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# **CHAPTER 1**

## **GENERAL INFORMATION ABOUT AGRICULTURE CENSUS**

### **1.1. Importance of Agriculture Census**

Agriculture is the predominant activity in the Kingdom of Tonga's economy, contributing more than 17% to the Gross Domestic Product (GDP) in 2012 - 2013. The first ever Agriculture Census of the Kingdom was conducted in 1985. The second Census was conducted in 2001, focusing on land tenure, land utilization, area and production of principal crops, livestock, agricultural implements and equipment, use of fertilizers, etc. including the various agricultural activities in which most of the households were engaged in. Although agriculture is the main factor in the economy of the Kingdom of Tonga, the database in this sector seems to be inadequate. There were quite several surveys conducted for this sector, however, an updated frame (list of holdings/parcels and its characteristics) is needed so these surveys will obtain more reliable estimates.

There were important developments in agriculture within the fourteen-year period from the last census that should be captured like the use of forest trees within the farming system to enhance productivity and information on fisheries, which is becoming a very important sector of the Kingdom's economy.

Considering the above issues, there is a great need to update the statistics on agriculture in order to determine its present situation and to use it for economic planning and policy-making.

### **1.2. Objectives of the AC 2015**

In support of the strategic plans and programmes of the Kingdom of Tonga on agriculture, the Government has decided to conduct the Agriculture Census (AC). This census is envisioned to:

- a) Provide benchmark or basic data on structure of agricultural holdings and their main characteristics;
- b) Use this information to develop a regular system of agricultural statistics;
- c) Build up some important village level statistics;
- d) Establish a technical and organizational foundation on which to build up a comprehensive and integrated system of food and agricultural statistics; and
- e) Provide a frame from which samples can be drawn to study certain aspects of agricultural activities in greater depth.
- f) Provide information on community (village) statistics.

### **1.3. Authority for Undertaking the AC 2015**

The AC 2015 is conducted jointly by the Ministry of Agriculture and Food, Forests and Fisheries and the Statistic Department. Authority for the census rest with

the Government Statistician who has the legal power to collect such information under the Statistics Act 1978.

#### **1.4. Confidentiality of Information Collected**

The Act provides for total confidentiality of the information collected in the census. The information can only be used for the purpose of compiling statistics and no individual information can be disclosed to anyone outside the census organization.

#### **1.5. Coverage and Scope of the AC 2015**

The 2015 census covers all households and agricultural holdings as well as all villages in Tonga. Items to be covered include the following:

At the Household and Organizational level

- a) Engagement of subsectors of agriculture.
- b) Household membership demographic and economic information.
- c) Land use under bush allotment and town allotment, area by tenure and location.
- d) Area under perennial crops, annual crops, animal yard, pasture, fallow and other land use.
- e) Number of trees in town allotment and home garden.
- f) Food crops cultivation, including crop still growing, crops harvested.
- g) Agricultural practices.
- h) Engagement in farming community.
- i) Livestock including number of heads, livestock disposal and veterinary services.
- j) Fishery including type of fishing, main purpose of fishing, species harvested and habitat type of fishing.
- k) Forestry including intended use of trees and shrubs.
- l) Handicraft including proportion of raw material used from household and estimate of product value of katoanga.
- m) Agricultural labour and machinery

At the Community (Village) level:

- a) Village officer's information
- b) Main economic activity
- c) Outbreaks in the village
- d) Farmers cooperative
- e) Development priorities

#### **1.6. Census Methodology**

Trainers/Supervisors are identified and selected from the staff of the Ministry of Agriculture and Food, Forests and Fisheries and Statistics Department. On the other hand, 90 enumerators will be recruited in February 2015, with minimum qualifications at the National Tonga School Certificate, to cover the household interviewing operations. These 90 enumerators will be supervised by 18 supervisors, making a team

of 18, consists of 5 enumerators per supervisor. All districts in the main island groups are divided into census blocks, as in the last 2011 population census, and all households within every census blocks will be interviewed. The main island group census block divisions and estimated number of enumerators allocating to cover these are as follows:

	<b>Number of Census Blocks</b>	<b>No. of Enumerators</b>
Tongatapu	287	55
Vava'u	78	15
Ha'apai	49	10
'Eua	22	5
Niuas	15	5
<b>TOTAL</b>	<b>451</b>	<b>90</b>

In average, it is estimated for each enumerator to cover 5 census blocks at this regard and the estimate time to carry out these enumerating operations is 30 working days.

There are two levels of training for the AC 2015: the first for the trainers/supervisors and to be held in first week of March 2015 until the second week of March 2015 and the second for the enumerators. The training for the enumerators will be on third week until fourth week of March 2015. All supervisors will be trained in Tongatapu by the members of the Agriculture Census Working Committee. The supervisors will train the enumerators in the second level.

The AC 2015 enumerators will be recruited between first week of January until second week of February 2015. Recruited enumerators in each island will collect the information and will be supervised by their designated census supervisors. Supervisors to be assigned in other islands will be asked to help in the supervision of the census enumeration in Tongatapu.

For census purpose, each major island is divided into districts. Each district is further sub-divided into different villages which composed of different enumeration blocks. Each enumerator will be assigned to handle 3 (three) to 5 (five) blocks and will be provided with Household and Institutional list, map, codes of districts and villages, census questionnaires, and instruction manual.

Each enumerator will be responsible for completing the work in his/her assigned block(s) and he/she must make every effort to do the work at his/her best ability.

## **CHAPTER 2 DUTIES AND RESPONSIBILITIES**

### **2.1. The Job of an Enumerator**

As an enumerator, you will be given about 3 (three) to 5 (five) blocks to work on. An identification card (ID) will be provided, which you need to wear during the enumeration period. This card entitles you as an official enumerator of the Agriculture Census 2015.

Your main duties are as follows:

- a) Participate in enumerators training
- b) Wear your ID card everytime you go out to interview households/organization.
- c) Visit all households/organization in your assigned area.
- d) Fill up the two forms, TNAC Form 2 Holding and TNAC Form 3 Parcel Record accurately.
- e) Accomplish the Holding Form (TNAC Form 2 Holding) for all households and organizations. Whether this form is to be filled up completely or partly will depend upon the answers given.
- f) Accomplish the TNAC Form 3 Parcel Record for selected households.
- g) Make sure that all new households that are not accounted in the Household/Organizational List or in the map given to you are also covered. No household/organization in your assigned block area should be left out.

### **2.2. Census Supervisor**

You will be assigned under one supervisor who will give your assigned area and supply you with the forms you need. He/She will review your work every now and then and if necessary, he/she will explain to you how you should improve your work. It is the supervisor's duty to see that you complete your assignment as quickly and accurately as possible.

Whenever, you have some problems or questions that you cannot solve from the instructions in this book, write them down and consult your supervisor for help. Also let him/her know in advance if you need more forms or other materials, so that your work will not be delayed or interrupted.

Any problems that you will encounter during the census such as refusals, absent households, et cetera, must be reported to your supervisor as early as possible. You will also find it useful to keep a record of any problems you will encounter.

### **2.3. Hours of Work**

No specific hours have been prescribed. However the most important thing is you must complete your work on or before the deadline. You should plan your hours of

work accordingly. In most cases, you will have to adjust your working hours to the time when you are most likely to find the knowledgeable respondent at home. The most likely or convenient time may be early in the morning or in the evening from Monday to Saturday. Do not make interviews on Sundays except at the request of the respondents.

#### **2.4. Confidentiality of Census Information**

As stated in the Statistics Act of 1978, all information collected in the census is confidential and should not be revealed to anyone except to the Supervisors and Census Officials. This means that you may not give any census information even to the members of your family. You will take an oath of office requiring you to keep the information confidential.

#### **2.5. How to Conduct an Interview**

It is important that you develop effective interviewing habit and that you know what to do in each household/organization and how to do it quickly and efficiently.

Here are some points:

- a) Try and make good impression on the respondent right from the start. Be friendly and polite but do not waste time in small talk. Wear neat clothes suitable for the areas where you are enumerating. Always wear a “ta’ovala”.
- b) Begin the interview with a pleasant greeting or use any courteous introduction.
- c) Spend a minute or so in general conversation or make a complimentary remark about some interesting feature of the place, in which the respondent can take pride. Then you can begin to undertake the questions in the Holding Form.
- d) Ask the questions as worded on the census forms. Be careful not to change their meaning. Refer to the copy of the translated census questionnaires so that you can ask the questions in Tongan but use the English census questionnaires in entering the responses of the household/organization.
- e) Use probing questions that will help you get the accurate answers of the respondents.
- f) Try to interview privately. Avoid group interviewing. Talk to the head of the household/organization or any responsible member of the household/organization who can accurately answer the questions. If not, find out when some responsible member of the household/organization will be at home and take note of this.
- g) Listen carefully to the respondent's answers. You may get answers to several questions at once. Do not reveal your opinion on census questions. Do not show surprise, approval or disapproval of the replies either by the way you look or by the tone of your voice.
- h) If a respondent does not understand a question, it is sometime helpful to repeat it. Show him blank copies of the Holding Form to help him understand.

- i) Do not lose any form whether completed or not. Upon completion of all forms for one household/organization, put them carefully into the folder containing all accomplished questionnaires.
- j) If a respondent seems reluctant or hesitant in answering, mention the importance and value of census information. Explain that it is strictly confidential and cannot be used for purposes of taxation or investigation or regulation.
- k) Do not discuss politics or other controversial subjects.
- l) Make an appointment to interview or to complete an interview at the respondent's request
- m) Always thank the respondent when the interview is completed. Let him/her know that you appreciate his/her contribution to the success of the census.

## **2.6. Refusals**

Most people cooperate fully in census undertaking. Refusals are rarely. You may find a respondent who is a little bit reluctant to give information mainly because he/she does not understand why it is necessary. In such case, explain to him/her the importance or census objectives.

Explain politely that every one is required by law to give census information and emphasize that all information is confidential. Explain the importance of census information.

Your attitude in a refusal situation is an important factor in creating good work towards the census. You should try to remain calm and courteous. Do not argue and do not lose your temper. You should also inform the refusal to your supervisor who will take further action in this matter.

## **CHAPTER 3**

### **BLOCK AREA MAPS AND HOUSEHOLD/ORGANIZATIONAL LISTS**

#### **3.1. Block Area Map**

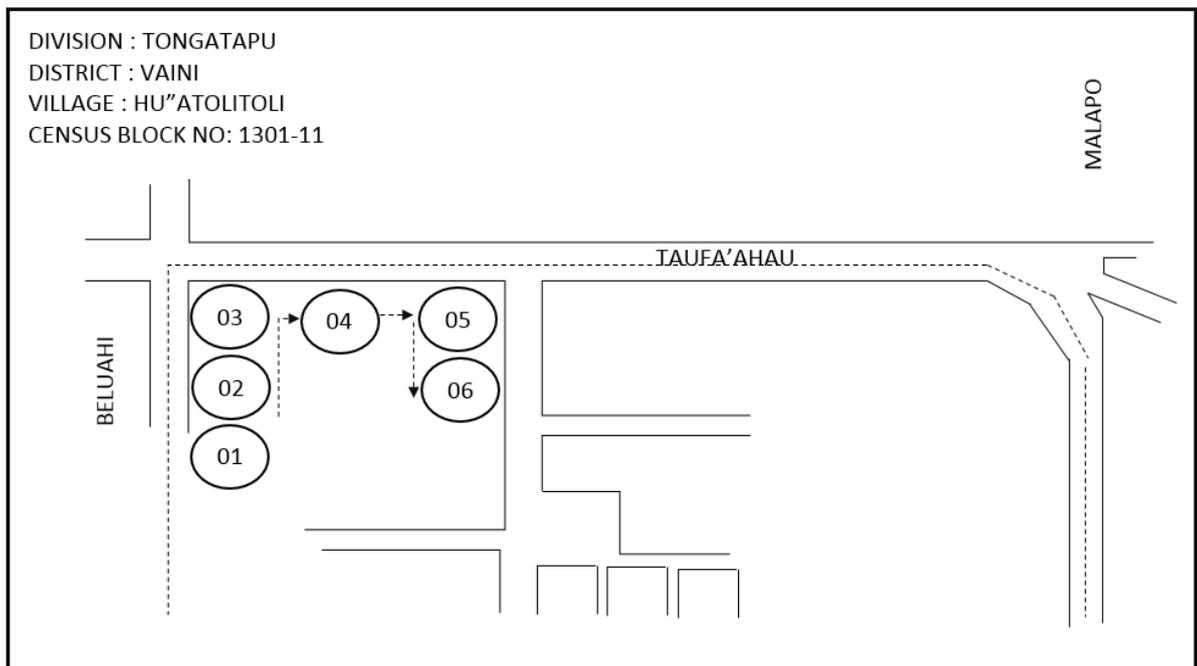
Your area map is the best detailed map available from the Statistics Department, it is important to learn, read and use your map accurately. You will be issued a map of your assigned block area, and know your boundaries. The sidelines show the block boundaries. These may be recognized by the roads or by any distinct landmarks.

If you cannot identify your boundaries, inform your supervisor. Do not proceed to enumeration of households until you are sure of your exact boundaries. You cannot be paid for working in a wrong block. Also, if you miss household(s)/organization(s) in your block, you will be required to return and enumerate them before your supervisor can accept your work as complete.

#### **3.2. Route for Visiting Households/Organizations**

The Block Area map given to you outlines the route to be followed. You should strictly adhere to this route. Never visit households/organizations in haphazard manner. They should be visited in a logical sequence for example going along the roads in a clockwise direction. You may have to work out a special route to visit households/organizations with difficult access. Do not forget to go to those points of your block where there are no households/organizations according to the map. Verify whether this is the case.

### ***Illustration 1. Example of a Block Map***



### **3.3. Household/Organization List**

In addition to a block map you will also be supplied with a Household and Organizational list. This household list has been used in 2011 Census of Population. So changes might have taken place since then. Check whether the household still there and check for the name of the head of the household. Also check whether this household has been subdivided into more than one since the census. The following steps should be taken in updating the list of household

- If the household is subdivided, give a new number in the list. example, if household number 10 has been subdivided into two households, enter the name of the head of the household at the end the list and write in the Notes at the bottom of the questionnaire that this new household came from household number 10. The household number should follow the last number in the list.
- If the household no longer exists enter "99" and line out then give household number but do not use it for new household. Write in the Notes that this household is no longer existing. For example household number 18 has moved away to another area, enter "99" and line out "18". "18" should no longer be used for a new household.
- New households might have come up since the last updating. The names of the heads of the households should be written at the end of the list and the household number should follow the last number of the list. Write in the Notes that this is a new household in the block.
- In every correction that will be done in the Household List, the map should be updated and/or corrected. Plot the new households, the subdivided household in the correct place where it can be found in the map. See Illustration 1.

*Illustration 2. Example of Household List*

**Census**

**Block**

**No.:** 110-090

**Village Name:** KOLOFO'OU

**District:** KOLOFO'OU

**Division:** TONGATAPU

<b>H/H old No.</b>	<b>Name of Head of Household</b>	<b>Status</b>	<b>New H/H No.</b>	<b>Name of Head of Household</b>
1	VATULELE KOLOMALU	Occupied		
2	MUIMUI KOLOMALU	Occupied		
3	TEVITA PILIMILOSE 'AHO	Occupied		
4	VILIAMI 'ESEI TU'IPULOTU	Occupied		
5	TAKAUNOVE LATU	Occupied		

## CHAPTER 4 INSTRUCTIONS FOR FILLING IN THE CENSUS QUESTIONNAIRES

### 4.1. General Instructions

For enumerators there are 2 (two) forms that will be used in the census including the TNAC Form 2 Holding and TNAC Form 3 Parcel Record. For supervisors there are 3 (three) forms that will be used in the census, including TNAC Form 1-1 Listing, TNAC Form 1-2 Listing and TNAC Form 4 Village.

Complete the questionnaires in blue ink for enumerators and black ink for supervisors. Do not use pencil. If you make a mistake, cross it out neatly with a single line and enter the correct answer. Write carefully and legibly. Make sure numbers and fractions are clearly written. Areas in acres should be specified in acres and/or fractions of acres, use decimal notation (for example: 1,25; 0,50; 0,75, etc).

Note: If you do not have sufficient space on the form to enter all the information supplied by the household/ organization, use another additional form.

### 4.2. TNAC Form 2 - Holding

The form will be used in enumerating all the households/organizations in Tonga. The form contains 13 (thirteen) sections.

#### 4.2.1. A. IDENTIFICATION PARTICULARS

Fill in the identification particulars correctly

Holding ID Enter village code in the first four digits, then census block number (three digits) and household number in the last two digits in the boxes provided. This can be obtained from the Household List

Type of Holding Circle holding code and fill in the code in the box provided.

- Code 1 **Individual** is a holding that belong to a household
- Code 2 **Family** is a holding that belong to more than one household but they still have a family relationship
- Code 3 **Joint operation** is a holding that belong to more than one household but they do not have family relationship
- Code 4 **Religious** is a holding that belong to a religious organization such as church

- Code 5 **Cooperative** is a holding that belong to cooperative
- Code 6 **Company** is a holding that belong to a company
- Code 7 **Government** is a holding that belong to government
- Code 8 **Semi government** is a holding that belong to a semi government

Head of household Write clearly the name of household head

Phone number Write down clearly the phone number of the respondent

Respondent's name Write clearly the name of respondent. The respondent and household head might be the same.

Enumerator's name Write clearly the name of enumerator

Supervisor's name Write clearly the name of supervisor

#### 4.2.2. **B. HOUSEHOLD MEMBERSHIP DEMOGRAPHIC AND ECONOMIC INFORMATION**

This section ask about the household composition to be accomplished for all household member; asks for the relation to head of household, sex, age and education. For household member aged 15 years and above, ask the economic characteristic during the past week.

##### Col(1) Number

This column is for control purposes to determine the number of household members. Enter the members from the household head in the first line number, followed by the spouse in the second line number, then the eldest unmarried child in the third line number et cetera.

##### Col (2) Name of Household Members

Enter the names of all household members from the household head to the youngest member.

##### Col (3) Sex

Enter the sex code of the household member listed in column 1. Enter 1 for male member and 2 for female member.

##### Col (4) Relation to head of household

Enter the code for relation to the head of household for all household members

Code 01	Head of the household
Code 02	Spouse
Code 03	Biological-born son/doughter
Code 04	Adopted son/ doughter
Code 05	Brother / sister
Code 06	Grandchild
Code 07	Parent of head of household
Code 08	Parent of spouse
Code 09	Child of spose (step child)
Code 10	Other relative
Code 11	No relation

Col (5) Age

Ask for the age as of last birthday of each household member listed, fill in the age in years. Age must be rounded up, if somebody is 24 years and 4 months then fill in 25 years.

Col (6) Education

Enter the code of education completed by the household member listed in column 1

Code 0	No schooling
Code 1	Pre- primary education
Code 2	Primary education
Code 3	Secondary education 1 (F/1-F/IV)
Code 4	Secondary education 2 (F/V-F/VII)
Code 5	Post-secondary education (TVET)
Code 6	Tertiary-First stage of tertiary education
Code 7	Tertiary-Second stage of tertiary education
Code 8	Others

Col (7)– (9) For household members 15 years old and over

The following three columns should be asked for household members 15 years old and over.

Col (7) Main activity

This column refers to the main or usual activity being done or engaged in by each household member 15 years old and over most of the time during the past week. A household member may be :

- Code 1. **Farming** is growing crops by people for food and raw materials
- Code 2. **Fishing** is the activity of trying to cultivate or catch fish or other sea products
- Code 3. **Livestock** are domesticated animals raised in an agricultural setting to produce commodities such as food, fiber and labor
- Code 4. **Handicraft** is any of a wide variety of types of work where useful and decorative objects are made completely by hand or by using only simple tools.
- Code 5. **Forestry** is an activity in communities of living organisms characterized by the presence of trees that have symbiotic relationships with each other and the physical environment.
- Code 6 **None of the above** is other activities not mention in the above category, such as run a hotel, government employee, store worker et cetera.

Col (8) Employment Status

This column classifies the status of the principal occupation in which the person was employed during the past week. The classification of the employment status is as follows:

- Code 1 **Own account** is a person who generate his/her income directly from customers, clients or other organizations as opposed to being an employee of a business (or person).
- Code 2 **Employer** is a person who operates his/her own farm or business or is engaged independently in a profession or trade and employs one or more paid workers.
- Code 3 **Employee - government** is a person who works for the government.

Code 4 **Employee – private employer** is a person who works for a private firm or company such as Molisi, Gateway Rentals, etc.

Code 5 **Unpaid worker** is a person who works without pay of any kind.

Code 6 **Student** is a learner, or someone who attends an educational institution.

Code 7 **Others** is none of the above classification

#### Col (9) Sector of employment

This column classifies the activity categories that can be utilized for the collection and reporting of statistics according to such activities, and the International Standard Industrial Classification of All Economic Activities (ISIC) will be used.

Code 01 Agriculture, forestry and fishing

Code 02 Mining and quarrying

Code 03 Manufacturing

Code 04 Electricity, gas, steam, and air conditioning, supply

Code 05 Water supply; sewerage, waste management and remediation activities

Code 06 Construction

Code 07 Wholesale and retail trade repair of motor vehicles and motorcycles :

Code 08 Transportation and storage

Code 09 Accommodation and food service activities

Code 10 Information and communication

Code 11 Financial and insurance activities

Code 12 Real estate activities

Code 13 Professional, scientific and technical activities

Code 14 Administrative and support service activities

Code 15 Public administration and defence; compulsory social security Public administration and defence; compulsory social security

Code 16 Education

Code 17 Human health and social work activities

- Code 18 Arts, entertainment and recreation
- Code 19 Other service activities
- Code 20 Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
- Code 21 Activities of extraterritorial organizations and bodies

Col (10) Activity in holding

This column refers to the main or usual activity in holding being done or engaged in by each household member 15 years old and over most of the time during the past week. A household member may be :

- Code 1 Planting is putting a seed, bulb, or plant in the ground so that it can grow.
- Code 2 Harvesting the he activity of gathering crops
- Code 3 Livestock rearing is the process of breeding and raising cattle for the purpose of meat production
- Code 4 Fish catching
- Code 5 Fish processing
- Code 6 Forestry
- Code 7 Handicraft
- Code 8 Transporting
- Code 9 Selling
- Code 10 None of the above

**4.2.3. C. ENGAGEMENT IN SUBSECTORS**

This section ask about the engagement of household or organization in agricultural subsectors, such as Growing crops, Rearing livestock, Fisheries, Forestry or Handicraft making. Ask the household whether household/ organization engage in one or more of those subsectors during the past twelve months period. No threshold needed in this section. Fill in code 1 for Yes and 2 for No in the boxes provided.

#### 4.2.4. D. USE OF LAND AT TIME OF VISIT

The purpose of this section is to identify the area of land use and length of use/fallow for town and bush allotment at time of visit.

D1. How many parcel of land do you have?

Ask household/ organization the number of parcel of land they have. Fill in the number of parcel for town allotment and bush allotment in the provided. More detail information is needed for both town and bush allotment in the table provided.

##### **Town allotment.**

##### **Col (1) Parcel number**

Fill in the parcel number, beginning parcel number 1, which is closest to the household.

##### **Col (2) Area in Square meters**

Fill in the area of each parcel. Enter the area in square meters in column (2). For example for 500 square meters, fill in 500.

##### **Col (4) Land tenure**

Fill in the code for land tenure.

- Code 1      **Owned**, means that the owner possesses the title of ownership and consequently has the right to determine the nature and extent of use of the land.
- Code 2      **Short term lease** is any land leased with a written contract by which one party (lessor), usually in consideration of rent, conveys land to another (lessee) for 5 (five) years or less.
- Code 3      **Long term lease** is any land leased with a written contract by which one party (lessor), usually in consideration of rent, conveys land to another (lessee) for more than 5 (five) years.
- Code 4      **Others**, is other land tenure that may be different from the above three categories, such as all parcels which used and rented for free by the operator.

Enter the appropriate code for each parcel under this column.

Col (5) Village Name

Write down the village name in this column.

Col (6) Village Code

This column will be filled in MAFFF office.

Col (7) Residential building area

Fill in the area of residential building. Enter the area in square meters in column (7). For example for 300 square meters, fill in 300.

Col (8) Home garden

Fill in the area of home garden. Enter the area in square meters in column (8).

Col (9) Animal Yard

Fill in the area of animal yard. Enter the area in square meters in column (9).

Col (10) Others

Fill in the area of other land. Enter the area in square meters in column (10).

D2. Can you please name the trees in your town allotment and how many trees (including Fruit trees, Food crops, forestry)?

Ask the name and number of all trees in town allotment such as fruit trees, forest trees and food crops. Write them down in the table provided.

D3. Bush allotment

Col (1) Parcel number

Fill in the parcel number, beginning with parcel number 1, which is closest to the household.

Col (2) Parcel Holders Line Number

Fill in the parcel holders line number, beginning with number 1. A parcel might have more than one holders.

Col (3) – (4) Area

Fill in the area of each holders line number in acres, column (3) and fraction of acres, column (4).

Col (5) Land tenure

Fill in the code for land tenure in column (5). See land tenure code above.

Col (6) Village name

Write down the village name in this column.

Col (7) Village code

This column will be filled in MAFFF office.

Col (8) Perennial Crops

Fill in the area of perennial crops for each holder line number in acres and fraction of acres in column (8).

Col (9) Annual crop

Fill in the area of annual crop for each holder line number in acres and fraction of acres in column (9).

Col (10) Animal yard

Fill in the area of animal yard for each holder line number in acres and fraction of acres in column (10).

Col (11) Pasture

Fill in the area of pasture for each holder line number in acres and fraction of acres, in column (11).

Col (12) Farm building

Fill in the area of farm building for each holder line number in acres and fraction of acres in column (12).

Col (13) Fallow

Fill in the area of fallow for each holder line number in acres and fraction of acres in column (13).

Col (14) Others

Fill in the area of other land for each holder line number in acres and fraction of acres in column (14).

Col (15) Purpose of fallow

Fill in purpose of fallow code for each holder line number in column (15).

Code for purpose of fallow :

Code 1 Improved agricultural productivity

Code 2 Lack of finance

Code 3 Others.

Col (16) Duration of fallow

Write down the length of fallow in years in column (16).

D4. Land under mixed land use (e.g. pasture and coconut) in acres.

Write down the area of land under mixed land use, for example pasture and coconut or other crops in acres.

D5. Have your household rented land to others?

Ask household/organization whether they rented land to others, circle 1 if Yes and 2 for No. Fill in code in the box provided.

D6. If yes, How many parcel?

If the answer in D5 is Yes, then ask how many parcel and the area. Fill in the number of parcel and total area rented in the boxes provided.

If the answer in D5 in No, go to section E.

**4.2.5. E. FOOD CROPS**

This section is designed to record all the crops currently growing/still growing at the time of visit and/or crops planted and already harvested during the past 12 months by households/organizations.

E1. Did your household still cultivate and/or harvest during the reference period any annual crops and/or perennial crops, which were not grown in the past twelve months?

Ask household/organization whether they still cultivate and/or harvest during the reference period any annual crops and/or perennial crops, which were not grown in the past twelve months. The answer might be:

Code 1 Existing crops

Code 2 Crops/ trees harvested

Code 3 Both

Fill in the code in the box provided. If the answer is code 2, go to E1 part B, otherwise proceed to E1 part A.

A. Crops/Trees Planted in the last 12 months and still growing (existing crops).

Col (1) Parcel number

Fill in the parcel number, beginning with parcel number 1, which is closest to the household.

Col (2) – (2a) Name of Crop/ Trees and code.

Write down the name of crop/ tree for each parcel in column (2). Column (2a) will be filled in MAFFF office.

Col (3) Method of planting.

Fill in type of planting code

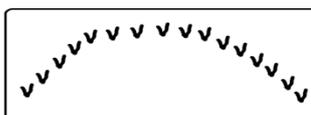
Code 1                      **Compact crops** referred to crops that was planted jointly, packed together, closely, dense; solid and firmly united.

*Illustration 3. Compact crops*



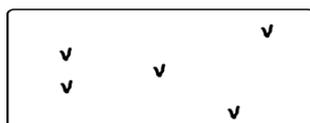
Code 2                      **Line crops** referred to crops that was planted in a line, the line must not be a curve line, could be a straight, a circle, etc.

*Illustration 4. Line crops*



Code 3                      **Scatter crops** referred to crops that was planted not jointly, not packed together, not firmly united and not in a line.

*Illustration 5. Scatter crops*



#### Col (4) Type of planting

Fill in type of planting code

Code 1 **A single crop** is a crop that planted without any other crop (root crops or vegetables) in a plot. It may be a stand-alone crop or may be combined with a scattered crops or trees, but it is still considered single crop.

Code 2 **A mixed crop** is a crop that planted together with any other crop (root crops or vegetables) in a plot. It may be a combined with a scattered crops or trees, but it is still considered mixed crop.

Code 3 **A scatter pattern** is a crop without any major crops grown in a plot.

In case the plot is only fallow land or homestead or bush or used in raising livestock and poultry, do not enter any code.

#### Col (5a) – (5b) Area

Ask the area of currently growing crop(s). Enter the area in column (5a) and fraction of area in column (5b). Use decimal notation. Do not ask the area for line crops, scatter crops and scatter pattern.

#### Col (6) Number of plant/trees

In most cases if the area of the currently growing/still growing crops/trees could not be determined, the number of plants currently growing/still growing is the more accurate information to record. Ask the respondent the number of plants/ trees of currently growing/still growing at time of visit and enter it in this column.

### **B. Crops/Trees Harvested (last 12 months)**

Ask for each different crop/trees harvested during the past twelve months. Inquire for tree crops in which fruits were harvested during the reference period. Record the name of these crops in column (7) – (9).

#### Col (1) Parcel number

Fill in the parcel number, beginning with parcel number 1, which is closest to the household.

Col (7) – (7a) Name of Crop/ Trees and code.

Write down the name of crop/ tree for each parcel in column (2). Column (2a) will be filled in MAFFF office.

Col (8a) – (8b) Area acres and fraction of acres

Ask the area of crops/trees harvested. Enter the area in column (5a) and fraction of area in column (5b). Use decimal notation. Do not ask the area for line crops, scatter crops and scatter pattern.

Col (9) Number of perennial crops.

Ask respondent the number of perennial crops/trees during the past twelve months and enter it in this column.

#### 4.2.6. F. AGRICULTURAL PRACTICES

This section asks information on the use of fertilizers whether organic or inorganic, agricultural pesticides, irrigation on crops grown in the holding and farmers community.

F1. Did your household/organization use any inorganic fertilizers in this holding in the past twelve months?

Inquire whether household/ organization used inorganic fertilizers on the holding during the past twelve months. Circle code 1 if the answer is Yes; otherwise, circle code 2. Enter the reply in the box provided.

**Inorganic** fertilizers are manufactured mineral substances applied to soil, or irrigation water, to supply plants with the necessary nutrients.

F2. Did your household/ organization use any organic fertilizers in the past twelve months?

Inquire whether household/ organization used organic fertilizer in the holding during the past twelve months and circle the appropriate code. If Yes, circle 1; otherwise, circle 2. Enter the code in the box provided.

The household may have used organic fertilizers on the holding during the reference period. These are materials of organic origin, either natural or processed, that

can be used as sources of plant nutrients. The most commonly used are compost, chicken manure or other animal manure, et cetera.

**Organic fertilizer** are fertilizer derived from animal or vegetable matter (for example compost, manure) or human excreta.

F3. Did your household/ organization use any pesticide in the past twelve months?

Ask whether the household used any pesticide on the holding during the reference year. If Yes, circle 1; otherwise, circle 2. Enter the code in the box provided.

**Pesticide** are used for controlling or eliminating pests that destroy crops or livestock.

F4. Did your household/ organization use any irrigation in the past twelve months?

Ask whether household/ organization used any irrigation on the holding during the past twelve months. If Yes, circle 1; otherwise, circle 2. Enter the code in the box provided.

### **Irrigation.**

F5. Specify the crops of these Holding, Fertilizers, Pesticides and Irrigation

Col (1) Line number

Col (2) – (2a) Name of crops and code

Fill in the name of each crop using fertilizer, pesticide and irrigation in column (2). Code for each crop, column (2a), will be filled in MAFFF office.

Col (3) Fertilizer used

Fill in code 1 (Yes) for each fertilizer used (NPK, Urea, Organic fertilizer and Others), or code 2 (No) otherwise.

Col (4) Pesticide used.

Fill in code 1 (Yes) for each pesticide used (Insecticide, Herbicide, Fungicide or Others), or code 2 (No) otherwise.

F6. Is this household engaging in community farming (TOUTU’U)?

A **community** is a social unit of any size that shares common values. If No, circle 2 and enter it in the box provided and proceed to the next section. If Yes, circle 1 and enter the code in the box provided, and go to F7, otherwise go to the next section.

F7. Name of crop and community.

Fill in crop name and community name in the table provided.

#### 4.2.7. G. LIVESTOCK

This section relates to the livestock including dogs and cats kept by the household/ organization as of the day of visit or enumeration. This should be asked for all household members.

G1. Does the household/ organization have any livestock including dogs and cat as of the day of enumeration?

Ask the respondent if his/her household/ organization has any livestock and/or dogs and cats kept at the time of your visit. If Yes, circle code 1 and enter it in the box provided and proceed to ask the number of livestock and/or dogs and cats kept. Otherwise, circle code 2 and enter it in the box provided and go to G2 of this section.

#### Col (1) - (2) Species and code

The following are the code and livestock listed in this column. These are:

10 Beef Cattle (pulu kakano)	50 Sheep
11 Calves (< 6 months)	51 Lamb ('uhiki'i sipi)
12 Steer (male cattle: 6 - 24 months)	52 Ewe (sipi sinamanu fefine)
13 Heifer (female cattle: 6 - 24 months)	53 Ram (sipi tau)
14 Bull (adult male cattle)	60 Goat
15 Cow (adult female cattle)	61 Male (kosi tangata)
20 Dairy Cattle (pulu hu'akau)	62 Female (kosi fefine)
21 Calves (< 6 months)	70 Chicken
22 Steer (male cattle: 6 - 24 months)	71 Broiler (moa palangi kakano)
23 Heifer (female cattle: 6 - 24 months)	72 Egg layer (moa palangi fakato)
24 Bull (adult male cattle)	73 Domestic Breeds (moa Tonga)
25 Cow (adult female cattle)	74 Male (rooster) (moa ta'ane)
30 Pig	75 Female (hen)(moa fefine)
31 Boar (puaka tau)	80 Ducks (pato)
32 Sow (puaka sinamanu)	90 Dog
33 Piglet (fanganga kei huhu)	91 Male (kuli tangata)
34 Weaner (puaka tunu)	92 Female (kuli fefine)

35 Barrow (fufula)  
40 Horse  
41 Male  
42 Female

100 Cat (pusi)

### **The categories of pigs.**

Boars are adult male pigs, which are also over 40 kilograms. Sows are adult female pigs, which are over 40 kilograms. Fatteners (middle ages) have live weight ranging from 25-40 kg. Weaners are weaned (separated from sow) piglets starting from the stage where they are considered to be ideal for consumption. Their live weight category would be 0-24 kg,

Ask the different kind of livestock that are being kept by the household at the time of enumeration. Then as the household mentions the livestock circle its corresponding code in column (2).

### Col (3) Number Kept (at the day of visit)

Enter in this column the number of livestock kept by the household as of the time of visit. Be careful in asking the number of livestock kept to avoid double counting. Ask more probing questions to determine whether the livestock specially chickens belong to the household. Observe the surroundings of all the houses in your assigned enumeration block to be able to check whether the number of livestock really exists.

Note that the beef cattle (code 10) should be the total for the calves (code 11), steer (code 12), heifer (code 13) bull (code 14) and cow (code 15). Same procedure should be followed for pig (code 30), horse (code 40), sheep (code 50) goat (code 60), chicken (code 70), and dog (code 90).

### **G2. Did the household dispose any livestock in the past twelve month?**

This question is asking for the disposal of the livestock raised during the past twelve months. There may be some households, during at the time of enumeration, is no longer keeping any livestock but had raised and disposed any livestock during the past twelve months. There may also be some households that are keeping livestock at the time of visit and at the same time had disposed several livestock during the past twelve months, in any of these case, ask the question on the disposal of the livestock within the past twelve months. If the answer is Yes, circle 1 and proceed to ask the following questions on disposal . Otherwise circle 2 and go to next section. Enter the code for the answer in the box provided.

### Col (1) – (1a) Kind of Livestock and Code

Livestock mentioned in this column are :

Beef cattle	10	Sheep	50
Milk cattle	15	Goat	60
Pigs	20	Chicken	70
Boar (puaka tau)	31		
Sow (puaka sinamanu)	32		
Piglet (fanganga keihuhu)	33		
Weaner (puaka tunu)	34		
Barrow (fufula)	35		

Livestock can either be disposed live or slaughtered. Hence, ask all the disposed livestock whether live or slaughtered.

There are several ways of disposing livestock:

1. **Consumed.** This refers to livestock slaughtered specifically for home consumption of the household.
2. **Social obligation.** These include the giving away of livestock (no money involved) for the purposes of feasts (opening of community halls, marriages, bestowing of titles, welcome/farewell parties, etc.) or as gifts to persons or organizations for the purposes as in feasts or otherwise.

If a livestock has been for social obligation on a barter basis (i.e. substituted for another type of livestock such as goat), this must be included. However, If a livestock has been social obligation on an exchange basis (under an arrangement that the livestock will be replaced at some future date), do not include this since this exchange strictly speaking does not constitute the loss of livestock to the operator. Livestock for social obligation may be live or slaughtered.

3. **Sold.** Livestock were disposed via sales (exchanged for cash) either dead or live.
4. **Lost.** For some reason livestock might be lost

Note: A household engaged in commercial livestock raising may have more than one nature of disposal.

### Col (2) Number Consumed

In each reported livestock with circle code in column 1a, enter the number consumed by the household within the reference period in this column.

### Col (3) Social obligation

Enter the number of slaughtered livestock that were for social obligation during feasts, weddings, et cetera or as gifts to other persons or organizations.

Col (4) Number Sold

Record the number of slaughtered/ live livestock that were sold during the past twelve months

Col (5) Value Sold

If there is an answer in column 4, ask the respondent the total value for selling live/ slaughtered livestock. Approximate values are acceptable if actual values are not readily available. Enter the value in T\$ dollars in this column.

Col (6) Number of Lost

Record the number of lost livestock during the past twelve months

Col (7) Value of Lost

If there is an answer in column 6, ask the respondent the total value of livestock lost. Approximate values are acceptable if actual values are not readily available. Enter the value in T\$ dollars in this column.

G3. Veterinary Services Used.

This question is asking about veterinary services received by household/ organization. Ask respondent about veterinary services received during the past twelve months period.

Col (1) Veterinary Services

Vaccination, Artificial insemination and Castration.

**Vaccination** is the administration of antigenic material to stimulate an livestock's immune system to develop adaptive immunity to a pathogen. Vaccines can prevent or ameliorate morbidity from infection.

**Artificial insemination** is the deliberate introduction of sperm into a female's uterus or cervix for the purpose of achieving a pregnancy through in vivo fertilization by means other than sexual intercourse.

**Castration** is any action, surgical, chemical, or otherwise, by which a biological male loses use of the testicles.

For each of livestock received veterinary service in the past twelve months; fill in code 1 for Yes otherwise 2 for No.

#### 4.2.8. H. FISHERIES

This section is especially designed to capture the total households/ organizations engaged in fishery activities during the past twelve months. Note that fishing as a hobby or game fishing is not included in this section. This section should be asked for all member of household.

Fisheries include the following activities in the sea, river, lake, pond, et cetera :

- capturing fish and other marine products either the lagoon or within the reef or outside or over the reef through the use of different fishing methods and with or without fishing vessel/boat; deep-sea fishing is included here;
- collecting or gleaning or clearing sea shells, sea cucumber, and other sea products along the shore
- raising fish through fish farming or aquaculture

H1. What type of fishing did any of the members of the household/organization usually engage during the past twelve months?

A household/ organization may report more than one fishing type. Fill in the table that consists of Average number of trips per week, Person Hour, Average Catch per week (CTU, Common Trade Unit, such as bag or pack et cetera), and Average weekly value of fish sold (T\$). See Appendix D for pictures of fishing type.

##### Col (1) - (1a) Fishing type and code

Circle fishing type code used by household/ organization in column (1a)

##### Col (2) Yes or No

Enter code 1 for fishing type used in this column, otherwise code 2

##### Col (3) Average number of trips per week

Enter the number of fishing trips made by the household/ organization during the past week. Note that in one day the household may have more than 1(one) fishing trip.

##### Col (4)- (5) Average Person Hour per week

These column refer to the number of persons hour engaged in the fishing activity during the past week. These persons may be members of the household/ organization or hired workers. Enter the number of person hour engaged in fishing activity in column (4) for male and in column (5) for female. Probing questions are necessary in these column to get accurate estimates of all person hour engaged in fishing activity.

Example:

During the past week, number of persons engage in a fishing activity of a household consists of 6 male and 2 female. All of them are working for 8 hours. Person hour for this example are 6 person x 8 hour = 48 person hour for male and 2 person x 8 hour = 16 person hour for female.

Fill in 48 for column (3) and 16 for column (4).

Col (6) Average Catch per week (CTU)

Fill in the average number of fish catch per week for this household/ organization in CTU (Common Trade Unit).

Col (7) Average of weekly value of fish sold (T\$)

Fill in the average value of fish sold per week for this household in T\$.

H2. What was the main purpose of your household fishing activity?

Circle the answer then put in the box provided. Some households may have gone fishing for:

- Code 1      Home consumption only
- Code 2      Mainly home consumption and occasional selling
- Code 3      Mainly for sale

H3. What were the species harvested?

Fill in code 1 for Yes or code 2 for No for each of the species harvested.

Species harvested might be:

- Tunas (*kalasi 'o e valu*) and pelagic fish (*ngaahi ika taka kehe*)
- Lobster ('Uo)
- Shellfish (fingota)
- Sea cucumber (*fa'ahinga 'o e mokohunu*)
- Seaweeds (*fa'ahinga limu pe*)
- Ornamental coral or fish (*feo teuteu mo e fanga ki'i ika teuteu*)
- Reef finfish (*ika 'o e hakau*)

- Sea urchin (*fa'ahinga 'o e tukumisi mo e vana*)
- Other (specify)

As the respondent mentions the name of the species harvested during the past twelve months, fill in code 1 of such species (could be several species).

H4. What type of habitat do you usually fishing

Col (1) Habitats Types

Reef flat (*funga hakau pe 'ulu'ulu*)

Lagoon (*tahi namo*)

Sea grass (*tahi limu*)

Reef slope (*tu'a hakau pe tu'a 'ulu'ulu*)

Open sea (*tahi tu'a*)

A household/ organization may report more than one type of habitat

Col (2) Frequency of fishing for each habitat

Code 1 Always

Code 2 Sometimes

Code 3 Never

H5. When do you go fishing?

Fill in code for time and season

Time code:

Code 1 Day

Code 2 Night

Code 3 Day and Night

Season code:

Code 1 All Years

Code 2 Summer

Code 3 Winter

#### 4.2.9. I. FORESTRY

Forestry and Agro-forestry are deliberate incorporation of trees within a farming system or simply having trees on a holding and using them. Agro-forestry can mean soils that stay productive, food for family, wood for building and fuel for better ways to raise livestock, money when you need it and much more.

II. What is the intended use of the trees/shrubs in this holding?

Note that planting of trees/shrubs may be for several reasons or purposes; ask the main purpose of the trees/ shrubs.

##### Col (1)-(2) Names of trees/shrubs and code

The different trees/shrubs should be entered in column (1) and the code will be filled in MAFFF office.

##### Col (3) Main Uses of of trees/shrubs (code)

Enter code of each tree/shrubs main uses in column (3).

Codes for main uses:

Code 1 Source of food (human/animal) and/or income

Code 2 Support for crops

Code 3 Soil improvement and protection

Code 4 Timber (houses, fences, pole, etc)

Code 5 High value wood

Code 6 Fuel

Code 7 Shade/shelter/windbreaks

Code	8	Boundaries
Code	9	Handicrafts
Code	10	Medicinal
Code	11	Conservation
Code	12	Ornamental

#### 4.2.10. J. HANDICRAFT

Codes to answer J1 - J3

- |              |               |              |
|--------------|---------------|--------------|
| 1. None      | 2. 1% - 25%   | 3. 26% - 50% |
| 4. 51% - 75% | 5. 76% - 100% |              |

J1. What proportion of raw materials (lou'akau & tutu) for making handicrafts did your household buy?

Ask the respondent the proportion of raw materials bought for handicraft making. Note that it is possible that household/ organization had used the crops grown in their holding like pandanus as raw materials for handicraft making and at the same time had bought additional raw materials. Fill in code in the box provided, corresponding to the answer of the respondent.

J2. What proportion of raw materials (lou'akau & tutu) your household usually sell?

Fill in code for proportion of raw materials (lou'akau & tutu) household/ organization usually sell.

J3. What proportion of handicrafts made by your household usually sell?

Fill in code for proportion of handicraft made by household/ organization usually sell

J4. Total value of raw material sold (T\$)?

Inquire from the household whether they sold the raw material for handicrafts made. Ask for the proportion sold and fill in the appropriate code in the box provided.

J5. Total of finished product sold in (T\$)?

Inquire from the household/ organization whether they sold the finished handicrafts made. Ask the total sold and fill in the box provided.

J6. Is this household/ organization engaged in group production of handicraft (Toulalanga or koka'anga) in the last twelve months with the purpose of katoanga?

Circle the appropriate code and fill in the box provided. If No, then go to the next section

J7. What is the estimate value of your product for the katoanga for the last twelve months?

Fill in code for estimate value of your product for the katoanga for the last twelve months

Code 1 less than \$2500

Code 2 \$2,501 - \$5,000

Code 3 \$5,001 -\$7,500

Code 4 \$7,501 - \$10,000

Code 5 more than \$10,000

#### 4.2.11. **K. LABOUR**

This section seeks to establish the labor inputs utilized in the holding for carrying out the agricultural activity. This should include all persons aged 10 years old and over who worked on the holding whether paid or in unpaid capacity during the past month prior to the enumeration day. The operator(s) should be included in this section.

K1. Did your household hire and use any Group Labor (toungaue) on this holding in the last twelve months?

Circle 1 for Yes or 2 for No and enter the code in the box provided. If Yes, proceed to ask the respondent regarding the group labor input.

Col (1) Information covered

Number of laborers

Average number of days worked

Average hours worked/day

Col (2) Male

Col (3) Female

Col (4) Total

Ask the respondent regarding the labor input in term of Number of laborers, Average number of days worked and average hours worked/day. Fill in column (2) for male, column (3) for female and column (4) for total

K2. Did your household use any permanent laborers?

Circle 1 for Yes or 2 for No and enter the code in the box provided if the answer is No, go to the next section. Otherwise, proceed to ask the respondent regarding the permanent labor input.

Col (1) Number

Col (2) Sex

Fill in sex code for each labour. Enter 1 for male or 2 for female

Col (3) Hours of work in the holding last week

Enter the number of hours worked during the last week by each person in this column.

Col (4) Wages per Month

Enter wage per month in T\$

Col (5) Other benefits received (Code)

Enter the code for any other benefits that the person received aside from wages in this column. These may be in the form of:

- Code 1 Meals only
- Code 2 Housing only
- Code 3 Meal and housing
- Code 4 Others

Col (6) Status

**Full-time** employment is employment in which a person works a minimum number of hours defined as such by his/her employer

**A part-time job** is a form of employment that carries fewer hours per week than a full-time job.

Enter the code for status of each labour

- Code 1 Full time
- Code 2 Part time

**4.2.12. L. MACHINERY AND EQUIPMENT**

This section is about the equipment used during the past twelve months in connection with the operation of the household's/operator's agricultural activity. The equipment should be in operational condition and may be owned or leased.

Col (A) – (B) Type of equipment and equipment code

Col (1) Used in the past twelve months

As the respondent mentions the name of equipments, circle the corresponding code in column (B), and fill in the number used in the past twelve months in column (1).

Col (2) Source of machinery/equipments

Ask the source of equipment used code.

Code 1 Owned

Code 2 Private lease

Code 3 Government owned

Col (3) Stock Owned by Holding at time of visit

Fill in the total number of stock in ownership at time of visit in column (3)

Note: For other equipment not mentioned in the list, specify this equipment but do not enter any code in column (B) for this will coded in the manual processing.

**4.2.13. M. AGRICULTURAL INCOME AND LOAN FOR ALL SUBSECTORS**

This section seeks to find out whether agriculture is the main source of income of the household/ organization and whether the household/ organization availed loans to finance its agricultural activity for the past twelve months.

M1. What is the proportion of your household's total income (in cash/in kind) usually derived from agricultural activities during the past twelve months?

This question inquires the proportion of income derived from agriculture to the total income that the household received during the past twelve months. The household may have received income from different sources.

Income includes wages and salaries received by any employed member of the household from a particular occupation, net receipts derived from the household business activities such as crop farming, livestock raising, fishing, manufacturing, et cetera, and from other sources of income such as gifts received from relatives or friends abroad whether in cash or in kind, winnings, housing rental, et cetera. Note that net receipts derived from business activities specifically include those that were produced and consumed by the household for the past twelve months. Wages received in terms of agricultural products by any member employed in own holding or other household's holding should also be considered as part of the income of the household.

Ask the question to the respondent and circle the corresponding code. Enter the code in the box provided.

- Code 1 None
- Code 2 1% - 25%
- Code 3 26% - 50%
- Code 4 51% - 75%
- Code 5 76% - 100%

**Example;**

A household received its income for the past twelve months in the following sources:

Wages of the eldest son employed in a private company:	T\$ 12,000.00	
Net receipts derived from squash and papaya:	6,000.00	}
Net receipts derived for selling three pigs:	1,500.00	
It also consumed vegetables from its produce amounting to	50.00	
Total income:	T\$ 19,550.00	
Income derived from agriculture:	T\$ 7,550.00	←

Proportion of income from agriculture to total income:  $7,550 : 19,550 = 39\%$   
 The nearest answer is code 3 (26 – 50 %).

M2. Did any member of your household avail loan(s) for your agricultural activities in this holding in the last twelve months?

The loan that should be considered here was the loan availed and used for agricultural activities. The loan used for consumption or social and religious functions should not be included here.

Circle code 1 for Yes or 2 for No. Then enter the code in the box provided. If Yes then fill in the table provided. If the answer is No then finish the enumeration for this household/ organization.

Col (1) Number

Col (2) Source of loan

Based on the reply of respondent, fill in the appropriate code in this column.

- Code 1 Tonga Development Bank
- Code 2 Other Banks
- Code 3 Exporters (in kind)

Code 4      Other Sources

Note that Other Sources are loans from lending companies, relatives, friend, neighbors, et cetera.

Col (3) Amount of loan

Fill in the amount of loan in T\$ in this column

Col (4) Repayment amount in month

Fill in the amount of repayment per month in T\$

### 4.3. TNAC Form 3 Parcel Record

In order to verify the accuracy of parcel/plot area reported by households, about 10 % of households will be selected randomly. After selecting households, a parcel with largest area of crops will be measured. All plots in a selected parcel will be measured their area using GIS by enumerator. AC Form 3 Parcel Record will be used in recording parcel area in selected parcel. The form contains a table and a parcel sketch. The table consists of 7 (seven) column: Plot number, GIS reading, Name of main crop, Method of planting, Type of planting, Area in acres and fraction of acres.

Make a parcel sketch that consists of several plots in the right hand side of the form. Put number on each of plot, since the measurement will be done for each 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 ready for planting.

#### **Geographic Identification**

Fill in the identification particulars correctly.

Village Write the name of the Village where the household is located in the space provided and enter its code in the boxes provided. This can be taken from TNAC Form 2 Holding, Geographic identification.

Block Number Enter Census Block Number in the boxes provided. This can be obtained also from TNAC Form 2 Holding, Geographic identification.

Write down enumerator's name and date accomplished in the space provided.

Col (1) Plot Number

Enter plot number, such 1, 2, 3, et cetera.

Col (2) GIS Reading

Enter GIS reading as shown in the GIS equipment

Col (3) Name of main crop

Write down the name of crop that has the largest area in the parcel. If a parcel being measured is a fallow, put a dash mark in this column.

Col (4) Method of planting

Copy method of planting from TNAC Form 2 Holding, section E1, part a, column (3).

Col (5) Type of planting

Copy type of planting from TNAC Form 2 Holding, section E1, part a, column (4).

Col (6) - (7) Area

Fill in the area measured in the plot in column (8) for acres and column (9) for fraction of acres. Use decimal notation, two digits behind coma.

This last portion of TNAC Form 3 Parcel Record provides information that you measured the parcel in a specified date and that you have accomplished the census questionnaires completely and accurately.

There are 2 persons who should print and sign their names in this certification portion:

1. your supervisor after checking the completeness of your work; and
2. you as an enumerator, after you have measured the plots and fill in the census questionnaire needed for the households/organizations.

Remember that this portion means that you have certified that you have measured the plots and that you have recorded the data in each section accurately