 281 (84.6%) of the 332 households source of light is a pressure lamp. 93 (28%) of these households use solar as their source of light while 49 (14.8%) households also have generators.

**Fig 14: Household source of light**



Pressure lamps are normally owned by the majority of households on the outer islands as it is not only used as a source of light for the homes but is also mobile enough to be moved to required places and also as a light during night fishing expeditions known locally as 'te kibee'. In this form of fishing, the fisherman will walk the length the reef when the tide is out and catch trapped fish in the reef flat crevices and gaps. Where before this kind of fishing required two people, the fisherman and someone to carry plaited coconut fronds to provide the source of light, the pressure lamp allows only one person to carry the lamp and fish at the same time without having to

carry extra loads of coconut fronds.

Kerosene is the normal energy source for these kinds of pressure lamps and including other simply innovated bottle lights common throughout the rest of the Kiribati islands. Generators on the other hand are powered by benzine or what is universally known as unleaded petrol and are not run daily but occasionally.

The promotions and provision of a solar system to the outer islands in 2000 has enabled the Onotoans the opportunity to gain an alternative means of electricity for light and other electrical appliances. A total of 88 solar systems have been installed on households for homes and mwaneaba systems alike. One of these installed solar systems is not working while 7 have been installed as lighting for church group 'mwaneabas' (KSECL 2007).

**Table 10: Distribution of solar systems by island**

	SOLAR HOME SYS		MANEABA SYSTEM			TOTAL
	Operational system	NOT Operational system	M200	M300	M600	
Makin	75	1			5	81
Butaritari	75	0			2	77
Marakei	288	35	5	2	2	332
Abaiang	82	17		6	3	108
Tarawa Ieta	199	83	4	3	3	292
Maiana	87	1		2	2	92
Kuria	75	1		2		78
Abemama	75	0		3		78
Aranuka	73	2		3		78
Nonouti	140	70	2		3	215
Beru	75	0			1	76
Nikunau	74	1			2	77
Tab North	119	1		3		123
Tab South	75	1			1	77
Onotoa	80	1	3	4		88
Tamana	74	1			2	77
Arorae	75	0			1	76
Banaba	77	1	1		2	81
	1818	216	15	28	29	2106



### 3.9 Energy

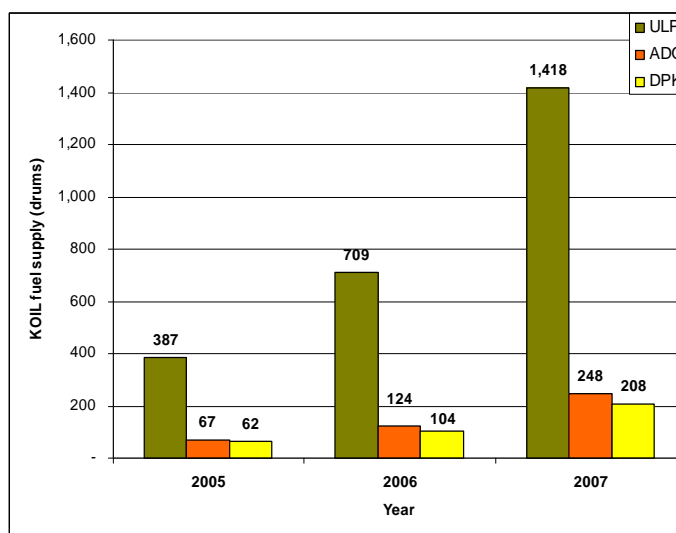
The traditional form of fuel is firewood, mainly in the form of coconut husks, dry coconut leaves and dead wood of existing vegetation and trees. Firewood is never an issue on the island due to its limited population and woodland that is abundant with drought affected trees, dying and drying up. However, people still use kerosene stoves while gas stoves still have to be used on the island. Now that people are resorting to the use of modern technology to provide energy to meet their private and public needs such as kerosene, benzene and diesel are the other forms of energy that have been introduced to the island, nonetheless wood, coconut husks and dried wood still remain the main energy source for the people. These fuels are imported and distributed to all the outer islands by the Kiribati Oil Company (KOIL) that is based in Betio on South Tarawa.

To reduce dependency on fossil-based fuel Government has been promoting the use of solar energy on the outer islands, through its company – the Kiribati Solar Energy Company Limited (KSECL). Over the last 3 years KSECL, with funding from the European Union, has installed more than 2000 stand alone solar photovoltaic systems throughout the Gilbert group excluding those in the Line Group of islands. The objective of this *“Outer Island Electrification Project”* is to enhance economic activity and improve children performance in school through the provision of affordable and efficient lighting, as well as to provide an alternative environment-friendly energy source that does not pollute the air and is abundant all year round.

**Fig 15 Fuel supply**

1418 drums of ‘Unleaded Petrol’ (ULP) better known locally as benzene, 248 drums of automotive diesel oil (ADO) and 208 drums of dual purpose kerosene (DPK) were brought in from KOIL to Onotoa in 2007. A drum being equal to 200 liters would mean that in the year 2007, Onotoa received 283,600 liters of benzene, 49,600 liters diesel and 41,600 liters of kerosene. As illustrated in the chart (right), the import of these energy sources have just about doubled since 2006 meaning that there is also an increase in the use of such fuel sources on the island since 2005. Whether it is

through the use of kerosene stoves, increased night fishing using pressure lamps, increased trucks and motorbikes, increased outboard motor fishing or increased generators will have to be determined to get an idea of why there is such increased need of imported energy fuels.



The ULP is used solely to run vehicles such as trucks and motorbikes as well as an energy source for generators and outboard motor engines. Kerosene is used mainly as fuel for kerosene stoves and also as fuel for ‘bottled’ night lights, lanterns and pressure lamps. Over a span of 3 years since 2005 to 2007, Onotoa requirements for fuel have been growing on the double however, it should be noted that data for 2007 were received in November 2007 at which time KOIL had not yet completed entering their data for neither the month of November nor December thus the figures for 2007 could have been more than those stated here.



## CHAPTER 4: TE RAOI – SOCIAL CAPITAL, COMMUNITY LIFE AND GOVERNANCE

### 4.1 Local Institutions and Social Change

#### 4.1.1 The Mwaneaba System and 'Elders' Association

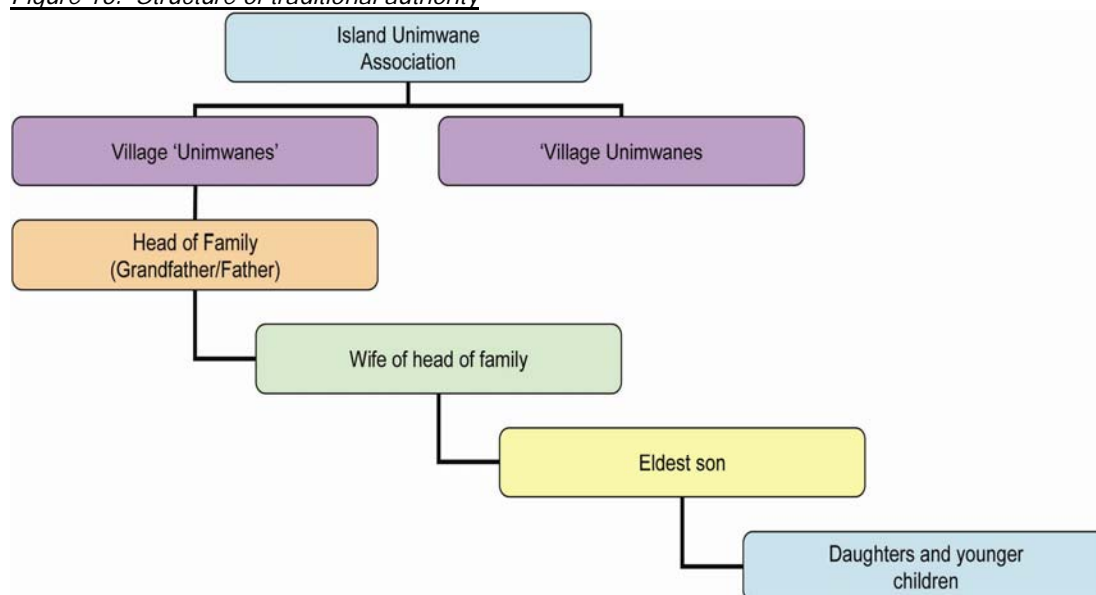
The *mwaneaba* was, and remains the most important institutional symbol and foundation of community life in Kiribati. Its importance is related to its function as the center of social life, where matters pertaining to the social, economic and political life of the community are discussed and resolved with the leadership of the 'unimwane'.



Beside the mwaneabas traditional function as a community hall, court of judgment/reconciliation, and sanctuary for all, the purpose of the *mwaneaba* has considerably widened to include shelter for the sick, storage facility for copra, fundraising venue, and more. Despite the additional uses invented for this culturally important structure, the system of governance and leadership that developed with and revolves around the *mwaneaba* has remained largely intact. This was the result, first of colonial support, and later on of Government's recognition of the importance of traditional leadership vested in the 'Unimwane'. In all Island Councils (outer island local governments) including Onotoa, there is a seat for a representative of the 'Unimwane' Association, who embodies the highest traditional authority for the community on the island.

Mwaneaba positions are inherited according to birthright and thus women can own 'mwaneaba' positions only if they do not have a brother in the family. Just as the 'tekateka' in the village is inherited by sons and daughters only if there are no sons or if the parents have spare 'tekateka's, the mwaneaba positions are deemed as a male domain. For this is where very important decisions are carried and is also a safe haven for those seeking sanctuary or shelter. Here open discussions and arguments are conducted that can be very heated and thus require preparation, courage and confidence. Women are however not discriminated as their views are channeled through their husbands or their unimwane.

*Figure 16: Structure of traditional authority*



#### 4.1.2 Women Organizations

The AMAK ('Aia mwaea ainen Kiribati), is the mother organization for all women groups in the country and is therefore the initial body to register under for general women issues such as capacity building in skills. There are also women groups belonging to the different churches such as the 'Reitan Ainen Kiribati (RAK) and 'Itoi Ni Ngaina' as well as independent ones such as the 'Irekenrao' and Seamen's wives. These individual women organizations have their own different objectives, plans and schedules for group activities. On Onotoa, there are three active women groups namely; The RAK, a KPC group, the 'Itoi Ni Ngaina', a Roman Catholic group and an independent one called the 'Irekenrao'. The RAK is the most active on the island reflecting the size of the KPC congregation on the island.

Generally, women organizations in the country have similar objectives aimed at introducing and increasing capacities and skills in:-

- Both traditional and new knowledge;
- Traditional art and craft;
- Health awareness and promotion in the homes;
- Traditional medicine;
- Individual talent skills
- Enhance integration among themselves
- Provision of assistance and skills to community and island council as required

The women in Kiribati have two general major fundraising activities, handicrafts and the game of bingo. The bingo fundraising activities allow the women from the different denominations and groups to mingle together in respect and support of each other's fundraising activities as well as catch up with each other's activities and happenings.

The handcrafting and other marketing activities are kept within the groups to gain the edge in markets. Handicrafts from the groups of women most of the time vary unless one can clone other groups handicrafts, their (handicrafts) being one of the main sources of income generation to the women groups.

#### 4.1.3 Youth and Sports Associations

Like most islands, there are youth groups on the island that are mostly church based and therefore are either a KPC or a RC youth group. Since the traditional mwaneaba social gatherings have been taken over by the churches, the youth groups are thus church based.



The Island Community Worker serves as the voice and representative of youth on the island to the Onotoa Island Council and as such is also responsible for notifying and getting together the island youth when required. The youth groups in turn are responsible to senior members of their churches and in such cases, will also require their approval for activities that are to be supported by the church community.

Youth activities and responsibilities generally include that of:

1. Supporting church based activities
2. Representation of villages or island in island or national functions such as sport championships and meetings
3. Fundraising to meet church obligations or their own group requirements
4. Establishment of sports groups for general entertainment. A common sports group on the island is that of wrestling.

The Island Council does give support to the youth in the provision of funds during the national youth day for use as prizes and other expenses as incurred for the day. The council has also made a sports court one of its priority projects, thus allowing funds to be provided for establishment of a sports court on the island to provide an alternative the popular volleyball and football. The council also allows representation of the island by youth in national championships, conferences and meetings. However, support for such representation is also given by the 'unimwane' who in turn assemble support from the island community particularly those on the home land and those in South Tarawa.

## 4.2 Religion

The main predominant religion in Kiribati is that of the Roman Catholic of which the majority of the followers are found in the central, northern islands and Line group. The predominant religion in the southern islands is the Protestant church as evident in the 2005 census. More than half the population on Onotoa are Protestants with 1230 (74.8%) members followed by the Roman Catholic with 338 (20.6%) members, the Bahai with 37 (2.3%) members, 29 (1.8%) belong to other religions, 6 (0.4%) Mormons and 4 (0.2%) are Seventh Day Adventist followers.



Christian missionaries first arrived in the northern Gilberts in 1857. In 1870 Samoan clergy, sponsored by the London Missionary Society, arrived at Arorae, Tamana, Onotoa and Beru. Nearly two decades later, in 1888 Roman Catholic missionaries arrived in Kiribati (*Commonwealth Country Profiles*). However, despite the Protestant having arrived on the island first, most of the people were rapidly converted to the Roman Catholic. The converts when asked in 1892 by Captain Davies of the 'Royalist' why they preferred Roman Catholic than Protestants they answered with indifference, 'Oh! that Roman Catholic missionary man, he no trade, he no fine, he give ummm book no makee pay – oh he belong good man' (*Capt. Davies Diaries*).

**Table 11: Population religion constitution**

Religion	Number	% Religion of Onotoa Population	% National Church Representation
Kiribati Protestant Church	1230	74.8	3.7
Roman Catholic	338	20.6	0.7
Seventh Day Adventist	4	0.2	0.2
Bahai	37	2.3	1.8
Church of God	Nil	Nil	Nil
Mormon	6	0.4	0.2
Other	29	1.8	2.3
None	Nil	Nil	Nil
NS	Nil	Nil	Nil

### 4.3 Political Authority and Governance

#### 4.3.1 *Traditional political system – description and status*

Onotoa falls under the laws and jurisdiction of the Kiribati legislation and are represented in the House of Parliament by two new nominated members. The former 'Members of Parliament' (MPs), Ms. Beta Tentoa and Mr. Natanaera Kirata, lost in the recent 2007 new elections and replaced by two others, Mr. Kouraiti Taniera and Mr. Taneti M'am'au.

#### 4.3.2 *Local government system - Onotoa Island Council (OIC)*

The government system in Kiribati is made up of the central government, based in South Tarawa, and Island Councils based on each island. Onotoa Island Council was established 15<sup>th</sup> November, 1967 under a warrant that outlined the purpose, responsibilities, authority, powers and laws that govern the existence of Councils. The functions of the Island Council were spelled out in the Local Government Ordinance 1966 which has been revised a few times, the most recent being in 2006 and is now better known as the Local Government Act. The review of 2006 also included translation of the Act into the local language. The amendments and translation were approved in 2007 with copies already disseminated to island councils on the outer islands including Onotoa.

The revised Local Government Act 2006 is aimed at transferring to Island Councils more autonomy and responsibility, to enable them to shoulder the burden of running their islands with increased confidence and sense of ownership. The revision of the Local Government Act is, but part of a wider plan to improve services to people on the outer islands. In addition central government is committed to undertake, among others, the following:

1. improve key development infrastructures (transport, communication, health, education, etc.) through sustained development financing,
2. promote participatory planning and decision-making especially in relation to matters pertaining to the island as a whole,
3. streamline operation and output of Island Councils through human resource development and stricter management where appropriate,
4. develop new income generation initiatives, and secure new employment opportunities overseas, etc..

The Island Council is made up of representatives from each village/ward who are elected every 4 years. There are also nominated and ex-officio members who, together with elected members meet every month to discuss matters pertaining to the operation of the Island Council and issues affecting the various wards and the island as a whole. As already mentioned, a seat on these Council meetings is reserved for a representative from the "Unimwane", the women and the youth. The parliamentarian or member of parliament from the island is an ex-officio member of these council meetings at which the Chief Councilor presides/chairs while the 'Clerk' seconded from the Ministry of Internal & Social Affairs acts as 'Secretariat' and Chief Advisor.

Among its core functions as stipulated in the Local Government Act 2006, the Island Council is also responsible for managing the following general areas:-

- Agriculture/Forestry, livestock and fisheries,
- Land use, Buildings and village planning,
- Education,
- Relief of famine and drought (Disaster management)
- Markets,

- Public health,
- Public order, peace and safety,
- Communications and public utilities,
- Trade and industry

All Island Councils have management support staff that are seconded from central government to assist the Island Council in administration of island development. These support staff include the Council Clerk, Treasurer, Assistant Treasurer, Island project Officer, Assistant Social Welfare Officer and Court Clerk. In addition to this administrative and support team who work directly with Councils, there are also other government personnel who are placed on the islands to assist in other important services, such as police officers, agricultural assistants, fisheries assistants, medical assistants, teachers, DBK (Development Bank of Kiribati) and KOIL agents. However, some of these Government officers are still lacking on Onotoa such as a KOIL and DBK agent. The Island Council otherwise have their own typist, drivers, radio operator, mechanic, constables (village wardens) etc (See Council Structure 2007).

Onotoa Island Council has elected members from its seven villages of Tekawa, Tanaeang, Buariki, Temao, Otoae, Aiaki and Otoae, a total of *7 elected members*. There are also seats on the council reserved for a '*unimwane*' and a women's representative on the council.

Generally, while Island Councils may welcome new initiatives of central government to assist them and their people, it may take a long time to build the financial capability of Councils so that they could operate with minimum support from central government. However, they do collect revenues from taxes and strive to develop their own income generating activities such as with resthouse charges, boat and truck hires amongst others. The table below shows some of their revenue collections from registrations not including the different types of businesses (*see 4.3 Trade and Commerce for other commercial licenses*) that are carried out on the island.

**Table 12: Revenue and fees**

	Revenue Description	Tariff
1	Body taxes (18-60 years old)	\$5.00 flat rate/annum
2	Land taxes	\$2.00 per plot pa
3	Airport taxes	\$15.00 Government employees \$5.00 adult locals
4	Sea departure tax	\$2.00 Adults (JSS upwards) \$1.00 primary students, infants exempted
5	Vehicle Registration/License: a. Motorbike b. Mini bus c. Truck d. Pushbike	a. \$18.00 p.a. b. \$60.00 p.a. c. \$90.00 p.a. d. \$3.00 p.a.
6	Pets	\$2.00 Male dog p.a. \$3.00 female dog p.a.
7	Canoe/boat hire license Hire	\$40.00 p.a. \$100/hire for visiting Government officials, extra \$20.00 for motorman's overtime and fuel \$50.00 for council seconded staff plus extra for overtime and fuel
8	Store/Shop/Retailers	\$90.00 p.a.
9	Wholesaler	\$1300 p.a.

10	Resthouse charges	\$20.00/day (Accommodation and meals) \$10.00/day (Accommodation only)
11	Truck fare	\$0.50/trip for Tabuarorae JSS students \$0.20/trip other villages JSS students
12	Car hire	\$20.00/hire + \$0.50 per km for Gov't officials \$10.00/hire + \$0.40 per km for group (community) \$5.00/hire + \$0.30 per km for local
13	Venue hire	\$60.00/day for Government officials \$15.00/day for community groups \$10.00/day for locals
14	Motorcycle hire	\$20.00/day for Government officials \$15.00/day for community groups \$10.00/day for locals
15	Telephone	\$2.00 for the first 3 minutes + \$0.05 for every minute after
16	Telegram	\$0.10 per word for the first 50 words + \$0.05 per word thereafter

Source: Island Council Estimates, MISA 2007

Central Government still provides support to the Island Councils through what is known as the Government's "Support Grant". According to sources from the Local Government Division of the Ministry of Internal and Social Affairs, central government provided a total of \$1.24 million to Island Councils in 2007. From this grant Onotoa was given \$47,812.00 (3.9% of total distributed grant) to assist its recurrent budget.

Apart from the support grant that the Government gives to the outer island councils, Island Council projects are also funded by the government and donors most notably the Taiwan embassy in South Tarawa who gives out AU\$10 million every year to fund these island council priority projects from all over Kiribati. The table below shows Onotoa Island Council priority projects since 2004 that have been approved and funded:

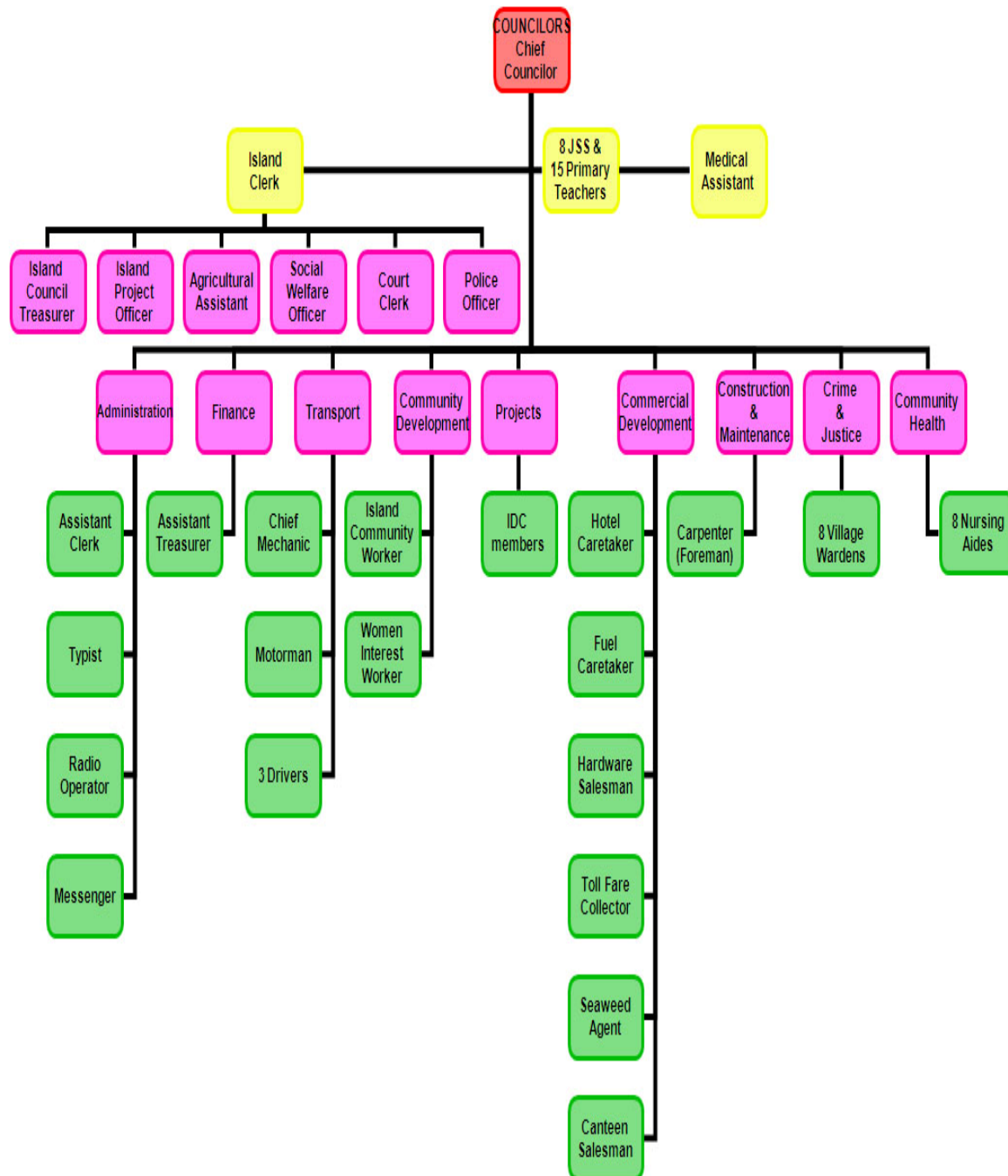
**Table 13: Council approved projects**

Year	Project Title	Approved funds
2004	Community Dev. Centre	\$96,421.00
2005	Mechanical Garage Building	\$78,400.00
2006	New Council Guesthouse	\$104,120.00
2007	N/A	
		<b>\$278,941.00</b>

Source: RPD MISA 2007



Fig 17: Onotoa Island Council Staff Structure 2008



Source: GoK Island Council Estimates 2007

#### 4.3.3 Interface between Local Government and Traditional Political System

The leadership role of the 'Unimwane' by the Onotoans is well appreciated and continues to be respected by society, and central government. The modern legal system is however crucial to the maintenance of peace and order in Kiribati, but there are many instances where modern law fails to provide a solution to certain situations, and this is where the community under the leadership of the 'unimwane' intervenes to provide the solution. To avoid confrontation between central government and



the traditional leaders, it was therefore resolved that the 'Unimwane' association must be represented in local government, not as an elected councilor but as a nominated member who assists, advises and in many instances instructs Council to make decisions that will not contradict local traditions.

Councils and other institutions cannot disengage themselves from the 'Unimwane' who basically hold the power to community support and/or resources. The Councils on the other hand hold the power to Government funds and support in island development. The cultural respect for the 'unimwane' and the Island Council are both upheld in Onotoa and have been known to make decisions together for island community development, one of which was the purchase of the sea vessel, 'Bwaan te Tangira', and the establishment of its office in South Tarawa. The ship is being managed and run by Onotoans only from South Tarawa and provides shipping services to Onotoa and the other outer islands of Kiribati. Where the project (purchase of a sea vessel) was initially a development idea of the 'unimwane', the Island Council supported it and brought it up to the Government as its priority project. However, the funds from donors was not enough to purchase the vessel thus the required amount of contributions to get the required amount was decided by the 'unimwane' and collections made from the Onotoans on Onotoa itself and those in South Tarawa made it possible to purchase the ship. In the initial requirement of community funds in the establishment of the Outer Island Trust Fund 2003, profits from the vessel, Onotoa Island Council savings and contributions from the Onotoans from all over Kiribati were also planned by the 'unimwane' and Island Council alike as the basis to provide the required funds for the island as a whole.

Generally, 'unimwane' roles in the Southern islands are taken seriously with men only called 'unimwane' at the age of 60 onwards. Membership of the 'unimwane' association vary from island to island but they have been the decision making body for the islands especially the Southern islands before they were proclaimed as a British protectorate in 1892 by Captain Davies of the '*Royalist*' and are still respected as such. Where the Island Councils role is understood as administration of all island development as central government wants and sees fit, the 'unimwane' oversee that the island is administered as dictated by their traditions.

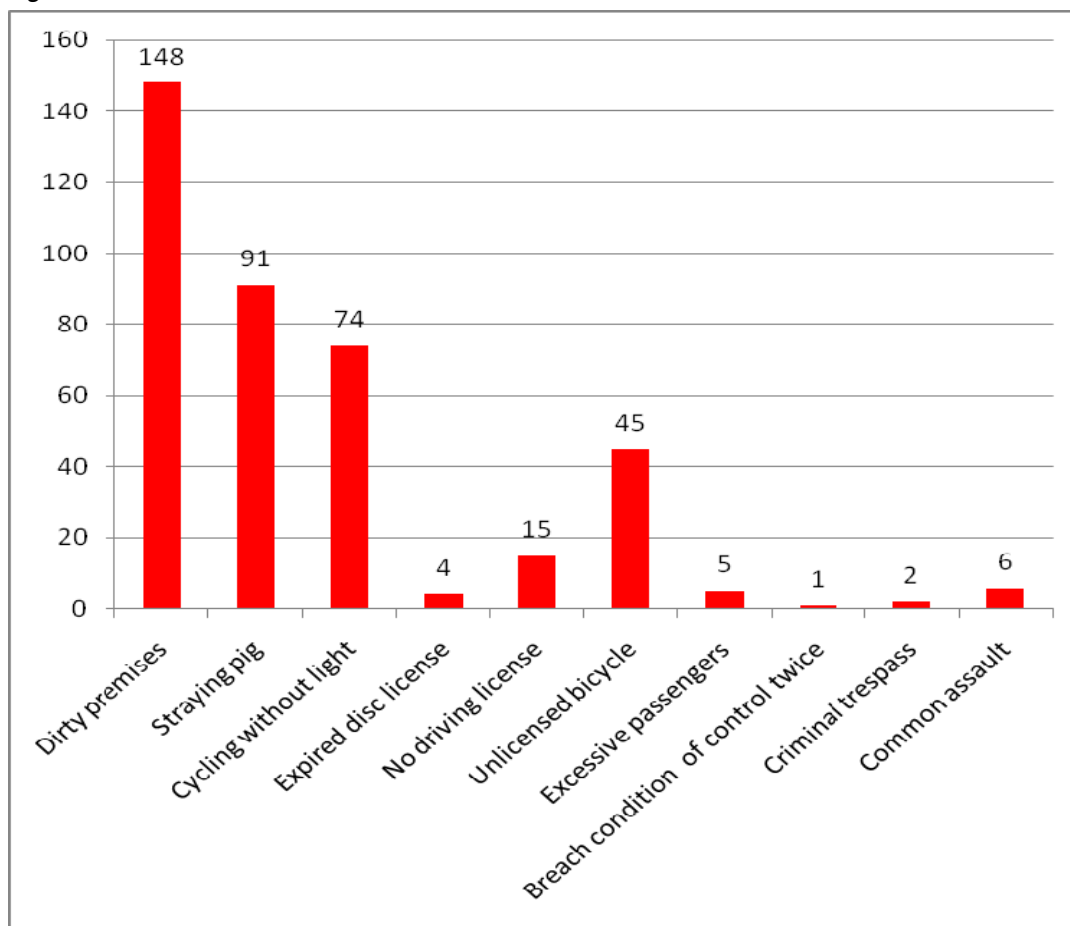
#### **4.4 Crime and Justice System**

A Court Clerk from the Judiciary in Tarawa is also stationed on the island to administer the court system on the island. Duties of the Court Clerk include recording minutes of the magistrate court proceedings, executing the order of the court, collecting court fees, and processing claims and appeals to the High Court located in South Tarawa.

There is a police officer on the island that assists in keeping the peace on the island as well as eight (8) local constables residing in each of the villages. The village wardens are responsible for keeping the peace in their respective villages.

Crime on the island includes thievery, vandalism, criminal trespasses, driving motorbikes and pushbikes without lights, and every now and then intentions to cause harm/common assault. The latter however is rare but highly possible on the island as fighting had been the traditional way of settling disputes and then there seems to be an inbuilt mentality to never run away from fights moreover when it is an open challenge. '*Everything ends up on the ground anyway*' mentality is quite prevalent in the minds of the people and consequently fights can persist for as long as both parties live. Stealing and cowardice are the worst traditional crimes in Onotoa that are very shameful and can stick to families for generations. Where stealing can result in ostracism, cowardice will result in 'behind the back' sneering. Killing for a good cause, man to man on the other hand, is traditionally, not viewed as a crime but a normal way of settling disputes.

**Fig 18: 2008 crimes**



Source: Police Onotoa 2009

Police data on the island for 2008 showed that 409 offences were committed for that year as further charted above. 36% of these offences were for dirty premises, 22% were attributed to straying pigs, 18% to cycling without a light, 1% to expired disc licenses, 4% were for driving a motorbike without driving licenses, 11% were for unlicensed bicycles and the rest of the offences comprised breach condition of control, criminal trespasses and common assaults. Road related offences include cycling without a light, expired disc license, no driving license and excessive passengers. Together these road related offences made up 35% of 409 offences committed for the year 2008.

There is only one single Island Magistrate who presides over two courts, namely, the Island Lands Court and the Magistrate Court that deals with criminal and civil cases. This however has not stopped people from getting lawyers from South Tarawa to appeal their cases in the lower court before appeals are made to the higher court. Appealed court cases on the island are accumulated and reported to central court headquarters in Betio. The High Court Judge then visits the island to further judge appealed cases.

## CHAPTER 5: TE TABOMOA – ECONOMIC ACTIVITIES, INFRASTRUCTURE AND UTILITIES

### A. ISLAND ECONOMY

#### 5.1 Subsistence Economy

A subsistence economy is one where people perform traditional activities to meet their individual and group needs for security, and have no reason to accumulate wealth except to ensure their future survival. In such a system, the concept of wealth does not exist hence there is a high degree of sharing and reliance on existing natural resources, development and maintenance of the natural environment and skills to harvest and maintain these resources. The nature of the subsistence economy is reflected in the social organization of families, who join together to form clans (*kaainga*) that function, according to a set of rules and roles. Each member of a *kaainga* performs a different set of activities which are assigned on the basis of sex and age. It is important for the survival of the group that each member fulfils the roles and responsibilities assigned to him/her.

Typical subsistent activities include fishing, toddy cutting, cultivation and harvesting of food crops mainly coconut, pandanus, breadfruit and bwabwai, weaving mats, making thatches, rolling string, fetching water, collecting firewood, making fish traps and hooks, cleaning and washing, cooking and house construction amongst others. These activities are performed by the adult members of a family, while the younger members are expected to collect firewood and fetch water, clean the dishes and compound, and assist the adult members to do the easy part of their chores. Unfortunately, subsistence living is now slowly disappearing and being replaced by a cash economy where most subsistence activities are now not only catered towards subsistence living but also to generate income to pay for the basic necessities.

Where most of the fishing was done for subsistence, it is now sold and where there is a surplus, it is either given freely to relatives, preserved for later consumption or sale. Due to the increasing dependence on imported goods that are sold to the general public by small stores, the importance of cash as a medium of exchange, has now dominated bartering and sharing that were once traditions of Kiribati.

Monetary institutions such as the banks and other financing institutions are not available on the island and thus the availability of money can be affected, setting the way for the existing customs of borrowing (*tangobwai*), asking (*bubuti*) and or bartering. Special skills are kept in the families and can only be given to adopted sons or daughters and at times take on the role of money especially when the specialist is being looked after by another family.

#### 5.2. Production

##### 5.2.1 Copra cutting

Other than fishing, copra cutting is the mainstay of the people who were known for the tradition of storing coconuts for years in 'ookai' or attics ('bata). Being an island vulnerable to droughts, the people over the years learned to harvest and cut copra according to their needs. Certain coconut trees were earmarked for certain characters and only from these trees, coconuts are harvested and stored in the 'ookai' while coconuts from the other trees are used for copra or consumption. According to some, fruits from earmarked trees are not to be consumed in any way as this would indirectly cause the rest of the



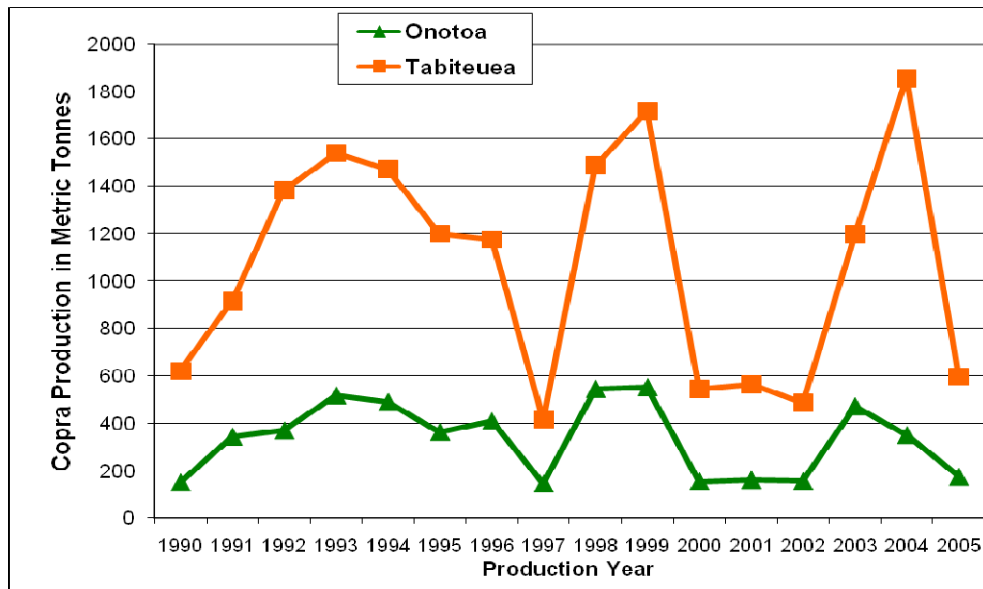
The 'ookai' (coconut storage house) 1964  
(extracted from J.Resture's Oceania website)

stored coconuts to rot instead of mature and ripen. These ripe coconuts are left untouched until the next big family function or drought comes along at which time they are either all taken out and cut for copra to get required funds for the function or they are rationally consumed when drought has prevented production of the coconut trees. In effect, these 'ookai' not only serve as storage houses but also as safes however, they are rarely seen if at all on the island except maybe in the village of Aiaki.

The 2005 census recorded the number of coconut trees accessed as 315 trees for the 332 households. However, these figures seem to be misleading as it would lead to ideas that there

are only 315 coconut trees on the island when actually the main vegetation on all the islands in Kiribati are predominantly coconuts. There are 418 toddy trees cut by the 332 household that provides the main tree vitamins for subsistence livelihoods as well as fermented toddy for relaxation and income generation. Drought is an ever-present issue on the island that hampers the growth and production of coconut trees.

Copra cutting is however the main income generating activity on the island. Portrayed in the following chart is the copra production of Onotoa as against the whole of Tabiteuea.



Overall, the production has not fallen beneath 100 tonnes per year since 1990 but has fluctuated between the 100 tonnes and 600 tonnes. In 2005, the copra production of 175 tonnes would have provided an income in that year of \$105,000.00, which would have brought the population in 2005 of 1644 with \$63.90 each. This however counts the whole population regardless of their ages but given that there were also 332 households in 2005, the income per household for 2005 would have been \$316.70 which could be further broken to come to an income from copra at \$0.90 per day for a given household on Onotoa in 2005. Unfortunately, figures for 2005 regarding the number of households are not available just as copra production for the years 2006 and 2007 and therefore the said cannot be taken as approximate figures for Onotoa. On the other hand, copra is not the only income that the people on the island as there are other means of income such as remittances, fishing and handicrafts.

### 5.3 Employment

The Island Council serve as the biggest employer for Onotoans, employing about 36 islanders as village wardens, village nurses, drivers, hotel keepers, and office (typing, treasurer, clerk) assistants. Depending on the need, Council may from time to time engage contractors and laborers to undertake short carpentry or auto-mechanical jobs. Seasonal employment is usually available when Government or large Council projects are undertaken, especially those which require the service of casual laborers.

Manual labor is also regularly needed in the stevedoring of visiting supply ships, which make monthly or more regular runs to Onotoa carrying food, fuel, timber, and other general goods. These are offloaded on reaching the island by casual laborers. On the return trip, these ships are loaded with empty fuel drums and some local bagged produce like mangoes or tapioca for Onotoan relatives in South Tarawa or by the ship officers themselves. Stevedoring provides an alternative way to earn income and the boat harbor has made such manual loading and offloading easy enough. In Onotoa, turns are taken in villages to provide the stevedoring labour but most of the time due to ships arriving without prior notification of arrivals; the people living near the wharf/channel always provide the service when people from the other villages do not turn up. Tabuarorae, being the farthest village and with its own wharf are exempted from stevedoring services when ships call at the wharf located at Buraitan, the Council station on mainland Onotoa.

Apart from a handful number of jobs offered by the Island Council in its limited service, the opportunity for paid employment for the islanders is otherwise non-existent. The Cooperative also employs a few other people to run the main branch of its wholesaling activities in Buraitan and Tabuarorae. There are also government employees stationed on Onotoa such as teachers, medical nurses, clerks, Island Project Officers, policeman etc whose jobs are not available to the islanders due to most islanders not meeting the minimum qualification requirements that these jobs entail. The Island Council can only recruit a typist, assistant treasurer, assistant clerk, village aides, drivers, mechanics, and carpenters, to name a few.

To solve the high unemployment problem in the country Government is now increasing its effort to look for and exploit overseas employment markets especially the Pacific-rim countries of Australia, New Zealand, Japan and the United States. Casual work such as fruit picking, elderly homecare attendants, peace keeping and sailors are some of the employment markets being explored. To this end, Onotoa, like the rest of the islands in the country can only await the outcomes and decisions of the Government as they come and go. The lack of opportunities to generate income in order to be self-reliant is a far off goal as all Island Councils including Onotoa Island Council rely heavily on central Government to support their administration which is provided annually in support grants.

### 5.4 . Trade and Commerce

Commercial/cash trading is an introduced concept in Kiribati society and has become an important part in the lives of the people. The concept of trading, in the free enterprise or free market, is not fully supported by the Onotoans. Private enterprising contradicts the traditional principle of self-reliance and conservation of wealth thus buying from private traders is considered wasteful as it may help these traders to be elevated in social and economic standing. However, this tradition is ever so slowly dying out.

To carry out any business activity involving trade on Onotoa, requires that one purchase a business license from the Onotoa Island Council of which the cost varies depending on the type of business to be carried out. The most common business licenses on record are those of wholesaling, retailing, hawkers and fishing. The following table shows the type of businesses and license fees required from Council:

**Table 14: Businesses and fees**

	Type of Business	License fee Per Annum
1	Stores	\$200 Wholesale \$80 Branch, Private retailer, and Group retailers
2	Movies	\$60.00 Film shows \$20.00 rental films
3	Small Hawkers	\$60 Hawker (Gum and Balloons) \$20.00 candy, ice block, local cigarettes \$40.00 Band entertainment \$20.00 Tape entertainment
4	Fuel	\$60.00 private and group \$500.00 KOIL agency
5	Bakery	\$60.00 Groups \$20.00 private
6	Hire of Vehicles and Vessels	\$100.00 for trucks to be hired \$40.00 for motorbikes to be hired \$80.00 for boats to be hired \$20.00 for canoes to be hired
7	Sea cucumber and shark fin agents	\$120.00
8	Floats (Visiting ship floats)	\$20.00 per visit for big companies i.e. BKL, Taotin, Fair price etc \$10.00 per visit for private companies i.e. Ainete, Tokaraetina etc

The remoteness of Onotoa from the mainland of South Tarawa provides one of the factors in slowing down the island and the people's development. As a small island with undeveloped infrastructure and a dualistic economy characterized by a growing dependency on imported consumables, trade and commerce on Onotoa is becoming a very important activity. The bulk of supplies that are normally shipped to Onotoa by scheduled or chartered island trips consist of rice, sugar, flour, tinned food, tobacco and fuel. Most of the times, these are transported as ordered from the island and also come in the form of floats otherwise, all of these are transported whenever there is a scheduled trip to Onotoa by the Kiribati Shipping Company Ltd or any other vessel from Tarawa.

However, egalitarianism is still traditionally upheld and practiced, thus for one to carry out a major business activity on the island, they would have to practice humility in their business ventures for there is no faster way to kill a business on the island than trying to show off ones betterment. Consequently, private sector trading exists on a very small scale on Onotoa but however prone to slow growth if at all. There has been many a business that has been established only to fail as people would not even buy stuff from the store and were happier to suffer lack of cargoes than improve the business cash flow of such private enterprises. Group business ventures are more supported compared to private businesses that have had a history of failure since trading was introduced to the island from ago. Accordingly, the only successful trade facility on Onotoa is the Cooperative, viewed as a council venture. The Co-Op forwards orders to major supply companies in South Tarawa such as BKL, TAOTIN Trading and MOEL which are then transported to the island during ship runs from the KSCL or the islands own ship, 'Bwaan te Tangira'.

Cargo ships from overseas only bring imported products to Betio in South Tarawa which are then distributed to the rest of the islands all over Kiribati. Product prices in Onotoa are the same as those in the Gilbert group which contrast to product prices in the Line group that generally tend to be higher due to the cost of having to re-transport them from Tarawa to Kiritimati Island. Where lack of cargoes used to not bother the islanders, it is now a big bother specifically for the growing generation who grew up on

bread, doughnuts and rice amongst others. The older generation still are not affected with these cargo shortages as they still live on coconuts, fish and pandanus cuisine.

## 5.5 Local Finance

In 1995, the Village Bank project was initiated by Government to serve as a micro credit facility for village communities in the outer islands. The objective of the project is to enable families to have easy access to a credit facility from which they could borrow money to start a small business. Funding for this project was provided by Government and shared among the islands and its village communities on a population basis. In the villages, a committee, consisting of a chairman, a secretary and a treasurer, is established to manage and administer the Village Banks funds. The Island Project Officer (IPO) based at each Island Council provides auditing and monitoring services to this project to ensure proper use of funds and sustainability. The operations of the Village Banks are governed under the Village Bank Act.

*Table 15: Onotoa village bank shares*

		KIRIBATI GOV'T FUND OF 1\$MILLION						UNDP GRANT OF \$90,000		
		1ST 75% SHARE			2ND 25% SHARE			3RD SHARE		
		PAID	DATE	DW NO:	PAID	DATE	DW NO:	PAID	DATE	DW NO:
1	Bwanga ni Inai	\$3,324.09	26/05/99	79/99	\$1,108.03	15/03/00	43/2000			
2	Naou	\$3,324.09	26/05/99	82/99				\$438.35	22/10/01	378/01
3	Katabean te Nano	\$3,324.09	26/05/99	79/99						
4	Tenanoraa	\$3,324.09	26/05/99	79/99	\$1,108.03	10/11/99	149/99	\$438.35	22/10/01	378/01
5	Aiaki Meang	\$3,324.09	26/05/99	79/99	\$1,108.03	10/11/99	149/99	\$438.35	22/10/01	378/01
6	Southern Cross	\$3,324.09	26/05/99	79/99	\$1,108.03	15/03/00	43/2000	\$438.35	22/10/01	378/01
7	Otan Tanaeang	\$3,324.09	26/05/99	79/99	\$1,108.03	15/03/00	43/2000			
8	Te Ota ni Mari	\$3,324.09	26/05/99	79/99	\$1,108.03	15/03/00	43/2000	\$438.35	22/10/01	378/01
		<b>\$26,592.72</b>			<b>\$6,648.18</b>			<b>\$2,191.75</b>		

Source: RPD, MISA 2007



## 5.6 Remittances

The general flow of seafarer's remittances into the country is continuous and has increased over the years with more engaged in seafaring employment. There are now two major employers of seafarers from Kiribati; 1. South Pacific Marine Services (SPMS) and; 2. The Kiribati Fishing Services (KFS). The Norwegian Cruise Line is also employing some of the population for work on overseas cruise ships. However, the latter intake effect on remittances still has to make an impression especially when compared to remittances received from SPMS and KFS seafarers.

*Table 16: 2008 remittance*

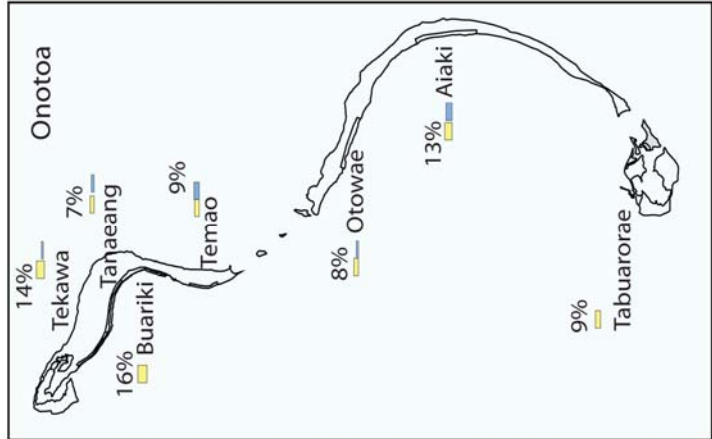
Island sent from	Amount Received	Percentage
Makin	\$193.15	0.07
Butaritari		
Marakei	\$350.00	0.13
Abaiang		
North Tarawa		
Bikenibeu	\$66,354.00	25.19
Bairiki	\$97,932.95	37.18
Betio	\$86,664.70	32.90
Maiana	\$30.00	0.01
Abemama	\$470.00	0.18
Kuria	\$500.00	0.19
Aranuka	\$200.00	0.08
Nonouti	\$920.00	0.35
TabNorth	\$280.00	0.11
TabSouth	\$1,171.00	0.44
Onotoa		
Beru	\$2,807.05	1.07
Nikunau	\$227.55	0.09
Tamana	\$290.00	0.11
Arorae	\$253.10	0.10
Banaba		
Kiritimati	\$4,054.00	1.54
Tabuaeran	\$200.00	0.08
Teeraina	\$500.00	0.19
Kanton		
	\$263,397.50	100.00

Seafarers are employed as general deck workers on German ships through SPMS while Japanese employees are employed to be fishermen on the Japanese fishing vessels through KFS. The seafarer's salaries are paid straight into the individual accounts in Kiribati or family accounts. Money is also sent back to churches depending on individual seafarer obligations. Families are dependent on decisions made by their seafarer husband or son on how much remittance they will receive (M. Borovnik 2006). Whitley (1980) reported that the amount of remittance sent back to Kiribati in 1974 was AU\$800,000 with an additional AU\$200,000 brought back in the form of leave pay at the end of contracts. Remittances grew to \$1.3 million in 1979, \$9.7 million in 1998 and \$12.29 million in 2003 (MFED 1987). Of this \$12.29 million, 86% came from those employed by SPMS while 14% came from those employed by KFS.

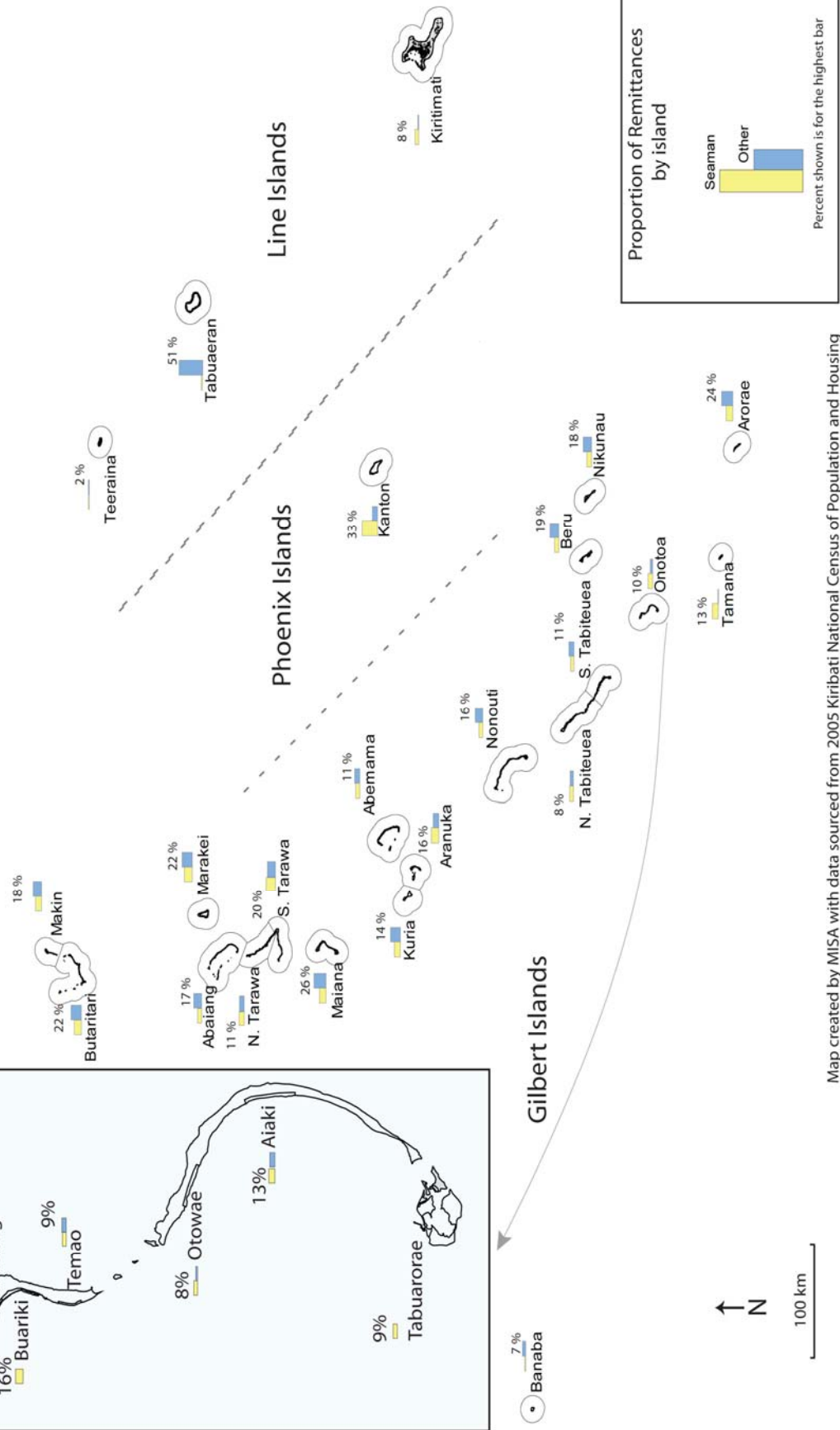
Remittances can be sent directly to families or they can be given after a special request (bubuti) to other extended family members for sudden needs such as 'botaki's (feasts) or for school fees. These kinds of requests usually vary and directed to straight to the members of the family employed by SPMS or KFS. A lot of these remittances have also been invested in homes (permanent buildings), cars, motorbikes businesses, home equipment (TV, media players, instruments) and to a big extent, school fees.

The left table shows that a total of \$263,397.50 was telmo'ed in to the island in 2008. From this, a total of

\$250,951.65 (95%) came solely from South Tarawa from the villages of Bairiki, Betio and Bikenibeu. These three are basically the main villages on South Tarawa that each has a Bank, Post and Telecommunication Office. The main monies sent via the banks in Bikenibeu, Bairiki and Betio include remittances themselves from seafarer as well urban employed relatives as well as salaries for government employees, sea cucumber and copra funds among others.



## Proportion of Remittances by Island, Kiribati 2005



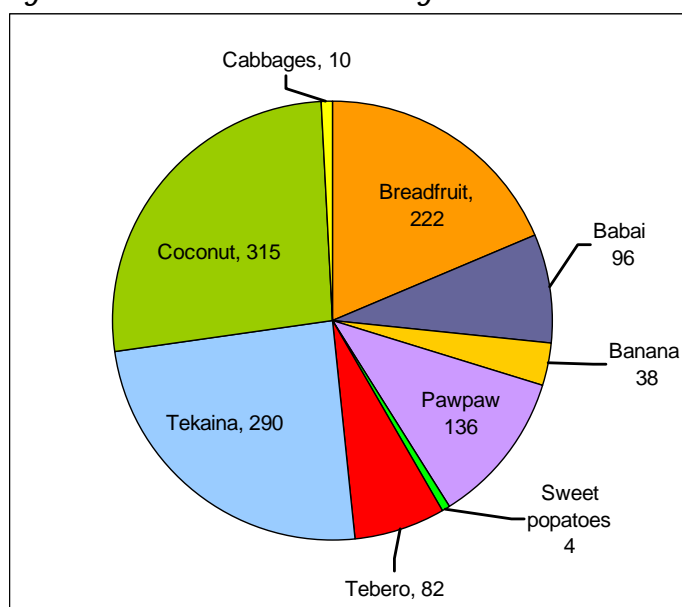
Map created by MISA with data sourced from 2005 Kiribati National Census of Population and Housing

## B. ECONOMIC ACTIVITIES

### 5.7 Agriculture

There is an Agricultural Assistant and a Nurseryman on the island whose responsibility is to carry out the Agricultural headquarters outer island plans in agricultural and livestock development. Agricultural activities are greatly hindered by drought and the tradition of egalitarianism thus agricultural activities are restricted to teaching home gardens, provision of pigs and chickens, animal health schemes, provision of seeds, seedlings (coconuts) and pandanus cuttings, and coconut replanting schemes. The latter scheme however is not fully supported by the islanders as it is deemed to be a waste of time and effort due to most of the replanting schemes not bearing as much fruit as one would love them to bear. Besides, people have their own traditional cultivation methods that are most of the time linked to phases of the moon.

*Fig19.: Access to food trees and vegetables 2005*

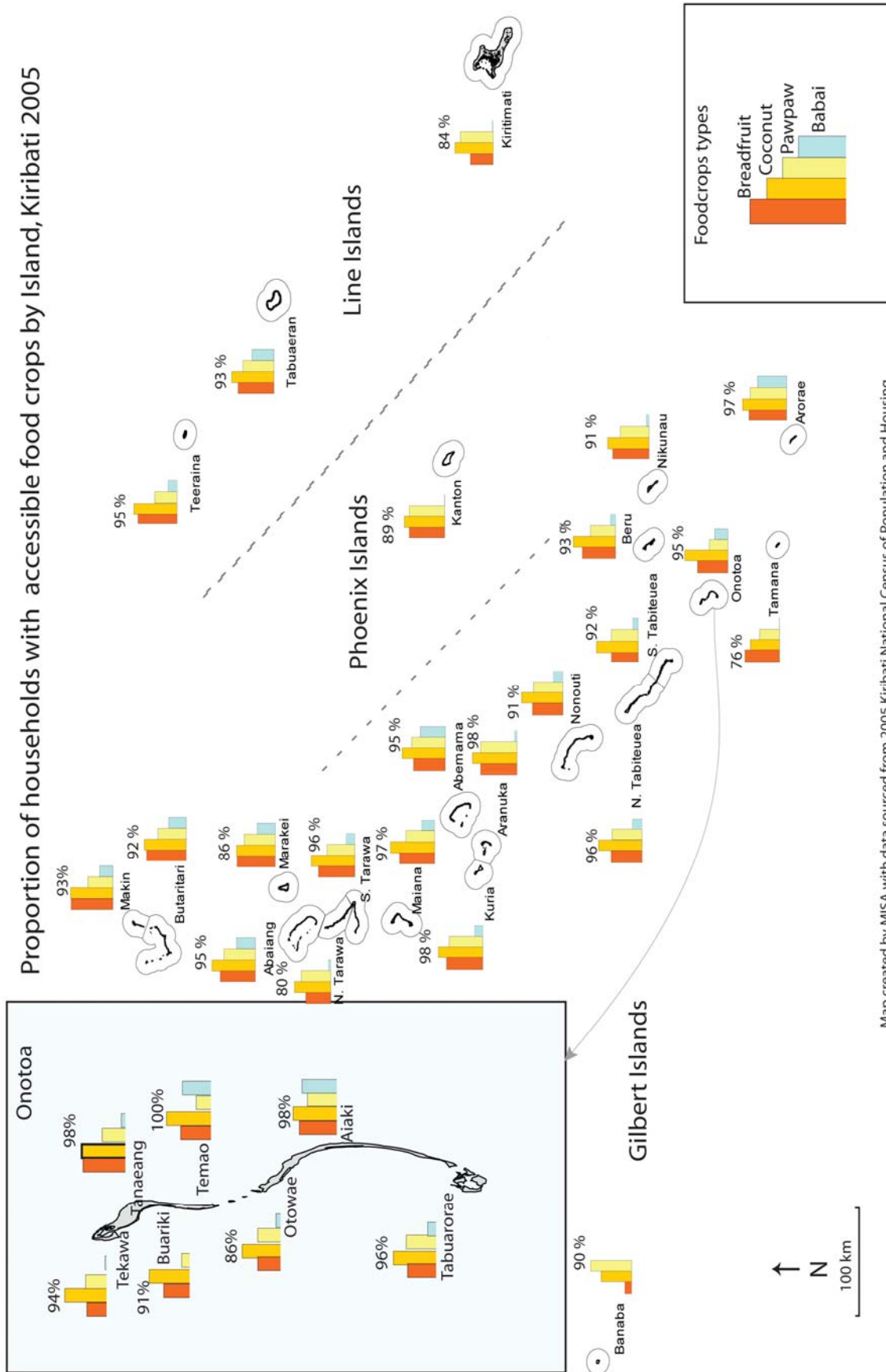


As depicted the chart (left), the predominant food trees on Onotoa are the coconuts, pandanus, breadfruit, pawpaw and bwabwai. Pawpaw has grown very popular since introduction due to its' easy propagation and tasty fruit and it being promoted as a Vitamin A source after pandanus. Pawpaw, just as pandanus is, provides a variety of color to food especially during feasts or guest welcome gatherings. Bananas are similar to 'bwabwai' in their requirement for water which can be scarce on the island during times of drought and are therefore closely managed. 'Te bero' (local fig) is another of the tree crops that is hard to cultivate and propagate

as it can only be grown from cuttings.

Bwabwai is kept solely for ceremonial occasions with cultivation methods closely guarded secrets that are inherited from the parents. Pandanus on the other hand are abundant in variety and amongst these, there are certain pandanus varieties that have assigned uses such as for pandanus paste ('tangauri' and 'tua'e'), pandanus powder ('kabubu'), pandanus strips ('kaakaa'), weaving and cigarette paper.

There are no proper inspection codes as yet for transport of foodstuff, plant materials and animals on the ships and planes that visit the island and thus agriculture is vulnerable to introduced pests. The threat from 'bwabwai' beetle has been solved through strict regulations of 'bwabwai' being taken from South Tarawa to the outer islands and anyway, there are rarely bwabwai plants grown in South Tarawa after the 'bwabwai' beetle wiped out most of the bwabwai on the island in the early 1970s.

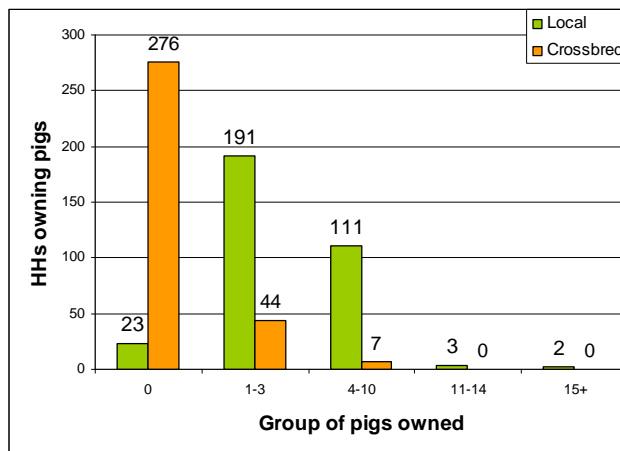


Map created by MISA with data sourced from 2005 Kiribati National Census of Population and Housing

### 5.7.1 Livestock

Livestock on the island comprise pigs and chickens of both local and exotic breeds. The local pigs and chickens were documented as having been introduced in the early days before Kiribati became a British protectorate and later exotic breeds were introduced as part of the Division of Agriculture's plans to develop agriculture and livestock on the outer islands of Kiribati. Local pigs vary in color and sizes and are very short, rarely reaching a height of 1 metre whereas the introduced local breeds if managed properly grow higher than a meter and actually are nicknamed as 'horses' by the locals who never cease to marvel at the height and size that these exotic breeds can grow to. Cross bred with a local breed, the progeny are normally faster growing taller pigs with higher food conversion rates and good breeding qualities e.g. more piglets per litter.

**Fig 20: HHs and pigs owned**

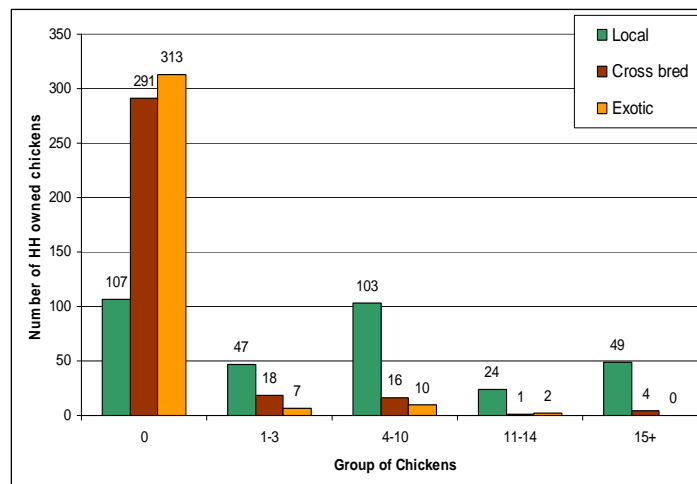


Exotic breeds of pigs and chicken have been introduced for cross-breeding with the local breeds. The most in demand are the exotic breeds of pigs that locals would like to own and cross with their own local pigs and to a lesser extent, exotic chicken breeds. Generally, pigs are more popular as domestic animals because they are the major source of meat during family, church and island feasts. It is extremely rare in the whole country for one to kill a pig solely to eat pork as they are kept specifically for important feast and functions when whole baked pigs grace these feasting tables and

is the most sought after food at such times. As portrayed in the above chart, most of the households (276) do not own exotic breeds however 44 households own 1-3 exotic pigs while 7 households own more than 3 but less than 11 of these exotic breeds. 191 (57.5%) households own 1-3 local pigs while another 111 (33.4%) own 4-10 pigs and minimum households owning more than 11 pigs. There are a total of 1,071 pigs (*NSO 2005 census*) distributed throughout the island as owned by the households in the 7 villages of Onotoa.

Chickens on the other hand totaled 2,220 of which there were 1,898 (86%) local, 206 (9%) crossbred and 116 (5%) exotic chickens.

**Fig 21: HHs and chickens owned**



Chickens are free-ranged and most are kept domestically for households own meat protein supplements and like pigs for special occasions. As free range chickens, they inter-mingle with chickens from other households resulting in crossbred chickens. Where the hens are kept for laying eggs to produce more chickens, the roosters are kept to breed with the hens as well as for their feathers that are popularly used in decorating fish lures. As is quite prevalent in the islands, the free-range management of chickens on the outer islands has

impelled marking of chickens to declare ownership of the chickens. These markings include chopping off certain claws of the chickens or tying certain colored pieces of cloth to the feathers or legs.

Unlike pigs, free ranged chickens are liable to fines or confiscation by Council whereas free-ranged pigs on the other hand are considered an offense against the law, liable with fines or confiscation of the pigs. The confiscated pigs can be released to owners at a fee of \$20.00 and where not, they are auctioned off to the general public. Pigs are kept in pig pens or tethered under shades of trees as is common throughout the islands of Kiribati.

Even though, both pigs and chickens are kept for own consumption, sale opportunities to supplement their meager incomes are never passed by especially when one has a lot of pigs or chickens and does not have an upcoming family or village function. Pigs are sold at \$3.50/kg live weight as most would rather buy them live due to pig blood at slaughter being a local delicacy during these feasts. There are no known diseases specific to Onotoa livestock but factually, the pigs and chickens alike are free from infectious diseases such as the well known avian influenza in chickens.

## 5.8 Fisheries

Fishing is at large, a routine activity for the men which they carry out when the seas are calm, and whenever home fish reserves have run out while others fish whenever they can as a hobby and to pass the time away. There is not an ice plant on Onotoa as yet which restricts export of fresh fish to other parts of Kiribati. Fish jerky however, is a common product throughout the island although it is only exported to relatives in other parts of Kiribati mostly to those in South Tarawa, sold to visitors to the island or presented as gifts to guests. There are many different kinds of fishes that serve as food for the Ikiribati and frequently special methods are utilized for certain species or groups of species. These methods are standard amongst the fishermen but individual variation does exist (*Preston E. Cloud Jr. 1952*) which are most of time kept within families.

As islands, households have been harvesting the sea in one way or another, initially to satisfy their own subsistent needs and to send salted fish (fish jerky) to relatives in other parts of Kiribati mostly South Tarawa and lately for domestic sale to others unable to fish, most of the time Council staff living at the Council quarters in Buraitan. The rabbit faced spine-foot (*Siganus rostratus*) known locally as the 'nimnai is abundant in its lagoon amongst a great others. The small clams (*Tridacna cumingi*) where they used to be abundant have reportedly declined after the establishment of the causeway from Temao to Otoae that had stemmed the flow of water through this area which used to be abundant in the small clams locally called 'te were'.

Sailing canoes operated by a single or two men are used for trolling which may be undertaken in the lagoon, but the usual site is in deep water just outside of the west reef of the atoll especially the region where there is a large westward projection of this reef. Normal trolling baits are mullet and flying fish while lures comprise hooks with feathers attached. Trolling catches include an identified species of tuna and:

**Table 17: 1952 trolling catches**

	Local	English	Scientific
1	Tawatawa	Mackerel tuna	<i>Euthynus affinus (yaito?)</i>
2	Bwaara	Wahoo	<i>Acanthocybium solandri</i>
3	Rakuriri	Pacific sailfish	<i>Istiophorus gladius</i>
4	Kamaa	Rainbow runner	<i>Elegatis bipinnulatus</i>
5	Ati	Skipjack tuna	<i>Katsuronus pelamis</i>
6	NA	NA	<i>Neothunnus macropterus</i>

Source: *Preston E. Cloud Jr. published report 1952*



Spearing equipment initially comprised a long wooden spear with a metal point lashed at one end but nowadays, it involves a simple elastic sling device and a steel rod of about ¼ inch in diameter and a maximum of 5 feet long and requires skill to operate to good use. Some of the fishes caught with this method include:

**Table 18: Spearing catches 1952**

	Local	English	Scientific
1	Rereba	Trevally species	<i>Caranx sp.</i>
2	Ikamaawa	Parrot-fish	<i>Scarus frontalis</i>
3	Bwawe, Takabe, Ingo etc	Sea perches and snappers	<i>Lutjanus sp.</i>
4	Kungkung	Blacktip soldier fish	<i>Myripristis kuntze</i>
5			<i>Holocentrus</i>
6	Koinawa	Convict surgeon fish	<i>Acanthurus nigricans</i> ( <i>xanthopterus?</i> )
7	Mako	Ring tailed surgeon fish	<i>Acanthurus triostegus</i>
8	NA	NA	<i>Ctenochaetus</i>
9	NA	NA	<i>Gymnothorax</i>
10	Nimwanang, nimako, nrekereke	Rock cods	<i>Cephalopholis sp.</i>
11	Kuau, kauoto, kuau morua, etc	Groupers	<i>Epinephelus sp.</i>

Source: Preston E. Cloud Jr 1952 and Fisheries MFMRD

Shark fishing, hook and line, night fishing for flying fish as well as reef fishing, fish traps and net fishing are some of the other fishing methods carried out by the islanders. Shark fishing however is not as common as shark fishing in the more southern islands of Tamana and Arorae. Shark meat is highly regarded by the people many of whom actually prefer it to other fish such as tuna or trevally amongst the many. The most delicious part of it is said to be the tough skin which requires special cleaning and which is sliced, dried and kept as shark skin jerky to be boiled days, months or years later.

The night fishing for flying fish using coconut fronds as sources of light is slowly dying with the introduction of pressure lamps and other sources of light.

The Ministry of Fisheries and Marine Resource Development supports fisheries development on the outer islands through:

- the provision of technical staff for training, advisory and resource monitoring/evaluation purposes;
- research and trialing of new fishery-related projects;
- the sourcing of funds for implementation of national projects (such as cold storage (ice plants), etc.)
- the provision of affordable fishing gear.



There is a technical fisheries assistant on the island. Apart from the studies carried out in 1951 by Preston E. Cloud Jr. and his colleagues, and just like the other outer island, Onotoa has not as yet been surveyed for fishery and marine resources, catches and marketing.



## 5.9 Handicrafts

A few years ago Government established the Kiribati Handicraft and Local Produce Company (KHLP) to encourage people to make handicrafts and local products for commercial purposes. The company buys materials from the outer islands and then re-sells them to the urban population, as well as foreigners. However, despite the existence of KHLP, the level of production is still very small. Among other reasons, KHLP faces staffing and funding difficulties that results in its inability to adequately absorb production from the outer islands.

Handicrafts from Onotoa include those made by the women and men alike. Where the women's handicrafts are normally an assortment of mats and baskets in different sizes and patterns, the men's handicrafts are generally those of a local 'buia', canoe, eel and fish trap models.

The most common handicrafts from Onotoa are:-

- Mats of different sizes and makes
- Baskets of assorted sizes and makes
- Fans
- String
- Canoe, eel trap, fish trap and house models
- 'Rauara' (Cigarette paper made from peeled pandanus leaves)



## C. INFRASTRUCTURE

The establishment and maintenance of development infrastructure on the island is the responsibility of government and thus the Onotoa Island Council. The central government normally takes responsibility of implementing new development projects while the local government is given the responsibility of maintaining such projects upon completion. Local government authorities are allocated some money every year under a "Support Grant" to enable them to perform this role. The project funds from donors and Government for island council priority projects have also assisted greatly in the development of infrastructure on the outer islands including Onotoa. Council priority projects since 2004 that have been approved and implemented that are mostly infrastructural included those in the following table:-

*Table 19: Council approved projects*

Year	Project Title	Approved funds
2004	Community Dev. Centre	\$96,421.00
2005	Mechanical Garage Building	\$78,400.00
2006	New Council Guesthouse	\$104,120.00
2007	NA	
		\$278,941.00

The causeways from Temao to Otoae and Aoraereke (Aiaki) to Tabuarorae were also funded and implemented by the Government. Even though the causeways solved the issue of access to the southern villages and vice versa, their construction has lately brought doubts as to whether they were good ideas in the first place. These doubts have come largely from the fact that some marine resources

started dying off after the construction of the Temao Otoae causeway. This marine resource depletion was followed with erosion issues throughout the island.

Government schools and medical facilities are all the responsibility of the Government including staff living quarters. Where working facilities are maintained by Government employees through the Ministry of Works & Energy, government employee living quarters are maintained by the Councils with funds provided by the Government.

Churches and church mwaneabas are built by members of the different religions predominantly the Protestants and to a lesser extent the Catholics. Village mwaneabas on the other hand, are built by the individual village communities however, these are also slowly dying out and being replaced by church mwaneabas.



A limestone monument can be found on the islet of Aonteumwa, a memoir of the punishment awarded the Onotoans during colonial times when there was an uprising against the British administration by the men as decided by the 'unimwane'. As punishment, they had to erect a 10+ metre high monument out of limestone that would serve later remind them of severe punishment were they to start another uprising. Seawalls are also abundant throughout the villages and in the early years, they were constructed mainly to reclaim land and particularly to show that one was hardworking. Nowadays, they are built to protect lands from coastal erosion that is taking place all over the island.

## 5.10 Transportation

### 5.10.1 Land Transport

Island Council trucks provide the main transport for Primary and JSS students to and from their schools and general use by the Council.

The most common form of land transport is the pushbike followed by motorbikes and trucks. Motorcycles ranks second in popularity, as they are generally more expensive than pushbikes. Due to the high cost of truck vehicles, difficulty in transportation, there were only 3 trucks on Onotoa during the census survey. Two of these trucks are owned by the Island Council of which one was donated by the people of Taiwan for the purpose of transporting primary and junior secondary pupils to and from school while the other is owned by the KPC in Buariki. for the KPC truck is used for church functions and local hire. Council charges a small fare for pupils and inter-village travelers in order to raise funds to meet the truck's operational cost and future maintenance - \$0.20/trip while the KPC truck take on member passengers freely and hires it out to the general public including visiting government officials.



Transport on the outer island include trucks, motorbikes and bicycles

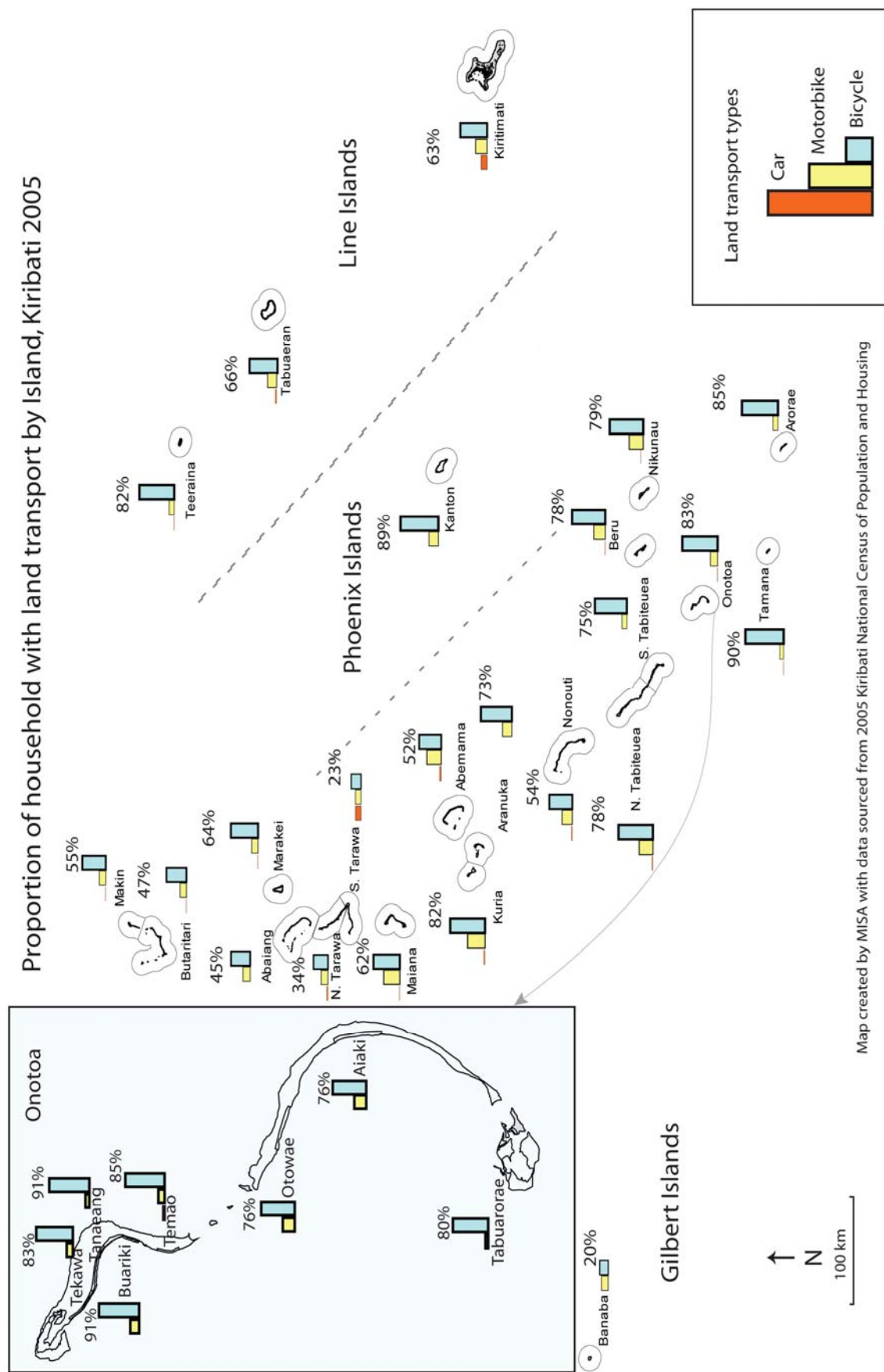
### *5.10.2 Sea Transport and Shipping*

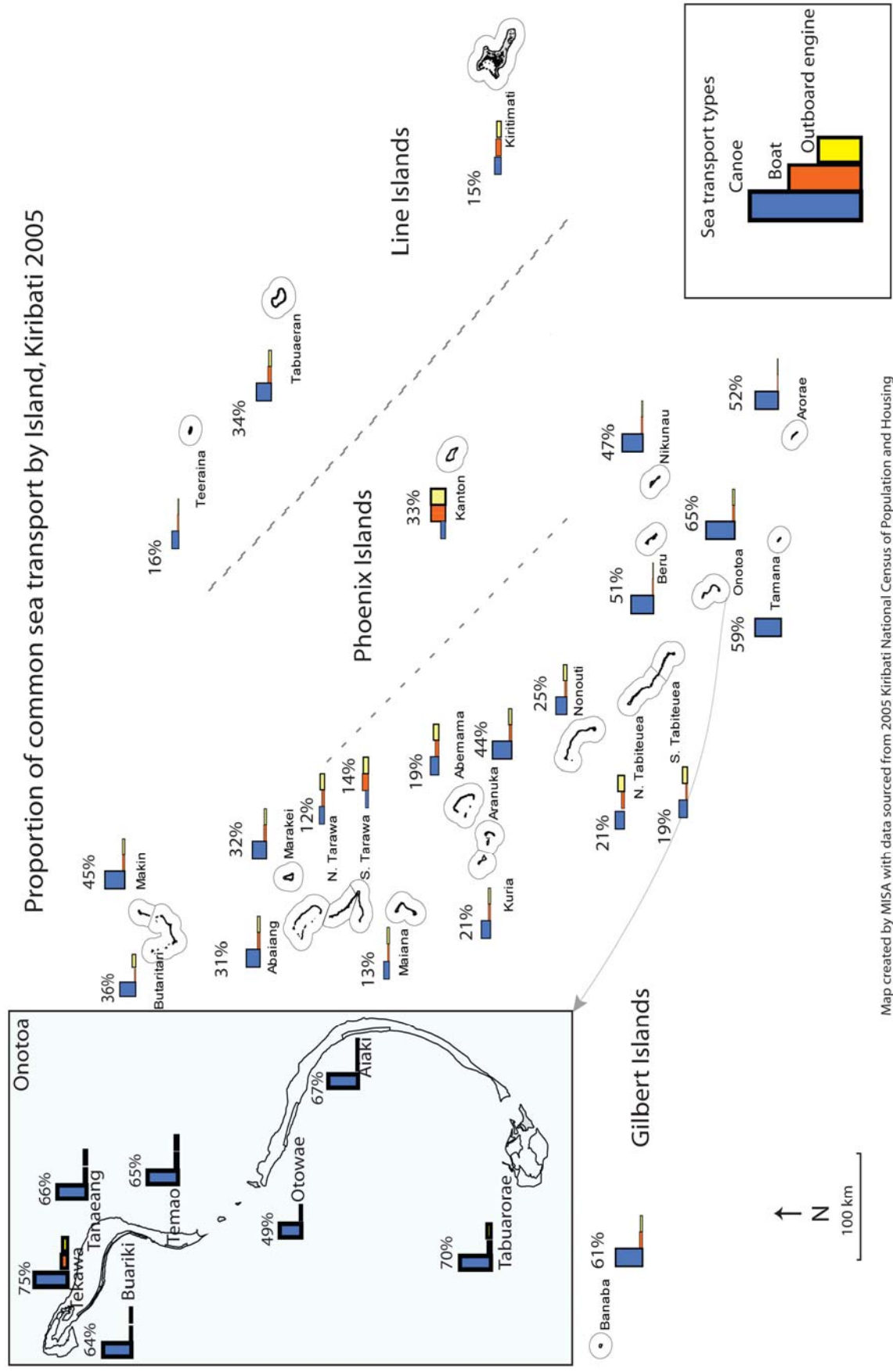
Kiribati is a nation of fragmented islands dispersed over a vast ocean area that extends almost 3,000 kilometers across the central Pacific, bordering the Marshall Islands in the east and French Polynesia in the west. This fragmentation and vastness of ocean give rise to major communication and transport problems that have been, and will continue to be the greatest development challenge for government. Shipping is a critical service that needs to be provided and maintained between Tarawa and the outer islands, in order to facilitate the transportation of supplies to and from the islands. Government has been the major shipping operator since colonial times, and still continues to dominate this service, although private businesses have secured an increasing share of the market. Still, central government attempts, through its shipping line – Kiribati Shipping Services Limited (KSSL) – to serve all islands in the country near and far.

The Kiribati Shipping Services Company Ltd. (KSSCL) is a Government company that provides the basic shipping services to all the outer islands of Kiribati. However, there is also an increasing number of privately owned boats that are also providing shipping services to the outer islands including 'Bwaan te Tangira' owned by the Onotoans, 'Te Ataana' owned by a Phillipino resident, and others.

'Bwaan Te Tangira', not only provides shipping services to the island but to the rest of the islands as well including Banaba and excluding those in the Line and Phoenix group. However, service priority is given to Onotoa and where cargo is lacking, Bwaan Te Tangira will take the cargo there for the shipping companies. During important functions such as in the recent 'mwaneaba' opening in Bairiki, the mwaneaba offerings, unimwane and other Onotoans were transported to Tarawa and back to the island after the opening. The initial 'Bwaan te Tangira' has been replaced by another as the first one had some unfixable problems with the engine.

Proportion of household with land transport by Island, Kiribati 2005







### 5.10.3 Air Service

There is only one air service to the outer islands of Kiribati provided by the 'Air Kiribati', a Government owned company. Flight schedules to the islands differ as well as airfares. This air service does not include the islands in the Line & Phoenix group.



Due to their remoteness, the Southern islands excluding Tabiteuea North have only one flight a week while there are more flights to the central and northern islands in a week. The Southern flight schedules comprise flying to two islands at a time. The Onotoa flight is carried out in conjunction with Tabiteuea South thus passengers on these Tuesday weekly flights includes Onotoan and South Tabiteuean passengers. One of the reasons that there were only weekly flights other than the islands being remote was that the flights most of the time are not full. This is mostly due to the fare being high by the island standards but recently, the fares have been cut to nearly half the rate it used to be. The result was more passengers and not enough airplanes. Even though, the cut in fare had made it possible for southern island flights to be made to individual islands, it was not a profit earning undertaking for the state owned airline and fares were increased after a trial period of 6 or more months.

Peak flights are generally during the school holidays, Easter, Independence celebrations and Christmas and New Year holidays. Flights to Onotoa are every Tuesday of the week with fares initially \$136.00, cut to \$72.00 during the trial months and were later increased to AU\$180.00.

**Table 20: Onotoa flight schedule**

Day	A/C	ROUTE	ETD	ROUTE	ETA
Tuesday	ATJ	Tarawa	0800	TabSouth	0900
		TabSouth	0820	Onotoa	0935
		Onotoa	1005	Tarawa	1115

Source: Air Kiribati, Bairiki 2008

Peak flights are generally during the school holidays, Easter, Independence celebrations, Christmas, and New Year holidays. During these times, the Onotoa and TabSouth flight can be full by students and Christmas returning residents. There is a 15kg baggage and a 5kg hand carriage allowances while excess baggage during flights costs double the normal freight cost of \$1.70/lb. Air cargo baggage is generally cheaper (\$0.75/lb perishable goods and \$1.70/lb un-perishable goods) than excess flight baggage for all goods.

Infant, student and child airfares are excepted as they are still dependent on senior family members whereas tertiary/university students have reached independent age and therefore are included in the adult fare group. The fares vary, depending on the distance to the island. These airfares were recently increased in August 2008 after a trial of period of nearly a year of reduced airfares. During the trial period of reduced airfares, there was a definite increase in the use of the air-service but was not profitable in the long run for the airline and thus the airfares were again increased. Again in 2009 the airfares went down as further shown in Table 21.

Early in 2009, a new private owned airline started operating initially with flights to the central and northern islands of Gilbert group. The *Coral Sun Airways* cannot as yet service the southern islands as it does not have a refueling point yet such as TabSouth for the Air Kiribati domestic line. The competition could be one that Air Kiribati needs to get back and running on its own feet.

**Table 21: Airfares 2009**

ISLANDS	Previous	Present
MAKIN	\$115.00	\$90.00
BUTARITARI	\$105.00	\$72.00
MARAKEI	\$70.00	\$36.00
ABAIANG	\$60.00	\$30.00
MAIANA	\$60.00	\$30.00
KURIA	\$90.00	\$55.00
ARANUKA	\$90.00	\$55.00
ABEMAMA	\$85.00	\$55.00
NONOUTI	\$125.00	\$100.00
TAB NORTH	\$150.00	\$120.00
TAB SOUTH	\$165.00	\$135.00
ONOTOA	\$180.00	\$150.00
BERU	\$180.00	\$160.00
NIKUNAU	\$190.00	\$170.00
TAMANA	\$210.00	\$210.00
ARORAE	\$230.00	\$230.00

#### **5.10.4 Issues facing Transportation**

The purchase of their own sea vessel, 'Bwaan te Tangira', has given the Onotoans an alternative means of sea transportation even though it is prone to break downs as is normal with anything mechanical. Despite this, there are still issues with the transportation of foodstuff and fuel from the KSCL that 'Bwaan te Tangira' at times is required to transport.

The provision of the JSS truck from the Taiwanese Government has solved the issue of transport for school children on the outer islands including Onotoa. Transport is still however an issue to JSS students from the village of Tabuarorae who still have to walk the channel that separates their islet from the mainland.

Pushbikes and motorbikes on the island has made individual transportation easy and if there was an issue, it would be more financial issue at not being able to afford a pushbike or motorbike.



### *5.11 Communication*

Until a few years ago, the main mode of communication between the islands was through the use of HAM radio communication systems operated by TSKL. Each island has one such system based at the Island Council headquarter on the island. Members of the general public normally use this for inter-island communication, as does the Island Council and central government in Tarawa. However, despite the fact that the system has been dependable and effective, there were a few problems relating to its use, among which are:

1. the system is not safe for sharing of private information, since the frequency used can be accessed by anyone with such a radio, and the radio equipment is operated by a TSKL agent.
2. the use of the radio is dictated by a schedule, hence only available for 1-2 hours daily, and only from Mondays to Fridays.
3. the radio operator lacks the skill to undertake major repair works if the radio breaks down. Communication with the island could be cut for at least one week during which the radio is sent to Tarawa for repairs or awaits a technician from South Tarawa.
4. since there is only one radio, people from distant villages must take long journeys in order to use it.

In order to address these problems TSKL decided to slowly introduce a new technology, a satellite-based telephone system which connects directly to the telephone system in Tarawa. The new system also supports the use of facsimile and internet, and therefore was considered to be a major accomplishment as far as progress is concerned. This system on the outer islands is powered by 450 solar panels that harness this solar to 1000 amp. batteries (Turabu pers. comm.).

However, this system not only has to be extended to Onotoa, it also costs more to use compared to the radio; connection is vulnerable to rough weather conditions, and people still need to travel to Council headquarters to make a call. Nonetheless, it provides more privacy when talking to relatives on other islands especially South Tarawa. It is also important to note that the government through TSKL is making an effort to improve the communication systems for the outer islands and as such has plans to establish tele-centers on the rest of the outer islands including Onotoa. However, Onotoa is on the next in TSKL list as the next island to establish this tele-centre as is generally abbreviated. The last response from TSKL was that construction of it on the island was delayed awaiting the arrival of equipment from overseas.

Like the rest of the islands in Kiribati, Onotoa is equipped with CB radios at the different sectors on the island:

- a. Police quarters
- b. Island Council office operated by the radio operator employed by the Council
- c. Health Centers
- d. Privates

The Island Council Office CB radio is used for inter island phone calls by the general public on the island at a cost of \$3.50 for the first 3 minutes and \$0.05 per minute thereafter. The Police and Medical radios are used solely by the individual officers for their own inter-department calls for supplies and emergencies. These CB radios by their nature are not used by the general public unless it is also an emergency of some kind when the Island Council radio cannot be accessed or is broken.