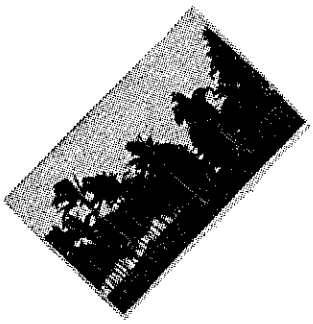
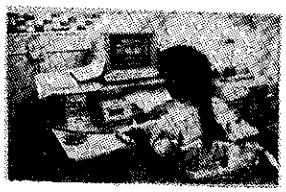
Government of Niue

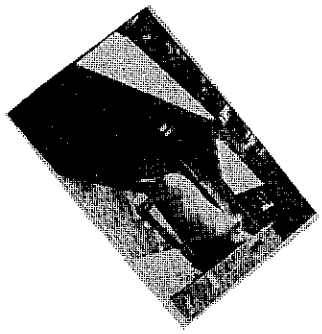
NIUE

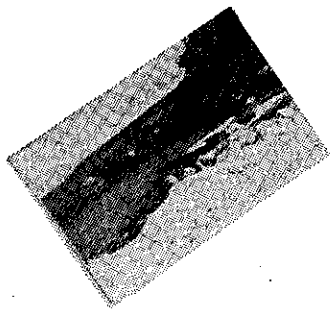
AGRICULTURAL CENSUS

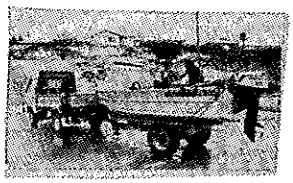
1989

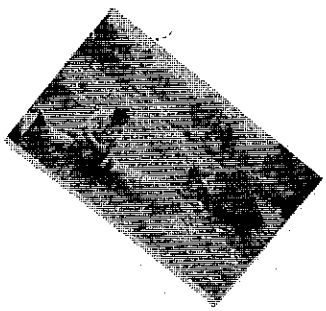


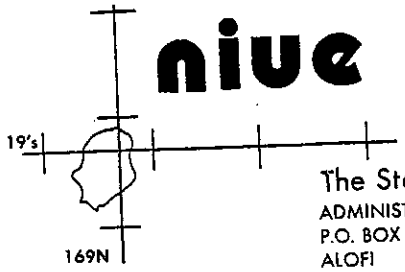












The Statistics Unit
ADMINISTRATION DEPARTMENT
P.O. BOX 67
ALOFI
NIUE, SOUTH PACIFIC

DAFF
DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES

PREFACE

The 1989 Agricultural Census was the first such census to be conducted in Niue to provide information on the agricultural sector of the economy. It therefore gives us great pleasure to introduce this report which has been made available less than one year after the completion of the data collection.

The Agricultural Census was conducted as a joint exercise between the Statistics/Immigration Unit of the Administrative Department and the Department of Agriculture, Forestry and Fisheries. Although the project was supported throughout by the UNDP/FAO sub-regional project RAS/86/035 - Development of Agriculture Statistics which provided critical support in the more technical aspects of the exercise and for which we are most appreciative, the Census was primarily a national undertaking and its success reflects the hard work and dedication of the officials involved.

We are particularly grateful to the people of Niue who responded willingly to the questions put to them, the enumerators and supervisors without whom the information could not have been collected successfully and the management staff of the two departments concerned.

This report will provide a wealth of information on agricultural activities in Niue and serve as a bench-mark from which to measure changes in the future. It will also provide much useful information for development planning purposes.

We feel confident that the information presented in this report will prove to be of great value to those concerned with developing the agricultural sector to the betterment of all the people of Niue.

Fakaue Lahi.

Hon. Young Vivian
Minister for Administrative Services

Hon. Tama Posimani
Minister for Agriculture, Forestry and Fisheries

Niue
October 1990

FOREWORD

The availability of statistical information is critical to sound development planning. Prior to the Agricultural Census, some attempts were made to collect data on crop production and other key activities in the industry but no comprehensive survey of the agricultural sector had been undertaken in Niue.

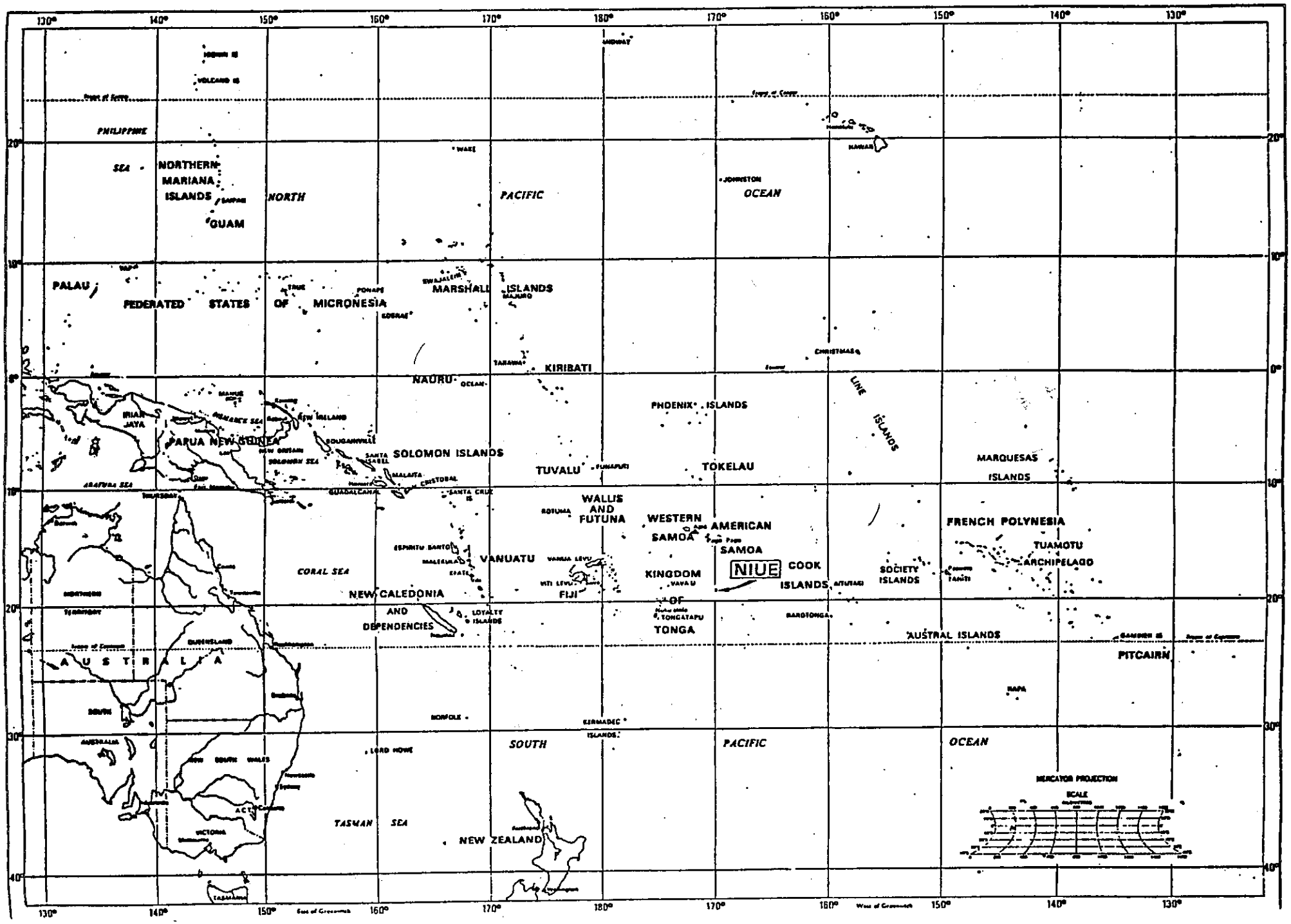
The agricultural sector is perhaps the most important sector of the economy, providing the bulk of the country's staple food requirements as well as a source of cash income for many of the island's households. Agricultural commodities also have potential for the export market. However, although the export potential of the industry is widely recognized it has proved a difficult task to establish sustainable export orientated production that is economically viable.

Whilst the Agricultural Census was primarily concerned with collecting data on livestock and crops, information was also collected on fishing activities and the hunting of coconut crabs. This report on the 1989 Agricultural Census therefore provides, for the first time, a comprehensive statistical analysis of the agricultural sector in Niue. The information contained in this report will be of immense value to the Department of Agriculture, Forestry and Fisheries as well as to other Government Officials and members of the public.

The Agricultural Census was a joint undertaking between the Statistics/Immigration Unit of the Administrative Department and the Department of Agriculture, Forestry and Fisheries. The success of the project was due to the hard work and dedication of all those involved in the Census and this contribution is gratefully acknowledged. The Census was supported by the FAO/UNDP sub-regional project RAS/86/035 - Development of Agricultural Statistics based in Apia, Western Samoa and we would like to extend our special thanks to the Project Leader, Mr. David Marshall, for his support throughout the Census.

Togia Pihigia,
Director,
Administrative Department.

G. S. T. Talagi,
Director,
Department of Agriculture,
Forestry and Fisheries.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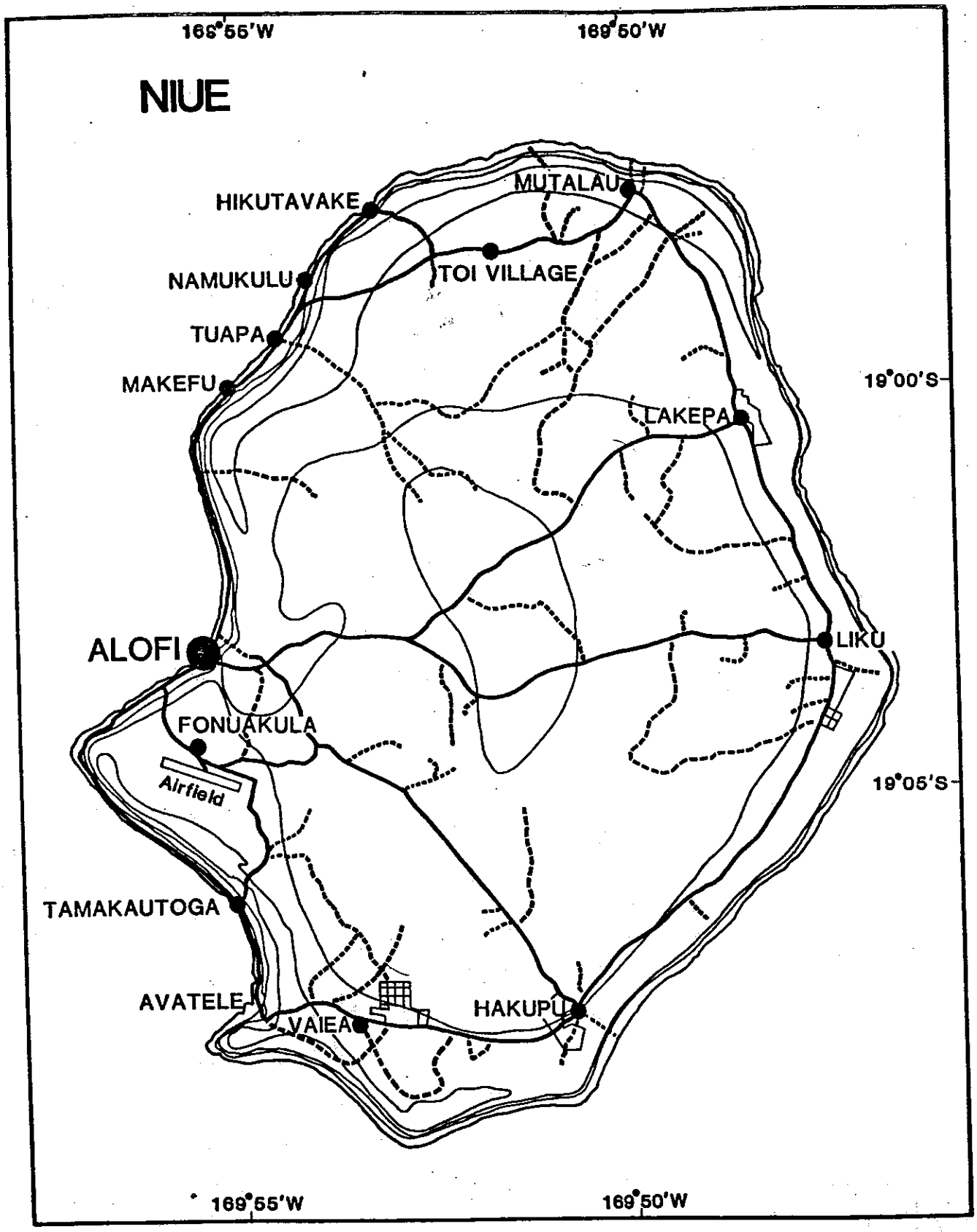
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CHAPTER 1 — INTRODUCTION

1.1 The Country

Niue is comprised of a single up-thrust coral atoll which over many thousands of years has emerged in stages out of the ocean as a result of volcanic activity.

Situated in Polynesia in the Southwest Pacific Ocean at latitude 19 South and longitude 169 West, approximately 480 km east of Tonga, 930 km west of Rarotonga and 660 km south-east of Western Samoa, Niue is the largest coral atoll in the world with a land area of 259 sq.km. The atoll is formed of three terraces, the rim of the lower terrace being some 28 meters above sea-level whilst the rim of the upper terrace is some 69 meters above sea-level.

Niue is self governing under authority of the Niue Constitution Act 1974 which came into force on 19 October 1974. Niueans are British Subjects and New Zealand Citizens.

1.2 The Land

A large proportion of the island is covered with scrub and there are several thousand acres of dense indigenous forest. There is no surface water, but artesian bores enable the subterranean reservoir of fresh water to be tapped for domestic and agricultural purposes.

The island is characterized by a rugged and rocky coastline, featuring steep cliffs, caves, deep chasms and blowholes. Some parts of the coastline are fringed by a narrow coral reef but in other parts the ocean plunges abruptly from the cliff face.

The relatively small size of the island means that Niue has a limited land area for large scale agricultural use. Soil fertility is also relatively poor in comparison to most neighboring countries and is thinly distributed over coralline limestone and basement rock; between 30 to 40 percent of the land area is unsuitable for agricultural purposes. Most local agricultural practices use shifting cultivation and long periods of fallow are common.

1.3 The Climate

There are two distinct seasons in Niue, the hot or wet season from December to March and the cool or dry season from April to November. Most of the rainfall occurs during the hot season, often in torrential downpours. During this season, both the temperature and the humidity are high making climatic conditions very trying. The cool season on the other hand is characterized by warm sunny days and cool nights and a much lower rainfall.

Niue is situated near the edge of the tropical cyclone belt and is subject to cyclones from time to time. In recent years, cyclone 'Ofa', which struck Niue in February 1990, has been the most destructive cyclone causing widespread damage to buildings and crops. Cyclones and high winds normally occur during the hot season.

1.4 The People

Not a great deal is known about the early history of Niue. However, the island is thought to have been inhabited for more than a thousand years. The early settlers most likely came from the neighboring Polynesian islands of Samoa and Tonga, with more recent Melanesian influence, especially in Tafiti the southern moiety of the island.

At the turn of the century, the population numbered 4,015. Little change took place until the 1950s when the population began to increase to a peak of 5,194 in 1966. Since then the population has declined steadily, mainly due to out-migration to New Zealand. The results of the population count conducted on 1 October 1989 as part of the Agricultural Census recorded the population at 2,267 with 1,159 males and 1,108 females. There are 13 villages including Alofi, the capital.

The population is characterized by its youthful nature with some 37 percent under the age of 15 years and only 10 percent aged 60 years and over.

Of the 1,437 persons aged 15 years and over, some 41 percent recorded their main activity in the week preceding the 1989 enumeration as being in Government Employment whilst only 8 percent recorded their main activity as being engaged in the subsistence sector. This emphasizes the subsistence nature of the agricultural sector with the majority of the labour force regarding it as a secondary activity.

Unemployment is not a major problem in Niue with only some 45 persons recorded as being unemployed at the time of the Census (3 percent) and over half of these being in the 15-19 age group.

Further information on the population characteristics can be found in Chapter 3 and also in the report on the 1986 Population Census.

1.5 The Economy

Niue's economy is largely dependent on Foreign Aid.

Despite continuous efforts to promote cash crops in the agricultural sector, these initiatives have generally been short lived and the only crop which was exported on a regular basis in 1989 was taro. Coconut production for the processing of and coconut cream was virtually non existent in 1989. Other crops such as passionfruit and lime whose products had provided considerable export revenue in the early 80s were also virtually non-existent in 1989.

Tourism has been encouraged as an avenue for economic development but the withdrawal of Air Nauru's weekly jet service to New Zealand in June 1988 had an adverse effect on this development.

Fisheries has also been identified as having economic potential. Under the terms of the Multilateral Fisheries Treaty with USA-ATA (administered by the Forum Fisheries Agency (FFA)), Niue will stand to earn over NZ$700,000 per annum between 1988 and 1992.

An assessment of forest resources, future planting and export potential of local hardwoods is being undertaken. Horticulture will also remain an area for export development.

CHAPTER 2 — METHODOLOGY

2.1 Introduction

This was the first Agricultural Census to be conducted in Niue. As well as collecting information on agriculture, the Census also included a population count to provide the Government with up-to-date information on the size of the population in Niue.

Although this was the first Agricultural Census to be conducted in Niue, the country has a long history of Population Census activities and has gained considerable experience in enumeration and data processing through these activities. Therefore, apart from some technical assistance, provided through the sub-regional UNDP/FAO project RAS/86/035 - Development of Agricultural Statistics, it was possible to carry out the Agricultural Census without external assistance.

2.2 Census Administration

The Agricultural Census was conducted by the Statistics/Immigration Unit (SIU) of the Administrative Department with support from the Department of Agriculture, Forestry and Fisheries (DAFF). The Statistics/Immigration Officer assumed responsibility for the day-to-day activities and he and his supporting staff were actively involved in all stages of the Census including the supervision of the field-work and the checking, editing and coding of the completed schedules as well as the data processing.

The Agricultural Census was taken under the authority of the Niue Assembly Census Ordinance 1971, No.68 and the Amendment Act 1976.

2.3 The Questionnaire

The questionnaires were designed by the FAO Adviser (RAS/86/035) in consultation with the SIU and DAFF. The design followed closely that used for the Cook Islands Census of Agriculture (September 1988) with some minor improvements and modifications to take into account differences in agricultural emphasis in the two countries.

The fact that the questionnaires had, for the most part, been thoroughly tested in the Cook Islands, meant that only a small pre-testing schedule was necessary and no formal pilot census was conducted.

Altogether, four different questionnaire designs were used, the Population Questionnaire, the Household Questionnaire, the Holding Questionnaire and the Parcel Questionnaire (see annex A).

For population purposes, information was collected for all persons resident in Niue on the night of 1/2 October 1989 with respect to sex, date of birth, descent, country of residence, country of residence one year ago and main activity last week.

For the Agricultural Census, the following information was required from all households:

[a] Location of the household
[b] Level of Agricultural Activity of the household
[c] Number of separate Holdings operated by the household and number of parcels in each holding identified as 'in use', 'solely under coconuts' and 'fallow'.
[d] Crops grown by Minor Households (number of trees/plants)
[e] Numbers of Livestock raised by the household (pigs, chickens, other livestock)
[f] Numbers of Domestic Animals kept by the household (dogs and cats)
[g] Average weekly Consumption of Coconuts by the household for human and animal consumption
[h] Number of Coconut Crabs caught by the household in the month preceding the Census
[i] Number of Fishing Vessels and Outboard Motors owned or part-owned by the household
[j] Number of Fishing Trips by members of the household in the month preceding the Census by type of trip (canoe, dingy, shore, diving and Government Alia)
[k] Frequency of Fish Sales

Additionally, for Households identified as Agriculturally Active:

[l] Details of the Operator (sex, household membership status, age, average weekly hours worked on the holding, paid job status and occupation)

[m] Use of fertilizers, pesticides, herbicides and fungicides
[n] Main method of clearing new land
[o] Export of Crops (frequency, commercial/family, crop types, quantities, air/sea)
[p] Proportion of household income from agricultural/fishing activities
[q] Disposal of crops, livestock or fish as gifts

Additionally, on a holding basis:

[r] Location of holding
[s] Number of households operating the holding
[t] Details of Parcels In Use (years in continuous use, land tenure, area, location)
[u] Scattered Plants/Trees on the holding (crop type and numbers)
[v] Details of workers (sex, household membership status, age, paid/unpaid, hours/wages per month, other benefits)

Additionally, on a parcel basis (parcels in use only):

[w] Location of parcel
[x] Plot details (area, crops, crop mix, proportion for sale)
[y] Details on harvested crops (area, proportion sold)

See Annex 'B' for a more detailed description of the concepts and definitions used in the Census.

The questionnaire was designed in such a way that households with little or no agricultural involvement completed an abbreviated schedule.

An Enumerators' Manual was also prepared as a reference document.

2.4 Publicity

Various different media were used to inform the public of the timing and purpose of the Census. Advantage was taken of the television service provided by Niue Broadcasting Corporation and a short (30 second) commercial was made. News items were also carried on both the television station and the radio station as well as in the weekly newspaper.

2.5 Preliminary Fieldwork

The last Population Census was conducted in September 1986. At this time good maps were prepared for each enumeration area. These were updated by the staff of the SIU in the months preceding the Agricultural Census. One point of interest emerged concerning the location of the holdings and parcels. The enumeration areas, as defined for population census purposes, did not cover the area in the centre of the island which is uninhabited. In order to include this land area, two new districts were defined (14-Lefuka and 15-Paluki) with 9 enumeration areas between them.

2.6 Recruitment and Training

The census enumerators were all government employees recruited mainly from the Administrative Department and DAFF. Most had worked on previous census projects and so the concept of a census exercise was not new to them. When selecting enumerators, consideration was given to the need for a good geographic distribution to ensure that enumerators could work in their home villages, wherever possible, and so minimize the need for transport (see list of agricultural census staff at Annex E).

Training was conducted over a period of six days, but in the afternoons only, to enable those involved to cover their normal duties in the mornings. The FAO Adviser (RAS/86/035) assisted the staff of the SIU with the training programme.

As well as these formal training sessions, which concentrated on the concepts and definitions employed in the Census, the enumerators also completed sample copies of the questionnaires in the evenings. This not only gave them some necessary practical experience in completing the questionnaires but also served to highlight those aspects of the questionnaires that were not fully understood by all the enumerators.

2.7 The Enumeration

The country was divided into 30 Enumeration Areas (EAs) for enumeration purposes and these in turn were grouped into three supervision areas.

The final updating of the household lists was carried out by the enumerators on the Tuesday evening (26 September 1989) during which time a pre-census count was made of the population.

The population questionnaires were completed in respect of all households and institutions during the weekend of 30 September/ 1 October 1989. 'Census Night' was set as the 1/2 October 1989 and a final check was made by the enumerators on the morning of Monday 2 October to finalize the schedules. All population questionnaires were handed into the SIU the same day and a provisional population count was available on Tuesday 3 October 1989.

The enumeration in respect to agricultural activities followed immediately and was scheduled to be completed by 16 October 1989. This period of time (2 weeks) was thought necessary as the enumerators could only work for 2/3 hours a day (after work) and the questionnaires took about one hour to complete in respect of each household. No major problems were experienced with the enumeration and all households were covered during the allotted time.

Overall the standard of enumeration was very high, the enumerators taking a lot of trouble to get accurate and complete information.

The task of the enumerators was undoubtedly facilitated by the fact that with only some 500 household in Niue, most individuals knew each other (certainly in their own villages) and also knew a lot about each others activities.

2.8 Checking, Editing and Coding

As each enumeration area was completed, the schedules were first checked by the supervisors for missing information and obvious inconsistencies. Omissions and errors found at this stage were the responsibility of the enumerators to correct.

The next stage was to go through the schedules in the office to check in more detail for omissions and logical inconsistencies. Due to the very high standard of the enumeration, few such errors were found. However, where they were found, it was the responsibility of the supervisors to take the necessary corrective action.

Once the questionnaires had been thoroughly checked and edited they were then coded in preparation for data processing. In the case of codes entered by the enumerators, these were carefully checked.

2.9 Data Processing

The data was entered in batches (EAs) onto two micro-computers, one belonging to the SIU and the other belonging to External Affairs. The user-friendly software package U-SP was again used for the data processing after its successful introduction for processing the 1986 Population Census.

The actual data entry was completed in a matter of a few weeks. This was followed by some machine editing in Niue before the data set was 'backed off' and taken to Apia in March 1990 for final cleaning and the preparation of the tables. The FAO Adviser (RAS/86/035) supervised and assisted with these final stages of the data processing. The first complete set of draft tables was available in Niue at the end of March 1990, some six months after the enumeration.

2.10 The Post-Enumeration Survey

As with all major field-work exercises it is important to conduct an independent assessment of the quality of the information gathered. In the case of the Agricultural Census, the most important component to be evaluated was the estimates of land area.

Whilst the Census was conducted on an interview basis it was felt desirable that the post-enumeration survey should use objective measurement techniques (compass and tape measure) to measure the physical area of selected parcels of land. Because of the time involved in conducting such a survey it was decided to enumerate only two parcels in each village, a total of 26 parcels or 2.2 percent of all parcels classified as 'in use'. Both the total area of the parcel and the area of the individual plots were measured.

The results of the survey revealed some large differences between the areas recorded in the Census interview and the physical area as measured. It also revealed a number of cases where the two estimates were remarkably close. Where large differences were observed, there appeared to be no particular pattern to these differences with roughly as many areas being over-estimated as under-estimated. Generally, areas of fallow land were least well estimated and the bias if any was to under-estimate the size of these parcels in the interview.

On the basis of the results of this small post-enumeration survey it can be concluded that whilst individual area estimates may differ considerable from the actual physical area, within the country as a whole, and to a lesser extent individual districts, these differences can be expected to balance each other out with little overall effect on the results. The exception is in the case of fallow land where there is some evidence to conclude that the area is probably under-estimated.

2.10 The Budget

The Agricultural Census was conducted on a very tight budget of NZ$12,000 of which NZ$6,000 was funded by the Government of Niue and NZ$6,000 was funded by the Forum Fisheries Agency (FFA). To arrive at the true cost of the exercise consideration must also be given to the salaries/wages of the staff of the SIU who were engaged on this project over a period of many months.

The FAO/UNDP sub-regional project RAS/86/035 - Development of Agricultural Statistics, provided technical advisory services throughout the project and also assisted with the preparation and printing of this report.

The main components of the budget were:

Payments to enumerators -	NZ$ 7,500
Printing of schedules -	NZ$ 1,000
Training -	NZ$ 1,000
Transport -	NZ$ 1,000
Miscellaneous -	NZ$ 1,500

CHAPTER 3 - POPULATION CHARACTERISTICS

3.1 Introduction

As part of the Agricultural Census, a population count was undertaken and some basic demographic information obtained. **Census Night** was the **1/2 October 1989**. This chapter presents a brief description of the results of this part of the Census and has been, in the main part, contributed by Mr. Laurie Lewis, ESCAP Regional Adviser on Population Censuses and Surveys. Eleven supporting tables are presented at the end of this chapter.

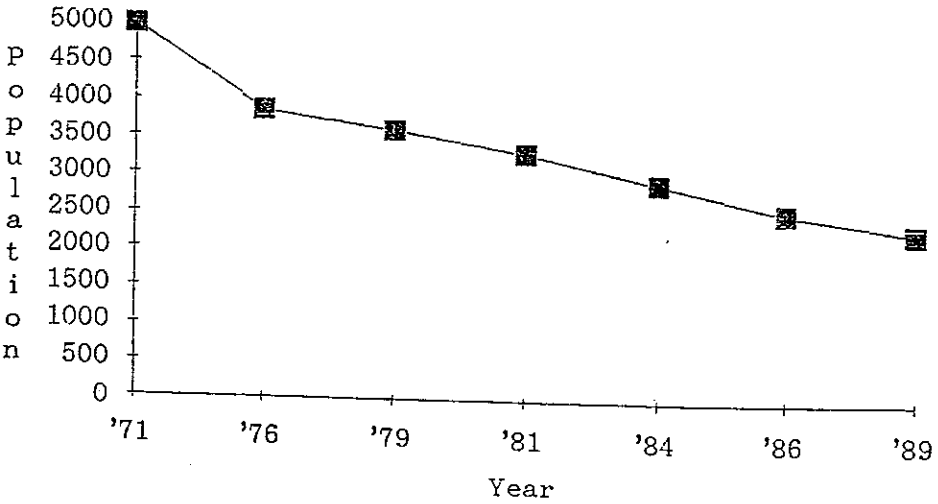
3.2 Population Growth

The decline in population that began in the late 1960's, continued during the period 1986 to 1989. The population recorded in the 1986 census was 2,531. By 1989 it had fallen to 2,267, of which 1,159 were male and 1,108 were female. The population thus declined at an average annual rate of 3.7 percent during this period.

Table 3A: Total Population and Annual Rate of Decline, 1971-1989

Census Year	Population	Annual Rate of Decline (%)
1971	4990	0.8
1976	3843	5.1
1979	3578	2.9
1981	3281	3.3
1984	2887	4.6
1986	2531	6.6
1989	2267	3.7

Figure 3A: Population 1971 - 1989



The decline occurred both in Alofi and the rural areas. Population in North and South Alofi declined at almost 5 per cent a year. Generally speaking, the population in villages in the South of Niue remained unchanged between 1986 and 1989. Two of these villages, Vaiea and Avatele actually grew during this period. In contrast, villages in the North of the island experienced relatively heavy declines, averaging more than 6 percent a year.

To understand more fully about the nature of the population decline in Niue, it is useful to measure the effects of births, deaths and migration separately, since it is the combined influence of these events that determines population change. The 1989 Agricultural Census provides some information to help in estimating the birth rates, death rates and net migration rate. These rates are presented in a standard way to enable comparisons to be made. They express the number of events in each year that occur on average to each thousand people in the population. It should be noted that the prime purpose of the Census in 1989 was to collect information on agriculture and relatively little attention was given to population issues. Nevertheless it is possible to use the Census information, together with the records from the civil registration system, to make some general observations about the changes in the population of Niue.

The 1989 census does best at providing an estimate of the birth rate. To estimate the number of births occurring within the period 1986-89 a technique known as reverse survival can be used. This technique assumes that the Niuean children aged 0-4 in the Census, are the survivors from all children born in the 5-year period preceding the Census. Some other babies born in this period had died by the Census time, and an estimate of these deaths is made from the civil registration records. As Table 3B shows, the estimate of the birth rate in the period 1984-89 is 24 per thousand. This rate is very similar to the rates obtained in recent years from the civil registration system, suggesting that the Census is of reasonably high quality.

Table 3B: Birth Rates 1984-89

Census Population aged 0-4	Died since birth in 1984-89	Births 1984-89	Birth Rate* 1984-89
249	10	259	24

* annual births per thousand mid-period population

An estimate of the death rate cannot be obtained directly from the Census results since, as already indicated, this was not a topic specifically covered. However, a rate of about 7 per thousand population is obtained using the civil registration records and checked by using a more advanced technique of demographic modeling. The birth rate and death rate together provide a guide to the rate of natural increase, which shows how quickly the population would grow in the absence of migration. A

comparison can be made between the actual growth rate shown in Table 3A and this rate of natural increase, since the growth rate between the Censuses includes migration and the rate of natural increase does not. The difference provides a useful estimate of the net-migration to New Zealand and other countries. This estimate, as can be seen in Table 3C, is 54 per thousand. Based on the average population in Niue between 1986 and 1989, this rate would account for a net loss through migration of about 130 persons each year.

Table 3C: Summary of Annual Population Rates

Description	Rate*	Comment
Birth	24	
Death	7	
Natural Increase	17	Rate of Natural Increase equals birth rate less death rate
Annual Growth	-37	
Net Migration	-54	Net migration rate equals annual growth rate less rate of natural increase

* per thousand population

3.3 Population Profile

The total population of 2,267 comprised 1,979 Niueans and 288 Non-Niueans by descent. There was an excess of males to females with 1,159 males and 1,108 females recorded (see table 3D below).

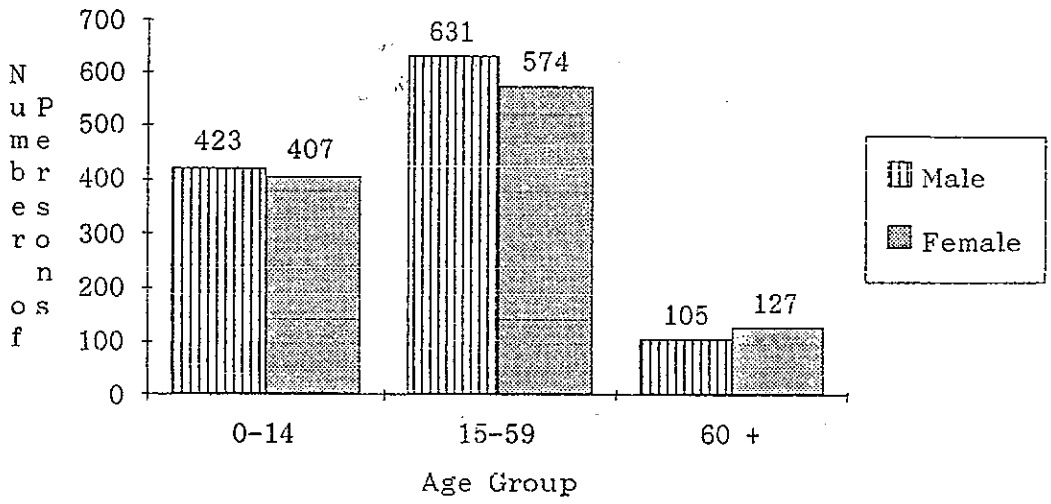
Table 3D: Population of Niue by Descent and Sex

	Sex		
Descent	Male	Female	Total
Niuean	1004	975	1979
Non-Niuean	155	133	288
Total	1159	1108	2267

Niueans accounted for 87 percent of the total population and Non-Niueans 13 percent. In terms of sex distribution, males accounted for 51 percent of the total population and females 49 percent. The sex ratio of the Niuean population, or the number of males in the population for every 100 females, increased from 100.3 in 1981 and 1986 to 103.0 in 1989. The Non-Niuean population had a much higher sex ratio of 116.5.

The population of Niue is characterized by its youthful nature with some 37 percent under 15 years of age and only 10 percent 60 years of age and above. The work force aged between 15 and 59 years of age accounted for 53 percent of the total population.

Figure 3B: Population by Age Group and Sex



3.4 Country of Residence

Some 2,240 or 99 percent of the population indicated Niue as their country of residence at the time of the Census with only 27 persons describing their country of residence as being outside Niue (20 from New Zealand).

In response to the question concerning country of residence one year ago, of the 2,215 persons aged one year and above, 2,050 or 93 percent had been resident in Niue and 110 or 5 percent had been resident in New Zealand.

3.5 Economic Activity

The Census asked each person aged 15 years and above about their 'main activity during the week preceding the Census'. Table 3E shows some interesting features about the Niuean labour force. Of the working age population, about 62 per cent were economically active. The unemployed accounted for a little over 3 per cent of the working age population, but over 5 per cent of the economically active population. The dominant work for the employed population was with the Government, which accounted for more than 40 per cent of all persons of working age.

Table 3E: Main Activity for Niueans Aged 15 Years and Above

Main Activity	Males No	Males %	Females No	Females %	Total No	Total %
WORKING:						
- Government	364	58.3	156	25.5	520	42.1
- Private	29	4.7	54	8.8	83	6.7
- Subsistence	95	15.2	11	1.8	106	8.6
- Cash	12	1.9	7	1.1	19	1.5
Total Working	500	80.1	228	37.2	728	58.9
Unemployed	15	2.4	26	4.3	41	3.3
Total Economically Active	515	82.5	254	41.5	769	62.2
NON-ECONOMICALLY ACTIVE:						
- Domestic	2	0.3	245	40.0	247	20.0
- Education	59	9.5	72	11.8	131	10.6
- Other	48	7.7	41	6.7	89	7.2
Total Non-Economically Active	109	17.5	358	58.5	467	37.8
TOTAL	624	100.0	612	100.0	1236	100.0

Differences by sex were very marked. Males were far more likely to have a job; 80 per cent were working during the reference week compared with about 37 per cent for females. Not surprisingly therefore, the number of males employed in Government was more than twice the number of females. Males were also more likely to claim to be subsistence farmers. But the situation was reversed in the private sector, which employed almost 9 per cent of females compared with less than 5 per cent of males.

The converse situation occurs in the non-economic sector, which contains considerably more females than males. Most of these were described as working in domestic duties. In part, the inadequacy of this description accounts for the relatively small number of women in the labour force, especially in the subsistence sector. Many women help on plantations or make handicrafts but since they also perform many domestic tasks they have been recorded under this category and thus excluded from the labour force.

The pattern of employment also varies according to age (see table 3F). The distribution partly reflects the influence of education on employment. Thus in both Government and private sectors the numbers employed fall as age increases. Employment in the agricultural sector behaves in a very different way. As age advances, more people describe their main activity as agriculture, particular in subsistence activities. This again is partly a reflection of the importance of education. But the relatively high numbers employed in agriculture at ages 55 and above also suggest advantages in being able to adjust working patterns to meet the working habits of the aged.

Table 3F: Main Economic Activity for Niueans by Age Group

Economic Activity	Age Group 15-24	25-34	35-44	45-54	55 and above
Government	166	154	104	79	17
Private	29	23	17	9	5
Agriculture	1	3	9	33	79
Unemployed	28	10	-	3	-
TOTAL	224	190	130	124	101

As in many countries, unemployment is largely a problem of youth. Note that most of the unemployed were aged 15 - 24 and, to a lesser extent 25-34. Very few people above age 35 described themselves as unemployed.

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Table 11 - Niuean Population Aged 15 Years and Above by Main Activity in the Week before the Census, Age Group and Sex

Table 1 - Population by Village, Descent and Sex

Descent	Niuean			Non-Niuean			Total		
	Sex			Sex			Sex		
Village	Male	Female	Total	Male	Female	Total	Male	Female	Total
Makefu	50	56	106	2	4	6	52	60	112
Tuapa	110	101	211	2	2	4	112	103	215
Namukulu	22	17	39	-	-	-	22	17	39
Hikutavake	46	43	89	2	3	5	48	46	94
Toi	27	16	43	-	-	-	27	16	43
Mutalau	82	89	171	4	-	4	86	89	175
Lakepa	64	45	109	-	1	1	64	46	110
Liku	57	49	106	4	1	5	61	50	111
Hakupu	119	113	232	5	3	8	124	116	240
Vaiea	20	18	38	1	4	5	21	22	43
Avatele	90	99	189	7	5	12	97	104	201
Tamakautoga	94	73	167	5	6	11	99	79	178
Alofi	223	256	479	123	104	227	346	360	706
NIUE	1004	975	1979	155	133	288	1159	1108	2267
Alofi South	119	140	259	80	75	155	199	215	414
Alofi North	104	116	220	43	29	72	147	145	292

Table 2 - Population by Village, Age Group and Sex

Age Group	0-4			5-9			10-14			15-19		
	Sex			Sex			Sex			Sex		
Village	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Makefu	10	7	17	7	7	14	6	11	17	5	6	11
Tuapa	20	16	36	20	17	37	13	8	21	13	6	19
Namukulu	2	1	3	4	6	10	1	1	2	2	-	2
Hikutavake	3	7	10	6	7	13	4	3	7	8	2	10
Toi	1	1	2	1	1	2	4	4	8	2	-	2
Mutalau	18	6	24	7	12	19	7	11	18	14	12	26
Lakepa	5	6	11	9	6	15	12	3	15	8	1	9
Liku	8	7	15	7	10	17	7	4	11	9	2	11
Hakupu	21	13	34	15	18	33	13	7	20	14	17	31
Vaiea	2	2	4	6	4	10	3	3	6	-	3	3
Avatele	9	6	15	10	19	29	12	12	24	20	9	29
Tamakautoga	8	10	18	13	12	25	7	5	12	16	8	24
Alofi	38	62	100	41	44	85	43	28	71	31	41	72
NIUE	145	144	289	146	163	309	132	100	232	142	107	249
Alofi South	25	43	68	25	28	53	21	15	36	17	22	39
Alofi North	13	19	32	16	16	32	22	13	35	14	19	33

Age Group	20-24			25-29			30-34			35-39		
	Sex			Sex			Sex			Sex		
Village	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Makefu	4	6	10	2	2	4	3	4	7	1	2	3
Tuapa	2	5	7	7	10	17	13	10	23	2	3	5
Namukulu	1	-	1	2	1	3	2	1	3	1	-	1
Hikutavake	4	1	5	3	5	8	2	1	3	3	3	6
Toi	5	1	6	1	-	1	2	-	2	1	2	3
Mutalau	9	4	13	3	4	7	2	5	7	4	6	10
Lakepa	4	6	10	8	4	12	2	1	3	2	3	5
Liku	3	-	3	3	6	9	4	2	6	2	1	3
Hakupu	11	10	21	8	7	15	7	5	12	8	7	15
Vaiea	2	1	3	1	1	2	1	1	2	-	2	2
Avatele	5	7	12	8	7	15	6	4	10	8	7	15
Tamakautoga	9	3	12	8	3	11	7	4	11	1	2	3
Alofi	20	16	36	21	22	43	30	26	56	27	26	53
NIUE	79	60	139	75	72	147	81	64	145	60	64	124
Alofi South	10	12	22	16	16	32	19	16	35	15	17	32
Alofi North	10	4	14	5	6	11	11	10	21	12	9	21

Table 2 - Population by Village, Age Group and Sex (continued)

Age Group	40-44			45-49			50-54			55-59		
	Sex			Sex			Sex			Sex		
Village	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Makefu	3	4	7	3	4	7	3	2	5	3	1	4
Tuapa	4	4	8	2	4	6	3	6	9	1	1	2
Namukulu	1	1	2	-	-	-	1	2	3	3	4	7
Hikutavake	1	1	2	2	3	5	1	2	3	2	1	3
Toi	2	1	3	1	3	4	1	-	1	2	-	2
Mutalau	1	1	2	6	3	9	1	6	7	4	5	9
Lakepa	2	2	4	6	3	9	4	5	9	-	-	-
Liku	1	1	2	6	5	11	3	3	6	2	2	4
Hakupu	3	6	9	7	6	13	4	3	7	2	3	5
Vaiea	-	-	-	1	-	1	-	1	1	1	1	2
Avatele	6	3	9	1	4	5	4	8	12	4	5	9
Tamakautoga	1	2	3	8	6	14	6	11	17	5	5	10
Alofi	16	22	38	19	10	29	18	19	37	13	12	25
NIUE	41	48	89	62	51	113	49	68	117	42	40	82
Alofi South	9	12	21	10	4	14	9	11	20	7	6	13
Alofi North	7	10	17	9	6	15	9	8	17	6	6	12

Age Group	60-64			65-69			70+			Total		
	Sex			Sex			Sex			Sex		
Village	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Makefu	-	-	-	2	2	4	-	2	2	52	60	112
Tuapa	4	1	5	2	4	6	6	8	14	112	103	215
Namukulu	1	-	1	-	-	-	1	-	1	22	17	39
Hikutavake	2	-	2	2	3	5	5	7	12	48	46	94
Toi	-	1	1	2	-	2	2	2	4	27	16	43
Mutalau	4	3	7	2	4	6	4	7	11	86	89	175
Lakepa	-	1	1	-	-	-	2	5	7	64	46	110
Liku	2	1	3	2	3	5	2	3	5	61	50	111
Hakupu	4	3	7	2	4	6	5	7	12	124	116	240
Vaiea	-	-	-	2	1	3	2	2	4	21	22	43
Avatele	1	1	2	3	4	7	-	8	8	97	104	201
Tamakautoga	4	2	6	1	3	4	5	3	8	99	79	178
Alofi	13	10	23	5	4	9	11	18	29	346	360	706
NIUE	35	23	58	25	32	57	45	72	117	1159	1108	2267
Alofi South	6	5	11	3	-	3	7	8	15	199	215	414
Alofi North	7	5	12	2	4	6	4	10	14	147	145	292

Table 3 - Niuean Population by Village, Age Group and Sex

Age Group	0-4			5-9			10-14			15-19		
	Sex			Sex			Sex			Sex		
Village	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Makefu	10	6	16	7	6	13	6	10	16	5	6	11
Tuapa	20	16	36	20	17	37	13	8	21	12	5	17
Namukulu	2	1	3	4	6	10	1	1	2	2	-	2
Hikutavake	3	5	8	6	7	13	4	3	7	8	2	10
Toi	1	1	2	1	1	2	4	4	8	2	-	2
Mutalau	18	6	24	7	12	19	7	11	18	13	12	25
Lakepa	5	6	11	9	6	15	12	3	15	8	1	9
Liku	8	7	15	7	10	17	7	3	10	7	2	9
Hakupu	20	13	33	15	18	33	13	7	20	13	15	28
Vaiea	2	-	2	6	4	10	3	3	6	-	3	3
Avatele	8	5	13	10	18	28	12	12	24	20	9	29
Tamakautoga	7	9	16	12	10	22	6	4	10	16	8	24
Alofi	26	44	70	29	36	65	29	24	53	28	25	53
NIUE	130	119	249	133	151	284	117	93	210	134	88	222
Alofi South	17	26	43	16	23	39	12	13	25	15	12	27
Alofi North	9	18	27	13	13	26	17	11	28	13	13	26

Age Group	20-24			25-29			30-34			35-39		
	Sex			Sex			Sex			Sex		
Village	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Makefu	4	6	10	2	2	4	2	3	5	1	2	3
Tuapa	2	5	7	7	10	17	12	10	22	2	2	4
Namukulu	1	-	1	2	1	3	2	1	3	1	-	1
Hikutavake	4	1	5	3	4	7	2	1	3	2	3	5
Toi	5	1	6	1	-	1	2	-	2	1	2	3
Mutalau	8	4	12	3	4	7	2	5	7	3	6	9
Lakepa	4	6	10	8	4	12	2	1	3	2	2	4
Liku	2	-	2	3	6	9	4	2	6	2	1	3
Hakupu	11	10	21	8	7	15	7	5	12	8	7	15
Vaiea	2	-	2	1	-	1	1	1	2	-	2	2
Avatele	5	7	12	6	6	12	6	3	9	6	6	12
Tamakautoga	9	3	12	8	3	11	7	3	10	1	1	2
Alofi	15	11	26	11	12	23	15	15	30	16	15	31
NIUE	72	54	126	63	59	122	64	50	114	45	49	94
Alofi South	8	8	16	6	8	14	9	8	17	7	8	15
Alofi North	7	3	10	5	4	9	6	7	13	9	7	16

Table 3 - Niuean Population by Village, Age Group and Sex (continued)

Age Group	40-44			45-49			50-54			55-59		
	Sex			Sex			Sex			Sex		
Village	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Makefu	2	4	6	3	4	7	3	2	5	3	1	4
Tuapa	4	4	8	2	4	6	3	6	9	1	1	2
Namukulu	1	1	2	-	-	-	1	2	3	3	4	7
Hikutavake	-	1	1	2	3	5	1	2	3	2	1	3
Toi	2	1	3	1	3	4	1	-	1	2	-	2
Mutalau	1	1	2	6	3	9	1	6	7	3	5	8
Lakepa	2	2	4	6	3	9	4	5	9	-	-	-
Liku	1	1	2	5	5	10	3	3	6	2	2	4
Hakupu	2	6	8	7	6	13	3	2	5	2	3	5
Vaiea	-	-	-	-	-	-	-	1	1	1	1	2
Avatele	5	3	8	1	4	5	4	8	12	3	5	8
Tamakautoga	1	2	3	6	6	12	6	11	17	5	5	10
Alofi	7	19	26	12	7	19	10	13	23	5	8	13
NIUE	28	45	73	51	48	99	40	61	101	32	36	68
Alofi South	5	10	15	5	3	8	5	7	12	3	4	7
Alofi North	2	9	11	7	4	11	5	6	11	2	4	6

Age Group	60-64			65-69			70+			Total		
	Sex			Sex			Sex			Sex		
Village	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Makefu	-	-	-	2	2	4	-	2	2	50	56	106
Tuapa	4	1	5	2	4	6	6	8	14	110	101	211
Namukulu	1	-	1	-	-	-	1	-	1	22	17	39
Hikutavake	2	-	2	2	3	5	5	7	12	46	43	89
Toi	-	1	1	2	-	2	2	2	4	27	16	43
Mutalau	4	3	7	2	4	6	4	7	11	82	89	171
Lakepa	-	1	1	-	-	-	2	5	7	64	45	109
Liku	2	1	3	2	3	5	2	3	5	57	49	106
Hakupu	3	3	6	2	4	6	5	7	12	119	113	232
Vaiea	-	-	-	2	1	3	2	2	4	20	18	38
Avatele	1	1	2	3	4	7	-	8	8	90	99	189
Tamakautoga	4	2	6	1	3	4	5	3	8	94	73	167
Alofi	7	6	13	5	4	9	8	17	25	223	256	479
NIUE	28	19	47	25	32	57	42	71	113	1004	975	1979
Alofi South	3	2	5	3	-	3	5	8	13	119	140	259
Alofi North	4	4	8	2	4	6	3	9	12	104	116	220

Table 4 - Population by Single Years of Age and Sex

Single Years of Age	Sex		
	Male	Female	Total
0-	27	25	52
1-	39	26	65
2-	26	28	54
3-	20	32	52
4-	33	33	66
5-	28	36	64
6-	27	35	62
7-	28	30	58
8-	23	30	53
9-	40	32	72
10-	34	17	51
11-	25	25	50
12-	27	16	43
13-	23	23	46
14-	23	19	42
15-	33	22	55
16-	33	24	57
17-	30	23	53
18-	17	26	43
19-	29	12	41
20-	24	14	38
21-	13	4	17
22-	15	7	22
23-	15	19	34
24-	12	16	28
25-	12	14	26
26-	17	16	33
27-	15	16	31
28-	14	15	29
29-	17	11	28
30-	16	10	26
31-	18	12	30
32-	15	11	26
33-	12	15	27
34-	20	16	36
35-	11	9	20
36-	13	13	26
37-	13	16	29
38-	11	10	21
39-	12	16	28
40-	7	6	13
41-	8	8	16
42-	10	8	18
43-	9	14	23
44-	7	12	19
45-	12	6	18
46-	13	13	26
47-	11	7	18
48-	16	15	31
49-	10	10	20
50-	3	14	17
51-	12	16	28
52-	13	13	26
53-	12	10	22
54-	9	15	24
55-	9	8	17
56-	12	14	26
57-	6	7	13
58-	8	5	13
59-	7	6	13
60-	4	7	11
61-	8	4	12
62-	7	2	9
63-	10	4	14
64-	6	6	12
65-	6	9	15
66-	4	7	11
67-	3	6	9
68-	8	6	14
69-	4	4	8
70-	1	9	10
71-	6	8	14
72-	6	7	13
73-	1	2	3
74-	3	3	6
75-	3	5	8
76-	4	4	8
77-	3	2	5
78-	1	6	7
79-	3	4	7
80-	1	2	3
81-	1	4	5
82-	2	1	3
83-	3	4	7
84-	-	-	-
85-	3	4	7
86-	2	1	3
87-	-	3	3
88-	-	-	-
89-	-	2	2
90-	-	-	-
91-	1	-	1
92-	1	-	1
93-	-	-	-
94-	-	1	1
95-	-	-	-
96-	-	-	-
97-	-	-	-
98-	-	-	-
Total	1159	1108	2267

Table 5 - Niuean Population by Single Years of Age and Sex

Single Years of Age	Sex		
	Male	Female	Total
0-	25	22	47
1-	37	21	58
2-	22	23	45
3-	17	25	42
4-	29	28	57
5-	26	33	59
6-	25	32	57
7-	26	27	53
8-	19	28	47
9-	37	31	68
10-	33	17	50
11-	22	23	45
12-	21	16	37
13-	22	21	43
14-	19	16	35
15-	30	21	51
16-	33	18	51
17-	28	16	44
18-	16	22	38
19-	27	11	38
20-	21	14	35
21-	12	4	16
22-	12	6	18
23-	15	17	32
24-	12	13	25
25-	10	12	22
26-	15	14	29
27-	12	14	26
28-	11	10	21
29-	15	9	24
30-	16	10	26
31-	13	8	21
32-	10	6	16
33-	11	13	24
34-	14	13	27
35-	8	5	13
36-	11	9	20
37-	10	11	21
38-	6	9	15
39-	10	15	25
40-	4	6	10
41-	5	8	13
42-	7	7	14
43-	7	13	20
44-	5	11	16
45-	10	6	16
46-	10	13	23
47-	8	6	14
48-	16	14	30
49-	7	9	16
50-	3	11	14
51-	7	15	22
52-	12	12	24
53-	10	9	19
54-	8	14	22
55-	8	8	16
56-	8	12	20
57-	6	7	13
58-	6	5	11
59-	4	4	8
60-	3	5	8
61-	6	3	9
62-	6	1	7
63-	8	4	12
64-	5	6	11
65-	6	9	15
66-	4	7	11
67-	3	6	9
68-	8	6	14
69-	4	4	8
70-	1	9	10
71-	5	8	13
72-	5	7	12
73-	1	2	3
74-	3	3	6
75-	3	5	8
76-	4	4	8
77-	2	1	3
78-	1	6	7
79-	3	4	7
80-	1	2	3
81-	1	4	5
82-	2	1	3
83-	3	4	7
84-	-	-	-
85-	3	4	7
86-	2	1	3
87-	-	3	3
88-	-	-	-
89-	-	2	2
90-	-	-	-
91-	1	-	1
92-	1	-	1
93-	-	-	-
94-	-	1	1
95-	-	-	-
96-	-	-	-
97-	-	-	-
98-	-	-	-
Total	1004	975	1979

Table 6 - Population by Country of Residence, Age Group and Sex

Country of Residence	Niue			New Zealand			Western Samoa			Tonga		
	Sex			Sex			Sex			Sex		
Age Group	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	To
0-4	143	140	283	2	3	5	-	-	-	-	-	
5-9	146	163	309	-	-	-	-	-	-	-	-	
10-14	132	100	232	-	-	-	-	-	-	-	-	
15-19	142	106	248	-	1	1	-	-	-	-	-	
20-24	78	60	138	1	-	1	-	-	-	-	-	
25-29	72	71	143	3	-	3	-	-	-	-	-	
30-34	80	63	143	-	1	1	-	-	-	-	-	
35-39	59	64	123	1	-	1	-	-	-	-	-	
40-44	39	47	86	-	1	1	1	-	1	-	-	
45-49	61	51	112	1	-	1	-	-	-	-	-	
50-54	48	67	115	1	1	2	-	-	-	-	-	
55-59	39	40	79	2	-	2	-	-	-	-	-	
60-64	34	22	56	1	1	2	-	-	-	-	-	
65-69	25	32	57	-	-	-	-	-	-	-	-	
70-74	17	29	46	-	-	-	-	-	-	-	-	
75+	27	43	70	-	-	-	-	-	-	-	-	
Total	1142	1098	2240	12	8	20	1	-	1	-	-	

Country of Residence	Other Pacific Is.			Other Countries			Total		
	Sex			Sex			Sex		
Age Group	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	-	1	1	-	-	-	145	144	289
5-9	-	-	-	-	-	-	146	163	309
10-14	-	-	-	-	-	-	132	100	232
15-19	-	-	-	-	-	-	142	107	249
20-24	-	-	-	-	-	-	79	60	139
25-29	-	1	1	-	-	-	75	72	147
30-34	1	-	1	-	-	-	81	64	145
35-39	-	-	-	-	-	-	60	64	124
40-44	1	-	1	-	-	-	41	48	89
45-49	-	-	-	-	-	-	62	51	113
50-54	-	-	-	-	-	-	49	68	117
55-59	-	-	-	1	-	1	42	40	82
60-64	-	-	-	-	-	-	35	23	58
65-69	-	-	-	-	-	-	25	32	57
70-74	-	-	-	-	-	-	17	29	46
75+	-	-	-	1	-	1	28	43	71
Total	2	2	4	2	-	2	1159	1108	2267

Table 7 - Population by Country of Residence Last Year, Age Group and Sex

Country of Residence Last Year	Niue			New Zealand			Western Samoa			Tonga		
	Sex			Sex			Sex			Sex		
Age Group	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	110	103	213	6	12	18	-	-	-	-	1	1
5-9	138	157	295	6	4	10	-	-	-	1	-	1
10-14	124	95	219	8	4	12	-	-	-	-	-	-
15-19	135	93	228	5	7	12	-	1	1	-	-	-
20-24	74	55	129	5	2	7	-	-	-	-	1	1
25-29	64	66	130	5	4	9	1	-	1	3	1	4
30-34	74	55	129	4	6	10	-	-	-	-	-	-
35-39	53	57	110	5	6	11	-	-	-	-	-	-
40-44	37	46	83	2	1	3	1	-	1	-	-	-
45-49	59	49	108	1	1	2	-	-	-	-	-	-
50-54	43	65	108	4	3	7	1	-	1	-	-	-
55-59	38	39	77	2	-	2	-	-	-	-	-	-
60-64	33	22	55	1	-	1	-	-	-	-	-	-
65-69	24	31	55	1	1	2	-	-	-	-	-	-
70-74	16	27	43	1	2	3	-	-	-	-	-	-
75+	26	42	68	1	-	1	-	-	-	-	1	1
Total	1048	1002	2050	57	53	110	3	1	4	4	4	8

Country of Residence Last Year	Other Pacific Is.			Other Countries			Total		
	Sex			Sex			Sex		
Age Group	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	1	3	4	1	-	1	118	119	237
5-9	1	2	3	-	-	-	146	163	309
10-14	-	1	1	-	-	-	132	100	232
15-19	2	6	8	-	-	-	142	107	249
20-24	-	-	-	-	2	2	79	60	139
25-29	1	1	2	1	-	1	75	72	147
30-34	1	3	4	2	-	2	81	64	145
35-39	1	-	1	1	1	2	60	64	124
40-44	1	-	1	-	1	1	41	48	89
45-49	1	-	1	1	1	2	62	51	113
50-54	-	-	-	1	-	1	49	68	117
55-59	-	1	1	2	-	2	42	40	82
60-64	-	-	-	1	1	2	35	23	58
65-69	-	-	-	-	-	-	25	32	57
70-74	-	-	-	-	-	-	17	29	46
75+	-	-	-	1	-	1	28	43	71
Total	9	17	26	11	6	17	1132	1083	2215

Table 8 - Population by Country of Residence and Country of Residence Last Year

Country of Residence	Country of Residence Last Year						
	Niue	New Zealand	Western Samoa	Tonga	Other Pac. Is.	Other Countries	Total
Niue	2050	97	3	8	22	9	2189
New Zealand	-	13	-	-	-	6	19
Western Samoa	-	-	1	-	-	-	1
Tonga	-	-	-	-	-	-	-
Other Pacific Is.	-	-	-	-	4	-	4
Other Countries	-	-	-	-	-	2	2
Total	2050	110	4	8	26	17	2215

Table 9 - Niuean Population by Country of Residence and Country of Residence Last Year

Country of Residence	Country of Residence Last Year						
	Niue	New Zealand	Western Samoa	Tonga	Other Pac. Is.	Other Countries	Total
Niue	1851	64	2	-	3	5	1925
New Zealand	-	7	-	-	-	-	7
Western Samoa	-	-	-	-	-	-	-
Tonga	-	-	-	-	-	-	-
Other Pacific Is.	-	-	-	-	-	-	-
Other Countries	-	-	-	-	-	-	-
Total	1851	71	2	-	3	5	1932

Table 10 - Population Aged 15 Years and Above by Main Activity in the Week before the Census, Age Group and Sex

Sex: Male

Main Activity Last Week	Age Group										
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
Government	61	68	57	67	46	30	42	28	18	5	422
Private Sect.	6	5	10	6	7	7	4	6	2	3	56
Subsistence	-	-	1	1	4	1	9	11	11	60	98
Cash	-	1	-	1	1	-	3	1	3	3	13
Unemployed	9	1	2	2	-	-	3	-	-	-	17
Domestic	-	-	-	-	-	-	-	1	-	1	2
Education	63	-	-	-	-	-	-	-	-	-	63
Other	3	4	5	4	2	3	1	2	8	33	65
Total	142	79	75	81	60	41	62	49	42	105	736

Sex: Female

Main Activity Last Week	Age Group										
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
Government	18	24	31	23	24	21	14	6	3	-	164
Private Sect.	9	15	7	11	7	8	5	4	-	2	68
Subsistence	-	-	-	-	1	1	3	2	4	-	11
Cash	-	-	-	-	1	1	1	3	-	1	7
Unemployed	15	7	3	3	-	-	-	-	-	-	28
Domestic	8	12	27	26	31	15	27	51	30	62	289
Education	56	-	-	-	-	-	-	-	-	-	56
Other	1	2	4	1	-	2	1	2	3	62	78
Total	107	60	72	64	64	48	51	68	40	127	701

Sex: Total

Main Activity Last Week	Age Group										
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
Government	79	92	88	90	70	51	56	34	21	5	586
Private Sect.	15	20	17	17	14	15	9	10	2	5	124
Subsistence	-	-	1	1	5	2	12	13	15	60	109
Cash	-	1	-	1	2	1	4	4	3	4	20
Unemployed	24	8	5	5	-	-	3	-	-	-	45
Domestic	8	12	27	26	31	15	27	52	30	63	291
Education	119	-	-	-	-	-	-	-	-	-	119
Other	4	6	9	5	2	5	2	4	11	95	143
Total	249	139	147	145	124	89	113	117	82	232	1437

Table 11 - Niuean Population Aged 15 Years and Above by Main Activity in the Week before the Census, Age Group and Sex

Sex: Male

Main Activity Last Week	Age Group										
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
Government	60	64	51	53	36	26	36	23	13	2	364
Private Sect.	6	3	5	4	4	1	-	3	1	2	29
Subsistence	-	-	1	1	3	1	9	11	11	58	95
Cash	-	1	-	1	1	-	3	1	2	3	12
Unemployed	7	1	2	2	-	-	3	-	-	-	15
Domestic	-	-	-	-	-	-	-	1	-	1	2
Education	59	-	-	-	-	-	-	-	-	-	59
Other	2	3	4	3	1	-	-	1	5	29	48
Total	134	72	63	64	45	28	51	40	32	95	624

Sex: Female

Main Activity Last Week	Age Group										
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
Government	18	24	29	21	21	21	14	6	2	-	156
Private Sect.	8	12	7	7	4	8	4	2	-	2	54
Subsistence	-	-	-	-	1	1	3	2	4	-	11
Cash	-	-	-	-	1	1	1	3	-	1	7
Unemployed	13	7	3	3	-	-	-	-	-	-	26
Domestic	7	9	17	18	22	13	26	46	28	59	245
Education	42	-	-	-	-	-	-	-	-	-	42
Other	-	2	3	1	-	1	-	2	2	60	71
Total	88	54	59	50	49	45	48	61	36	122	612

Sex: Total

Main Activity Last Week	Age Group										
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
Government	78	88	80	74	57	47	50	29	15	2	520
Private Sect.	14	15	12	11	8	9	4	5	1	4	83
Subsistence	-	-	1	1	4	2	12	13	15	58	106
Cash	-	1	-	1	2	1	4	4	2	4	19
Unemployed	20	8	5	5	-	-	3	-	-	-	41
Domestic	7	9	17	18	22	13	26	47	28	60	247
Education	101	-	-	-	-	-	-	-	-	-	101
Other	2	5	7	4	1	1	-	3	7	89	119
Total	222	126	122	114	94	73	99	101	68	217	1236

A SUMMARY OF THE RESULTS

Land Area	259 sq.km.		
Population (1/10/89)	2,267		
Private Households (1/10/89)	522		
Agricultural Activity (percentage of households)			
Non-Agricultural	36	(7%)	
Minor Agricultural	40	(8%)	
Subsistence Only	358	(68%)	) 446 Agricultural
Subsistence/Cash	69	(13%)	) Households
Commercial	19	(4%)	)
Number of Agricultural Holdings	450		
Number of Land Parcels	3,903		
of which:			
In Use	1,156	(30%)	
Under Coconuts	770	(20%)	
Fallow	1,977	(50%)	
Area of Land 'In Use'	6,819.5 acres		
Average Area of Holding 'In Use'	15.2 acres		
Average Area of Parcel 'In Use'	5.9 acres		

Land 'In Use: Under Crops - 23% Fallow - 74% Ready for Planting - 3%

Domestic Animals	
Cats	766
Dogs	527
Livestock	
Pigs	1,527
Chickens	9,716

Coconut Consumption	
For Human Use	8,665 nuts/week (copra equiv. 2T)
For Feeding Animals	15,513 nuts/week (copra equiv. 3.5T)

Coconut Crab Hunting	
Number of Households Catching Crabs	173
Number of Crabs Caught (September 1989)	4,209
Average Number Caught/Month/Household	24

Fishing

Equipment:	Households Owning	Items
Canoes	163	241
Dinghies	54	60
Outboard Motors	54	68

Number of Households Going Fishing (September 1989) 320 (61%)

Percentage of **All Households** Selling Fish 10%

Agricultural Chemicals

Percentage of Agricultural Households Using:

Herbicides	87%	Fertilizers	47%
Pesticides	14%	Fungicides	5%

Method of Land Clearance

Percentage of Agricultural Households Using:

Slash/Burn - 18% Bulldozer - 80% Other Methods - 2%

Exports

Percentage of Agricultural Households Exporting in 1989 (Jan-Sep)

Commercial - Sea	12%
Family/Friends - Sea	42%
Family/Friends - Air	1%

Main Export Commodity - Taro (92% by weight of 'last' export consignment)

Income from Agricultural/Fishing Activities

Percentage of Agricultural Households Getting what Proportion of Income:

None - 78% About 1/4 - 15% More Than 1/4 - 7%

Giving of Agricultural/Fishing Produce

Percentage of Agricultural Households Giving:

Any Produce - 81% Taro - 77% Pigs - 42% Fish - 30%

Average Quantity Given per Household per Year: (quantity in numbers; averages based on households giving such produce ONLY)	Taro	587
	Pigs	4
	Fish	14

Land Tenure

94% of Parcels 'In Use' are Family Owned

Land Rotation

45% of Parcels 'In Use' have been in Continuous Use for Less than 5 Years

Crops Areas and Numbers of Plants/Trees

	Acres	Plants/Trees
Coconuts (excluding 'coconut only' parcels)	- 990	
Bananas (all varieties)	- 81	
Breadfruit		3,656
Mango		1,460
Pandanus		7,285
Pawpaw		6,269
Spondias		1,114
Taro	- 1,042	
Cassava	- 18	
Sweet Potato	- 19	
Yam	- 22	

CHAPTER 4 - RESULTS OF THE CENSUS

4.1 Introduction

The aim of this chapter of the report is to illustrate the main results of the Census relating to the agricultural sector (excluding agricultural establishments - see chapter 5).

This chapter sets out the main findings of the Agricultural Census and guides the reader in the use of the tables. A careful study of the following interpretive paragraphs is strongly advised, prior to the use of the detailed tables, to avoid undue mis-interpretation of the results.

4.2 Agricultural Activity

Table 1 shows the number of households in Niue by level of agricultural activity. Some 76 households (15 percent) were recorded as either 'Non-Agricultural' or engaged in only 'Minor Agricultural' activities. Most of these households were located in the town area (Alofi) and included a number of expatriate households.

Of the 85 percent of households recorded as being agriculturally active, the majority (358 households) were classified as being engaged solely in subsistence activities with few if any crops being grown for sale. Sixty nine households were classified as being engaged in both subsistence and cash activities and 19 households in commercial agricultural activities.

This table therefore clearly demonstrates both the extent of the involvement of the local population in the agricultural sector and the subsistence nature of their activities.

With the exception of Alofi, the geographical pattern is fairly similar throughout the country. Table 4A seeks to illustrate this urban/rural differentiation and also the very high degree of agricultural involvement in the rural area.

Table 4A - Percentage of Households by Level of Agricultural Activity - Alofi and Rest of Niue

Level of Agricultural Activity	Alofi	Rest of Niue	Niue
Non Agricultural	9	6	7
Minor Agricultural	20	1	8
Subsistence Only	56	75	68
Subsistence/Cash	12	14	13
Commercial	3	4	4
Number of Households	172	350	522

Table 2 shows the distribution of agricultural holdings by the level of agricultural activity of the household. The pattern is very similar to that of Table 1 indicating that most households were engaged in the operation of only one holding. The reader will note that by definition Non-Agricultural and Minor Agricultural Households did not operate agricultural holdings.

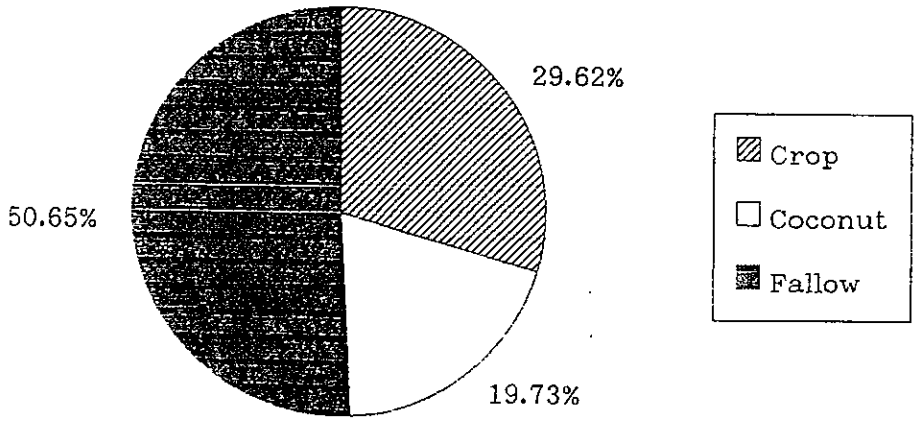
4.3 Land Use

Tables 3 and 4 provide information on the individual parcels of land that make up the agricultural holding in terms of the main use of these parcels of land at the time of the Census. Table 3 shows the number of households recorded as having each of the three categories of land parcels (crop, coconut and fallow) whilst Table 4 shows how many such parcels were recorded.

In interpreting these tables, the definitions of crop, coconut and fallow parcels should be clearly understood. **Crop Parcels** contained at least one plot of land under crops; **Fallow Parcels** were either all bush, fallow or had only abandoned crops on them; **Coconut Parcels** were a specific feature of Niuean agriculture and were defined as parcels of land with at least 20 coconut trees on them but NO other crops. They were recorded separately from crop parcels because, whilst such parcels were thought to be very common in Niue and should therefore be included in the Census, it was recognized that households would know very little about these parcels (number of trees, area) and it would therefore be impractical to try to find out more about them other than their sheer existence.

Of the 446 households in Niue recorded as agriculturally active, all but one (445 households) had a least one parcel classified as a 'crop' parcel. Over half the agriculturally active households (57 percent) had at least one 'coconut' parcel and 82 percent had at least one 'fallow' parcel (see Table 3).

Figure 4A: Distribution of Land Parcels by Type



These 446 households shared 3,903 parcels between them at an average of nearly 9 parcels of land per household (see Table 4). Of these, 1,156 were 'crop' parcels, 770 were 'coconut' parcels and 1,977 or half these parcels were 'fallow' parcels. The per household distribution of parcels by type of parcel was 2.6 crop parcels, 1.7 coconut parcels and 4.4 fallow parcels (see figure 4A).

4.4 Domestic Animals

At the request of the Department of Agriculture, the Census sought to establish how many cats and dogs were in Niue. Table 5 shows that some 409 households (78 percent) were recorded as keeping domestic animals with 330 households keeping cats and 295 households keeping dogs. Altogether some 766 cats were found to be in Niue at the time of the Census and 527 dogs.

4.5 Livestock

As with most Pacific Island Nations, the keeping of livestock is an integral part of subsistence agriculture. Table 6 shows the number of households engaged in this activity as well as the number of pigs and chickens recorded at the time of the Census. The reader will note that apart from pigs and chickens few other types of livestock were recorded as being kept by households in Niue.

Altogether some 416 households or 80 percent of all households in Niue kept some form of livestock. Again, Alofi can be identified as being atypical with only 64 percent of households in this town area keeping livestock.

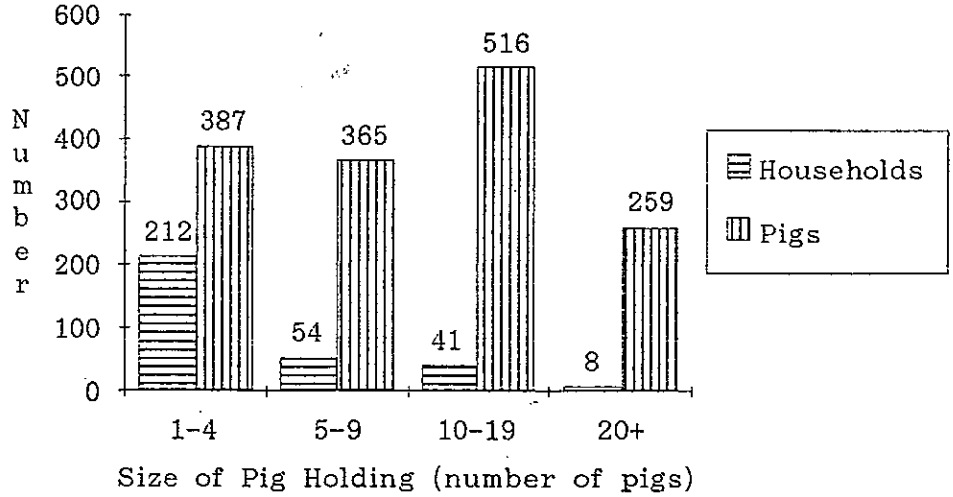
The number of households keeping pigs and keeping chickens was almost the same (315- pigs, 321- chickens) but the actual number of pigs and chickens was very different. Altogether some 1,527 pigs were recorded at an average of 3 pigs per household or 5 pigs per household keeping pigs. For chickens the overall average was 19 chickens per household or 30 chickens per household keeping chickens and 9,716 chickens were recorded at the time of the Census (it should be noted that few households had an accurate idea of how many chickens they actually had and this figure therefore represents more an order of magnitude than an absolute value).

Tables 7 and 8 provide further information on the pig population in Niue at the time of the Census in terms of the size of the pig holdings (number of pigs). Most of the households keeping pigs had between 1 and 4 pigs (212 households or 67 percent of the households keeping pigs). A further 54 households kept between 5 and 9 pigs, 41 households between 10 and 19 pigs and only 8 households claimed to have 20 or more pigs at the time of the Census.

In terms of the pig population, the largest concentration of pigs was found in the 10 to 19 size group (516 pigs). Table 8 however also clearly emphasizes the importance of the large pig holdings showing that the 8 households with 20 or more pigs had between

them some 259 pigs or 17 percent of the total whilst the 212 households with between 1 and 4 pigs only had 387 pigs between them or 25 percent of the total.

Figure 4B: Number of Households and Numbers of Pigs by Size of Pig Holding (number of Pigs)



Similar information in respect to chickens is contained in tables 9 and 10. Whilst the most common size of chicken holding was 10-19 chickens (78 households) the number of households in the 20-29, 30-49 and 50-99 groupings were also significant. Some 18 households reported that they had 100 or more chickens.

In terms of the chicken population, the largest concentration of chickens was found in the 50-99 size grouping (2,904 chickens or 30 percent of the total). As with the pigs, it is interesting to note that the 18 households with 100 or more chickens accounted for a significant proportion of the total (2,426 chickens or 25 percent of the total).

4.6 Coconut Consumption

The coconut palm is still the single most important tree in the Pacific Islands. Copra, the dried flesh of the mature coconut or coconut oil derived from copra, is the biggest single export in many island countries and the primary source of cash income for many islanders. What is not always fully appreciated, particularly by outsiders, is just how important the coconut is in the everyday life of the Pacific Islander as a source of food and drink, livestock feed, fire-wood, building material, etc.

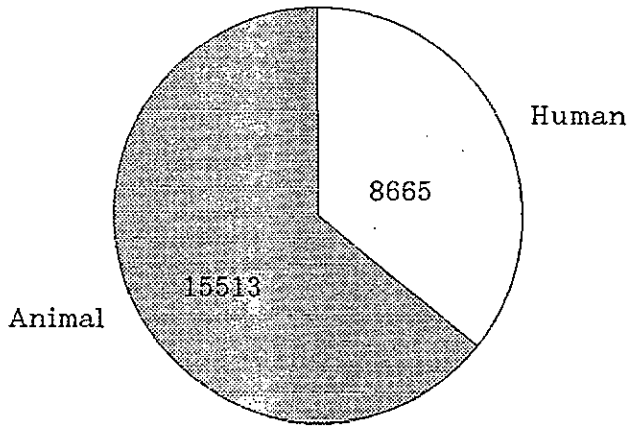
The Census looked at the two main uses of coconuts by the household, that for human consumption and that for feeding animals (livestock). Whilst it was recognized that these two uses were not mutually exclusive, (grated coconut could be first used for making coconut cream and the residue fed to the chickens) it was felt important to try to quantify the use of coconuts for domestic purposes.

Table 11 shows that nearly all households in Niue consume coconuts for human purposes (506 out of a total of 522 households). These households consume some 8,665 nuts per week at an average of 17 nuts per household or 4 nuts per person per week. The copra equivalent of this human consumption, based on 4,500 nuts per tonne, would be roughly 2 tonnes per week or 100 tonnes per year.

Table 12 shows that 383 households were also recorded in the Census as using some 15,513 coconuts per week for feeding animals (roughly twice the quantity used for human consumption purposes). Given that 416 households were recorded as keeping livestock, this emphasizes the almost universal use of coconuts as a regular component of animal feed. In terms of copra equivalent, this was equivalent to some 180 tonnes per year.

In both cases some geographical variation can be observed reflecting the pattern of availability of coconuts in the various parts of the country.

Figure 4C: Consumption of Coconuts - Human and Animal



4.7 Coconut Crab Hunting

Coconut crabs are also an important feature of subsistence agriculture in Niue. The Census found that about one third of the households in Niue had caught coconut crabs in the month prior to the Census at an average of some 24 crabs per household catching coconut crabs (see Tables 13 and 14). The most common size of catch during this period was between 20 and 49 crabs (64 households) but as many as 27 households were recorded as catching 50 or more crabs during this period.

4.8 Fishing Activity

Fishing is another important subsistence activity in Niue and 320 households were recorded as having been fishing in the month preceding the Census (see Table 16). Whilst all the villages in Niue are close to the sea, much of the coastline prohibits easy access to the water particularly along the north and east coasts. This ease of access is reflected in the geographical distribution of the proportion of households fishing in the month preceding the Census. Avatele had the highest participation rate with 86 percent of households engaged in this activity whilst Mutalau, Lakepa and Liku recorded very low participation rates (see Table 4B). It should be noted that participation in fishing activities in Niue is also very dependent on the weather and the Census refers to activities in one particular week only.

Table 4B - Percentage of Households Fishing in the Month Prior to the Census by Village

Village	Percent Fishing
Makefu	76
Tuapa	74
Namukulu	73
Hikutavake	59
Toi	58
Mutalau	28
Lakepa	30
Liku	22
Hakupu	64
Vaiea	62
Avatele	86
Tamakautoga	76
Alofi	63
Niue	61

In terms of equipment ownership or part-ownership, 163 households were recorded as owning canoes, 54 as owning dinghies and 54 as owning outboard motors representing 31 percent, 10 percent and 10 percent of all households respectively. The total number of canoes was 241, dinghies 60 and outboard motors 68.

The Census also sought information on the type and frequency of fishing trips made by households in Niue during the week preceding the Census (see Tables 17 and 18). The most common type of fishing trip was from the shore and 72 percent of households who went fishing during this period used this method of fishing. Fishing from canoes was the second most popular method of fishing and 30 percent of households used this method. This was followed by fishing from dinghies (22 percent), diving (14 percent) and lastly fishing from Government Alia (5 percent) [note that a household could be recorded under more than one type of trip].

PLATE I

Fishing Activities
in Niue

Above: A Coconut Plantation

Below: Processing the Census Data

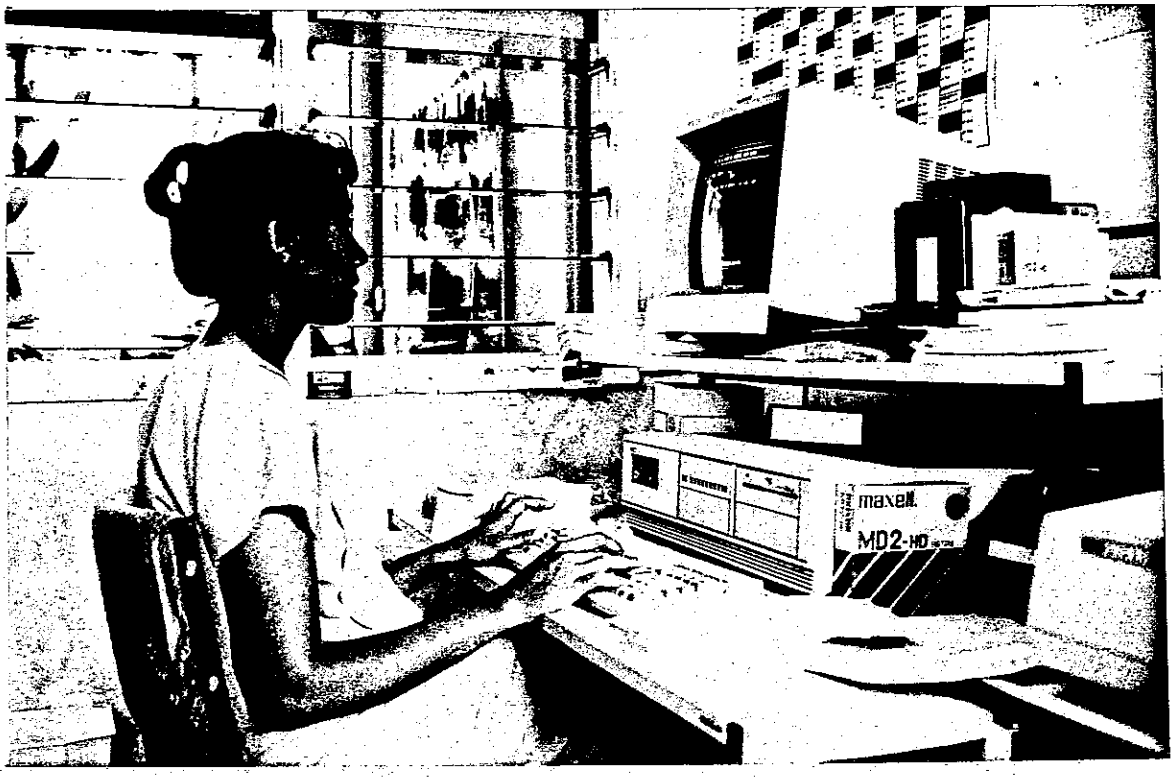
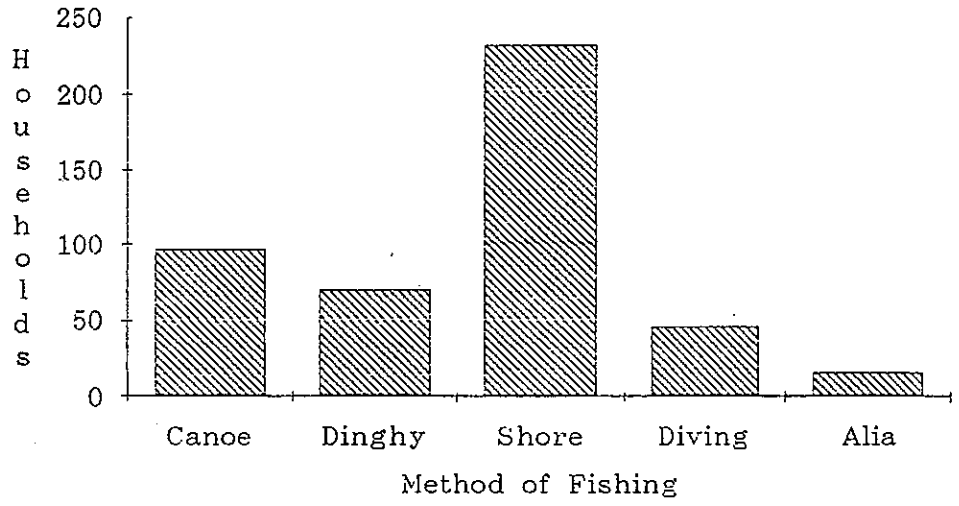


Figure 4D: Methods of Fishing



Turning now to the frequency of fishing trips the results of the Census indicate that those households using canoes made far more frequent fishing trips than those fishing by other means. Table 4C illustrates the relative frequency of fishing trips by type of trip.

Table 4C - Average Number of Trips per Week by Type of Fishing Trip

Type of Fishing Trip	Average No. of Trips Per week
Canoe	12
Dinghy	7
Shore	5
Diving	4
Government Alia	2

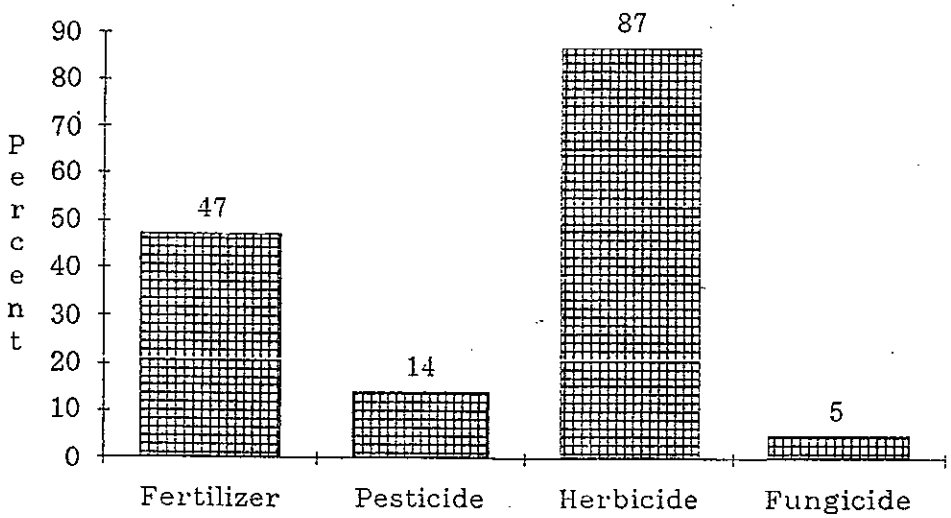
Information was also collected in the Census relating to the 'usual' frequency of Fish Sales by the households. Some 470 households (90 percent) indicated that they never sold any fish. Of the 52 households 'usually' selling fish, 9 households sold fish 'more than once a week', 6 households 'about once a week', 23 households 'at least once a month' and 14 households 'less than once a month'.

From this information on fishing activity in Niue we can conclude that whilst fishing is an important activity in which more than half the households regularly participate, there are few 'commercial' type operations and most fishing is for own consumption purposes.

4.9 Agricultural Chemicals

The Census recorded a high proportion of households using both herbicides and fertilizers but a low usage of pesticides and fungicides (see Table 20). Figure 4E shows that some 87 percent of agriculturally active households were found to be using herbicides whilst 47 percent used fertilizers. At the other end of the scale, only 14 percent used pesticides and 5 percent fungicides.

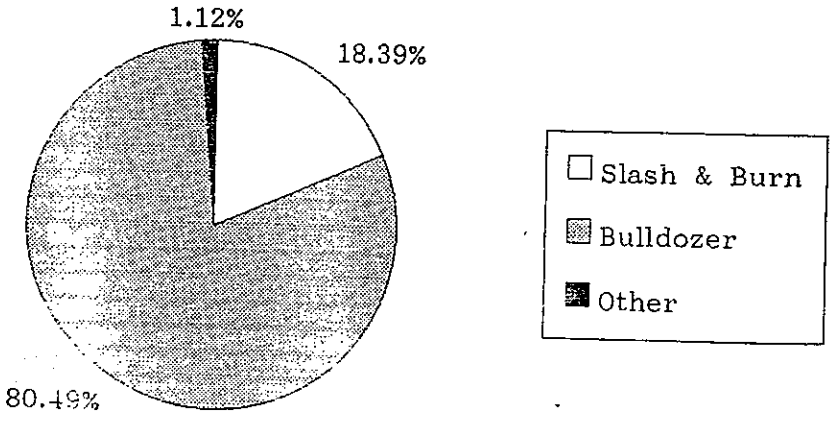
Figure 4E: Use of Agricultural Chemicals by Agriculturally Active Households



4.10 Method of Land Clearance

Table 21 provides information concerning the different methods used to clear new land for agricultural purposes. The Census found that the traditional method of slash and burn was still used by some 18 percent of agriculturally active households (see figure 4F) but in most cases new land was now cleared using a bulldozer (80 percent of agriculturally active households).

Figure 4F: Methods of Land Clearance



4.11 Exports

Tables 22-26 give details of crop exports. When using these tables, it should be noted that the reference period for the number of export consignments was the nine month period January to September 1989 whilst information on quantities related only to the 'last consignment'. It should also be noted that there was no regular direct jet service between Niue and New Zealand during this period which accounts for the very small number of consignments by air. It is assumed that all the consignments were to New Zealand.

Table 22 shows that 55 households exported crops on a commercial basis by sea during the first nine months of 1989 i.e. crops for sale on the open market. No households exported on a commercial basis by air during this period. The same table shows that 187 households exported to family and friends by sea during this period and 6 households by air.

In terms of the number of consignments, Table 23 shows that there were 134 commercial consignments by sea during the first nine months of 1989 compared to 439 consignments by sea to family and friends. There were also an additional 12 consignments to family and friends by air during this period.

More detailed information on crops exported was also obtained for the 'last consignment' in 1989 by sea and by air. This shows that taro was the single most important export crop. Coconuts were also exported by some households but few other crops registered as being of any significance (see Tables 24 and 25).

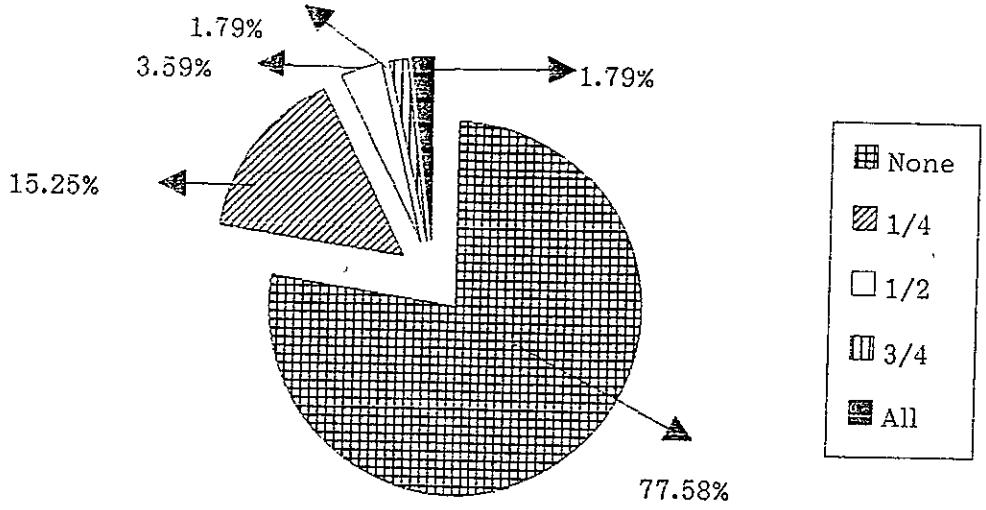
In terms of quantities, taro was the major item accounting for 92 percent of the 50 tonnes exported in the 'last consignment' (Table 25 refers).

In terms of the frequency of export consignments and the period of time between shipments, Table 23 indicates that in the first nine months of 1989 the average number of consignments per household was 2. Table 26 records the average period of time since the last consignment at 96 days (3 months). Much of the reason for these long gaps between consignments is due to the infrequent nature of the shipping service between Niue and New Zealand.

4.12 Household Income from Agricultural/Fishing Activities

Table 27 gives information on the importance of agricultural/fishing activities in terms of household income. Some 78 percent of agriculturally active households indicated that they received little or none of their household's income from such activities; 15 percent of households stated that they received approximately one quarter of their total income from agricultural/fishing activities; 4 percent about half their total income and some 2 percent of households each stated that they received about three quarters of their total income and all or nearly all their income from agricultural/fishing activities (see figure 4G).

Figure 4G: Household Income from Agricultural/Fishing Activities



4.13 Agricultural/Fishing Produce Given as Gifts

The Census also collected information concerning agricultural/ fishing produce given as gifts. Table 28 shows that over 80 percent of households had given such produce as gifts during the 12 months preceding the Census.

Tables 29 and 30 provide additional information on the types of produce disposed of as gifts. Nearly all the households that gave such produce gave taro (96 percent), pigs and fish were also given away by a large proportion of these households (52 percent and 36 percent respectively). Only very few households gave chickens or other crops.

In terms of quantities disposed of in this manner, Table 30 shows that some 674 pigs were given away during this period, 232 chickens, 1,790 fish and 202,448 taros. For those households giving such items of produce, this averages out at some 4 pigs per household, 9 chickens, 14 fish and nearly 600 taros per household.

4.14 Human Resources

The population of Niue at the time of the Census was 2,267. Table 31 shows the breakdown of the population (2,243) identified in private households (522) by level of agricultural activity of the household. Over 90 percent of this population were recorded as being in agriculturally active households with the majority (1,617 persons) in households engaged in 'subsistence only' activities.

Many of the persons identified as being in non-agricultural or minor agricultural households were located in the town area (154 out of the 210 persons in these categories or 73 percent).

Table 32 gives information on the age group and sex of the holding 'operators' as well as the breakdown by household membership status. Only 3 operators were classified as being 'non-household members, all males. Some 88 percent of operators were males and 12 percent females. Details on the operator's ages reveals that most operators were between the age of 25 and 64 with only 6 percent aged under 25 and 13 percent aged 65 and over. Figure 4H provides an illustration of the age/sex breakdown of operators.

Figure 4H: Agricultural Operators by Age Group and Sex

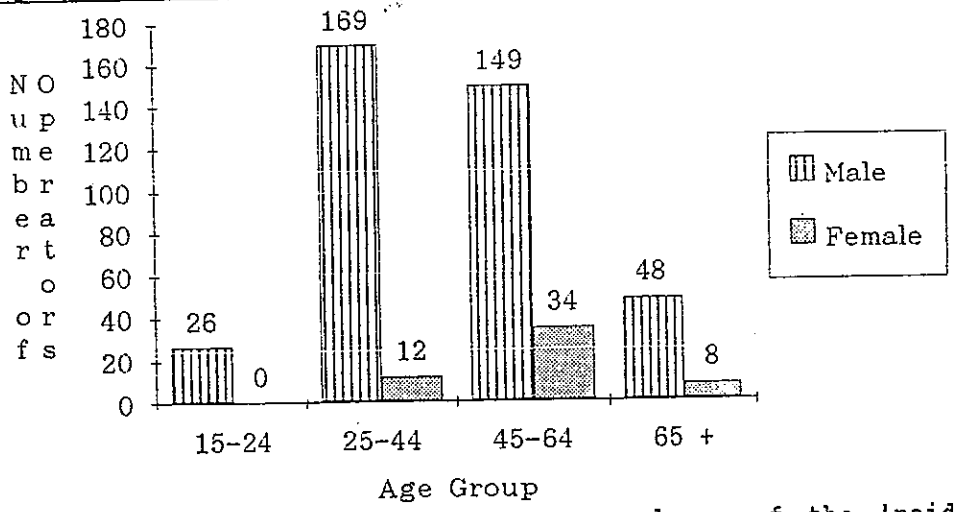


Table 33 provides information by age and sex of the 'paid job status' of the operators and shows that some 62 percent of operators had a full-time paid job, 4 percent had a part-time paid job and 34 percent had no paid job. Looking further at the distribution by age group, it is apparent that there is a much higher tendency amongst the younger operators (under 55) to be in full-time paid employment with 63 percent of operators with no paid job being aged 55 and over. It is also interesting to note that there is a marked difference in paid job status between the sexes with 65 percent of female operators having no paid job whilst only 30 percent of males were in this category.

Table 34 gives information by age and sex of the average hours worked per week by operators in the month preceding the Census. The data follows very much the pattern one would expect with those in full-time paid employment working less hours than those in part-time or no paid employment (11, 15 and 18 hours per week respectively). The weekend (saturday) is traditionally reserved for 'going to the plantation' particularly amongst the operators with full-time or part-time paid employment.

Table 35 gives details of the agricultural labour force other than the operators by age and sex as well as household membership status and whether paid or unpaid. Of the 1,196 persons classified as working on the holdings, 1,181 or 99 percent were working in an unpaid capacity and only 15 were paid. Also, the majority were household members (92 percent). In terms of age, 26 percent were in the 10-19 age group, 35 percent in the 20-39 age group, 28 percent in the 40-59 age group and 11 percent in the 60 and over age group. 65 percent of this workforce were male and 35 percent female.

Table 36 gives details of the average hours worked per month for this same group of agricultural workers (the non-operators). Three points of interest emerge. males work longer hours than females (42 hours per month compared to 29 hours per month); Unpaid workers work longer hours than paid workers (37 hours per month compared to 21 hours per month); the older the worker the more hours per month they work (26 hours per month for the 10-19 age group up to 62 hours per month for the 60 and over age group). Compared to the operators, the average hours worked by the agricultural labour force is less (14 hours per week compared to 9 hours per week).

Tables 37-38 provide additional information on the paid labour force. Given that only 15 persons were recorded in this category, care should be taken in interpreting this data.

Table 37 shows the average monthly wages for paid labour by age group and sex. The low level of remuneration reflects the fact that such labour was only engaged for a short period during the month prior to the Census. The average hourly wage (see tables 36 and 37) was NZ$1 per hour.

Table 38 concerns other benefits received by those persons classified as being in paid employment on the holdings and shows that about half (7 persons) of these employees received free or subsidized meals as well as cash remuneration.

4.15 Relativity of Household and Holding Locations

Table 39 shows the relationship between the household and the holding locations. Only two villages (Makefu and Hakupu) had all their holdings located in the same district. As could be expected, households located in Alofi had their agricultural holdings located in a number of different districts outside the town area.

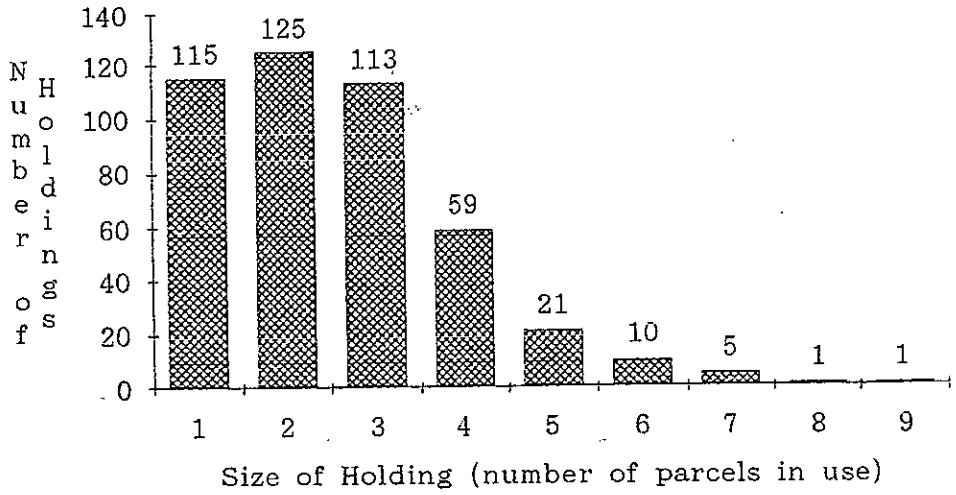
4.16 Holdings and Parcels

In order to appreciate fully the concept of an agricultural holding in Niue, the reader is referred back to Tables 3 and 4 which provide details of the overall structure of the holdings in terms of parcels under crops, under coconuts and fallow. As also explained, it was deemed impractical to try to obtain land area information on parcels of land classified as under coconuts or fallow since this information would not be known by the owners. No information on the total area of agricultural holdings is therefore available. In order to place some perspective on the amount of land in use and available, parcels 'in use' or crop parcels account for only 30 percent of all parcels with some 20 percent classified as coconut parcels and 50 percent as fallow parcels. The holding area as defined by parcels 'in use' is therefore only the minor part of the total agricultural holding (maybe as little as one third based on parcel numbers).

The information contained in the following tables (40-48) relate to land classified as being under 'parcels in use' or under crops at the time of the Census ONLY.

Tables 40-42 provide information on the agricultural holdings in Niue in terms of the number of parcels (in use) and the area of these parcels. Most holdings had between 1 and 3 parcels of land in operation. Figure 4I illustrates the distribution of holdings by the size of the holding as defined as the number of parcels 'in use'.

Figure 4I: Size of Holdings (number of parcels)



In terms of the area of parcels 'in use', Table 41 shows that most holdings are quite large with only 26 percent of holdings having less than 5 acres of land 'in use' and the biggest single group was the largest (20 acres and over). The average area of a holding in Niue was 15 acres (excluding coconut and fallow parcels).

Tables 43 and 44 show details of the distribution of parcels by size of parcels (acres) in terms of numbers of parcels and area of parcels. These tables show that few very small parcels of land were in use for crop cultivation with only 6 percent of the total number of such parcels being under one acre in size. The average area of a parcel of land in Niue is nearly 6 acres and just over half the total land area is contained in parcels of 10 acres or more.

4.17 Land Tenure

Tables 45 and 46 provide details of land tenure in Niue and show that nearly all the land is family owned (94 percent of parcels). Only 8 parcels of land were leased and 67 parcels were classified as being under 'other' forms of tenure such as being looked after for family/friends overseas.

4.18 Land Rotation

Tables 47 and 48 give details about land rotation in Niue. This was derived from information about the number of years that each parcel of land had been in 'continuous use'. Whilst the results are of interest, careful interpretation is also required. Table 47 shows that some 523 or nearly half the parcels of land had been in continuous use for less than five years. This in itself indicates that shifting cultivation is still widely practiced in

Niue. However, the full extent of this practice is understated by this simple analysis for two reasons. Firstly, on parcels supporting permanent tree crops, the number of years continuous use is dictated by the age of the trees, even if shifting cultivation of vegetable crops is practiced on the same parcel. Secondly, whilst a parcel of land may be classified as being under continuous use for a number of years, shifting cultivation can still be carried out between plots within a parcel.

The explanation for the parcels in continuous use for many years is the presence on these parcels of tree crops, particularly coconuts.

4.19 Crop Details

Information on crops was collected for both crops growing at the time of the Census and crops that had been planted in the twelve months preceding the Census and already harvested (particularly important to ensure proper coverage of short term crops such as sweet potato and seasonal crops such as european vegetables).

The information was collected for a number of crop categories or planting methods which are listed below:

[1] crops growing in parcels other than scattered crops (these include crops grown as pure stand as well as inter-cropped)

[2] scattered crops growing in parcels

[3] scattered crops growing outside parcels

[4] crops grown by minor households

Additionally, information was collected for crops planted in the 12 months prior to the Census and already harvested both on a parcel by parcel basis and also for minor households.

These categories are important since they demonstrate the different methods of planting used for the crops grown in Niue.

Altogether some 32 tree crops and 32 garden crops were separately identified in the Census (see Annex C for the full list). The tables presented in this report only show details for the major crops grown - 15 tree crops and 16 garden crops. Detailed information on the minor crops is available at the Department of Agriculture, Alofi for the specialized user.

The Census provides detailed information on a crop by crop basis for each of the methods of planting. This approach was thought appropriate in order to provide a complete analysis of the agricultural practices currently in use in Niue.

The crop information is therefore presented on this basis with the last two tables (61 and 62) providing a summary.

When interpreting these tables, the reader is reminded of the special treatment of parcels containing coconuts and no other crops. These are referred to in paragraph 3.3. The data relating to coconuts in the following tables is therefore incomplete to this extent.

Crops Growing in Parcels Other than Scattered Crops

Tables 49-53 give details of crops identified as growing within parcels either on a pure stand basis or on an inter-cropped basis. Scattered trees/plants growing within parcels are excluded from this set of tables.

Table 49 give details of the number of plots of pure stand and inter-cropped crops by type of crop and size of plot (acres). The table clearly indicates the dominance of taro and to a lesser extent coconuts for this method of planting. Out of the 1,850 plots in this category 1,328 or 72 percent contained taro and a further 261 or 14 percent contained coconut palms. Other crops grown in this manner included Yams (63 plots), Cassava (57 plots), Sweet Potato (47 plots) and Banana-Plantain (26 plots) (the reader should note than in the case of mixed crops the plot is counted more than once in this table).

In terms of plot size, again with the exception of taro and coconuts, most of the plots are small (less than 2 acres). Even for taro, the most common size plot was 1/2 to 1 acre. For coconuts, the most common size was 1-2 acres although a number of plots (30) were identified as being 5 acres or larger.

Table 50 gives details of the 'actual' area of plots planted in this manner by crop and size of plot (acres). Again, in the case of plots containing mixed crops, the area is counted more than once.

In order to get round the problem of double counting in the case of mixed crops, the concept of 'single crop equivalent areas' is used to apportion the plot area between the crops concerned. For instance if a two acre plot has taro and banana growing on it as a mixed crop and the crop mixture is 50:50, the single crop equivalent area under taro is regarded as being one acre and the same for banana. Table 51 takes into account this problem of mixed cropping and presents the crop areas in terms of single crop equivalent areas. Altogether some 1,600 acres of land in Niue was found to be planted to pure stand or mixed crops. Of this total nearly 900 acres was planted to taro (55 percent) with a further 640 acres planted to coconuts (40 percent).

Table 52 provides information on a crop by crop basis of the crop mix. For example it shows that of the 888 acres of taro grown in this manner, 787 acres or 89 percent was grown as a single crop, 57 acres was grown on plots where the taro accounted for 3/4 of the crop mix, 33 acres was grown on plots where the taro accounted for 1/2 the crop mix and 11 acres was grown on plots where the taro only accounted for 1/4 of the crop mix (the reader should note that these are single crop equivalent areas and the actual land areas are proportionately larger).

From Table 52 it can be deduced that formal mixed or inter-cropping is not widely practiced in Niue. However certain crops such as cassava, sweet potato and yams are more often grown on an inter-cropped basis than on a single crop basis.

Table 53 concludes the set of tables relating to 'crops in parcels other than scattered crops' with some information on the 'proposed end-use' of these crops. Again, the data is presented in terms of single crop equivalent areas. Of the total area planted in this manner, 1,457 acres or 91 percent was planted for home consumption emphasizing once again the predominantly subsistence nature of agriculture in Niue and the limited marketing opportunities. On a crop basis, 87 percent of the taro was planted for home consumption. Some 34 acres was planted where it was planned to sell about 1/4 of the crop; 42 acres was planted where it was planned to sell about 1/2 the crop; 27 acres was planted where it was planned to sell 3/4 of the crop and 13 acres was planted where it was planned to sell all the crop.

For coconuts, the other major crop identified in this category, 626 acres out of the total of 636 acres was being used solely for home consumption (98 percent).

Only in the case of banana-plantain, sweet potato, tomato and cabbage was any appreciable proportion of the total crop planted primarily for sale.

Scattered Crops Growing in Parcels

Tables 54 and 55 provide details of scattered crops growing in parcels. As well as tree crops, a number of garden crops are traditionally grown in this manner. Table 54 shows the frequency of such plantings and shows for instance that 560 instances of banana-plantain growing in this manner were recorded in the Census. Other crops identified as commonly being grown this way were coconuts, pawpaw, cassava, spring onion, sweet potato and yams. Altogether some 4,164 records of crops grown as scattered plants within parcels were recorded in the Census at an average of 3.6 such crop types per parcel. This data confirms the very common practice of scattered plantings in Niue.

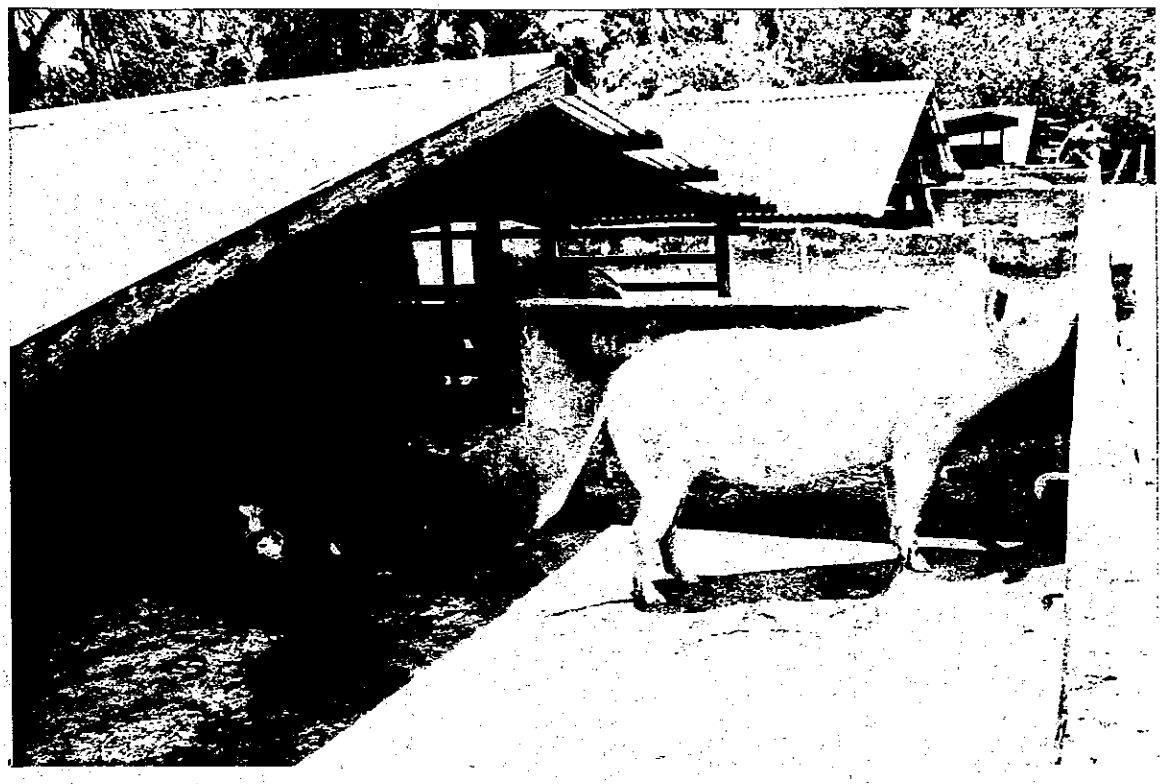
The extent of these crops is quantified in table 55 both in terms of numbers of trees or plants and an estimate of the single crop equivalent area - the area that these crops would cover if planted on a single crop or pure stand basis (see annex D for plant/density conversion factors used).

The total number of plants identified as being grown in this manner was 110,462 of which cassava accounted for the single largest number (20,720 or 19 percent). In terms of single crop equivalent areas, coconuts dominates this category accounting for 63 percent of the area under these crops; Banana-plantain accounts fro a further 25 acres (14 percent). Cassava which accounted for the largest component in terms of numbers of plants only accounted for 4 acres or 2 percent of the total because of the relatively high plant/acre density factor compared to the tree crops.

Scattered Plants Growing Outside Parcels

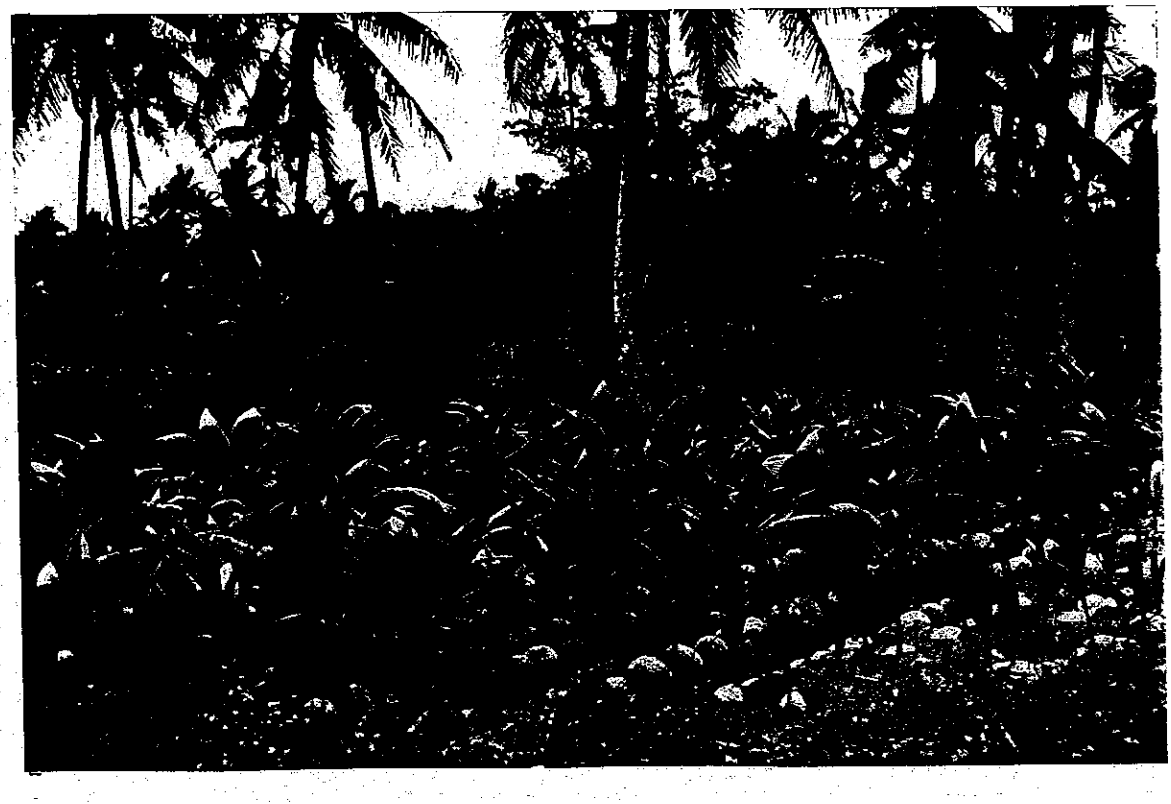
This category or method of planting includes plants/trees growing around homes, on fallow parcels and on parcel boundaries. It is dominated by tree crops and particularly coconut, mango, breadfruit and spondias (see Table 56). In terms of single crop

PLATE II



Above: A Livestock Holding in Niue

Below: A Coconut Seedling Nursery



Above: Land under Mixed Crop Cultivation

Below: Nurseryman at Work

equivalent areas (Table 57), these crops represent an equivalent area of 418 acres of which only about one acre is accounted for by garden crops. Coconuts again dominate this category (234 acres or 56 percent of the total) but breadfruit (70 acres), mango (24 acres) and spondias (22 acres) also represent significant quantities in the context of Niuean agriculture. The tree crops in particular are however best considered in terms of numbers of tress and Table 57 shows that some 3,384 breadfruit trees were recorded in this category, 5,648 mango trees and 1,053 spondias trees.

This was undoubtedly the major category or method of planting for the majority of the tree crops (coconut and banana-plantain being the main exceptions) and significant numbers of trees of all crop types were recorded.

Crops Planted in Parcels in the 12 Months Prior to the Census AND Already Harvested

As well as collecting information on crops in the ground at the time of the enumeration, the Census also sought information about short-term and seasonal crops that were not growing at the time of the enumeration but had been grown earlier on in the crop year. These were defined as all crops that had been both planted AND harvested in the 12 months prior to the enumeration.

Table 58 gives details of such crops. Taro again features strongly accounting for 91 percent of the area of such crops. Given that taro matures in 8-10 months a proportion of the taro crop could rightly be expected to fall into this category. Other crops include sweet potato, cassava, yams, melon, tomato and many other vegetable crops but the areas or quantities recorded were in most cases very small. Note that by definition tree crops were excluded from this category.

Crops Grown by Minor Households

Table 59 gives details of crops grown by the 40 households identified as having minor agricultural activity (see concepts and definitions). These households had between them the equivalent of some 12 acres of crops at the time of the Census. The table also shows small quantities of garden crops grown by these households that had been planted in the 12 months prior to the Census and already harvested by the time of the enumeration.

Whilst the contribution to agricultural production of these 'Minor Agricultural Households' is understandably small, it is interesting to see that even these households have access to quite a range of crops, particularly tree crops.

Land Waiting to be Planted and Fallow Land Within Parcels In Use

As well as land under crops, the Census found that much of the land within the parcels 'in use' was in fact fallow - out of the total area of parcels 'in use' of 6,820 acres, 5,033 acres or 74 percent was classified as fallow. A further 183 acres or 3 percent of this land was classified as land 'waiting to be planted. A comparison of tables 44 and 60 shows the breakdown of land within parcels 'in use' and a summary is presented in Table 4D below.

Table 4D - Land Use Within Parcels 'In Use'

District	AREA (acres) Total	Under Crops	Waiting to be Planted	Fallow	Percent Under Crops
Makefu	438.3	50.4	11.9	376.0	11
Tuapa	570.1	106.2	36.9	427.0	19
Namukulu	94.8	19.7	1.6	73.5	21
Hikutavake	205.0	32.2	15.3	157.5	16
Toi	212.0	46.0	13.5	152.5	22
Mutalau	750.0	178.0	37.5	534.5	24
Lakepa	410.5	254.6	6.5	149.4	62
Liku	246.4	102.5	3.5	140.4	42
Hakupu	924.6	176.4	18.1	730.1	19
Vaiea	391.5	72.2	1.9	317.4	18
Avatele	421.3	79.5	5.3	336.5	19
Tamakautoga	489.1	111.7	5.4	372.0	23
Alofi	689.1	175.2	11.3	502.6	25
Lefuka	262.3	33.7	6.0	222.6	13
Paluki	714.6	165.7	8.4	540.5	23
NIUE	6819.5	1604.1	182.9	5032.5	24

Table 4D shows that approximately one quarter of the area of land classified as in 'parcels in use' was under crops at the time of the Census. On a district by district basis, Lakepa and Liku had a significantly higher proportion of this land under crops (62 and 42 percent respectively).

In order to get a more complete picture of land usage it is useful to refer once again to Table 4 which shows the number of parcels identified as crop parcels (parcels in use), coconut parcels and fallow parcels. Table 4E shows the percentage distribution of these three types of parcels based on the location of the household.

From table 4E we see that the percentage of fallow parcels in Lakepa is also well below the national average (30 percent versus 51 percent) and conversely this village has a much higher percentage of parcels 'in use' than the national average (44 percent versus 30 percent). This information combined with that in Table 60A would imply that the village of Lakepa has perhaps more pressure on land than elsewhere in Niue. However, this is all relative and generally, it would be fair to conclude that there appear to be very few signs of land pressure in Niue, in fact on the contrary, the amount of land under crops (excluding coconut parcels) at 1,604 acres represents only two and a half percent of the total land area.

Table 4E - Percentage Distribution of Parcels by Type and Location of Household

Village	Percentage of Crop Parcels	Coconut Parcels	Total: Fallow Parcels	Total Number of Parcels
Makefu	18	16	66	219
Tuapa	49	10	41	240
Namukulu	44	24	32	66
Hikutavake	42	9	49	156
Toi	32	36	32	130
Mutalau	24	19	57	507
Lakepa	44	27	30	188
Liku	28	28	44	262
Hakupu	21	25	54	531
Vaiea	13	28	59	135
Avatele	27	12	61	333
Tamakautoga	32	24	44	308
Alofi	33	16	52	828
NIUE	30	20	50	3903

Summary of Crop Data

Tables 61 and 62 provide a convenient summary of the crop data in terms of single crop equivalent areas (Table 61) and numbers of plants/trees (Table 62). Depending on the method(s) of planting used for each particular crop, area information may be more useful than numbers of tress/plants for some crops whilst the converse will be true for others. As a general rule, most of the tree crops are best expressed in terms of numbers of trees whilst the majority of the garden crops are best expressed in terms of acres.

The first five columns of both these tables relate to crops in the ground at the time of the Census. Columns 6-8 relate to crops planted and harvested in the 12 months prior to the Census. The final column represents the best estimate of annual crop areas grown.

If an allowance is made for land under coconut parcels, coconuts undoubtedly cover the largest area of land in Niue of all crops. The total area planted to taro during the Census year was estimated at 1,042 acres implying an average of nearly 2 acres per household on Niue or 2.3 acres for agriculturally active households.

The other root crops appear insignificant when compared to taro - yams (22 acres), sweet potato (19 acres) and cassava (18 acres) but though the areas were generally small, a significant proportion of households were found to be growing these crops.

Other staple crops in Niue include banana and breadfruit. Banana-plantain is widely used as a staple and an estimated 55 acres were identified though much of this was grown on a scattered crop basis (63 percent). In terms of the number of banana plants, which totaled 16,693, this implies an average of some 32 plants per household. Breadfruit too is an important staple crop though seasonal in nature. Some 3,656 breadfruit trees were recorded in the Census nearly all grown as a scattered crop. This implies an average of 7 breadfruit trees per household.

A number of types of fruit/nut trees are common in Niue in particular pawpaw, banana, chestnut, citrus, guava, mango, and spondias. Pandanus is also widely grown but used more for making handicrafts than for eating. Amongst the various varieties of these crops found on Niue, Breadfruit-'Mei Mafala' was the most common variety of breadfruit recorded; Citrus-'Mexican Limes' was the most common variety of citrus; and the 'Local' Mango was the most common variety of mango. Banana-'Cavendish' and 'Ladyfinger' were also found to be widely grown as a fruit as opposed to banana-plantain grown as a staple or vegetable.

CHAPTER 5 – THE ESTABLISHMENT SECTOR

5.1 In order to complete the picture of agriculture in Niue, it is useful to make mention of the agricultural establishments in operation in Niue at the time of the Census, information for which has not been included in the previous chapter.

5.2 Only 3 such establishments were in existence with a total land area of 310 acres. However, as well as these 3 establishments it should be noted that the Agricultural Extension Service was also operating some 18 acres of land for the multiplication of planting materials and crop trials.

5.3 The numbers of livestock owned by these establishments at the time of the Census is shown in Table 5A below:

Table 5A: Numbers of Livestock Owned by Establishments by Type of Livestock.

Type of Livestock	Number
Cattle	129
Pigs	44
Chickens	–
Ducks	51
Goats	25

5.4 In terms of crop areas, these establishments had 68.5 acres of land under crops at the time of the Census and the extension service had 18 acres, a total of 86.5 acres under crops. The two major crops in this formal sector of the industry were coconut and lime which together accounted for 78 of the 86.5 acres under crops or 90 percent of the total. Table 5B gives a breakdown of the crop area by type of crop.

Table 5B: Crop Area Operated by Establishments by Type of Crop

Crop	Area (acres)
Coconut	45
Taro	2
Cassava	2
Limes	33
Passionfruit	1.5
Mango	1
Avocado	1
Banana/Yam	1
Total	86.5

5.5 DAFF also operated 3 Alias and 3 Outboard Motors at the time of the Census.

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* January-September 1989

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Village	Level of Agricultural Activity					
	Non-Agricultural	Minor Agricultural	Subsistence Only	Subsistence/ Cash	Commercial	Total
Makefu	4	–	19	2	–	25
Tuapa	4	–	42	3	1	50
Namukulu	–	–	9	1	1	11
Hikutavake	4	–	21	2	–	27
Toi	–	1	8	1	2	12
Mutalau	2	2	26	6	3	39
Lakepa	–	–	19	3	1	23
Liku	2	–	16	9	–	27
Hakupu	1	1	29	11	5	47
Vaiea	–	–	5	2	1	8
Avatele	4	–	38	2	–	44
Tamakautoga	–	1	29	7	–	37
Alofi	15	35	97	20	5	172
NIUE	36	40	358	69	19	522
Alofi South	14	25	54	14	–	107
Alofi North	1	10	43	6	5	65

Table 2 – Number of Holdings by Location of Household and Level of Agricultural Activity

Village	Level of Agricultural Activity			
	Subsistence Only	Subsistence/ Cash	Commercial	Total
Makefu	19	2	–	21
Tuapa	42	3	1	46
Namukulu	9	1	1	11
Hikutavake	21	2	–	23
Toi	9	1	2	12
Mutalau	26	6	3	35
Lakepa	19	3	1	23
Liku	16	9	–	25
Hakupu	29	11	5	45
Vaiea	5	3	1	9
Avatele	38	2	–	40
Tamakautoga	29	8	–	37
Alofi	98	20	5	123
NIUE	360	71	19	450
Alofi South	55	14	–	69
Alofi North	43	6	5	54

Table 3 – Number of Households with Crop Parcels, Coconut Parcels and Fallow Parcels by Location of Household

Village	Crop Parcels	Coconut Parcels	Fallow Parcels
Makefu	21	13	19
Tuapa	46	13	39
Namukulu	11	8	9
Hikutavake	23	8	20
Toi	11	9	9
Mutalau	35	27	29
Lakepa	23	18	20
Liku	25	22	23
Hakupu	45	39	38
Vaiea	8	6	6
Avatele	40	22	36
Tamakautoga	36	18	26
Alofi	121	53	92
NIUE	445	256	366
Alofi South	68	36	54
Alofi North	53	17	38

Table 4 – Number of Crop Parcels, Coconut Parcels and Fallow Parcels by Location of Household

Village	Crop Parcels	Coconut Parcels	Fallow Parcels	All Parcels
Makefu	39	35	145	219
Tuapa	118	23	99	240
Namukulu	29	16	21	66
Hikutavake	65	14	77	156
Toi	42	47	41	130
Mutalau	123	95	289	507
Lakepa	82	50	56	188
Liku	73	73	116	262
Hakupu	110	133	288	531
Vaiea	17	38	80	135
Avatele	89	41	203	333
Tamakautoga	99	75	134	308
Alofi	270	130	428	828
NIUE	1156	770	1977	3903
Alofi South	153	91	273	517
Alofi North	117	39	155	311

Table 5 – Number of Households and Numbers of Domestic Animals by Type of Domestic Animal and Location of Household

Village	NUMBER OF HOUSEHOLDS					NUMBER OF:	
	Keeping Domestic Animals	Not Keeping Domestic Animals	Total	Keeping Cats	Keeping Dogs	Cats	Dogs
Makefu	17	8	25	17	10	44	15
Tuapa	35	15	50	32	26	64	51
Namukulu	8	3	11	6	6	12	14
Hikutavake	21	6	27	18	17	29	35
Toi	11	1	12	9	8	37	14
Mutalau	31	8	39	24	24	88	60
Lakepa	22	1	23	16	21	30	31
Liku	20	7	27	16	16	27	25
Hakupu	37	10	47	20	29	42	55
Vaiea	7	1	8	5	5	14	9
Avatele	40	4	44	35	31	99	55
Tamakautoga	33	4	37	28	20	63	32
Alofi	127	44	171	104	82	217	131
NIUE	409	112	521	330	295	766	527
Alofi South	73	33	106	61	40	117	62
Alofi North	54	11	65	43	42	100	69

Table 6 – Number of Households and Numbers of Livestock by Type of Livestock and Location of Household

Village	NUMBER OF HOUSEHOLDS						NUMBER OF:	
	Keeping Livestock	Not Keeping Livestock	Total	Keeping Pigs	Keeping Chickens	Keeping Other Livestock	Pigs	Chickens
Makefu	17	8	25	14	9	–	36	331
Tuapa	43	7	50	34	37	2	93	830
Namukulu	8	3	11	7	7	–	16	244
Hikutavake	23	4	27	12	23	2	17	508
Toi	11	1	12	8	11	1	32	592
Mutalau	36	3	39	26	31	4	145	1006
Lakepa	22	1	23	18	20	1	241	183
Liku	25	2	27	22	18	–	159	872
Hakupu	40	7	47	32	34	3	202	1079
Vaiea	7	1	8	5	7	2	23	234
Avatele	42	2	44	30	35	3	117	1144
Tamakautoga	32	5	37	22	28	5	56	565
Alofi	110	62	172	85	61	8	390	2128
NIUE	416	106	522	315	321	31	1527	9716
Alofi South	70	37	107	53	38	7	263	1501
Alofi North	40	25	65	32	23	1	127	627

Table 7 – Number of Households Keeping Pigs by Location of Household and Size of Pig Holding

Village	Size of Pig Holding (number of pigs) 1–4	5–9	10–19	20 and over	Total
Makefu	12	2	–	–	14
Tuapa	30	2	1	1	34
Namukulu	7	–	–	–	7
Hikutavake	12	–	–	–	12
Toi	6	–	2	–	8
Mutalau	15	5	5	1	26
Lakepa	3	5	7	3	18
Liku	10	7	4	1	22
Hakupu	15	9	7	1	32
Vaiea	3	1	1	–	5
Avatele	21	6	3	–	30
Tamakautoga	18	4	–	–	22
Alofi	60	13	11	1	85
NIUE	212	54	41	8	315
Alofi South	36	10	6	1	53
Alofi North	24	3	5	–	32

Table 8 – Number of Pigs by Location of Household and Size of Pig Holding

Village	Size of Pig Holding (number of pigs) 1–4	5–9	10–19	20 and over	Total
Makefu	22	14	–	–	36
Tuapa	49	12	11	21	93
Namukulu	16	–	–	–	16
Hikutavake	17	–	–	–	17
Toi	11	–	21	–	32
Mutalau	28	35	57	25	145
Lakepa	5	31	94	111	241
Liku	30	51	53	25	159
Hakupu	28	69	83	22	202
Vaiea	5	5	13	–	23
Avatele	36	36	45	–	117
Tamakautoga	26	30	–	–	56
Alofi	114	82	139	55	390
NIUE	387	365	516	259	1527
Alofi South	70	62	76	55	263
Alofi North	44	20	63	–	127

Table 9 – Number of Households Keeping Chickens by Location of Household and Size of Chicken Holding

Village	Size of Chicken Holding (number of chickens) 1–4	5–9	10–19	20–29	30–49	50–99	100 and over	Total
Makefu	–	–	2	3	2	1	1	9
Tuapa	3	3	15	4	5	7	–	37
Namukulu	1	–	3	1	–	1	1	7
Hikutavake	1	2	8	5	6	1	–	23
Toi	–	1	1	2	2	3	2	11
Mutalau	2	2	7	7	6	4	3	31
Lakepa	3	7	7	3	–	–	–	20
Liku	–	2	2	1	3	6	4	18
Hakupu	2	1	7	8	7	7	2	34
Vaiea	–	–	2	2	1	2	–	7
Avatele	–	2	7	5	10	10	1	35
Tamakautoga	2	4	7	9	3	3	–	28
Alofi	7	6	10	16	10	8	4	61
NIUE	21	30	78	66	55	53	18	321
Alofi South	4	3	7	10	6	5	3	38
Alofi North	3	3	3	6	4	3	1	23

Table 10 – Number of Chickens by Location of Household and Size of Chicken Holding

Village	Size of Chicken Holding (number of chickens) 1–4	5–9	10–19	20–29	30–49	50–99	100 and over	Total
Makefu	–	–	30	65	76	60	100	331
Tuapa	8	18	184	90	160	370	–	830
Namukulu	4	–	35	20	–	60	125	244
Hikutavake	4	14	98	110	212	70	–	508
Toi	–	6	18	48	72	197	251	592
Mutalau	7	13	84	155	190	207	350	1006
Lakepa	6	42	75	60	–	–	–	183
Liku	–	12	20	20	100	320	400	872
Hakupu	4	8	86	175	236	370	200	1079
Vaiea	–	–	24	45	30	135	–	234
Avatele	–	13	75	106	310	540	100	1144
Tamakautoga	5	22	86	197	105	150	–	565
Alofi	18	33	112	328	312	425	900	2128
NIUE	56	181	927	1419	1803	2904	2426	9716
Alofi South	13	16	77	205	180	260	750	1501
Alofi North	5	17	35	123	132	165	150	627

Table 11 – Coconuts Used for Human Consumption – Number of Households, Number of Households using Coconuts, Total Weekly and Average Weekly Consumption by Location of Household

Village	Total Number of Households	Number of Households Using Coconuts	Total Weekly Consumption	Average Weekly Consumption per Household
Makefu	25	24	459	19
Tuapa	50	49	419	9
Namukulu	11	11	229	21
Hikutavake	27	27	588	22
Toi	12	12	663	55
Mutalau	39	39	824	21
Lakepa	23	23	395	17
Liku	27	26	578	22
Hakupu	47	45	715	16
Vaiea	8	7	108	15
Avatele	44	43	949	22
Tamakautoga	37	37	672	18
Alofi	172	163	2066	13
NIUE	522	506	8665	17
Alofi South	107	98	1040	11
Alofi North	65	65	1026	16

Table 12 – Coconuts Used for Feeding Animals – Number of Households, Number of Households using Coconuts, Total Weekly and Average Weekly Consumption by Location of Household

Village	Total Number of Households	Number of Households Using Coconuts	Total Weekly Consumption	Average Weekly Consumption per Household
Makefu	25	15	367	24
Tuapa	50	34	562	17
Namukulu	11	11	328	30
Hikutavake	27	25	653	26
Toi	12	11	702	64
Mutalau	39	37	1520	41
Lakepa	23	23	2000	87
Liku	27	24	2657	111
Hakupu	47	39	2002	51
Vaiea	8	7	250	36
Avatele	44	38	1394	37
Tamakautoga	37	31	597	19
Alofi	172	88	2481	28
NIUE	522	383	15513	41
Alofi South	107	51	1318	26
Alofi North	65	37	1163	31

Table 13 – Number of Households by Location of Household and Size of Coconut Crab Catch in the Month Prior to the Census

Village	Size of Catch (number of crabs)						
	0	1–4	5–9	10–19	20–49	50 and over	Total
Makefu	12	4	2	2	4	1	25
Tuapa	40	2	2	1	5	–	50
Namukulu	7	–	–	2	1	1	11
Hikutavake	15	–	1	3	6	2	27
Toi	5	–	1	1	2	3	12
Mutalau	24	3	5	1	3	3	39
Lakepa	9	1	4	2	6	1	23
Liku	11	1	–	8	5	2	27
Hakupu	20	1	1	3	13	9	47
Vaiea	5	–	–	–	2	1	8
Avatele	34	–	2	4	3	1	44
Tamakautoga	25	1	3	4	4	–	37
Alofi	142	6	6	5	10	3	172
NIUE	349	19	27	36	64	27	522
Alofi South	89	1	4	2	8	3	107
Alofi North	53	5	2	3	2	–	65

Table 14 – Number of Coconut Crabs caught in the Month Prior to the Census by Location of Household and Size of Coconut Crab Catch

Village	Size of Catch (number of crabs)					
	1–4	5–9	10–19	20–49	50 and over	Total
Makefu	7	11	22	97	50	187
Tuapa	5	11	14	127	–	157
Namukulu	–	–	33	22	60	115
Hikutavake	–	5	35	155	100	295
Toi	–	7	12	58	283	360
Mutalau	9	30	16	92	170	317
Lakepa	1	25	22	166	80	294
Liku	2	–	90	145	150	387
Hakupu	1	5	30	333	655	1024
Vaiea	–	–	–	80	60	140
Avatele	–	12	48	90	50	200
Tamakautoga	4	19	52	114	–	189
Alofi	19	39	69	257	160	544
NIUE	48	164	443	1736	1818	4209
Alofi South	3	26	31	192	160	412
Alofi North	16	13	38	65	–	132

Table 15 – Number of Households with Fishing Boats/Motors and Numbers of Fishing Boats/Motors by Location of Household and Type of Fishing Boat/Motor

Village	All Households	HOUSEHOLDS WITH: Canoes	Dinghies	Outboard Motors	NUMBER OF: Canoes	Dinghies	Outboard Motors
Makefu	25	10	–	1	18	–	1
Tuapa	50	23	5	5	33	5	7
Namukulu	11	6	1	–	8	1	–
Hikutavake	27	8	–	–	11	–	–
Toi	12	6	1	1	7	1	1
Mutalau	39	10	–	–	16	–	–
Lakepa	23	4	1	1	5	2	1
Liku	27	5	–	–	6	–	–
Hakupu	47	9	1	1	13	1	1
Vaiea	8	1	–	1	1	–	1
Avatele	44	27	11	10	49	13	11
Tamakautoga	37	12	1	1	19	1	1
Alofi	172	42	33	33	55	36	44
NIUE	522	163	54	54	241	60	68
Alofi South	107	22	23	21	28	24	29
Alofi North	65	20	10	12	27	12	15

Table 16 – Number of Households by Location of Household and Whether or Not Fishing in the Month Prior to the Census

Village	Fishing in Last Month: Yes	No	Total
Makefu	19	6	25
Tuapa	37	13	50
Namukulu	8	3	11
Hikutavake	16	11	27
Toi	7	5	12
Mutalau	11	28	39
Lakepa	7	16	23
Liku	6	21	27
Hakupu	30	17	47
Vaiea	5	3	8
Avatele	38	6	44
Tamakautoga	28	9	37
Alofi	108	64	172
NIUE	320	202	522
Alofi South	64	43	107
Alofi North	44	21	65

Table 17 – Number of Households Going Fishing in the Month Prior to the Census by Location of Household and Type of Fishing Trip

Village	Type of Fishing Trip					
	Canoe	Dinghy	Shore	Diving	Government Alia	All Types
Makefu	7	2	15	9	–	33
Tuapa	15	8	27	11	–	61
Namukulu	4	4	6	–	2	16
Hikutavake	5	–	13	–	–	18
Toi	2	–	6	2	–	10
Mutalau	5	–	5	1	4	15
Lakepa	–	1	6	1	–	8
Liku	2	–	4	–	–	6
Hakupu	4	–	28	–	–	32
Vaiea	1	1	4	–	–	6
Avatele	22	15	24	5	1	67
Tamakautoga	10	2	22	5	1	40
Alofi	20	37	71	12	8	148
NIUE	97	70	231	46	16	460
Alofi South	11	27	41	6	2	87
Alofi North	9	10	30	6	6	61

Table 18 – Number of Fishing Trips Undertaken in the Month prior to the Census by Location of Household and Type of Fishing Trip

Village	Type of Fishing Trip					
	Canoe	Dinghy	Shore	Diving	Government Alia	All Types
Makefu	78	8	81	32	–	199
Tuapa	198	70	111	43	–	422
Namukulu	92	30	48	–	2	172
Hikutavake	60	–	43	–	–	103
Toi	7	–	24	8	–	39
Mutalau	18	–	6	2	5	31
Lakepa	–	1	21	1	–	23
Liku	7	–	32	–	–	39
Hakupu	10	–	107	–	–	117
Vaiea	12	1	18	–	–	31
Avatele	379	157	143	25	6	710
Tamakautoga	74	24	148	16	1	263
Alofi	186	194	353	38	14	785
NIUE	1121	485	1135	165	28	2934
Alofi South	112	154	215	17	3	501
Alofi North	74	40	138	21	11	284

Table 19 - Number of Households by Location of Household and Usual Frequency of Fish Sales

Village	Frequency of Fish Sales					
	More Than Once a Week	Once a Week	At Least Once a Month	Less Than Once a Month	Never	All Households
Makefu	–	–	2	–	23	25
Tuapa	1	1	1	2	45	50
Namukulu	3	1	–	1	6	11
Hikutavake	–	–	2	–	25	27
Toi	–	–	–	–	12	12
Mutalau	–	–	–	1	38	39
Lakepa	–	–	–	–	23	23
Liku	–	–	1	–	26	27
Hakupu	–	–	–	–	47	47
Vaiea	–	–	–	–	8	8
Avatele	2	–	6	–	36	44
Tamakautoga	1	–	1	1	34	37
Alofi	2	4	10	9	147	172
NIUE	9	6	23	14	470	522
Alofi South	–	2	5	8	92	107
Alofi North	2	2	5	1	55	65

Table 20 – Number of Agricultural Households Using Agricultural Chemicals by Location of Household and Type of Chemicals Used

Village	Total Agricultural Households	Use of Fertilizers: Using Fertilizers	Using Pesticides	Using Herbicides	Using Fungicides
Makefu	21	6	–	14	–
Tuapa	46	16	6	39	1
Namukulu	11	1	–	8	–
Hikutavake	23	4	4	19	2
Toi	11	4	1	9	1
Mutalau	35	21	9	31	1
Lakepa	23	5	2	22	1
Liku	25	5	4	24	–
Hakupu	45	31	6	40	5
Vaiea	8	2	1	6	1
Avatele	40	33	5	36	3
Tamakautoga	36	14	4	32	1
Alofi	122	66	19	108	8
NIUE	446	208	61	388	24
Alofi South	68	41	11	62	4
Alofi North	54	25	8	46	4

Table 21 – Number of Agricultural Households by Location of Household and Method of Land Clearance

Village	Method of Land Clearance: Slash/ Burn	Bulldozer	Other Methods	Total Agricultural Households
Makefu	7	14	–	21
Tuapa	5	41	–	46
Namukulu	5	5	1	11
Hikutavake	9	14	–	23
Toi	5	6	–	11
Mutalau	2	31	2	35
Lakepa	2	21	–	23
Liku	1	24	–	25
Hakupu	3	41	1	45
Vaiea	3	4	1	8
Avatele	5	35	–	40
Tamakautoga	10	26	–	36
Alofi	25	97	–	122
NIUE	82	359	5	446
Alofi South	16	52	–	68
Alofi North	9	45	–	54

Table 22 - Number of Agricultural Households Exporting 'This Year'* by Location of Household and Mode of Export

Village	Mode of Export			
	Commercial:		Family/Friends:	
	Air	Sea	Air	Sea
Makefu	–	6	–	5
Tuapa	–	4	–	16
Namukulu	–	2	–	2
Hikutavake	–	6	1	5
Toi	–	3	–	3
Mutalau	–	5	1	16
Lakepa	–	2	1	9
Liku	–	1	–	11
Hakupu	–	9	1	26
Vaiea	–	1	–	1
Avatele	–	2	1	16
Tamakautoga	–	4	–	20
Alofi	–	10	1	57
NIUE	–	55	6	187
Alofi South	–	3	–	32
Alofi North	–	7	1	25

Table 23 - Number of Export Consignments 'This Year'* by Location of Household and Mode of Export

Village	Mode of Export			
	Commercial:		Family/Friends:	
	Air	Sea	Air	Sea
Makefu	–	9	–	13
Tuapa	–	14	–	27
Namukulu	–	8	–	8
Hikutavake	–	21	1	15
Toi	–	9	–	12
Mutalau	–	8	3	28
Lakepa	–	6	2	15
Liku	–	4	–	20
Hakupu	–	12	3	50
Vaiea	–	1	–	2
Avatele	–	8	1	37
Tamakautoga	–	4	–	58
Alofi	–	30	2	154
NIUE	–	134	12	439
Alofi South	–	8	–	83
Alofi North	–	22	2	71

* January-September 1989

Table 24 - Number of Agricultural Households Exporting Crops by Type of Consignment, Crop and Mode of Export (Last Consignment Only)

Crop	Commercial			Family/Friends			Total		
	Air	Sea	Total	Air	Sea	Total	Air	Sea	Total
Banana-Ladyfinger	-	-	-	-	2	2	-	2	2
Banana-Plantain	-	-	-	2	8	10	2	8	10
Banana-Other	-	-	-	-	1	1	-	1	1
Citrus	-	-	-	-	1	1	-	1	1
Coconut	-	3	3	3	48	51	3	51	54
Other Tree Crops	-	-	-	1	3	4	1	3	4
Cassava	-	1	1	1	3	4	1	4	5
Sweet Potato	-	-	-	-	1	1	-	1	1
Taro	-	51	51	5	182	187	5	233	238
Yams	-	-	-	-	7	7	-	7	7
All Crops	-	55	55	12	256	268	12	311	323

Table 25 - Quantity (kilos) of Crops Exported in 'Last' Consignment by Type of Consignment, Crop and Mode of Export

Crop	Commercial			Family/Friends			Total		
	Air	Sea	Total	Air	Sea	Total	Air	Sea	Total
Banana-Ladyfinger	-	-	-	-	32	32	-	32	32
Banana-Plantain	-	-	-	25	227	252	25	227	252
Banana-Other	-	-	-	-	5	5	-	5	5
Citrus	-	-	-	-	18	18	-	18	18
Coconut	-	690	690	7	2279	2286	7	2969	2976
Other Tree Crops	-	-	-	5	35	40	5	35	40
Cassava	-	30	30	20	90	110	20	120	140
Sweet Potato	-	-	-	-	20	20	-	20	20
Taro	-	17880	17880	335	27645	27980	335	45525	45860
Yams	-	-	-	-	260	260	-	260	260
All Crops	-	18600	18600	392	30611	31003	392	49211	49603

Table 26 – Average Number of days Since 'Last' Consignment by Type of Consignment and Mode of Transport

Type of Consignment	Mode of Transport		
	Air	Sea	Total
Commercial	-	77	77
Family/Friends	206	95	100
Total	206	92	96

Table 27 – Number of Agricultural Households by Location of Household and Proportion of Total Household Income from Agricultural/Fishing Activities

Village	Proportion of Income					
	None	1/4	1/2	3/4	All	Total
Makefu	21	–	–	–	–	21
Tuapa	41	5	–	–	–	46
Namukulu	6	4	–	–	1	11
Hikutavake	16	3	1	3	–	23
Toi	7	1	3	–	–	11
Mutalau	28	4	1	1	1	35
Lakepa	19	3	–	1	–	23
Liku	17	6	–	–	2	25
Hakupu	31	7	3	3	1	45
Vaiea	6	1	–	–	1	8
Avatele	30	8	2	–	–	40
Tamakautoga	32	3	1	–	–	36
Alofi	92	23	5	–	2	122
NIUE	346	68	16	8	8	446
Alofi South	54	13	1	–	–	68
Alofi North	38	10	4	–	2	54

Table 28 – Number of Agricultural Households by Location of Household and Giving Agricultural/Fishing Produce in the 12 Months Prior to the Census

Village	Giving Agricultural Produce		
	Yes	No	Total
Makefu	13	8	21
Tuapa	33	13	46
Namukulu	10	1	11
Hikutavake	12	11	23
Toi	4	7	11
Mutalau	27	8	35
Lakepa	20	3	23
Liku	22	3	25
Hakupu	42	3	45
Vaiea	3	5	8
Avatele	38	2	40
Tamakautoga	34	2	36
Alofi	103	19	122
NIUE	361	85	446
Alofi South	59	9	68
Alofi North	44	10	54

Table 29 – Number of Agricultural Households Giving Agricultural/Fishing Produce in the 12 Months Prior to the Census by Location of Household and Type of Produce

Village	Type of Agricultural Produce Given				
	Pigs	Chickens	Fish	Taros	Other Crops
Makefu	9	–	6	12	1
Tuapa	18	1	14	33	1
Namukulu	7	4	8	9	3
Hikutavake	9	–	4	10	–
Toi	3	1	1	4	1
Mutalau	12	2	7	25	8
Lakepa	14	1	1	20	3
Liku	11	1	5	22	2
Hakupu	24	2	3	41	6
Vaiea	1	1	1	2	1
Avatele	13	3	25	36	6
Tamakautoga	12	4	8	33	17
Alofi	53	7	46	98	20
NIUE	186	27	129	345	69
Alofi South	31	3	29	56	11
Alofi North	22	4	17	42	9

Table 30 – Quantity of Agricultural Produce (number) Given in the 12 Months Prior to the Census by Location of Household and Type of Agricultural Produce Given

Village	Type of Agricultural Produce Given			
	Pigs	Chickens	Fish	Taros
Makefu	30	–	33	4875
Tuapa	58	9	91	17405
Namukulu	29	22	163	4022
Hikutavake	26	–	42	8970
Toi	11	8	3	3100
Mutalau	32	8	29	11540
Lakepa	84	2	2	11775
Liku	36	10	27	6090
Hakupu	83	17	8	18025
Vaiea	7	10	3	230
Avatele	36	45	423	14760
Tamakautoga	45	37	237	40800
Alofi	197	64	729	60856
NIUE	674	232	1790	202448
Alofi South	120	12	538	47842
Alofi North	77	52	191	13014

Table 31 – Number of Persons by Location of Household and Level of Agricultural Activity of the Household

Village	Level of Agricultural Activity					
	Non–Agricultural	Minor Agricultural	Subsistence Only	Subsistence/Cash	Commercial	Total
Makefu	9	–	94	9	–	112
Tuapa	7	–	192	10	6	215
Namukulu	–	–	28	6	5	39
Hikutavake	4	–	84	6	–	94
Toi	–	1	29	5	8	43
Mutalau	4	6	118	33	14	175
Lakepa	–	–	97	9	2	108
Liku	2	–	69	44	–	115
Hakupu	4	2	160	52	21	239
Vaiea	–	–	26	12	5	43
Avatele	15	–	176	10	–	201
Tamakautoga	–	2	131	38	–	171
Alofi	40	114	413	100	21	688
NIUE	85	125	1617	334	82	2243
Alofi South	38	77	225	75	–	415
Alofi North	2	37	188	25	21	273

Table 32 – Number of Operators by Sex, Age Group and Household Membership Status

Age Group \ Household Status	Sex of Operator – Male			Sex of Operator – Female			Sex of Operator – Total		
	Non-Member	Member	Total	Non-Member	Member	Total	Non-Member	Member	Total
15–24	–	26	26	–	–	–	–	26	26
25–34	–	87	87	–	5	5	–	92	92
35–44	–	82	82	–	7	7	–	89	89
45–54	2	85	87	–	18	18	2	103	105
55–64	1	61	62	–	16	16	1	77	78
65–74	–	34	34	–	7	7	–	41	41
75+	–	14	14	–	1	1	–	15	15
Total	3	389	392	–	54	54	3	443	446

Table 33 – Number of Operators by Sex, Age Group and Paid Job Status

Sex of Operator – Male

Age Group	Paid Job Status of Operator			
	Full-time	Part-time	None	Total
15–24	22	–	4	26
25–34	79	2	6	87
35–44	70	3	9	82
45–54	60	2	25	87
55–64	25	3	34	62
65–74	1	2	31	34
75 & over	4	1	9	14
Total	261	13	118	392

Sex of Operator – Female

Age Group	Paid Job Status of Operator			
	Full-time	Part-time	None	Total
15–24	–	–	–	–
25–34	4	–	1	5
35–44	4	1	2	7
45–54	6	2	10	18
55–64	1	–	15	16
65–74	1	–	6	7
75 & over	–	–	1	1
Total	16	3	35	54

Sex of Operator – Both Sexes

Age Group	Paid Job Status of Operator			
	Full-time	Part-time	None	Total
15–24	22	–	4	26
25–34	83	2	7	92
35–44	74	4	11	89
45–54	66	4	35	105
55–64	26	3	49	78
65–74	2	2	37	41
75 & over	4	1	10	15
Total	277	16	153	446

Table 34 – Average Hours Worked Per Week by Operators on Holdings During the Month Prior to the Census by Age Group, Sex and Paid Job Status

Sex of Operator – Male

Age Group	Paid Job Status of Operator			
	Full-time	Part-time	None	Total
15–24	11	–	13	11
25–34	10	20	15	10
35–44	10	26	11	11
45–54	13	17	19	15
55–64	13	14	24	19
65–74	8	11	22	20
75 & over	17	5	21	19
Total	11	17	20	14

Sex of Operator – Female

Age Group	Paid Job Status of Operator			
	Full-time	Part-time	None	Total
15–24	–	–	–	–
25–34	12	–	4	11
35–44	6	3	33	13
45–54	15	9	12	13
55–64	10	–	11	11
65–74	12	–	5	6
75 & over	–	–	–	–
Total	11	7	11	11

Sex of Operator – Both Sexes

Age Group	Paid Job Status of Operator			
	Full-time	Part-time	None	Total
15–24	11	–	13	11
25–34	10	20	14	10
35–44	10	21	15	11
45–54	13	13	17	14
55–64	13	14	20	18
65–74	10	11	19	18
75 & over	17	5	19	17
Total	11	15	18	14

Table 35 – Number of Persons Aged 10 Years and Over, Working on Holdings during the Month Prior to the Enumeration, by Paid Employment Status, Household Membership Status, Age Group and Sex

Paid Work Status – Unpaid

Household Status / Age Group	Non-Member			Member			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
10–19	16	5	21	208	83	291	224	88	312
20–39	30	7	37	256	125	381	286	132	418
40–59	11	12	23	159	142	301	170	154	324
60 & over	3	2	5	83	39	122	86	41	127
Total	60	26	86	706	389	1095	766	415	1181

Paid Work Status – Paid

Household Status / Age Group	Non-Member			Member			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
10–19	2	–	2	1	2	3	3	2	5
20–39	3	–	3	–	–	–	3	–	3
40–59	1	–	1	2	2	4	3	2	5
60 & over	1	–	1	1	–	1	2	–	2
Total	7	–	7	4	4	8	11	4	15

Paid Work Status – Total

Household Status / Age Group	Non-Member			Member			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
10–19	18	5	23	209	85	294	227	90	317
20–39	33	7	40	256	125	381	289	132	421
40–59	12	12	24	161	144	305	173	156	329
60 and over	4	2	6	84	39	123	88	41	129
Total	67	26	93	710	393	1103	777	419	1196

Table 35 – Number of Persons Aged 10 Years and Over, Working on Holdings during the Month Prior to the Enumeration, by Paid Employment Status, Household Membership Status, Age Group and Sex

Paid Work Status – Unpaid

Household Status / Age Group	Non–Member			Member			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
10–19	16	5	21	208	83	291	224	88	312
20–39	30	7	37	256	125	381	286	132	418
40–59	11	12	23	159	142	301	170	154	324
60 & over	3	2	5	83	39	122	86	41	127
Total	60	26	86	706	389	1095	766	415	1181

Paid Work Status – Paid

Household Status / Age Group	Non–Member			Member			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
10–19	2	–	2	1	2	3	3	2	5
20–39	3	–	3	–	–	–	3	–	3
40–59	1	–	1	2	2	4	3	2	5
60 & over	1	–	1	1	–	1	2	–	2
Total	7	–	7	4	4	8	11	4	15

Paid Work Status – Total

Household Status / Age Group	Non–Member			Member			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
10–19	18	5	23	209	85	294	227	90	317
20–39	33	7	40	256	125	381	289	132	421
40–59	12	12	24	161	144	305	173	156	329
60 and over	4	2	6	84	39	123	88	41	129
Total	67	26	93	710	393	1103	777	419	1196

Table 36 – Average Hours Worked per Month by Persons Aged 10 Years and Over, Working on Holdings During the Month Prior to the Enumeration, by Paid Employment Status, Age Group and Sex

Paid Work Status – Unpaid

Age Group	Sex		
	Male	Female	Total
10–19	29	19	26
20–39	37	25	33
40–59	49	38	44
60 & over	79	26	62
Total	42	29	37

Paid Work Status – Paid

Age Group	Sex		
	Male	Female	Total
10–19	17	14	16
20–39	10	–	10
40–59	27	20	24
60 & over	45	–	45
Total	23	17	21

Paid Work Status – Total

Age Group	Sex		
	Male	Female	Total
10–19	29	19	26
20–39	37	25	33
40–59	49	38	43
60 and over	78	26	62
Total	42	29	37

Table 37 – Average Wages per Month of Persons Aged 10 Years and Over, Working in a Paid Capacity on Holdings During the Month Prior to the Enumeration, by Paid Employment Status, Age Group and Sex

Paid Work Status – Unpaid

Age Group	Sex		
	Male	Female	Total
10–19	20	14	18
20–39	10	–	10
40–59	33	20	28
60 and over	25	–	25
Total	22	17	21

Table 38 – Number of Persons Aged 10 Years and Over, Working in a Paid Capacity on Holdings during the Month Prior to the Enumeration, by Type of Other Benefits Received and Sex

Other Benefits Received	Sex		
	Male	Female	Total
Free/subsidized meals only	7	–	7
No benefits	4	4	8
Total	11	4	15

Table 39 – Number of Holdings by Location of Holding and Location of Household

Location of Holding (District)	Location of Household (Village)														
	Makefu	Tuapa	Namu-kulu	Hiku-tavake	Toi	Mutalau	Lakepa	Liku	Hakupu	Vaiea	Avatele	Tamakau-toga	Alofi South	Alofi North	NIUE
Makefu	21	6	–	–	–	1	–	–	–	–	–	–	2	–	30
Tuapa	–	38	3	1	–	3	–	–	–	–	–	–	–	–	45
Namukulu	–	–	3	–	–	–	–	–	–	–	–	–	–	–	3
Hikutavake	–	1	3	20	–	–	–	–	–	–	–	–	–	–	24
Toi	–	1	–	2	10	1	–	–	–	–	–	–	–	–	14
Mutalau	–	–	–	–	2	28	–	–	–	–	–	–	–	–	30
Lakepa	–	–	–	–	–	–	20	–	–	–	–	–	–	–	20
Liku	–	–	–	–	–	–	1	21	–	–	–	–	–	1	23
Hakupu	–	–	–	–	–	–	2	–	46	–	–	–	5	1	54
Vaiea	–	–	–	–	–	–	–	–	–	7	–	–	–	–	7
Avatele	–	–	–	–	–	–	–	–	–	–	37	–	3	1	41
Tamakautoga	–	–	–	–	–	–	–	–	–	–	3	32	8	4	47
Alofi	–	–	–	–	–	–	–	–	–	–	–	1	36	27	64
Lefuka	–	–	1	–	–	1	–	–	–	–	–	–	1	2	5
Paluki	–	–	1	–	–	2	–	4	–	1	–	4	14	17	43
NIUE	21	46	11	23	12	36	23	25	46	8	40	37	69	53	450

Table 40 – Number of Holdings by Location of Holding and Size of Holding (number of parcels in use)

District	Size of Holding (number of parcels in use)									
	1–	2–	3–	4–	5–	6–	7–	8–	9–	Total
Makefu	12	12	4	1	1	–	–	–	–	30
Tuapa	11	10	14	7	1	2	–	–	–	45
Namukulu	–	–	1	1	–	1	–	–	–	3
Hikutavake	3	7	10	3	–	1	–	–	–	24
Toi	2	4	2	2	2	1	1	–	–	14
Mutalau	3	5	10	6	2	1	2	–	1	30
Lakepa	–	3	6	8	1	2	–	–	–	20
Liku	5	7	3	6	2	–	–	–	–	23
Hakupu	16	15	13	6	2	1	1	–	–	54
Vaiea	4	2	–	1	–	–	–	–	–	7
Avatele	14	14	7	4	2	–	–	–	–	41
Tamakautoga	12	9	17	7	2	–	–	–	–	47
Alofi	24	20	13	2	3	1	–	1	–	64
Lefuka	–	–	2	1	1	–	1	–	–	5
Paluki	9	17	11	4	2	–	–	–	–	43
NIUE	115	125	113	59	21	10	5	1	1	450

Table 41 - Number of Holdings by Location of Holding and Size of Holding (acres)

District	Size of Holding (acres)								
	Less than 0.50	0.50–0.99	1.00–1.99	2.00–2.99	3.00–4.99	5.00–9.99	10.00–19.99	20.00 and over	Total
Makefu	–	1	–	2	4	5	11	7	30
Tuapa	1	1	3	2	5	13	10	10	45
Namukulu	–	–	–	–	–	–	2	1	3
Hikutavake	–	–	–	–	3	13	8	–	24
Toi	–	–	–	–	3	2	4	5	14
Mutalau	–	–	–	1	–	8	8	13	30
Lakepa	–	–	–	–	2	6	4	8	20
Liku	–	1	–	–	6	5	6	5	23
Hakupu	–	1	5	2	7	10	13	16	54
Vaiea	–	–	–	–	–	1	3	3	7
Avatele	–	1	–	–	12	13	8	7	41
Tamakautoga	–	–	6	2	5	17	7	10	47
Alofi	2	2	2	4	14	20	11	9	64
Lefuka	–	–	–	–	–	–	1	4	5
Paluki	–	2	1	2	11	7	9	11	43
NIUE	3	9	17	15	72	120	105	109	450

Table 42 - Area (acres) of Holdings by Location of Holding and Size of Holding (acr

District	Size of Holding (acres)								
	Less than 0.50	0.50–0.99	1.00–1.99	2.00–2.99	3.00–4.99	5.00–9.99	10.00–19.99	20.00 and over	Total
Makefu	–	.5	–	4.5	14.0	26.5	147.5	186.8	379.8
Tuapa	.3	.5	3.3	5.3	20.5	97.3	147.8	433.5	708.3
Namukulu	–	–	–	–	–	–	23.8	30.8	54.5
Hikutavake	–	–	–	–	10.8	89.0	99.4	–	199.1
Toi	–	–	–	–	10.5	12.0	65.0	134.5	222.0
Mutalau	–	–	–	2.0	–	52.8	120.8	440.8	616.3
Lakepa	–	–	–	–	7.0	50.5	48.5	289.0	395.0
Liku	–	.5	–	–	24.0	30.8	89.6	118.5	263.4
Hakupu	–	.8	6.5	5.0	25.5	68.1	192.5	696.5	994.9
Vaiea	–	–	–	–	–	9.0	35.5	344.0	388.5
Avatele	–	.5	–	–	44.5	79.0	99.5	193.5	417.0
Tamakautoga	–	–	8.0	4.5	17.5	120.8	94.3	277.0	522.0
Alofi	.4	1.0	2.0	8.3	49.3	141.1	155.5	304.0	661.5
Lefuka	–	–	–	–	–	–	16.0	253.5	269.5
Paluki	–	1.3	1.3	4.5	41.1	52.0	121.8	506.0	727.9
NIUE	.6	5.0	21.0	34.0	264.6	828.7	1457.3	4208.3	6819.5

Table 43 – Number of Parcels In Use by Location of Parcel and Size of Parcel (acres

District	Size of Parcel (acres)								
	Less than 0.25	0.25– 0.49	0.50– 0.99	1.00– 1.99	2.00– 2.99	3.00– 4.99	5.00– 9.99	10.00 and over	Total
Makefu	–	–	4	3	5	13	16	19	60
Tuapa	–	4	9	21	19	22	30	14	119
Namukulu	–	–	1	1	4	2	4	3	15
Hikutavake	2	1	3	13	12	12	16	3	62
Toi	–	1	–	5	5	17	16	4	48
Mutalau	–	1	2	12	18	26	33	20	112
Lakepa	–	2	1	7	12	25	19	9	75
Liku	–	1	2	11	11	15	18	5	63
Hakupu	1	2	5	14	16	28	27	33	126
Vaiea	–	–	–	–	1	2	6	5	14
Avatele	–	–	2	9	16	27	24	9	87
Tamakautoga	–	1	7	27	18	24	20	15	112
Alofi	1	5	4	18	26	35	30	17	136
Lefuka	–	–	2	–	3	2	8	9	24
Paluki	–	2	6	18	12	26	18	21	103
NIUE	4	20	48	159	178	276	285	186	1156

Table 44 – Area (acres) of Parcels In Use by Location of Parcel and Size of Parcel (acres)

District	Size of Parcel (acres)								
	Less than 0.25	0.25– 0.49	0.50– 0.99	1.00– 1.99	2.00– 2.99	3.00– 4.99	5.00– 9.99	10.00 and over	Tota
Makefu	–	–	2.3	4.0	10.3	46.5	101.3	274.0	438.
Tuapa	–	1.1	5.5	25.3	40.3	78.5	183.5	236.0	570.
Namukulu	–	–	.5	1.0	8.0	8.0	23.3	54.0	94.
Hikutavake	.3	.3	2.0	16.0	24.5	41.0	90.0	31.0	205.
Toi	–	.3	–	5.8	10.0	58.0	98.0	40.0	212.
Mutalau	–	.3	1.0	15.5	37.8	92.0	203.8	399.8	750.
Lakepa	–	.5	.5	7.5	25.5	86.5	112.0	178.0	410.
Liku	–	.3	1.0	11.6	22.5	56.0	100.0	55.0	246.
Hakupu	.1	.5	2.8	17.0	33.0	100.0	155.0	616.3	924.
Vaiea	–	–	–	–	2.0	7.0	35.0	347.5	391.
Avatele	–	–	1.0	10.0	33.5	93.0	154.8	129.0	421.
Tamakautoga	–	.3	3.8	29.5	37.0	80.8	122.3	215.5	489.
Alofi	.1	1.3	2.0	19.3	53.5	125.5	183.5	304.0	689.
Lefuka	–	–	1.3	–	6.5	8.8	45.8	200.0	262.
Paluki	–	.5	3.3	22.4	25.5	89.0	118.0	456.0	714.
NIUE	.5	5.1	26.9	184.8	369.8	970.5	1726.0	3536.0	6819.

Table 45 – Number of Parcels In Use by Location of Parcel and Land Tenure

District	Land Tenure			
	Family Owned	Leased	Other	Total
Makefu	56	–	4	60
Tuapa	110	4	5	119
Namukulu	15	–	–	15
Hikutavake	58	1	3	62
Toi	45	–	3	48
Mutalau	107	–	5	112
Lakepa	67	–	8	75
Liku	61	1	1	63
Hakupu	121	–	5	126
Vaiea	11	1	2	14
Avatele	87	–	–	87
Tamakautoga	108	–	4	112
Alofi	120	1	15	136
Lefuka	24	–	–	24
Paluki	91	–	12	103
NIUE	1081	8	67	1156

Table 46 – Area (acres) of Parcels In Use by Location of Parcel and Land Tenure

District	Land Tenure			
	Family Owned	Leased	Other	Total
Makefu	419.3	–	19.0	438.3
Tuapa	504.8	19.0	46.3	570.1
Namukulu	94.8	–	–	94.8
Hikutavake	189.5	2.0	13.5	205.0
Toi	199.0	–	13.0	212.0
Mutalau	728.5	–	21.5	750.0
Lakepa	395.0	–	15.5	410.5
Liku	241.4	4.0	1.0	246.4
Hakupu	915.3	–	9.4	924.6
Vaiea	99.5	282.0	10.0	391.5
Avatele	421.3	–	–	421.3
Tamakautoga	484.6	–	4.5	489.1
Alofi	649.1	2.0	38.0	689.1
Lefuka	262.3	–	–	262.3
Paluki	546.9	–	167.8	714.6
NIUE	6151.1	309.0	359.4	6819.5

Table 47 – Number of Parcels In Use by Location of Parcel and Number of Years in Continuous Use

District	Number of Years in Continuous Use								
	Less than 5	5–9	10–14	15–19	20–29	30–39	40–49	50 and over	Total
Makefu	28	8	4	3	1	2	4	10	60
Tuapa	44	24	8	12	6	14	4	7	119
Namukulu	8	1	2	–	1	–	3	–	15
Hikutavake	48	10	2	–	–	–	1	1	62
Toi	30	6	2	2	5	–	2	1	48
Mutalau	51	26	11	3	11	5	2	3	112
Lakepa	28	12	9	1	8	2	9	6	75
Liku	32	8	2	2	4	3	4	8	63
Hakupu	55	13	12	3	18	15	3	7	126
Vaiea	9	–	–	1	1	–	1	2	14
Avatele	46	23	11	–	3	1	–	3	87
Tamakautoga	45	16	11	2	23	8	6	1	112
Alofi	55	16	15	5	26	14	4	1	136
Lefuka	9	3	2	–	7	2	–	1	24
Paluki	35	15	16	9	14	5	1	8	103
NIUE	523	181	107	43	128	71	44	59	1156

Table 48 – Area (acres) of Parcels In Use by Location of Parcel and Number of Years in Continuous Use

District	Number of Years in Continuous Use								
	Less than 5	5–9	10–14	15–19	20–29	30–39	40–49	50 and over	To
Makefu	126.3	63.3	57.3	30.0	5.0	24.0	21.0	111.5	43
Tuapa	173.5	174.6	48.8	48.3	22.0	45.5	16.0	41.5	57
Namukulu	28.0	.5	19.0	–	29.0	–	18.3	–	9
Hikutavake	131.0	45.0	14.0	–	–	–	11.0	4.0	20
Toi	130.8	26.0	9.0	9.0	31.0	–	5.0	1.3	21
Mutalau	222.0	226.8	110.8	23.0	76.5	43.0	30.0	18.0	75
Lakepa	89.8	58.0	44.3	3.0	84.0	4.5	47.0	80.0	41
Liku	112.0	29.5	10.5	20.0	16.3	5.0	21.1	32.0	24
Hakupu	400.9	132.5	113.5	18.0	69.5	101.8	16.5	72.0	92
Vaiea	331.5	–	–	9.0	3.0	–	21.0	27.0	39
Avatele	187.5	116.8	78.0	–	14.0	3.0	–	22.0	42
Tamakautoga	112.1	75.8	31.8	4.5	131.0	70.0	59.0	5.0	48
Alofi	277.3	59.3	41.0	21.0	172.0	91.6	23.0	4.0	68
Lefuka	132.5	20.5	15.3	–	80.0	10.0	–	4.0	26
Paluki	146.5	50.8	67.0	66.5	81.8	59.1	5.0	238.0	71
NIUE	2601.5	1079.1	660.0	252.3	815.0	457.5	293.9	660.3	681

Table 49 – Crops Growing in Parcels Other than Scattered Crops –
Number of Separate Plantings by Type of Crop and Size of Actual Planting (acres)

Crop	Plot Size (acres)								
	Less than 0.25	0.25–0.49	0.50–0.99	1.00–1.99	2.00–2.99	3.00–4.99	5.00–9.99	10.00 and over	Total
Avocado	–	–	–	–	–	–	–	–	–
Banana–Cavendish	–	–	1	2	–	–	–	–	3
Banana–Ladyfinger	–	–	–	1	–	–	–	–	1
Banana–Plantain	2	5	4	10	4	–	1	–	26
Banana–Other	–	–	1	–	1	–	–	–	2
Breadfruit	–	2	–	–	–	–	–	–	2
Chestnut	–	–	–	–	–	–	–	–	–
Citrus	–	1	3	–	–	–	–	–	4
Coconut	5	30	38	80	54	24	20	10	261
Guava	–	–	–	–	–	–	–	–	–
Mango	–	–	–	–	–	–	–	–	–
Pandanus	1	1	1	–	–	–	–	–	3
Pawpaw	–	–	1	2	–	–	–	–	3
Spondias	–	–	–	–	–	–	–	–	–
Vanilla	–	–	–	–	–	–	–	–	–
Other Tree Crops	–	1	–	–	–	–	–	–	1
Bean	–	–	–	–	–	–	–	–	–
Cabbage–Head	–	5	1	2	–	–	–	–	8
Cabbage–Island	–	2	–	–	–	–	–	–	2
Cabbage–Chinese	–	1	–	2	–	–	–	–	3
Cassava	4	26	17	10	–	–	–	–	57
Chilli	–	–	–	–	–	–	–	–	–
Kape	–	1	1	1	–	–	–	–	3
Melon	1	4	2	1	–	–	–	–	8
Pineapple	1	1	2	–	–	–	–	–	4
Pulaka	–	–	–	–	–	–	–	–	–
Spring Onion	–	2	–	1	–	–	–	–	3
Sweet Potato	7	15	13	10	2	–	–	–	47
Taro	62	362	464	352	69	14	3	2	1328
Tomato	–	4	2	1	–	–	–	–	7
Yams	3	22	19	13	6	–	–	–	63
Sugar Cane	–	1	–	–	–	–	–	–	1
Other Garden Crops	1	3	4	2	–	–	–	–	10
All Crops	87	489	574	490	136	38	24	12	1850

Table 50 - Crops Growing in Parcels Other than Scattered Crops - Actual Area (acres) of Separate Plantings by Type of Crop and Size of Actual Planting (acres)

Crop	Plot Size (acres)								
	Less than 0.25	0.25-0.49	0.50-0.99	1.00-1.99	2.00-2.99	3.00-4.99	5.00-9.99	10.00 and over	Total
Avocado	-	-	-	-	-	-	-	-	-
Banana-Cavendish	-	-	.8	2.0	-	-	-	-	2.8
Banana-Ladyfinger	-	-	-	1.0	-	-	-	-	1.0
Banana-Plantain	.3	1.3	2.3	11.8	8.0	-	8.5	-	32.0
Banana-Other	-	-	.5	-	2.0	-	-	-	2.5
Breadfruit	-	.5	-	-	-	-	-	-	.5
Chestnut	-	-	-	-	-	-	-	-	-
Citrus	-	.3	1.5	-	-	-	-	-	1.8
Coconut	.6	7.5	19.8	88.0	113.3	83.3	120.6	220.5	653.5
Guava	-	-	-	-	-	-	-	-	-
Mango	-	-	-	-	-	-	-	-	-
Pandanus	.1	.3	.5	-	-	-	-	-	.9
Pawpaw	-	-	.5	2.5	-	-	-	-	3.0
Spondias	-	-	-	-	-	-	-	-	-
Vanilla	-	-	-	-	-	-	-	-	-
Other Tree Crops	-	.3	-	-	-	-	-	-	.3
Bean	-	-	-	-	-	-	-	-	-
Cabbage-Head	-	1.4	.5	2.5	-	-	-	-	4.4
Cabbage-Island	-	.5	-	-	-	-	-	-	.5
Cabbage-Chinese	-	.3	-	3.0	-	-	-	-	3.3
Cassava	.5	6.6	8.8	10.5	-	-	-	-	26.4
Chilli	-	-	-	-	-	-	-	-	-
Kape	-	.3	.7	1.5	-	-	-	-	2.4
Melon	.1	1.0	1.0	1.5	-	-	-	-	3.6
Pineapple	.1	.3	1.0	-	-	-	-	-	1.4
Pulaka	-	-	-	-	-	-	-	-	-
Spring Onion	-	.5	-	1.0	-	-	-	-	1.5
Sweet Potato	1.0	3.9	6.8	12.0	4.5	-	-	-	28.1
Taro	8.0	91.5	252.1	390.3	143.5	45.5	19.0	25.0	974.9
Tomato	-	1.0	1.0	1.5	-	-	-	-	3.5
Yams	.5	5.7	10.3	13.8	12.0	-	-	-	42.2
Sugar Cane	-	.3	-	-	-	-	-	-	.3
Other Garden Crops	.1	.8	2.5	2.5	-	-	-	-	5.9
All Crops	11.4	123.9	310.2	545.3	283.3	128.8	148.1	245.5	1796.4

Table 51 - Crops Growing in Parcels Other than Scattered Crops - Single Crop Equivalent Area (acres) of Separate Plantings by Type of Crop and Size of Planting SCE Area (acres)

Crop	Size of Planting (single crop equivalent acres)								
	Less than 0.25	0.25-0.49	0.50-0.99	1.00-1.99	2.00-2.99	3.00-4.99	5.00-9.99	10.00 and over	Total
Avocado	-	-	-	-	-	-	-	-	-
Banana-Cavendish	-	.9	-	-	-	-	-	-	.9
Banana-Ladyfinger	-	.3	-	-	-	-	-	-	.3
Banana-Plantain	.6	3.1	4.3	-	4.0	-	8.5	-	20.4
Banana-Other	-	-	1.0	-	-	-	-	-	1.0
Breadfruit	-	.5	-	-	-	-	-	-	.5
Chestnut	-	-	-	-	-	-	-	-	-
Citrus	.1	.6	.5	-	-	-	-	-	1.3
Coconut	1.0	8.6	23.1	82.0	104.5	76.0	120.6	220.5	636.4
Guava	-	-	-	-	-	-	-	-	-
Mango	-	-	-	-	-	-	-	-	-
Pandanus	.1	.3	.5	-	-	-	-	-	.9
Pawpaw	-	.6	.5	-	-	-	-	-	1.1
Spondias	-	-	-	-	-	-	-	-	-
Vanilla	-	-	-	-	-	-	-	-	-
Other Tree Crops	.2	-	-	-	-	-	-	-	.2
Bean	-	-	-	-	-	-	-	-	-
Cabbage-Head	.5	.3	.8	1.0	-	-	-	-	2.5
Cabbage-Island	.1	-	-	-	-	-	-	-	.1
Cabbage-Chinese	.1	.8	-						.8
Cassava	3.7	3.4	2.5	2.0	-	-	-	-	11.6
Chilli	-	-	-	-	-	-	-	-	-
Kape	.3	.4	-	-	-	-	-	-	.7
Melon	.3	1.4	-	-	-	-	-	-	1.7
Pineapple	.2	.3	.5	-	-	-	-	-	1.0
Pulaka	-	-	-	-	-	-	-	-	-
Spring Onion	.1	.3	-	-	-	-	-	-	.4
Sweet Potato	1.8	4.6	4.9	2.5	-	-	-	-	13.8
Taro	22.0	98.8	222.4	343.3	120.5	45.5	11.0	25.0	888.5
Tomato	.6	.4	.5	-	-	-	-	-	1.4
Yams	3.0	6.7	4.2	2.0	-	-	-	-	15.9
Sugar Cane	-	.3	-	-	-	-	-	-	.3
Other Garden Crops	.9	.6	-	1.0	-	-	-	-	2.6
All Crops	35.7	132.8	265.6	433.8	229.0	121.5	140.1	245.5	1604.1

Table 52 - Crops Growing in Parcels Other than Scattered Crops– Single Crop Equivalent Area (acres) of Separate Plantings by Type of Crop and Proportion of Crop Mix

Crop	Proportion of Crop Mix				
	1/4	1/2	3/4	All	Total
Avocado	–	–	–	–	–
Banana–Cavendish	.5	.4	–	–	.9
Banana–Ladyfinger	.3	–	–	–	.3
Banana–Plantain	3.3	1.9	–	15.3	20.4
Banana–Other	.5	–	–	.5	1.0
Breadfruit	–	–	–	.5	.5
Chestnut	–	–	–	–	–
Citrus	.1	–	.4	.8	1.3
Coconut	3.0	7.3	2.6	623.5	636.4
Guava	–	–	–	–	–
Mango	–	–	–	–	–
Pandanus	–	–	–	.9	.9
Pawpaw	.4	.8	–	–	1.1
Spondias	–	–	–	–	–
Vanilla	–	–	–	–	–
Other Tree Crops	–	–	.2	–	.2
Bean	–	–	–	–	–
Cabbage–Head	.3	.9	–	1.3	2.5
Cabbage–Island	.1	–	–	–	.1
Cabbage–Chinese	.8	–	–	–	.8
Cassava	3.9	2.9	.4	4.4	11.6
Chilli	–	–	–	–	–
Kape	.5	.1	–	–	.7
Melon	.6	.3	–	.9	1.7
Pineapple	.1	–	–	.9	1.0
Pulaka	–	–	–	–	–
Spring Onion	.4	–	–	–	.4
Sweet Potato	3.6	3.4	–	6.8	13.8
Taro	11.4	33.1	57.2	786.8	888.5
Tomato	.6	.4	–	.5	1.4
Yams	7.8	2.8	.4	5.0	15.9
Sugar Cane	–	–	–	.3	.3
Other Garden Crops	1.1	.1	–	1.4	2.6
All Crops	39.2	54.2	61.1	1449.5	1604.1

Table 53 – Crops Growing in Parcels Other than Scattered Crops – Single Crop Equivalent Area (acres) of Separate Plantings by Type of Crop and Proportion for Sale

Crop	Proportion for Sale/Sold					
	None	1/4	1/2	3/4	All	Total
Avocado	–	–	–	–	–	–
Banana–Cavendish	.9	–	–	–	–	.9
Banana–Ladyfinger	.3	–	–	–	–	.3
Banana–Plantain	10.6	–	.8	9.0	–	20.4
Banana–Other	1.0	–	–	–	–	1.0
Breadfruit	.5	–	–	–	–	.5
Chestnut	–	–	–	–	–	–
Citrus	1.3	–	–	–	–	1.3
Coconut	626.3	7.5	–	–	2.6	636.4
Guava	–	–	–	–	–	–
Mango	–	–	–	–	–	–
Pandanus	.9	–	–	–	–	.9
Pawpaw	1.1	–	–	–	–	1.1
Spondias	–	–	–	–	–	–
Vanilla	–	–	–	–	–	–
Other Tree Crops	.2	–	–	–	–	.2
Bean	–	–	–	–	–	–
Cabbage–Head	1.1	.1	.1	–	1.1	2.5
Cabbage–Island	.1	–	–	–	–	.1
Cabbage–Chinese	–	–	–	–	.8	.8
Cassava	11.4	–	–	.2	–	11.6
Chilli	–	–	–	–	–	–
Kape	.7	–	–	–	–	.7
Melon	.9	–	.3	.5	–	1.7
Pineapple	.9	–	–	–	.1	1.0
Pulaka	–	–	–	–	–	–
Spring Onion	.3	–	–	–	.1	.4
Sweet Potato	8.6	–	.6	1.8	2.8	13.8
Taro	773.7	34.1	41.1	27.1	12.6	888.5
Tomato	.6	–	.3	–	.6	1.4
Yams	13.9	–	.3	1.4	.3	15.9
Sugar Cane	.3	–	–	–	–	.3
Other Garden Crops	1.3	–	1.0	–	.3	2.6
All Crops	1456.8	41.7	44.4	40.0	21.3	1604.1

Table 54 – Scattered Crops Growing in Parcels – Number of Plantings by Type of Crop and Size of Planting

Crop	Size of Planting (number of plants) 1–9	10–49	50–99	100–499	500 and over	Total
Avocado	6	0	0	0	0	6
Banana–Cavendish	61	25	3	0	0	89
Banana–Ladyfinger	40	12	0	0	0	52
Banana–Plantain	256	281	20	3	0	560
Banana–Other	58	20	0	0	0	78
Breadfruit	6	5	0	0	0	11
Chestnut	9	0	0	0	0	9
Citrus	6	5	0	0	0	11
Coconut	127	147	22	18	1	315
Guava	3	4	0	0	0	7
Mango	67	6	0	0	0	73
Pandanus	7	18	3	0	0	28
Pawpaw	52	74	4	3	0	133
Spondias	6	1	0	0	0	7
Vanilla	1	0	0	0	0	1
Other Tree Crops	17	6	0	1	0	24
Bean	4	9	0	0	0	13
Cabbage–Head	24	60	4	5	0	93
Cabbage–Island	24	41	2	0	0	67
Cabbage–Chinese	7	32	3	3	0	45
Cassava	54	389	106	39	2	590
Chilli	3	4	1	0	0	8
Kape	18	33	5	1	0	57
Melon	22	74	8	4	0	108
Pineapple	14	16	4	4	0	38
Pulaka	20	12	3	0	1	36
Spring Onion	35	233	72	21	0	361
Sweet Potato	29	149	48	15	1	242
Taro	0	6	8	6	2	22
Tomato	46	83	16	6	0	151
Yams	26	239	97	39	3	404
Sugar Cane	104	41	0	0	0	145
Other Garden Crops	78	195	73	34	0	380
All Crops	1230	2220	502	202	10	4164

Table 55 - Scattered Crops Growing in Parcels -
Number of Trees/Plants by Type of Crop and Size of Planting -
Single Crop Equivalent Area (acres) by Type of Crop

Crop	Size of Planting (number of plants)						Estimated SCE-Area (acres)
	1-9	10-49	50-99	100-499	500 and over	Total	
Avocado	22	-	-	-	-	22	.5
Banana-Cavendish	247	368	167	-	-	782	2.6
Banana-Ladyfinger	181	186	-	-	-	367	1.2
Banana-Plantain	1284	4807	1180	350	-	7621	25.2
Banana-Other	231	256	-	-	-	487	1.6
Breadfruit	25	97	-	-	-	122	2.5
Chestnut	27	-	-	-	-	27	.6
Citrus	17	104	-	-	-	121	.6
Coconut	602	2640	1175	2350	500	7267	113.5
Guava	13	60	-	-	-	73	.5
Mango	175	100	-	-	-	275	5.7
Pandanus	33	353	150	-	-	536	.4
Pawpaw	228	1339	205	300	-	2072	2.5
Spondias	15	12	-	-	-	27	.6
Vanilla	1	-	-	-	-	1	-
Other Tree Crops	42	70	-	150	-	262	2.6
Bean	14	149	-	-	-	163	-
Cabbage-Head	113	1087	258	720	-	2178	.2
Cabbage-Island	116	677	130	-	-	923	.2
Cabbage-Chinese	39	602	170	556	-	1367	.1
Cassava	292	8499	5979	4450	1500	20720	4.3
Chilli	10	85	50	-	-	145	.2
Kape	100	552	260	100	-	1012	1.2
Melon	108	1312	400	600	-	2420	2.2
Pineapple	65	256	205	800	-	1326	.1
Pulaka	85	182	150	-	600	1017	.2
Spring Onion	203	4924	4070	2165	-	11362	.4
Sweet Potato	149	3109	2648	1905	1000	8811	1.8
Taro	-	155	410	1100	1000	2665	.6
Tomato	220	1603	875	800	-	3498	.3
Yams	161	5110	5636	5660	1500	18067	3.7
Sugar Cane	433	573	-	-	-	1006	1.2
Other Garden Crops	353	4233	4238	4896	-	13720	1.4
All Crops	5604	43500	28356	26902	6100	110462	179.0

Table 56 - Scattered Crops Growing Outside Parcels - Number of Plantings by Type of Crop and Size of Planting

Crop	Size of Planting (number of plants)				
	1–9	10–49	50–99	100 and over	Total
Avocado	123	1	–	–	124
Banana–Cavendish	162	85	5	1	253
Banana–Ladyfinger	145	54	3	–	202
Banana–Plantain	163	78	6	4	251
Banana–Other	136	42	3	–	181
Breadfruit	454	106	1	–	561
Chestnut	115	2	–	–	117
Citrus	202	19	–	1	222
Coconut	62	194	45	51	352
Guava	106	17	3	1	127
Mango	285	28	–	–	313
Pandanus	30	97	23	17	167
Pawpaw	167	100	7	2	276
Spondias	315	12	–	–	327
Vanilla	3	–	–	1	4
Other Tree Crops	346	8	1	–	355
Bean	4	1	–	–	5
Cabbage–Head	4	10	3	–	17
Cabbage–Island	41	24	2	–	67
Cabbage–Chinese	–	4	4	–	8
Cassava	10	18	4	–	32
Chilli	47	4	1	–	52
Kape	26	12	–	–	38
Melon	5	1	–	–	6
Pineapple	3	4	1	3	11
Pulaka	20	10	–	1	31
Spring Onion	3	10	–	1	14
Sweet Potato	4	7	–	–	11
Taro	1	12	3	2	18
Tomato	7	15	1	–	23
Yams	1	4	2	–	7
Sugar Cane	18	2	–	–	20
Other Garden Crops	15	16	2	–	33
All Crops	3023	997	120	85	4225

Table 57 - Scattered Crops Growing Outside Parcels -
Number of Trees/Plants by Type of Crop and Size of Planting -
Single Crop Equivalent Area (acres) by Type of Crop

Crop	Size of Planting (number of plants) 1-9	10-49	50-99	100 and over	Total	Estimated SCE-Area (acres)
Avocado	228	12	0	0	240	5.0
Banana-Cavendish	703	1305	300	100	2408	8.0
Banana-Ladyfinger	558	932	150	0	1640	5.4
Banana-Plantain	612	1247	335	665	2859	9.5
Banana-Other	502	683	160	0	1345	4.5
Breadfruit	1734	1586	64	0	3384	70.5
Chestnut	239	26	0	0	265	5.5
Citrus	497	384	0	110	991	5.1
Coconut	319	4002	2637	8022	14980	234.1
Guava	295	250	150	100	795	5.9
Mango	764	394	0	0	1158	24.1
Pandanus	134	2169	1320	2025	5648	4.7
Pawpaw	759	1700	350	300	3109	3.7
Spondias	887	166	0	0	1053	21.9
Vanilla	11	0	0	100	111	.3
Other Tree Crops	672	113	50	0	835	8.4
Bean	7	40	0	0	47	-
Cabbage-Head	15	174	166	0	355	-
Cabbage-Island	173	374	100	0	647	.1
Cabbage-Chinese	0	58	205	0	263	-
Cassava	48	365	219	0	632	.1
Chilli	136	75	50	0	261	.3
Kape	110	182	0	0	292	.4
Melon	22	10	0	0	32	-
Pineapple	10	70	50	800	930	.1
Pulaka	88	155	0	200	443	.1
Spring Onion	17	171	0	100	288	-
Sweet Potato	20	113	0	0	133	-
Taro	2	223	160	200	585	.1
Tomato	23	297	52	0	372	-
Yams	2	117	110	0	229	-
Sugar Cane	57	36	0	0	93	.1
Other Garden Crops	42	272	110	0	424	-
All Crops	9686	17701	6738	12722	46847	418.2

Table 58 - Crops Planted in Parcels in the 12 Months Preceeding the Census and Already Harvested - By Type of Crop - Number of Plantings Reported in Numbers of Plants, Square Yards and Acres Single Crop Equivalent Area (acres)

Crop	Number of Records			Quantity/Area Harvested			Estimated Total SCE-Area (acres)
	Number Reported in Plants	Number Reported in Square Yards	Number Reported in Acres	Number of Plants Reported	Area Reported (sq. yds.)	Area Reported (acres)	
Avocado	-	-	-	-	-	-	-
Banana-Cavendish	-	-	-	-	-	-	-
Banana-Ladyfinger	-	-	-	-	-	-	-
Banana-Plantain	-	-	-	-	-	-	-
Banana-Other	-	-	-	-	-	-	-
Breadfruit	-	-	-	-	-	-	-
Chestnut	-	-	-	-	-	-	-
Citrus	-	-	-	-	-	-	-
Coconut	-	-	-	-	-	-	-
Guava	-	-	-	-	-	-	-
Mango	-	-	-	-	-	-	-
Pandanus	-	-	-	-	-	-	-
Pawpaw	-	-	-	-	-	-	-
Spondias	-	-	-	-	-	-	-
Vanilla	-	-	-	-	-	-	-
Other Tree Crops	-	-	-	-	-	-	-
Bean	5	-	1	199	-	.3	.3
Cabbage-Head	67	-	-	2550	-	-	.3
Cabbage-Island	30	-	-	498	-	-	.1
Cabbage-Chinese	33	-	1	1448	-	.3	.4
Cassava	222	1	2	7581	5	.4	1.9
Chilli	2	-	-	3	-	-	-
Kape	4	-	-	29	-	-	-
Melon	48	-	-	1278	-	-	1.2
Pineapple	7	-	-	154	-	-	-
Pulaka	7	-	-	44	-	-	-
Spring Onion	241	-	1	6089	-	.3	.5
Sweet Potato	117	4	10	5566	160	2.4	3.6
Taro	419	1	202	286986	600	93.3	152.7
Tomato	105	-	1	3772	-	.3	.6
Yams	196	-	-	8666	-	-	1.8
Sugar Cane	38	-	-	470	-	-	.6
Other Garden Crops	247	3	8	21447	35	1.9	4.0
All Crops	1788	9	226	346780	800	98.9	167.9

Table 59 - Crops Grown by Minor Agricultural Households - Number of Records, Number of Trees/Plants and Single Crop Equivalent Area (acres) by Type of Crop and Whether Currently Growing or Already Harvested

Crop	Currently Growing			Already Harvested		
	Number of Records	Number of Plants	Estimated SCE-Area (acres)	Number of Records	Number of Plants	Estimated SCE-Area (acres)
Avocado	4	7	.1	–	–	–
Banana-Cavendish	13	100	.3	–	–	–
Banana-Ladyfinger	12	87	.3	–	–	–
Banana-Plantain	7	57	.2	–	–	–
Banana-Other	4	21	.1	–	–	–
Breadfruit	20	126	2.6	–	–	–
Chestnut	1	1	–	–	–	–
Citrus	8	34	.2	–	–	–
Coconut	32	410	6.4	–	–	–
Guava	5	16	.1	–	–	–
Mango	9	27	.6	–	–	–
Pandanus	3	36	–	–	–	–
Pawpaw	21	151	.2	–	–	–
Spondias	12	34	.7	–	–	–
Vanilla	–	–	–	–	–	–
Other Tree Crops	12	41	.4	–	–	–
Bean	–	–	–	1	20	–
Cabbage-Head	6	121	–	7	89	–
Cabbage-Island	4	69	–	1	10	–
Cabbage-Chinese	3	37	–	2	13	–
Cassava	5	139	–	1	6	–
Chilli	1	4	–	1	5	–
Kape	2	6	–	–	–	–
Melon	2	6	–	–	–	–
Pineapple	2	7	–	–	–	–
Pulaka	1	13	–	–	–	–
Spring Onion	5	138	–	4	31	–
Sweet Potato	–	–	–	–	–	–
Taro	6	126	–	–	–	–
Tomato	8	81	–	8	86	–
Yams	1	7	–	1	8	–
Sugar Cane	2	4	–	–	–	–
Other Garden Crops	12	113	–	8	176	–
All Crops	223	2019	12.4	34	449	–

Table 60 – Land Waiting to be Planted and Fallow Land in Parcels In Use – Number of Plots and Area (acres) of Plots by Location of Land

District	Land Waiting to be Planted		Fallow Land	
	Number of Plots	Area (acres)	Number of Plots	Area (acres)
Makefu	15	11.9	60	376.0
Tuapa	45	36.9	113	427.0
Namukulu	2	1.6	12	73.5
Hikutavake	21	15.3	51	157.5
Toi	19	13.5	56	152.5
Mutalau	46	37.5	119	534.6
Lakepa	6	6.5	45	149.4
Liku	2	3.5	42	140.4
Hakupu	19	18.1	109	730.1
Vaiea	7	1.9	13	317.4
Avatele	8	5.3	86	336.5
Tamakautoga	13	5.4	105	372.0
Alofi	24	11.3	110	502.6
Lefuka	9	6.0	24	222.6
Paluki	14	8.4	86	540.5
NIUE	250	182.9	1031	5032.5

Table 61 - Summary of Crop Data -
Single Crop Equivalent Area (acres) by Type of Crop and Method of Planting

Crop	Method of Planting								TOTAL
	CIP-OTS	SC-IP	SC-OP	MH-CCG	Total	MH-CH	CIP-P&H	Total	
Avocado	–	.5	5.0	.1	5.6	–	–	–	5.6
Banana-Cavendish	.9	2.6	8.0	.3	11.8	–	–	–	11.8
Banana-Ladyfinger	.3	1.2	5.4	.3	7.2	–	–	–	7.2
Banana-Plantain	20.4	25.2	9.5	.2	55.3	–	–	–	55.3
Banana-Other	1.0	1.6	4.5	.1	7.1	–	–	–	7.1
Breadfruit	.5	2.5	70.5	2.6	76.2	–	–	–	76.2
Chestnut	–	.6	5.5	–	6.1	–	–	–	6.1
Citrus	1.3	.6	5.1	.2	7.2	–	–	–	7.2
Coconut	636.4	113.5	234.1	6.4	990.4	–	–	–	990.4
Guava	–	.5	5.9	.1	6.6	–	–	–	6.6
Mango	–	5.7	24.1	.6	30.4	–	–	–	30.4
Pandanus	.9	.4	4.7	–	6.0	–	–	–	6.0
Pawpaw	1.1	2.5	3.7	.2	7.5	–	–	–	7.5
Spondias	–	.6	21.9	.7	23.2	–	–	–	23.2
Vanilla	–	–	.3	–	.3	–	–	–	.3
Other Tree Crops	.2	2.6	8.4	.4	11.6	–	–	–	11.6
Bean	–	–	–	–	–	–	.3	.3	.3
Cabbage-Head	2.5	.2	–	–	2.7	–	.3	.3	3.0
Cabbage-Island	.1	.2	.1	–	.5	–	.1	.1	.6
Cabbage-Chinese	.8	.1	–	–	1.0	–	.4	.4	1.4
Cassava	11.6	4.3	.1	–	16.0	–	1.9	1.9	18.0
Chilli	–	.2	.3	–	.5	–	–	–	.5
Kape	.7	1.2	.4	–	2.2	–	–	–	2.3
Melon	1.7	2.2	–	–	3.9	–	1.2	1.2	5.1
Pineapple	1.0	.1	.1	–	1.2	–	–	–	1.2
Pulaka	–	.2	.1	–	.3	–	–	–	.3
Spring Onion	.4	.4	–	–	.8	–	.5	.5	1.3
Sweet Potato	13.8	1.8	–	–	15.7	–	3.6	3.6	19.3
Taro	888.5	.6	.1	–	889.2	–	152.7	152.7	1041.9
Tomato	1.4	.3	–	–	1.8	–	.6	.6	2.5
Yams	15.9	3.7	–	–	19.7	–	1.8	1.8	21.5
Sugar Cane	.3	1.2	.1	–	1.6	–	.6	.6	2.1
Other Garden Crops	2.6	1.4	–	–	4.0	–	4.0	4.0	8.0
All Crops	1604.1	179.0	418.2	12.4	2213.6	–	167.9	167.9	2381.6

CIP-OTS	Crops In Parcels Other Than Scattered Crops
SC-IP	Scattered Crops in Parcels
SC-OP	Scattered Crops Outside Parcels
MH-CCG	Minor Households - Crops Currently Growing
MH-CH	Minor Households - Crops Already Harvested
CIP-P&H	Crops in Parcels Planted and Already Harvested

Table 62 - Summary of Crop Data -
Estimated Numbers of Plants/Trees by Type of Crop and Method of Planting

Crop	Method of Planting								
	CIP-OTS	SC-IP	SC-OP	MH-CCG	Total	MH-CH	CIP-P&H	Total	TOTA
Avocado	–	22	240	7	269	–	–	–	26
Banana-Cavendish	264	782	2408	100	3554	–	–	–	355
Banana-Ladyfinger	76	367	1640	87	2170	–	–	–	217
Banana-Plantain	6156	7621	2859	57	16693	–	–	–	1669
Banana-Other	302	487	1345	21	2155	–	–	–	215
Breadfruit	24	122	3384	126	3656	–	–	–	365
Chestnut	–	27	265	1	293	–	–	–	29
Citrus	241	121	991	34	1387	–	–	–	138
Coconut	40729	7267	14980	410	63386	–	–	–	6338
Guava	–	73	795	16	884	–	–	–	88
Mango	–	275	1158	27	1460	–	–	–	146
Pandanus	1065	536	5648	36	7285	–	–	–	728
Pawpaw	937	2072	3109	151	6269	–	–	–	626
Spondias	–	27	1053	34	1114	–	–	–	111
Vanilla	–	1	111	–	112	–	–	–	11
Other Tree Crops	19	262	835	41	1157	–	–	–	115
Bean	–	163	47	–	210	20	6949	6969	717
Cabbage-Head	25009	2178	355	121	27663	89	2550	2639	3030
Cabbage-Island	605	923	647	69	2244	10	498	508	275
Cabbage-Chinese	8227	1367	263	37	9894	18	3979	3997	13891
Cassava	56096	20720	632	139	77587	6	9377	9383	86969
Chilli	–	145	261	4	410	5	3	8	418
Kape	556	1012	292	6	1866	–	29	29	189
Melon	1853	2420	32	6	4311	–	1278	1278	5589
Pineapple	10746	1326	930	7	13009	–	154	154	13163
Pulaka	–	1017	443	13	1473	–	44	44	1517
Spring Onion	10125	11362	288	138	21913	31	12839	12870	34783
Sweet Potato	66998	8811	133	–	75942	–	17342	17342	93284
Taro	4300328	2665	585	126	4303704	–	739061	739061	5042765
Tomato	14555	3498	372	81	18506	86	6303	6389	24895
Yams	77125	18067	229	7	95428	8	8666	8674	104102
Sugar Cane	208	1006	93	4	1311	–	470	470	1781
Other Garden Crops	25996	13720	424	113	40253	176	40251	40427	80680
All Crops	4648239	110462	46847	2019	4807567	449	849794	850243	5657810

CIP-OTS Crops In Parcels Other Than Scattered Crops
SC-IP Scattered Crops in Parcels
SC-OP Scattered Crops Outside Parcels
MH-CCG Minor Households - Crops Currently Growing
MH-CH Minor Households - Crops Already Harvested
CIP-P&H Crops in Parcels Planted and Already Harvested

CONFIDENTIAL

NIUE MINI-CENSUS 1989

POPULATION QUESTIONNAIRE

Village: _____ E.A. No. _____ Household No. _____ Page _____

Head of Household: _____

Enumerator: _____ Date of Interview: ...../...../89

NO.	FULL NAME	SEX m/f	DATE OF BIRTH dd/mm/yy	DESCENT	COUNTRY OF RESIDENCE	COUNTRY OF RESIDENCE ONE YEAR AGO	MAIN ACTIVITY LAST WEEK
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

HOUSEHOLD MEMBERS: MALE _____ FEMALE _____ TOTAL _____

CODES

DESCENT 1 - NIUEAN 2 - NON-NIUEAN

COUNTRY OF RESIDENCE

1 - Niue
2 - New Zealand
3 - Western Samoa
4 - Tonga
5 - Other Pacific Islands
6 - Other Countries

MAIN ACTIVITY LAST WEEK

1 - Employed by Government
2 - Employed by Private Sector
3 - Working mainly to produce for own use/ Household Consumption
4 - Working mainly to produce for sale
5 - Unemployed
6 - Domestic Duties
7 - Full Time Education
8 - Other (Pensioner, Disabledetc.)

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NIUE MINI-CENSUS 1989

FORM 'A' - HOUSEHOLD QUESTIONNAIRE

Village: _____ E.A. No. | | Household No. | | | Page |

Head of Household: _____

Enumerator: _____ Date of Interview: ...../...../89

Q1. HOUSEHOLD MEMBERS: MALE [ ] FEMALE [ ] TOTAL [ ]

Q2. LEVEL OF AGRICULTURAL ACTIVITY OF THE HOUSEHOLD

(a) Do you, or any memoar of this household, have any plantation crops, coconut, bananas or other tree crops?

========== [ ] YES NO [ ] 1 ===⇒ GO TO Q5

⇓
⇓

(b) Do you have more than 1/8 acre (25yds x 25yds) of land under plantation crops OR more than 20 coconut OR 20 other tree crops?

========== [ ] YES NO [ ] 2 ====⇒ GO TO Q4

⇓
⇓

(c) Do you sell any vegetables, fruits, coconuts or other agricultural produce?

========== [ ] YES NO [ ] 3 ====⇒ GO TO Q3

⇓
⇓

(d) What to you regard as the MAIN PURPOSE of your agricultural production?

[ ] 5 SALE HOME CONSUMPTION [ ] 4 ====⇒ GO TO Q3

Q3. List the different AGRICULTURAL HOLDINGS that the household is engaged in: (sole operation, family or other group operation each combination forms a different holding) - Check for parcels adjacent to the house, fallow land and parcel with abandoned or semi-abandoned crops

HOLDING NUMBER	NAME(S) OF OPERATOR(S)*	NUMBER OF SEPARATE PARCELS			
		IN USE		FALLOW	TOTAL
1					
2					
3					
4					

* Heads of households in the case of individual household operations or names of individual members if partnership or group operation - CIRCLE the respondent to be used for eachholding IF more than one operator.

NOW SKIP Q4 ----------→→→ ---------- →→→ ---------- →→→ GO TO Q5

Q4 List the CROPS currently growing and/or planted AND harvested during the last 12 months by type. Estimate the number of trees/plants grown.

LINE NO.	c/h	CROP	CROP CODE	NO. OF PLANTS	LINE NO.	c/h	CROP	CROP CODE	NO. OF PLANTS
1					7				
2					8				
3					9				
4					10				
5					11				
6					12				

Q5 Does the household actively raise any :

A : LIVESTOCK? **YES** [ ] 1 NO [ ] 2

IF YES:

Number	Number
PIGS	CHICKENS

Other Livestock: TYPE NUMBER

(Cattle, goats

other poultry, etc) _____ _____

B : DOMESTIC ANIMALS: YES [ ] 1 NO [ ] 2

IF YES:

Number	Number
CATS	DOGS

Q6 **CONSUMPTION OF COCONUTS:**

	Weekly Average
Number of nuts used for HUMAN CONSUMPTION	
Number of nuts used for FEEDING ANIMALS	

Q7 How many COCONUT CRABS has the household caught in the LAST MONTH? [ ]

Q8 Number of FISHING VESSELS and MOTORS owned or part-owned by the Household: (which are in working order and currently in use)

Canoes ☐ Dinghies ☐ Outboard Motors ☐

Q9 Have any members of this household been fishing in the LAST MONTH?

YES ☐ 1 NO ☐ 2

If YES:

(a) Number of fishing trips in LAST MONTH by TYPE of trip:

Canoe ☐ Dinghy ☐ Shore ☐ Diving ☐ Government Alia ☐

(b) How often do you usually sell fish? (tick ONE)

More than once a week ☐
Once a week ☐
At least once a month ☐
Less than once a month ☐
Never ☐

FOR HOUSEHOLD CATEGORIES 1 AND 2 (SEE Q2), THE QUESTIONNAIRE IS NOW FINISHED

Q10 Details of the OPERATOR:

SEX (m/f)	STATUS (0/1)	AGE	AVERAGE HOURS/ WEEK ON HOLDING	PAID JOB (CIRCLE CODE) Full time	Part time	None	OCCUPAT
				1	2	3	

Q11 Use of Fetilizers, Pesticides, Herbicides and Fungicides in the LAST 12 MONTHS (circle code)

	USED	
	Yes	No
Fertilizers		
Pesticides		
Herbicides		
Fungicides		

Q12 What is your main method of clearing new land for planting?

Slash/burn ☐ 1 Bulldozer ☐ 2 Other ☐ 3

IF OTHER, please specify: _____

Q13 How many times have you exported THIS YEAR:

Commercially - Air ☐ Sea ☐

To family/friends - Air ☐ Sea ☐

For your LAST EXPORT this year by AIR and by SEA, give the following details :

AIR:

Date of LAST EXPORT ...../...../89

Commercial ☐ Family/Friends ☐

CROP	WEIGHT (kilos)

SEA:

Date of LAST EXPORT : ...../...../89

Commercial ☐ Family/Friends ☐

CROP	WEIGHT (kilos)

Q14 Proportion of household's TOTAL INCOME (cash and kind) usually derived from agricultural/fishing activities (circle ONE code).

	NONE	1/4	1/2	3/4	ALL
CODE:	0	1	2	3	4

Q15 Have you at any time during the last 12 months given away crops or livestock to family, friends or community function. Yes 1 ☐ No 2 ☐

IF YES:

Pigs	Live Chickens	Taros	Fish
Number	Number	Number	Number

OTHER CROPS:

specify	Type (Code)	Number

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NIUE MINI-CENSUS 1989

FORM 'B' - HOLDING QUESTIONNAIRE

Page

Village: _____ E.A. No. Household No. Holding No.

Head of Household: _____

Enumerator: _____ Date of Interview: ...../...../89

H1. Name of Operator(s): _____

H2. Location of Holding: District _____ Code:

H3. Number of Households operating this holding?

H4. Number of Parcels IN USE Complete ONE line for EACH PARCEL IN USE:

PARCEL NUMBER	YEARS USED	LAND TENURE	AREA (ACRES)	LOCATION	
				SUB-DISTRICT	CODE
1					
2					
3					
4					
5					
6					
7					
8					

Land Tenure Codes: 1 - Family Owned 2 - Leased 3 - Other

H5. SCATTERED PLANTS/TREES around the house, on fallow parcels, on parcel boundaries but NOT INSIDE PARCELS CURRENTLY IN USE

NO.	CROP	CODE	NUMBER	NO.	CROP	CODE	NUMBER
1				8			
2				9			
3				10			
4				11			
5				12			
6				13			
7				14			

H6. Give all details of ALL PERSONS 10 YEARS AND OVER, working on the holding in the LAST MONTH:

Line No.	Sex (m/f)	Status (0/1)	Age	0 - Unpaid 1 - Paid	Hours/ Wages month	Other benefits (list)
1						
2						
3						
4						

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NIUE MINI-CENSUS 1989

FORM 'C' - PARCEL QUESTIONNAIRE

Page

Village: _____ E.A. No. Household No. Holding No.

Head of Household: _____

Enumerator: _____

Area of Parcel: Acres Location of Parcel (Sub-District) :

P1. Number of SEPARATE PLOTS in this parcel (including fallow plots):

P2. PLOT DETAILS (draw line across after each plot):

LINE NO.	PLOT NO.	PLOT AREA	CROP	CODE	MIX CODE OR 'S'	IF 'S' PLANTS	PROPORTION FOR SALE

* Tree Crops ONLY; S - Scattered

P3. OTHER CROPS Planted AND Harvested on this Parcel in the last 12 MONTHS:

LINE NO.	CROP	CODE	QUANTITY (ONE ONLY)			PROPORTION SOLD (CODE)
			ACRES	SQ YDS	NO. OF PLANTS	

Annex B - CONCEPTS AND DEFINITIONS

1. Holding

An agricultural holding is an economic unit of agricultural production under single management comprising all livestock kept and all land used wholly or partly for agricultural production purposes, without regard to title, legal form, or size. Single management may be exercised by an individual or household, jointly by two or more individuals or households, by a clan or tribe or by a juridical person such as a corporation, cooperative or government agency. The holding's land may consist of one or more parcels, located in one or more separate areas or in one or more enumeration areas, providing the parcels share the same production means utilized by the holding, such as labour, farm buildings or machinery.

2. Parcel

A parcel is any piece of land entirely surrounded by other land, water, road, forest, etc., not forming part of this holding. A parcel may consist of one or more plots adjacent to each other.

3. Plot

A plot is a part or whole of a parcel on which a specific crop or crop mixture is cultivated. A plot can also be fallow land or land waiting to be planted.

4. Household

The concept of a household is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living. A household may be either:

a) a one person household, that is, a person who makes provision for his or her own food or other essentials for living without combining with any other person to form part of a multi-person household, or

b) a multi-person household, that is, a group of two or more persons living together who make common provision for food or other essentials for living. They may be related or unrelated persons or a combination of both. They may live in one house or in more than one house.

The foregoing paragraphs should give you sufficient guidance to enable you to distinguish dwellings and households. The following will serve as examples of special cases you may encounter:

a) Old people or house-girls who sleep in the house or in an Assembly Unit or any type of out-building separated from the main house but share the cooking facilities and eat together belong to the 'household'.

b) A visitor, boarder or lodger who sleeps in the house or in any type of out-building, shed, humpy, fale pola, old people's unit on the kaina of the Head of the Household or any member of his or her family, belong to the 'household'.

c) If a house or flat is shared by two or more family groups, each of which makes their own arrangements for cooking and eating, such groups should be regarded as constituting separate households. On the other hand, if 'everyone' in two or more family groups share the kitchen and the house and eat altogether, they are to be regarded as members of one household.

d) House-girls working in the household who sleep away from their place of work DO NOT belong to their employer's household.

5. Operator

An operator of an agricultural holding is the person who exercises management control over the operation of the agricultural holding. Where the holding is being operated by a single household the head of the household is in most cases the operator. A holding can have more than one operator especially in cases where the holding is being operated as a partnership or some other form of joint operation.

6. Livestock

The categories of livestock stated should include all such animals, regardless of age. For example, in the first category pigs, state all the animals (sows, boars, weaners, fatteners) kept by the household.

7. Tree Crops

These are trees bearing edible fruits or nuts. The trees themselves should usually have an economic life of more than five years. Examples include mango, banana, avocado, coconut, citrus, custard apple, chestnut, spondias, breadfruit.

8. Land Tenure

a) Family Owned
b) Leased
c) Other

9. Level of Agricultural Activity

a) Non-Agricultural:- The household does not engage in any crop production (such households may own or look after land NOT IN USE and also own or look after livestock);

b) Minor Agricultural Activity:- The household has only very few crops defined as less than 625 sq. yds (25 yds x25 yds) of land under garden crops AND less than 20 coconut trees AND less than 20 banana plants AND less than 20 trees bearing other tree crops;

c) Subsistence Only:- The household produces crops but does not sell any significant amount;

d) Subsistence/Cash:- The household's main purpose of agricultural production is to feed itself (subsistence) but some crops or surplus crops are sold;

e) Commercial:- Households in this category differ from those in category 4 by the fact that their main purpose of production is to sell their produce either locally or for export.

Annex C - CROP LIST

Tree Crops

Code	Crops
1.	Avocado
2.	Banana - Cavendish
3.	Banana - Lady Finger
4.	Banana - Plantain
5.	Banana - Other Varieties
6.	Breadfruit - Fua Ialahi
7.	Breadfruit - Hamoa
8.	Breadfruit - Mei Mafala
9.	Breadfruit - Other Varieties
10.	Chestnut
11.	Citrus - Grapefruit
12.	Citrus - Mexican Limes
13.	Citrus - Niue Seedless Limes
14.	Citrus - Sweet Orange
15.	Citrus - Moli Pekepeke Tuai-Niue
16.	Citrus - Other Varieties
17.	Coconut
18.	Custard Apple
19.	Granadilla
20.	Guava
21.	Mangoes - Local
22.	Mangoes - Mango Samoa
23.	Mangoes - Other Varieties
24.	Mountain Apple
25.	Passionfruit
26.	Pawpaw
27.	Soursop
28.	Spondias
29.	Star Apple
31.	Sweetsop
32.	Vanilla
32.	Pandanus
39.	Other Tree Crops

Vegetable and Garden Crops

Code	Crops
51.	Bean - Dwarf
52.	Bean - Wing
53.	Buttercup squash
54.	Cabbage Head
55.	Cabbage Island
56.	Capsicum
57.	Cassava
58.	Chinese Cabbage - Chi Hi Li
S9.	Chinese Cabbage - Kwan Moon
60.	Chinese Cabbage - Saladeer
61.	Chilli
62.	Cauliflower
63.	Cucumber
64.	Eggplant
65.	Field Maize
66.	Kape
67.	Lettuce
68.	Melon - Rock
69.	Melon - Water
70.	Peanuts
71.	Pineapple
72.	Pulaka
73.	Pumpkin
74.	Radish
75.	Silverbeet
76.	Spring Onions
77.	Sweet Corn
78.	Sweet Potato
79.	Taro
80.	Tomato
81.	Yams
82.	Zucchini
83.	Sugar Cane
89.	Other vegetable/garden crops

Other Codes Used

96. Land Waiting to be Planted
97. Fallow Land

Annex D - Crop Density Factors

Crop	Number of Plants/Trees Per Acre
Avocado	48
Banana-Cavendish	302
Banana-Ladyfinger	302
Banana-Plantain	302
Banana-Other	302
Breadfruit	48
Chestnut	48
Citrus	193
Coconut	64
Guava	134
Mango	48
Pandanus	1210
Pawpaw	833
Spondias	48
Vanilla	405
Other Tree Crops	100
Bean	27000
Cabbage-Head	10125
Cabbage-Island	4840
Cabbage-Chinese	10125
Cassava	4840
Chilli	833
Kape	833
Melon	1095
Pineapple	10800
Pulaka	4840
Spring Onion	27000
Sweet Potato	4840
Taro	4840
Tomato	10125
Yams	4840
Sugar Cane	833
Other Garden Crops	10125

Annex E - List of Agricultural Census Officials

Agricultural Census Steering Committee

Census Officer	- Bradley Punu (Admin)
Census Co-ordinator	- Bill Vakaafi (Admin)
Committee Members	- Frank Sioneholo (Admin)
	- Billy Talagi (Admin)
	- Moka Viliamu (Admin)
	- Sisilia Talagi (DAFF)
	- Meleoi Tafatu (DAFF)
	- Molesi Tamate (DAFF)

Agricultural Census Supervisors

Bill Vakaafi
Frank Sioneholo
Billy Talagi

Agricultural Census Enumerators

Ane Strickland	Cherrie Tafatu
Meleoi Tafatu	Moka Viliamu
David Poihega	Molesi Tamate
Susannah Sionetuato	Gloria Talagi
Faleafa Atutolu	Leo Pita
Matagi Vilitama	George Sioneholo
Celina Enetama	Wennie Salatielu
Tom Misikea	Colin Etuata
Hubert Kalauni	Hatesa Hetutu
Seminar Siakimotu	Jacqueline Mougavalu
Desmond Hekau	Moka Magatogia
Dimitry Viliamu	Ngatu Tukutama
Crispina Fakanaiki	

Coding and Editing

Bill Vakaafi (OIC)	Moira Enetama
Frank Sioneholo	Alesi Talagi
Melia Sipeni	Fiona Jackson

Data Processing

Frank Sioneholo (OIC)	Fiona Jackson
Anntoinette Douglas	Ngatu Tukutama

Photography

Matagi Vilitama
Pokotoa Sipeli

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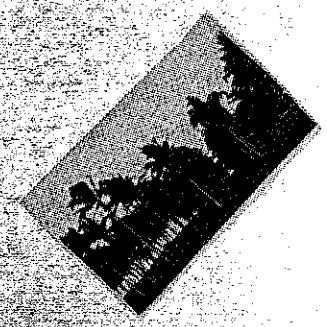
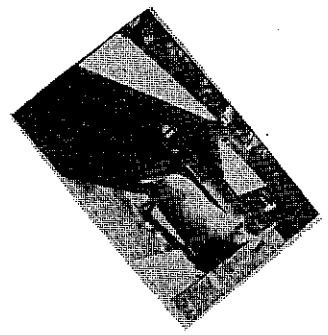
Government of Niue

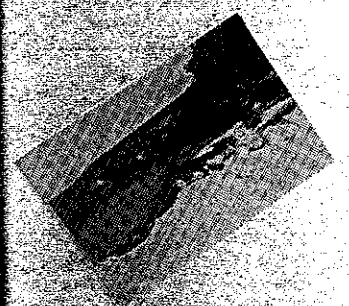
NIUE

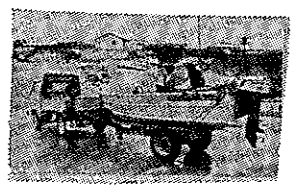
AGRICULTURAL CENSUS

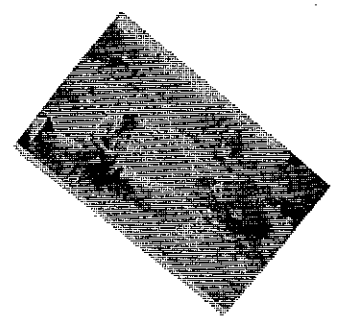
1989

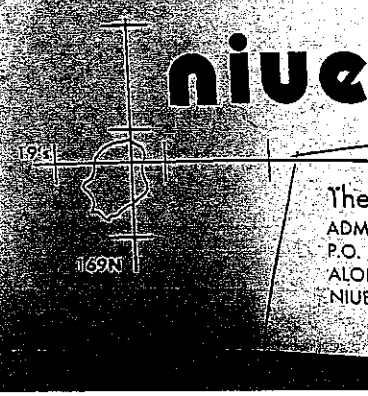












The Statistics Unit
ADMINISTRATION DEPARTMENT
P.O. BOX 67
ALOFI
NIUE, SOUTH PACIFIC

DAFF

DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES

CHAPTER 2 - METHODOLOGY

2.1 Introduction

This was the first Agricultural Census to be conducted in Niue. As well as collecting information on agriculture, the Census also included a population count to provide the Government with up-to-date information on the size of the population in Niue.

Although this was the first Agricultural Census to be conducted in Niue, the country has a long history of Population Census activities and has gained considerable experience in enumeration and data processing through these activities. Therefore, apart from some technical assistance, provided through the sub-regional UNDP/FAO project RAS/86/035 - Development of Agricultural Statistics, it was possible to carry out the Agricultural Census without external assistance.

2.2 Census Administration

The Agricultural Census was conducted by the Statistics/Immigration Unit (SIU) of the Administrative Department with support from the Department of Agriculture, Forestry and Fisheries (DAFF). The Statistics/Immigration Officer assumed responsibility for the day-to-day activities and he and his supporting staff were actively involved in all stages of the Census including the supervision of the field-work and the checking, editing and coding of the completed schedules as well as the data processing.

The Agricultural Census was taken under the authority of the Niue Assembly Census Ordinance 1971, No.68 and the Amendment Act 1976.

2.3 The Questionnaire

The questionnaires were designed by the FAO Adviser (RAS/86/035) in consultation with the SIU and DAFF. The design followed closely that used for the Cook Islands Census of Agriculture (September 1988) with some minor improvements and modifications to take into account differences in agricultural emphasis in the two countries.

The fact that the questionnaires had, for the most part, been thoroughly tested in the Cook Islands, meant that only a small pre-testing schedule was necessary and no formal pilot census was conducted.

Altogether, four different questionnaire designs were used, the Population Questionnaire, the Household Questionnaire, the Holding Questionnaire and the Parcel Questionnaire (see annex A).

For population purposes, information was collected for all persons resident in Niue on the night of 1/2 October 1989 with respect to sex, date of birth, descent, country of residence, country of residence one year ago and main activity last week.

For the Agricultural Census, the following information was required from all households:

[a] Location of the household
[b] Level of Agricultural Activity of the household
[c] Number of separate Holdings operated by the household and number of parcels in each holding identified as 'in use', 'solely under coconuts' and 'fallow'.
[d] Crops grown by Minor Households (number of trees/plants)
[e] Numbers of Livestock raised by the household (pigs, chickens, other livestock)
[f] Numbers of Domestic Animals kept by the household (dogs and cats)
[g] Average weekly Consumption of Coconuts by the household for human and animal consumption
[h] Number of Coconut Crabs caught by the household in the month preceding the Census
[i] Number of Fishing Vessels and Outboard Motors owned or part-owned by the household
[j] Number of Fishing Trips by members of the household in the month preceding the Census by type of trip (canoe, dingy, shore, diving and Government Alia)
[k] Frequency of Fish Sales

Additionally, for Households identified as Agriculturally Active:

[l] Details of the Operator (sex, household membership status, age, average weekly hours worked on the holding, paid job status and occupation)

[m] Use of fertilizers, pesticides, herbicides and fungicides
[n] Main method of clearing new land
[o] Export of Crops (frequency, commercial/family, crop types, quantities, air/sea)
[p] Proportion of household income from agricultural/fishing activities
[q] Disposal of crops, livestock or fish as gifts

Additionally, on a holding basis:

[r] Location of holding
[s] Number of households operating the holding
[t] Details of Parcels In Use (years in continuous use, land tenure, area, location)
[u] Scattered Plants/Trees on the holding (crop type and numbers)
[v] Details of workers (sex, household membership status, age, paid/unpaid, hours/wages per month, other benefits)

Additionally, on a parcel basis (parcels in use only):

[w] Location of parcel
[x] Plot details (area, crops, crop mix, proportion for sale)
[y] Details on harvested crops (area, proportion sold)

See Annex 'B' for a more detailed description of the concepts and definitions used in the Census.

The questionnaire was designed in such a way that households with little or no agricultural involvement completed an abbreviated schedule.

An Enumerators' Manual was also prepared as a reference document.

2.4 Publicity

Various different media were used to inform the public of the timing and purpose of the Census. Advantage was taken of the television service provided by Niue Broadcasting Corporation and a short (30 second) commercial was made. News items were also carried on both the television station and the radio station as well as in the weekly newspaper.

2.5 Preliminary Fieldwork

Frame

The last Population Census was conducted in September 1986. At this time good maps were prepared for each enumeration area. These were updated by the staff of the SIU in the months preceding the Agricultural Census. One point of interest emerged concerning the location of the holdings and parcels. The enumeration areas, as defined for population census purposes, did not cover the area in the centre of the island which is uninhabited. In order to include this land area, two new districts were defined (14-Lefuka and 15-Paluki) with 9 enumeration areas between them.

2.6 Recruitment and Training

The census enumerators were all government employees recruited mainly from the Administrative Department and DAFF. Most had worked on previous census projects and so the concept of a census exercise was not new to them. When selecting enumerators, consideration was given to the need for a good geographic distribution to ensure that enumerators could work in their home villages, wherever possible, and so minimize the need for transport (see list of agricultural census staff at Annex E).

Training was conducted over a period of six days, but in the afternoons only, to enable those involved to cover their normal duties in the mornings. The FAO Adviser (RAS/86/035) assisted the staff of the SIU with the training programme.

As well as these formal training sessions, which concentrated on the concepts and definitions employed in the Census, the enumerators also completed sample copies of the questionnaires in the evenings. This not only gave them some necessary practical experience in completing the questionnaires but also served to highlight those aspects of the questionnaires that were not fully understood by all the enumerators.

2.7 The Enumeration

The country was divided into 30 Enumeration Areas (EAs) for enumeration purposes and these in turn were grouped into three supervision areas.

The final updating of the household lists was carried out by the enumerators on the Tuesday evening (26 September 1989) during which time a pre-census count was made of the population.

The population questionnaires were completed in respect of all households and institutions during the weekend of 30 September/ 1 October 1989. 'Census Night' was set as the 1/2 October 1989 and a final check was made by the enumerators on the morning of Monday 2 October to finalize the schedules. All population questionnaires were handed into the SIU the same day and a provisional population count was available on Tuesday 3 October 1989.

The enumeration in respect to agricultural activities followed immediately and was scheduled to be completed by 16 October 1989. This period of time (2 weeks) was thought necessary as the enumerators could only work for 2/3 hours a day (after work) and the questionnaires took about one hour to complete in respect of each household. No major problems were experienced with the enumeration and all households were covered during the allotted time.

Overall the standard of enumeration was very high, the enumerators taking a lot of trouble to get accurate and complete information.

The task of the enumerators was undoubtedly facilitated by the fact that with only some 500 household in Niue, most individuals knew each other (certainly in their own villages) and also knew a lot about each others activities.

2.8 Checking, Editing and Coding

As each enumeration area was completed, the schedules were first checked by the supervisors for missing information and obvious inconsistencies. Omissions and errors found at this stage were the responsibility of the enumerators to correct.

The next stage was to go through the schedules in the office to check in more detail for omissions and logical inconsistencies. Due to the very high standard of the enumeration, few such errors were found. However, where they were found, it was the responsibility of the supervisors to take the necessary corrective action.

Once the questionnaires had been thoroughly checked and edited they were then coded in preparation for data processing. In the case of codes entered by the enumerators, these were carefully checked.

2.9 Data Processing

The data was entered in batches (EAs) onto two micro-computers, one belonging to the SIU and the other belonging to External Affairs. The user-friendly software package U-SP was again used for the data processing after its successful introduction for processing the 1986 Population Census.

The actual data entry was completed in a matter of a few weeks. This was followed by some machine editing in Niue before the data set was 'backed off' and taken to Apia in March 1990 for final cleaning and the preparation of the tables. The FAO Adviser (RAS/86/035) supervised and assisted with these final stages of the data processing. The first complete set of draft tables was available in Niue at the end of March 1990, some six months after the enumeration.

2.10 The Post-Enumeration Survey

As with all major field-work exercises it is important to conduct an independent assessment of the quality of the information gathered. In the case of the Agricultural Census, the most important component to be evaluated was the estimates of land area.

Whilst the Census was conducted on an interview basis it was felt desirable that the post-enumeration survey should use objective measurement techniques (compass and tape measure) to measure the physical area of selected parcels of land. Because of the time involved in conducting such a survey it was decided to enumerate only two parcels in each village, a total of 26 parcels or 2.2 percent of all parcels classified as 'in use'. Both the total area of the parcel and the area of the individual plots were measured.

The results of the survey revealed some large differences between the areas recorded in the Census interview and the physical area as measured. It also revealed a number of cases where the two estimates were remarkably close. Where large differences were observed, there appeared to be no particular pattern to these differences with roughly as many areas being over-estimated as under-estimated. Generally, areas of fallow land were least well estimated and the bias if any was to under-estimate the size of these parcels in the interview.

On the basis of the results of this small post-enumeration survey it can be concluded that whilst individual area estimates may differ considerable from the actual physical area, within the country as a whole, and to a lesser extent individual districts, these differences can be expected to balance each other out with little overall effect on the results. The exception is in the case of fallow land where there is some evidence to conclude that the area is probably under-estimated.

2.10 The Budget

The Agricultural Census was conducted on a very tight budget of NZ$12,000 of which NZ$6,000 was funded by the Government of Niue and NZ$6,000 was funded by the Forum Fisheries Agency (FFA). To arrive at the true cost of the exercise consideration must also be given to the salaries/wages of the staff of the SIU who were engaged on this project over a period of many months.

The FAO/UNDP sub-regional project RAS/86/035 - Development of Agricultural Statistics, provided technical advisory services throughout the project and also assisted with the preparation and printing of this report.

The main components of the budget were:

Payments to enumerators -	NZ$ 7,500
Printing of schedules -	NZ$ 1,000
Training -	NZ$ 1,000
Transport -	NZ$ 1,000
Miscellaneous -	NZ$ 1,500

Annex B - CONCEPTS AND DEFINITIONS

1. Holding

An agricultural holding is an economic unit of agricultural production under single management comprising all livestock kept and all land used wholly or partly for agricultural production purposes, without regard to title, legal form, or size. Single management may be exercised by an individual or household, jointly by two or more individuals or households, by a clan or tribe or by a juridical person such as a corporation, cooperative or government agency. The holding's land may consist of one or more parcels, located in one or more separate areas or in one or more enumeration areas, providing the parcels share the same production means utilized by the holding, such as labour, farm buildings or machinery.

2. Parcel

A parcel is any piece of land entirely surrounded by other land, water, road, forest, etc., not forming part of this holding. A parcel may consist of one or more plots adjacent to each other.

3. Plot

A plot is a part or whole of a parcel on which a specific crop or crop mixture is cultivated. A plot can also be fallow land or land waiting to be planted.

4. Household

The concept of a household is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living. A household may be either:

a) a one person household, that is, a person who makes provision for his or her own food or other essentials for living without combining with any other person to form part of a multi-person household, or

b) a multi-person household, that is, a group of two or more persons living together who make common provision for food or other essentials for living. They may be related or unrelated persons or a combination of both. They may live in one house or in more than one house.

The foregoing paragraphs should give you sufficient guidance to enable you to distinguish dwellings and households. The following will serve as examples of special cases you may encounter:

a) Old people or house-girls who sleep in the house or in an Assembly Unit or any type of out-building separated from the main house but share the cooking facilities and eat together belong to the 'household'.

b) A visitor, boarder or lodger who sleeps in the house or in any type of out-building, shed, humpy, fale pola, old people's unit on the kaina of the Head of the Household or any member of his or her family, belong to the 'household'.

c) If a house or flat is shared by two or more family groups, each of which makes their own arrangements for cooking and eating, such groups should be regarded as constituting separate households. On the other hand, if 'everyone' in two or more family groups share the kitchen and the house and eat altogether, they are to be regarded as members of one household.

d) House-girls working in the household who sleep away from their place of work DO NOT belong to their employer's household.

5. Operator

An operator of an agricultural holding is the person who exercises management control over the operation of the agricultural holding. Where the holding is being operated by a single household the head of the household is in most cases the operator. A holding can have more than one operator especially in cases where the holding is being operated as a partnership or some other form of joint operation.

6. Livestock

The categories of livestock stated should include all such animals, regardless of age. For example, in the first category pigs, state all the animals (sows, boars, weaners, fatteners) kept by the household.

7. Tree Crops

These are trees bearing edible fruits or nuts. The trees themselves should usually have an economic life of more than five years. Examples include mango, banana, avocado, coconut, citrus, custard apple, chestnut, spondias, breadfruit.

8. Land Tenure

a) Family Owned
b) Leased
c) Other

9. Level of Agricultural Activity

a) Non-Agricultural:- The household does not engage in any crop production (such households may own or look after land NOT IN USE and also own or look after livestock);

b) Minor Agricultural Activity:- The household has only very few crops defined as less than 625 sq. yds (25 yds x25 yds) of land under garden crops AND less than 20 coconut trees AND less than 20 banana plants AND less than 20 trees bearing other tree crops;

c) Subsistence Only:- The household produces crops but does not sell any significant amount;

d) Subsistence/Cash:- The household's main purpose of agricultural production is to feed itself (subsistence) but some crops or surplus crops are sold;

e) Commercial:- Households in this category differ from those in category 4 by the fact that their main purpose of production is to sell their produce either locally or for export.

Annex C - CROP LIST

Tree Crops

Code	Crops	Code	Crops
1.	Avocado	17.	Coconut
2.	Banana - Cavendish	18.	Custard Apple
3.	Banana - Lady Finger	19.	Granadilla
4.	Banana - Plantain	20.	Guava
5.	Banana - Other Varieties	21.	Mangoes - Local
6.	Breadfruit - Fua Ialahi	22.	Mangoes - Mango Samoa
7.	Breadfruit - Hamoa	23.	Mangoes - Other Varieties
8.	Breadfruit - Mei Mafala	24.	Mountain Apple
9.	Breadfruit - Other Varieties	25.	Passionfruit
10.	Chestnut	26.	Pawpaw
11.	Citrus - Grapefruit	27.	Soursop
12.	Citrus - Mexican Limes	28.	Spondias
13.	Citrus - Niue Seedless Limes	29.	Star Apple
14.	Citrus - Sweet Orange	31.	Sweetsop
15.	Citrus - Moli, Pekepeke Tuai-Niue	32.	Vanilla
16.	Citrus - Other Varieties	32.	Pandanus
		39.	Other Tree Crops

Vegetable and Garden Crops

Code	Crops	Code	Crops
51.	Bean - Dwarf	68.	Melon - Rock
52.	Bean - Wing	69.	Melon - Water
53.	Buttercup squash	70.	Peanuts
54.	Cabbage Head	71.	Pineapple
55.	Cabbage Island	72.	Pulaka
56.	Capsicum	73.	Pumpkin
57.	Cassava	74.	Radish
58.	Chinese Cabbage - Chi Hi Li	75.	Silverbeet
S9.	Chinese Cabbage - Kwan Moon	76.	Spring Onions
60.	Chinese Cabbage - Saladeer	77.	Sweet Corn
61.	Chilli	78.	Sweet Potato
62.	Cauliflower	79.	Taro
63.	Cucumber	80.	Tomato
64.	Eggplant	81.	Yams
65.	Field Maize	82.	Zucchini
66.	Kape	83.	Sugar Cane
67.	Lettuce		
		89.	Other vegetable/garden crops

Other Codes Used

96. Land Waiting to be Planted
97. Fallow Land

Annex D - Crop Density Factors

Crop	Number of Plants/Trees Per Acre
Avocado	48
Banana-Cavendish	302
Banana-Ladyfinger	302
Banana-Plantain	302
Banana-Other	302
Breadfruit	48
Chestnut	48
Citrus	193
Coconut	64
Guava	134
Mango	48
Pandanus	1210
Pawpaw	833
Spondias	48
Vanilla	405
Other Tree Crops	100
Bean	27000
Cabbage-Head	10125
Cabbage-Island	4840
Cabbage-Chinese	10125
Cassava	4840
Chilli	833
Kape	833
Melon	1095
Pineapple	10800
Pulaka	4840
Spring Onion	27000
Sweet Potato	4840
Taro	4840
Tomato	10125
Yams	4840
Sugar Cane	833
Other Garden Crops	10125

Annex E - List of Agricultural Census Officials

Agricultural Census Steering Committee

Census Officer	- Bradley Punu (Admin)
Census Co-ordinator	- Bill Vakaafi (Admin)
Committee Members	- Frank Sioneholo (Admin)
	- Billy Talagi (Admin)
	- Moka Viliamu (Admin)
	- Sisilia Talagi (DAFF)
	- Meleoi Tafatu (DAFF)
	- Molesi Tamate (DAFF)

Agricultural Census Supervisors

Bill Vakaafi
Frank Sioneholo
Billy Talagi

Agricultural Census Enumerators

Ane Strickland	Cherrie Tafatu
Meleoi Tafatu	Moka Viliamu
David Poihega	Molesi Tamate
Susannah Sionetuato	Gloria Talagi
Faleafa Atutolu	Leo Pita
Matagi Vilitama	George Sioneholo
Celina Enetama	Wennie Salatielu
Tom Misikea	Colin Etuata
Hubert Kalauni	Hatesa Hetutu
Seminar Siakimotu	Jacqueline Mougavalu
Desmond Hekau	Moka Magatogia
Dimitry Viliamu	Ngatu Tukutama
Crispina Fakanaiki	

Coding and Editing

Bill Vakaafi (OIC)	Moira Enetama
Frank Sioneholo	Alesi Talagi
Melia Sipeni	Fiona Jackson

Data Processing

Frank Sioneholo (OIC)	Fiona Jackson
Anntoinette Douglas	Ngatu Tukutama

Photography

Matagi Vilitama
Pokotoa Sipeli

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POPULATION QUESTIONNAIRE

Village: _____ E.A. No. _____ Household No. _____ Page _____

Head of Household: _____

Enumerator: _____ Date of Interview: ...../...../89

NO.	FULL NAME	SEX m/f	DATE OF BIRTH dd/mm/yy	DESCENT	COUNTRY OF RESIDENCE	COUNTRY OF RESIDENCE ONE YEAR AGO	MAIN ACTIVITY LAST WEEK
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

HOUSEHOLD MEMBERS: MALE _____ FEMALE _____ TOTAL _____

CODES

DESCENT 1 - NIUEAN 2 - NON-NIUEAN

COUNTRY OF RESIDENCE
1 - Niue
2 - New Zealand
3 - Western Samoa
4 - Tonga
5 - Other Pacific Islands
6 - Other Countries

MAIN ACTIVITY LAST WEEK
1 - Employed by Government
2 - Employed by Private Sector
3 - Working mainly to produce for own use/ Household Consumption
4 - Working mainly to produce for sale
5 - Unemployed
6 - Domestic Duties
7 - Full Time Education
8 - Other (Pensioner, Disabledetc.)

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FORM 'A' - HOUSEHOLD QUESTIONNAIRE

Village: _____ E.A. No. | Household No. | Page

Head of Household: _____

Enumerator: _____ Date of Interview: ...../...../89

Q1. HOUSEHOLD MEMBERS: MALE [ ] FEMALE [ ] TOTAL [ ]

Q2. LEVEL OF AGRICULTURAL ACTIVITY OF THE HOUSEHOLD

(a) Do you, or any memoar of this household, have any plantation crops, coconut, bananas or other tree crops?

========== [ ] YES NO [1] ====⇒ GO TO Q5

⇓
⇓

(b) Do you have more than 1/8 acre (25yds x 25yds) of land under plantation crops OR more than 20 coconut OR 20 other tree crops?

========== [ ] YES NO [2] =====⇒ GO TO Q4

⇓
⇓

(c) Do you sell any vegetables, fruits, coconuts or other agricultural produce?

========== [ ] YES NO [3] ====⇒ GO TO Q3

⇓
⇓

(d) What to you regard as the MAIN PURPOSE of your agricultural production?

[5] SALE HOME CONSUMPTION [4] ====⇒ GO TO Q3

Q3. List the different AGRICULTURAL HOLDINGS that the household is engaged in: (sole operation, family or other group operation each combination forms a different holding) - Check for parcels adjacent to the house, fallow land and parcels with abandoned or semi-abandoned crops

HOLDING NUMBER	NAME(S) OF OPERATOR(S)*	NUMBER OF SEPARATE PARCELS			
		IN USE		FALLOW	TOTAL
1					
2					
3.					
4					

* Heads of households in the case of individual household operations or names of individual members if partnership or group operation - CIRCLE the respondent to be used for eachholding IF more than one operator.

NOW SKIP Q4 ----------->>> ---------- >>> ---------- >>> GO TO Q5

Q4 List the CROPS currently growing and/or planted AND harvested during the last 12 months by type. Estimate the number of trees/plants grown.

LINE NO.	c/h	CROP	CROP CODE	NO. OF PLANTS	LINE NO.	c/h	CROP	CROP CODE	NO. OF PLANTS
1					7				
2					8				
3					9				
4					10				
5					11				
6					12				

Q5 Does the household actively raise any :

A : LIVESTOCK? YES [1] NO [2]

IF YES: PIGS [Number] CHICKENS [Number]

Other Livestock: TYPE _____ NUMBER _____

(Cattle, goats other poultry, etc) _____ _____

B : DOMESTIC ANIMALS: YES [1] NO [2]

IF YES: CATS [Number] DOGS [Number]

Q6 CONSUMPTION OF COCONUTS:

	Weekly Average
Number of nuts used for HUMAN CONSUMPTION	
Number of nuts used for FEEDING ANIMALS	

Q7 How many COCONUT CRABS has the household caught in the LAST MONTH? [ ]

Q8 Number of FISHING VESSELS and MOTORS owned or part-owned by the Household:
(which are in working order and currently in use)

Canoes ☐ Dinghies ☐ Outboard Motors ☐

Q9 Have any members of this household been fishing in the LAST MONTH?

YES ☐ 1 NO ☐ 2

If YES:

(a) Number of fishing trips in LAST MONTH by TYPE of trip:

Canoe ☐ Dinghy ☐ Shore ☐ Diving ☐ Government Alia ☐

(b) How often do you usually sell fish? (tick ONE)

More than once a week ☐ Less than once a month ☐
Once a week ☐ Never ☐
At least once a month ☐

FOR HOUSEHOLD CATEGORIES 1 AND 2 (SEE Q2), THE QUESTIONNAIRE IS NOW FINISHED

Q10 Details of the OPERATOR:

SEX (m/f)	STATUS (0/1)	AGE	AVERAGE HOURS/ WEEK ON HOLDING	PAID JOB (CIRCLE CODE) Full time	Part time	None	OCCUPATIO
				1	2	3	

Q11 Use of Fetilizers, Pesticides, Herbicides and Fungicides in the LAST 12 MONTHS (circle code)

	USED	
	Yes	No
Fertilizers		
Pesticides		
Herbicides		
Fungicides		

Q12 What is your main method of clearing new land for planting?

Slash/burn ☐ 1 Bulldozer ☐ 2 Other ☐ 3

IF OTHER, please specify: _____

Q13 How many times have you exported THIS YEAR:

Commercially - Air ☐ To family/friends - Air ☐
Sea ☐ Sea ☐

For your LAST EXPORT this year by AIR and by SEA, give the following details :

AIR:

Date of LAST EXPORT ...../...../89
Commercial ☐ Family/Friends ☐

CROP	WEIGHT (kilos)

SEA:

Date of LAST EXPORT : ...../...../89
Commercial ☐ Family/Friends ☐

CROP	WEIGHT (kilos)

Q14 Proportion of household's TOTAL INCOME (cash and kind) usually derived from agricultural/fishing activities (circle ONE code).

	NONE	1/4	1/2	3/4	ALL
CODE:	0	1	2	3	4

Q15 Have you at any time during the last 12 months given away crops or livestock to family, friends or community function. Yes ☐ 1 No ☐ 2

IF YES:

Pigs	Live Chickens	Taros	Fish
Number	Number	Number	Number

OTHER CROPS:

specify	Type (Code)	Number

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FORM 'B' - HOLDING QUESTIONNAIRE

Page

Village: _____ E.A. No. _____ Household No. _____ Holding No. _____

Head of Household: _____

Enumerator: _____ Date of Interview: ...../...../89

H1. Name of Operator(s): _____

H2. Location of Holding: District _____ Code: _____

H3. Number of Households operating this holding? _____

H4. Number of Parcels IN USE _____ Complete ONE line for EACH PARCEL IN USE:

PARCEL NUMBER	YEARS USED	LAND TENURE	AREA (ACRES)	LOCATION	
				SUB-DISTRICT	CODE
1					
2					
3					
4					
5					
6					
7					
8					

Land Tenure Codes: 1 - Family Owned 2 - Leased 3 - Other

H5. SCATTERED PLANTS/TREES around the house, on fallow parcels, on parcel boundaries but NOT INSIDE PARCELS CURRENTLY IN USE

NO.	CROP	CODE	NUMBER	NO.	CROP	CODE	NUMBER
1				8			
2				9			
3				10			
4				11			
5				12			
6				13			
7				14			

H6. Give all details of ALL PERSONS 10 YEARS AND OVER, working on the holding in the LAST MONTH:

Line No.	Sex (m/f)	Status (0/1)	Age	0 - Unpaid 1 - Paid	Hours/ Wages month	Other benefits (list)
1						
2						
3						
4						

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FORM 'C' - PARCEL QUESTIONNAIRE

Page

Village: _____ E.A. No. _____ Household No. _____ Holding No. _____

Head of Household: _____

Enumerator: _____

Area of Parcel: _____ Acres Location of Parcel (Sub-District) : _____

P1. Number of SEPARATE PLOTS in this parcel (including fallow plots): _____

P2. PLOT DETAILS (draw line across after each plot):

LINE NO.	PLOT NO.	PLOT AREA	CROP	CODE	MIX CODE OR 'S'	IF 'S' PLANTS	PROPORTION FOR SALE

* Tree Crops ONLY; S - Scattered

P3. OTHER CROPS Planted AND Harvested on this Parcel in the last 12 MONTHS:

LINE NO.	CROP	CODE	QUANTITY (ONE ONLY)			PROPORTION SOLD (CODE)
			ACRES	SQ YDS	NO. OF PLANTS	