



Food and Agriculture  
Organization of the  
United Nations



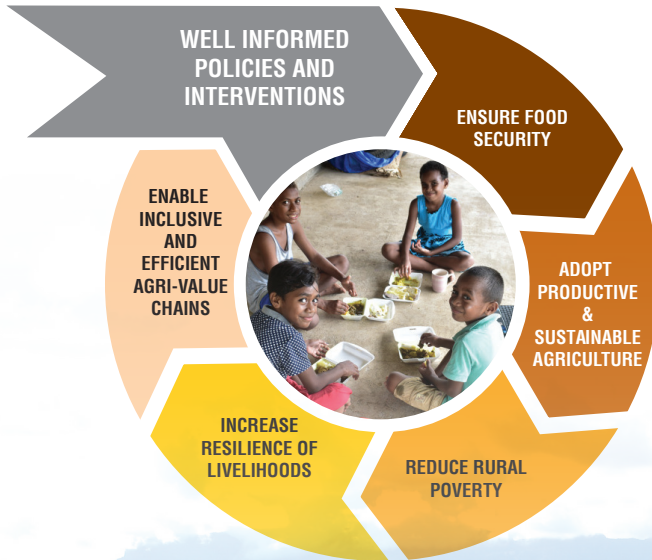
# 2020 FIJI AGRICULTURE CENSUS

“Your Voice, Your Future  
BE COUNTED”

10 - 29 February, 2020

## FIELD OPERATION MANUAL







## TABLE OF CONTENTS

|  |    |
|--|----|
| ACRONYMNS  | 5  |
| 1.1 WHAT IS CENSUS OF AGRICULTURE?                                 | 6  |
| 1.2 CONDUCT OF THE 2020 FIJI AGRICULTURE CENSUS                    | 6  |
| 1.3 COVERAGE   | 7  |
| 1.4 SCOPE  | 7  |
| 1.5 AGRICULTURE CENSUS PERIOD                                      | 7  |
| 1.6 FARM   | 7  |
| 1.7 STATISTICAL UNIT   | 8  |
| 1.8 AGRICULTURE HOLDINGS - FARMING HOUSEHOLD / INSTITUTIONAL FARMS | 8  |
| <b>PART 2 ROLES &amp; RESPONSIBILITY</b>                           |    |
| CENSUS FIELD SUPERVISOR  | 9  |
| TERMS AND CONDITIONS OF SERVICE                                    | 9  |
| THE CENSUS ENUMERATOR  | 9  |
| TERMS AND CONDITIONS OF SERVICE                                    | 10 |
| 2020 FAC ORGANISATION STRUCTURE                                    | 10 |
| CAPI SYSTEM & STRUCTURE  | 11 |
| <b>PART 4: SURVEY OPERATIONS</b>                                   |    |
| 4.1 INTERVIEW SKILLS   | 11 |
| 4.2 HOURS OF WORK  | 11 |
| 4.3 ENUMERATION AREA   | 11 |
| 4.4 HOW TO COVER YOUR ENUMERATION AREA (EA)                        | 13 |
| 4.5 ABSENCE OF OCCUPANTS AND EMPTY DWELLINGS                       | 15 |
| 4.6 REFUSALS   | 15 |
| 4.7 LAST COVERAGE CHECKS AND LABELLING                             | 15 |
| 4.8 DATA QUALITY AND QUALITY CONTROL                               | 16 |
| 4.8.1 COLOR SIGNIFICANCE IN THE SURVEY SOLUTIONS APP TO ASSIST     | 16 |
| QUALITY AWARENESS  | 16 |
| <b>PART 5: 2020 FAC QUESTIONNAIRE</b>                              | 17 |
| SECTION 1: HOUSEHOLD COMPOSITION                                   | 17 |
| SECTION 2: HOUSING PARTICULARS                                     | 25 |
| SECTION 3: LAND  | 28 |



## TABLE OF CONTENTS

|   |     |
|---|-----|
| SECTION 4: CROPS ON FARMLAND  | 34  |
| SECTION 5: LIVESTOCK  | 42  |
| SECTION 6: FORESTRY   | 61  |
| SECTION 7: FISHING  | 62  |
| SECTION 8: AQUACULTURE  | 65  |
| SECTION 9: CLIMATE CHANGE AND CHALLENGES  | 67  |
| SECTION 10: EQUIPMENT   | 69  |
| SECTION 11: AGRICULTURE (CROP, LIVESTOCK, FISHERIES, FORESTRY, SUGAR)<br>SERVICES | 71  |
| SECTION 12: FOOD INSECURITY EXPERIENCE  | 75  |
| SECTION 13: LABOUR  | 75  |
| ANNEX 1 - CONCEPTS AND DEFINITIONS  | 76  |
| ANNEX 2 - COMMODITY LISTING   | 82  |
| ANNEX 3: PHOTOS OF DIFFERENT METHOD OF PLANTING                                   | 83  |
| ANNEX 4 - CROP DENSITY  | 85  |
| ANNEX 5 - DAIRY CATTLE BREEDS   | 86  |
| ANNEX 6 - BEEF CATTLE BREEDS  | 86  |
| ANNEX 7 - TYPES OF FORESTRY   | 87  |
| ANNEX 8 - TYPES OF FISH<br>AQUACULTURE TYPES                                      | 88  |
| ANNEX 9: POSTERS OF FISH TYPES  | 89  |
| ANNEX 10 - ENUMERATION AREA WORK PLAN   | 90  |
| ANNEX 11 - LIST OF DISTRICTS/TIKINA VOU BY PROVINCE                               | 95  |
| ANNEX 12 - LIST OF INSTITUTIONAL FARM   | 96  |
| ANNEX 13 - TYPE OF FORESTRY   | 100 |
|   | 114 |



## ACRONYMNS

AC\_\_\_\_\_Area Coordinator

ANZ\_\_\_\_\_Australia New Zealand

AI\_\_\_\_\_Artificial Insemination

BSP\_\_\_\_\_Bank of the South Pacific

dd\_\_\_\_\_Domestic Duties

EA\_\_\_\_\_Enumeration Area

Enu\_\_\_\_\_Enumerator

FAC\_\_\_\_\_Fiji Agriculture Census

FCDCCL\_\_\_\_Fiji Cooperative Dairy Company Limited

FDB\_\_\_\_\_Fiji Development Bank

FDL\_\_\_\_\_Fiji Dairy Limited

FS\_\_\_\_\_Field Supervisor

HH\_\_\_\_\_Household

MoA\_\_\_\_\_Ministry of Agriculture

st\_\_\_\_\_Student

rt\_\_\_\_\_Retired Individual



## PART 1: INTRODUCTION

### 1.1 WHAT IS CENSUS OF AGRICULTURE?

“A Census of Agriculture is a statistical operation for collecting, processing and disseminating data on the structure of Agriculture, covering the whole or a significant part of a country.”

Typical Structural Data collected in a Census of Agriculture are Size of Holding, Land Tenure, Land Use, Crop Area, Irrigation, Livestock numbers, Labour, use of Machinery and other Agricultural Inputs.

However, data collection on Fisheries including Aquaculture, Forestry and Environment etc. have received special emphasis in the Agriculture Census in recent years.

Fiji has conducted four Agriculture Censuses whereby, the first was conducted in 1968 and 1978, 1991 and 2009. The 2020 Fiji Agriculture Census will be the fifth in this Census series. All other four earlier Censuses were conducted on Sample basis.

The 2020 FAC will be the first, whereby Census is conducted on complete Enumeration of all four Sub -Sectors of Agriculture: Crop (including Sugarcane), Livestock, Fisheries (including Aquaculture) & Forestry. Data collection will cover all localities within the rural and part of Peri-Urban area where agricultural activities are commonly practiced.

#### The Objectives of 2020 Fiji Agriculture Census are;

- To provide baseline data on the structure of Fiji’s Agriculture Sector.
- To improve and update Fiji’s Agriculture and Rural Statistics System capacity to generate quality agricultural data.
- To provide evidence for planning and policy decision making in the Agriculture Sector and National Development.
- To provide an updated listing frame for future Agriculture Census and Surveys.
- To provide basic data to help monitor progress of the Sector towards National, Regional, and Global Development targets, in particular the Sustainable Development Goals [SDG].

The Fiji Government through a Cabinet decision on 17th May 2019, approved the Implementation of the 2020 Fiji Agriculture Census by the Ministry of Agriculture from 10th February to 29th February 2020.

### 1.2 CONDUCT OF THE 2020 FIJI AGRICULTURE CENSUS

The success of a Census depends on a large number of factors. However, in the final assessment the most important criteria of success are the:

1. The level of completeness (Coverage) achieved
2. The Quality of information collected.

\*\*Key Words: Quality and Coverage

The 2020 FAC Operational Structure have been designed to ensure complete coverage and collection of quality data. Apart from in built checks in the CAPI System, various layers of checks have been included in the CAPI Structure to enhance quality checks on the ground and confirm recording of accurate and quality data.



### **1.3 COVERAGE**

Coverage for the Agriculture Census will include;

All Rural and Part of Peri-Urban areas in Fiji

1. All Rural Households,
2. Part of Peri-Urban Boundary where Agriculture is commonly practiced and
3. Selected Urban Villages.

All Farming Households and Institutions in assigned areas will be Fully Enumerated.

### **1.4 SCOPE**

The 2020 Fiji Agriculture Census will be an Integrated Census of all four Agriculture Sub-Sectors - Crop, Livestock, Fisheries and Forest.

Agriculture Census Questionnaire consists of 13 Sections:

Section 1 – Household Composition

Section 2 – Housing Particulars

Section 3 – Land

Section 4 – Crops on Farmland

Section 5 – Livestock

Section 6 – Forestry

Section 7 – Fisheries

Section 8 – Aquaculture

Section 9 – Climate Change and Challenges

Section 10 – Equipment

Section 11 – Agriculture Services

Section 12 – Food Insecurity

Section 13 – Labour

Data will be collected at Household and Institutional (Holding) Level.

Institutional data will be collected from Schools, Institutions, Group Owned Farming Organization and Large Commercial Farms that are not household owned.

### **1.5 AGRICULTURE CENSUS PERIOD**

The 2020 FAC will be conducted from February 10 - 29th.

The main reference period for most questions covers the last 12 months from the date of interview.

For better recall and accurate reporting, shorter reference period are also included and simple calculations are recommended to capture the last 12 months data e.g. for questions that captures production data.

### **1.6 FARM**

Any Household or Institution (Agricultural Holding) that has land utilized for Agriculture (Crop, Livestock, Fisheries & Forest).



The land may be Owned, Leased, occupied with Traditional Arrangements or occupied and farmed with No Formal Arrangement for its use.

### 1.7 STATISTICAL UNIT

The Statistical Unit for any data collection is the basic unit for which data is collected. For 2020 FAC, data will be collected from the following statistical units – Farming Households and Institutional Farms (Agricultural Holdings) and Enumeration Area (Tikina Vou/ Small Districts).

### 1.8 AGRICULTURAL HOLDINGS – FARMING HOUSEHOLD AND INSTITUTIONAL FARMS

A Household is a small group of persons who share the same living accommodation, contribute their income and wealth to acquire certain goods and services and share the same eating arrangement. The same defines a Farming Household where the Main Economic Activity identified is farming or practiced of any Agricultural Activity (Crop, Livestock, Fisheries & Forest).

An Institutional Farm is defined as a Farming Unit managed or operated by cooperation, group of individual, Institution, or Government Agency without regard to Title, Legal Form or Size. The Institutional farm involves production of all Crop, Livestock, Fisheries & Forest produce.

For 2020 FAC there will be two types of Agricultural Holdings covered:

- (i) Farming Household e.g. Households in villages and settlements that practices agricultural activities.
- (ii) Institution Farms e.g. Naboro, Navuso Agriculture School, Village owned fish pond, Large Scale Farm etc.

Enumerators are advised to consider the following criteria when identifying institutional farm:

- I. Ownership :
  - o Consist of two or more individuals eg Village Projects
  - o Government owned eg Naboro Correction Centre, Government Schools
  - o Farms owned by Companies/Corporation eg Hotels, Large Estates
  - o Large Scale Farms – eg joint ventures
- II. Farm Output:
  - o Farm Cash Income – standard and equally shared
  - o Farm Non Cash Income - to benefit the community instead of individual household
  - o Farm Produce – Crop, Livestock, Fisheries & Forest [fresh, no value added]
- III. Management:
  - o The institutional farm should have a manager or chairperson as the head



- o Coordinated by a committee or board
- o It should have a standard administration arrangement
- o Institutional farm should be registered

\*\* The frame for 2020 FAC institutional farming coverage is attached at the back of this manual as Annex. The final institutional listing should be compiled after data collection is completed.

## **PART 2: ROLES AND RESPONSIBILITY**

### **CENSUS FIELD SUPERVISOR**

2.1 Your responsibilities as Field Supervisor for the 2020 FAC;

- Manage Field Operation in your assigned area by planning and coordinating field operation to achieve expected coverage output.
- Liaise with Regional Coordinators and ensure that all necessary logistical arrangements are in place and confirmed before the actual data collection period.
- Finalize list of assigned Enumerators with HQ and Regional Coordinators.
- Familiarize and know the geographic boundaries and layout including infrastructure like roads, telecommunication modes, localities and communities in your assigned Area.
- Ensure that localities within assigned area are fully aware of the conduct of the Census, its scope and coverage
- Clearly advice and guide Enumerators prior and during census operation.
- Ensure that all Census Resources and equipment's issued are safely recorded and secured after census operations.
- Quality Check on coverage through daily reporting, field verification and coordination of Team meetings.
- Ensure that all challenges encountered by Enumerators during Field Operation are addressed on time and reported to Regional Coordinators and HQ.
- Field Supervisors are responsible for enumerating and collecting data from all institutions within their assigned areas.

### **TERMS AND CONDITIONS OF SERVICE**

Your terms of engagement as a Field Supervisor for the 2020 FAC will be clearly defined in your appointment letter.

Prior to this engagement, you will undergo training to provide you background information about 2020 FAC and all its requirements from you as a Field supervisor.

All assets and resources that will be assigned to your Field Team will be signed off by you and you must ensure proper inventory and safe keeping of these items.

During the three weeks enumeration period, all field operations will be expected to be carried out on FLEXI HOURS. Therefore, it is necessary that all field work are clearly planned and coordinated to ensure that each farming households/institution is visited according to their availability.

Ensure that the Public Service Code of Conduct is strictly adhered to.

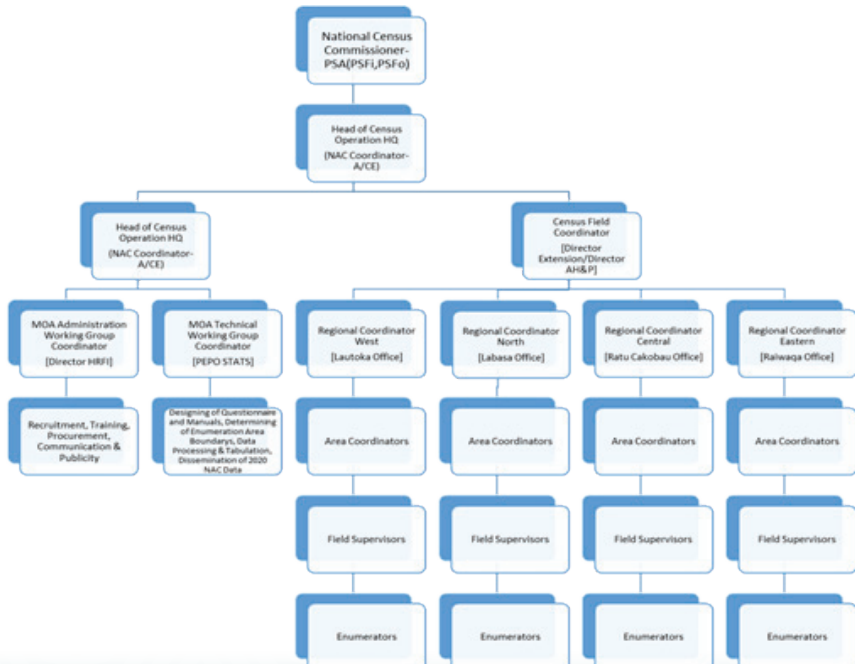


## THE CENSUS ENUMERATOR

### 2.2 Your responsibilities as an Enumerator for the 2020 FAC;

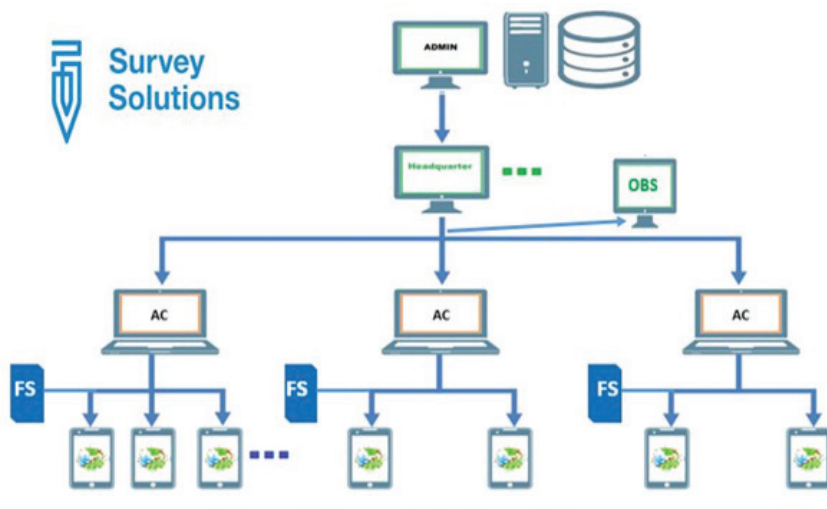
- Understand and familiarize yourself with the Terms and Conditions of your engagement as an Enumerator for the FAC.
- Familiarize and understand all items covered in the 2020 FAC Questionnaire highlighted in this Field Manual.
- Familiarize and understand the geographic layout, localities and communities in your assigned Area.
- Ensure enumeration and FULL COVERAGE of ALL households/holdings in your assigned area.
- Ensure continuous consultation with your assigned Field Supervisors on all matters pertaining to your EA especially difficulties faced during interview and before submission of completed questionnaires to Area Coordinators.
- Ensure that all data collected is synced without any errors.
- Note - if the Area Coordinator rejects the household questionnaire, the Enumerator must ensure that all comments & issues are rectified before continuation of interview and data collection to a new locality or new household within the assigned area.
- Ensure that daily records of your interviews and coverage of your EA is submitted to

## PART 3: 2020 FAC ORGANISATIONAL STRUCTURE





### 3.1 CAPI SYSTEM STRUCTURE



## PART 4: SURVEY OPERATIONS

### 4.1 INTERVIEW SKILLS

- Be courteous at all times.
- Be friendly and polite
- Wear neat clothes suitable for the areas where you will visit for the day
- Spend a minute or so in general conversation or make a complimentary remark to create the right positive atmosphere for an interview.
- Explain briefly the objectives of the agriculture census.
- Quickly summarize the Survey and the Types of Questions to be asked to the respondent. This will help the respondent think and prepare for answers to each section of the questionnaire.
- Questions may arise about the Confidentiality of the data. Clearly explain to the respondents that all information captured will be treated as confidential.
- Ensure that you clearly understand all the questions in the Questionnaire and ask the questions based on your understanding.
- If the answer is not clear, PROBE further to get the correct answer.
- Interview should be about one particular household. Group interview/s is not an option in the 2020 FAC.
- Listen carefully to the respondent's answers. You may get answers to several questions at once, take note, and Do Not ask the answered questions again. You may annoy the respondent.
- Do not discuss politics or other controversial subjects.



## 4.2 HOURS OF WORK

- No specific hours have been prescribed. You are required to work on Flexi hours. Your hours and time of work depends on the availability of the householder (respondent).
- 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.
- As a Field Officer (Enumerator/Field Supervisor) you are expected to complete all data collection from all households in your assigned area on or before the end of the census period.
- The most likely or convenient time may be mid-day or in the evening from Monday to Sunday.
- All appointments to be attended to according to the request or consent of the respondents and preferably the Head of the household

## 4.3 ENUMERATION AREA

An Enumeration Area (EA) for 2020 FAC is a statistical unit assigned to you to conduct your interviews and capture data from, during the census period. For 2020 FAC, an Enumeration Area is the District /Tikina Vou. It includes all dwellings within this administrative boundary.

You will be provided with a Map of the Enumeration Area, which includes a general description of the EA and its boundaries. Field Supervisors will coordinate all coverage plans of assigned EA during 2020 FAC.

All EAs have a unique geographical code/ID.

|   |   |   |   |     |   |
|---|---|---|---|-----|---|
| P | P | T | T | A-Z | C |
|---|---|---|---|-----|---|

- Digits 1 and 2 (PP)- Province code
- Digits 3 and 4 (TT) – District Code (Tikina Vou)
- Digit 5 (A-Z)- Enumerator ID
- Digit 6 – classification of sector [0 – rural districts, 1 - district with demarcated peri-urban area]

## PROVINCE

|    |            |
|----|------------|
| 01 | Ba         |
| 02 | Bua        |
| 03 | Cakaudrove |
| 04 | Kadavu     |
| 05 | Lau        |
| 06 | Lomaiviti  |
| 07 | Macuata    |
| 08 | Nadroga    |
| 09 | Naitasiri  |
| 10 | Namosi     |
| 11 | Ra         |
| 12 | Rewa       |
| 13 | Serua      |



|    |         |
|----|---------|
| 14 | Tailevu |
| 15 | Rotuma  |

### **DISTRICT (Annex 12)**

All District Codes have been programmed into the Survey Solution software (prefilled) that will be used during the census. For example, Bua Province has a list of District ranging from 01 to 09 as listed below;

- 02 Bua -
- 01 Bua
- 02 Dama
- 03 Kubulau
- 04 Lekutu
- 05 Nadi
- 06 Navakasiga
- 07 Solevu
- 08 Vuya
- 09 Wainunu

### **ENUMERATOR IDENTIFIER**

An enumerator will be identified by an Alphabet in every District.

Eg. Bua District has 3 Enumerators with identifiers A to C as listed below.

|    |              |    |              |   |              |
|----|--------------|----|--------------|---|--------------|
| 02 | Bua Province | 01 | Bua District | A | Enumerator A |
|    | B            |    |              |   | Enumerator B |
|    | C            |    |              |   | Enumerator C |

- Enter/Select the Village/Settlements
- Enter New Locality/Settlement
- Enter the Household Number

### **4.4 HOW TO COVER YOUR ENUMERATION AREA (EA)**

Your supervisor will identify your area of coverage within the District boundary which will include your list of localities assigned during the enumeration week. EA's with more than one Enumerator, Field Supervisors should clearly plan and coordinate coverage of localities within the EA for each enumerator, to avoid over and under counting.

A group of Field Supervisor assigned to one EA, should continuously consult and plan their Coverage well within the enumeration week to ensure that each enumerator is assigned with a reasonable number of localities to cover daily.

All enumerated household should be identified by a 2020 FAC Household sticker and household number.

Example of an EA Map





## SUVA DISTRICT

EA NUMBER: 12-07-(A-H)-1

**Starting Point:** Point where Queens Highway crosses Suva/Veivatuoa District Boundary (Rewa/Namosi) Province bdy at coordinate [4992 – 7367] 0.08 Km W of Yunisoco Road Junction.

**Description:** From starting point follow District bdy Northwest to Waimanu River where it meets Suva/Namosi District bdy [4656 - 7932]. Follow Waimanu River Northeast upstream to mouth of Waiturua creek where it meets Suva/Waidina district boundary- 4765-8000 (Rewa/Naitasiri province bdy). Continue NE along Suva/Waidina district bdy on Waimanu River and N to mouth of unnamed creek [6251 - 8704] where it meets Vuna/Suva district bdy. Follow district bdy SW to the point where Suva/Vuna District bdy meet Suva/Naitasiri district bdy on Nakobalevu Road [6339 - 8341]. Follow Suva/Naitasiri district bdy (Rewa/Naitasiri province bdy) SW to Lami Urban bdy [6600 - 7874]. Follow urban boundary SW and S to high water mark. Continue SW along highwater mark to coordinate 5128 -7247 on Rewa/Namosi Provincial bdy. Follow provincial bdy NW back to Starting point.

**Note:**

1. Lami and Suvavou Village are excluded.
2. Qauia Settlement is excluded. Enumerator to include Maloku Settlement North of Qauia
3. All Settlements from end of Lami town bdy on both side of Queens Highway to Veisari River (West of Namuka Village) are also excluded.
4. Survey along Queens Highway to start from Veisari Settlement to Vacoko Settlement. Matanisivaro, Matata, Naivikinikini, Kalekana, Lami, Wainidinu, Nadonumai Settlements are



excluded since they are located inside Lami town boundary.

#### **4.5 ABSENCE OF OCCUPANTS AND EMPTY DWELLINGS**

In some cases all adult household members may be absent on your first visit and you are not able to obtain any information.

In such cases, the following procedures need to be followed:

You should enquire either from children that are present or from neighbors, about the best time to call back. If possible, make an appointment for your return visit. If this is not possible, send word ahead of you to say when you will be visiting the household next.

1. If after three visits, you are still not able to enumerate the household members, you should make a note of the place and notify your Field Supervisor as soon as possible.
2. Field Supervisor should try to establish reasons for absence as listed below, that should enable the identification of this household / holdings as “Vacant” and:
  - Away overseas
  - Away in other locations for more than 6 months
  - Permanently residing elsewhere

#### **4.6 REFUSALS**

Most people cooperate fully in survey undertaking, but Refusals have been recorded in isolation. You may find a respondent who is reluctant to provide information mainly because he/she does not understand “Why” a census is conducted and his / her role as a respondent.

- In such cases, you must take the responsibility to politely explaining about the importance of census to the reluctant respondent.
- Politely explain that the census operation was approved by CABINET and emphasize all information is confidential and will be used for planning and development of Fiji’s Agriculture Sector.
- You must remain calm and courteous at all times when dealing with a person or household refusing to be interviewed.
- Correctly handling refusal situation is important in creating good work relationship for the census and other future surveys.
- Enumerator must inform Field Supervisor if a respondent continues to refuse an interview.
- Field Supervisors are to visit non-responding household and negotiate on the Enumerators behalf.
- Field Supervisor will then report the “refusal” to Regional Coordinators should he/she requires any further assistance.

#### **4.7 LAST COVERAGE CHECKS AND LABELLING**

After finalizing interview, ensure the following checks:

- Check the interview questionnaire once more for completeness and all information are correct.
- Make sure that all eligible household members have been included.
- Make sure that all enumerated household have been identified by 2020 FAC household sticker and the number.



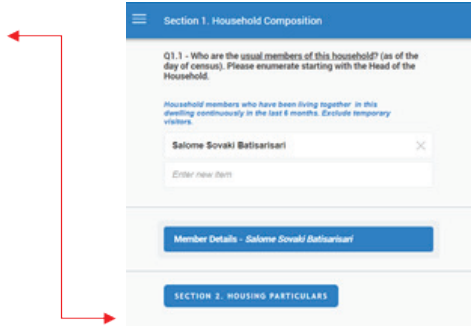
The purpose of the label is to ensure that all households in your area have been covered, no household is enumerated twice and no Household is missed out. It will enable an easier and well-coordinated field coverage check by Supervisors. You must stick the label preferably on the outside of the main door where your supervisor can spot and check for coverage.

#### 4.8 DATA QUALITY AND QUALITY CONTROL

Obtaining good quality data and achieving full coverage in a census are equally important. You as an Enumerator play a key role in both.

During the field operation, your Field Supervisor will check your answers on the Tablet before synchronizing.

The next section will always be displayed at the bottom



##### 4.8.1 COLOR SIGNIFICANCE IN THE SURVEY SOLUTIONS APP TO ASSIST QUALITY AWARENESS

Using the color coding system will become critical to undertaking effective checking processes.

**GREEN** - means the section/questions is filled and completed. The next section will always be displayed at the bottom

Create New Started (1) Completed (1)

Completed interviews, will be uploaded during your next synchronization

|                  |  |
|------------------|--|
| 69-03-05-65      | NATIONAL AGRICULTURE CENSUS - 2020<br>(Final Test) (v10) |
| Assignment #435  | Completed on Nov 28, 14:22                               |
| Name of Province | Ba   |
| Name of District | Nawaka (09)  |

**BLUE** - means the section/question is still to be filled or in progress, it means that the section has NOT been completed.

Create New Started (1) Completed (1)

Interviews which have been started but not completed  
You need to complete it to be synchronized

|                  |  |
|------------------|--|
| 40-65-66-03      | NATIONAL AGRICULTURE CENSUS - 2020<br>(Final Test) (v10) |
| Assignment #408  | Started on Nov 21, 16:12                                 |
| Name of Province | Ba   |
| Name of District | Nawaka (09)  |
| Enumerator ID    | EB109C   |

**RED** - means there is an error or rejected

You are about to complete interview 68-06-24-93

QUESTIONS STATUS

77 **Answered** 9 **Unanswered** 1 **Error(s)**

ENTITIES WITH ERRORS

Q1.7 - What is main Marital Status?

NOTE FOR SUPERVISOR

Explain error here

## PART 5: 2020 FIJI AGRICULTURE CENSUS QUESTIONNAIRE

Select Availability of Respondent

- Respondent is Available for Interview – Enable Section 1, 2 and END PAGE
- Interview Cannot be Done – Go straight to END PAGE

### SECTION 1: HOUSEHOLD COMPOSITION

Roster – To be filled for all Household Members designed to capture demographic information.

#### INTERVIEW INSTRUCTIONS FOR SECTION 1

Question 1.1 - Who are the usual Members of this Household? List Text

This question captures the Name of all Household Members. Please enumerate starting with the Head of the Household.

The Head of the Household is the person regarded by its members as the Main Decision Maker of household matters and issues, e.g. in a normal Fijian Household setting, the head of the household is usually the Father in the main nuclear family, the Mother in a single Female headed family and the eldest child if there is no parent identified.

The usual members of the Household are persons who have been living together in one dwelling for six months or more and make common provision for food and other essentials for living.

- Also included as household members are persons who usually reside with the households but go away for other purposes on temporary basis (e.g. Household member away at university, boarding school, away on business/ educational travel abroad, away on vacation, traditional obligations).
- A non-household member would be an individual residing with the family during agriculture census enumeration period on a temporary basis and have their permanent resident elsewhere e.g.: visitors and relatives residing with the household due to medical reasons, traditional obligations, university students, etc.



### Question 1.2 - What is the Gender/Sex of household member? Single Select

This question captures the gender disaggregated structure of the household. [Male or Female]

It is advisable to use observation skills in answering this question.

- If you're an iTaukei Enumerator and also your respondent is also iTaukei, then answers to this question could be determined by the names of household members identified. e.g.: Tomasi is a Male, Ana is a Female.
- If you're an iTaukei Enumerator and your respondent is of another ethnic group, then there is a need to ask the question about gender/sex of household member. e.g.: Ashwin and Ashwini - need clarification to determine the right gender/sex.

Correct data on gender / sex is important for Gender analysis in the Agriculture Sector especially in reporting on the participation and roles of both men and women in the Agriculture Sector.

### Question 1.3 - What is household member Relationship to the Head of Household?

Single Select

This question captures the Relationship of all Household members to the Head of Household. It will be answered by selecting one of the following options below:

1. Head
2. Spouse
3. Partner
4. Son/Daughter
5. Son in Law/Daughter in Law
6. Brother/Sister
7. Grandchild
8. Parent of Head
9. Parents in law
10. Other Relative
11. Unrelated

### Q1.4 - What is the Age of the Household Member at the date of visit? Numeric

The age of every household member should be entered in completed number of years i.e. Age on the last birthday.

### Q1.5 - What is Household Member's Ethnicity? Single Select

It is recommended that this question is answered through observation by the Enumerator but may be asked directly if the respondent feels comfortable about answering the question. It will be answered by selecting one of the 6 Ethnicity categories given as options below:

1. I-Taukei
2. Indo Fijian
3. Chinese
4. Rotuman



5. Other Pacific Islanders
6. Other – Enable Q1.5a

**Q1.5a - Other, Specify Text****Q1.6 - What is household member Religious Denomination?** Single Select

The religious denomination of the member as reported by respondent should be recorded. The Enumerator must select one from the 10 Major Religious categories provided below:

1. Methodist
2. Catholic
3. AOG (Assemblies of God)
4. Hindu
5. Muslim
6. CMF (Christian Mission Fellowship)
7. SDA (Seventh Day Adventist)
8. All Nation
9. New Methodist
10. Apostles
11. Other – Enable Q1.6a

If in exceptional cases, the religious denomination of the member does not fall in categories listed at serial numbers 1 to 10, it must be recorded under “Other” (Option No. 11).

**Q1.6a - Other Specify Text**

(Any other religious denomination not listed above)

**Q 1.7 - What is Household Member’s Marital Status?** Single Select

The Marital Status of the member as reported by respondent should be recorded. It will be answered by selecting one of the six options below:

1. Never Married
2. Married
3. De facto
4. Widowed
5. Separated
6. Divorce

Discussing the status of a relationship for some people may be a sensitive issue. Enumerator must record the Marital Status of the household member as reported by the respondent even if they feel that the response is not true or not correct. It is a single select question and only one option can be recorded.

**Q 1.8 - Is the Household Member currently attending School?** (Y/N) Single Select

School identifies any Education Institution – Primary, Secondary, Tertiary, Vocational, etc.

1. Yes - skip to Q1.8b
2. No - continue to Q1.8a



**Q 1.8a - What highest level of Education has household member completed?** Single Select

This question will provide an indicator on the education level of farmers. There are 6 options in the select list and the highest level of education completed should be recorded.

1. Pre School / Kindergarten
2. Year 1- 4
3. Year 5- 6
4. Year 7- 8
5. Year 9- 10 (FJC)
6. Year 11 -12 (FSLC)
7. Year 13 (FSFE)
8. Vocational
9. Tertiary
10. N/A

**Q 1.8b - Have you attended any Agriculture, Fisheries or Forestry training?** Single Select

\*This question will only appear with Household Members aged 10 years and above

The question refers to all members of the household who have attended any training provided by the Ministry of Agriculture, Fisheries or Forestry.

1. Yes
2. No

**ECONOMIC ACTIVITIES**

- This section will capture Household Member's individual Economic Activities and Status in the last 12 months.
- It is only applicable to Household Members aged 10 years and above.
- For training purposes "John" will be identified in this manual as an example.

**Q1.9 - What was John's Primary Occupation in the last 12 months?** Text

The Primary Occupation should consider the Economic Value (cash/non cash) of the activity and its impact to the wellbeing of the household. The activity in the Highest Cash/Non Cash Value is the Primary Occupation.

Example: Salome is the Spouse to the Head of Household (John). She identifies her activities as fishing for sale and home consumption, market vendor and domestic worker. Since, she goes out fishing every day for more than 6 hours, and only assist her husband at the market if the need arises, and conducts domestic duties whenever she's free at home. Her Primary Activity is a Fisher woman.

When Primary Occupation is identified as Farmer, Main Commodity question will be enabled (Q1.9a). Otherwise all other activities identified will skip to Q1.9b.

**Full Time Domestic Duties/ Student/ Retired** - states respondent is fully engaged in these activities. Enumerators should probe further on length of time and how often they assist in household farming activities to ensure that they correctly identify status of this activity. The following code will be used:

- Full Time dd



- Full Time st
- Full Time rt

If Primary occupation is FULL TIME Domestic duties, Student or Retired then skip to Q 1.16 and END.

In case where respondents who are engaged as Domestic Duties, Student, and Retired but also assist consistently in household farming activities, they should be coded as:

- Domestic duties - dd
- Student – st
- Retired - rt

If Primary occupation is Domestic duties, Student or Retired then skip to Q 1.10

**Q 1.9a - What is the Major Commodity that John farmed in the last 12 months?** Single Select

Enumerator should probe to identify the Major Commodity (Crop/Livestock) that earned him/her the highest return in last 12 months. See Annex 1 for options to this question.

**Q1.9b - What was John's Primary Occupation status in the last 12 months?** Single Select  
It will be answered by selecting one of the following options below:

1. Employer
2. Self-employed
3. Wage/ Salary Earner
4. Paid Family worker
5. Unpaid family worker
6. Voluntary/Community worker

**Q1.10 - What was John's Secondary Occupation in the last 12 months?** Text

Identifies other activity apart from Primary Occupation captured in Q1.9. It could be a Second Activity identified by the respondent that contributes to the welfare of the household. Example: John identifies his Primary Occupation as Farmer since it generates the most income in terms of sale and household consumption and identifies Fishing as his Secondary Occupation because he often goes out fishing only for household consumption.

When Secondary Occupation is identified as Farmer, main commodity question will be enabled (Q1.10a). Otherwise all other activities identified will skip to Q1.10b.

**Q1.10a - What was John's Major Commodity in the last 12 months?** Single Select

Enumerator should probe to identify the Major Commodity (Crop/Livestock) that earned him/her the highest return in last 12 months. See Annex 1 for options to this question.

**Q1.10b - What was John's secondary occupation status in the last 12 months?**

Single Select

Options are listed as follows:



1. Employer
2. Self-Employed
3. Wage/ Salary Earner
4. Paid Family Worker
5. Unpaid Family Worker
6. Voluntary/Community Worker

**Q1.11 - Which of the following Agricultural activities was John involved-in during the last 12 months?** Multi Select

Any option(s) selected here will enable Section Questions (Land, Crops, Livestock, Forestry, Fishing and Aquaculture) and will have to be answered at household level.

1. Working on Crops - Enable Q1.12 & Section 4
2. Working on Livestock – Enable Q1.13 & Section 5
3. Forestry - Enable Q1.14 & Section 6
4. Fishing - Enable Q1.15 & Section 7
5. Aquaculture - Enable Q1.15 & Section 8
6. None - This option will skip all economic activity questions and only ask Q1.16 and Section 2 - Housing Particulars, END PAGE and Complete.

For respondents who did not identify farmer as an occupation in both Q1.9 and Q1.10, will also answer Q1.11 but for home consumption purpose only. Ref: Q4.2.8, Q5.2.6, Q5.3.5, Q5.4.4, Q5.5.4, Q5.6.4, Q5.7.3, Q5.7.7, Q5.8.3, Q6.2, Q7.4.3 and Q8.3.4.

**Q1.12. - What Crop Activities was John involved-in, during the last 12 months?**

Multi Select

This question will appear only if John select “Working on Crops” in Q1.11.

It is important to probe more on this question in order to get the actual involvement of household members on these activities, particularly the involvement of women on activities such as pollinating vanilla flowers, weeding, harvesting crops, marketing crops, Cleaning/Washing/Drying/Peeling, Floriculture, etc.

Answers can be selected from the following options –

1. Land Preparation (e.g. Land clearing, Slash & Burning, Ploughing, etc.)
2. Planting Crop Tree Seedlings
3. Planting Temporary Crops/Seeds
4. Pollinating of Vanilla Flowers
5. Managing nursery for annual crops
6. Transplanting annual crops
7. Applying Fertilizer/ Pesticides, etc.
8. Weeding
9. Irrigation/Water Management
10. Delivery of Produce
11. Harvesting crops
12. Marketing crops
13. Processing home produce for sale
14. Buying farming inputs



15. Gathering coconuts, Copra Cutting, Husking & Drying
16. Cleaning/Washing/Drying/Peeling
17. Floriculture Farming
18. Other – Enable Q1.12a

**Q1.12a - Other, Specify. Text**

(Any other crop task not listed above)

**Q1.13 - What Livestock Activities was John involved in during the last 12 months?**

Multi Select

This question will appear only if John select “Working on Livestock” in Q1.11.

1. Feeding/Shepherding cattle, goats and sheep
2. Milking cows/goats
3. Managing Bee Hives
4. Feeding/Managing Pigs
5. Feeding/Managing Poultry
6. Delivery of livestock or products
7. Marketing
8. Buying farming inputs/feeds
9. Other - Enable Q1.13a

**Q1.13a - Other, Specify. Text**

(Any other livestock task not listed above)

**Q1.14 - What Forest Activities was John involved in during last 12 months?** Multi Select

This question will appear only if John select “Forestry” in Q1.11.

1. Planting trees (e.g. sandalwood, mahogany)
2. Planting Voivoi
3. Planting Masi
4. Tree nursery work
5. Gathering firewood/Cutting tree branches
6. Harvesting wild food (e.g. Ota)
7. Harvesting of Masi
8. Harvesting of Voivoi
9. Harvesting Wild Plants for Herbal Medicine
10. Handicraft
11. Selling Handicrafts, Wild Foods, etc
12. Other - Enable Q1.14a

**Q1.14a - Other – Specify. Text**

(Any other forestry task not listed above)

**Q1.15 - What type of Fishing/Aquaculture Activities was John involved in during the last 12 months?** Multi Select



This question will appear only if John select “Fishing/Aquaculture” in Q1.11.

1. Inshore Fishing
2. Offshore Fishing
3. Fresh Water Fishing
4. Making fish products at home for sale (e.g. smoked fish etc.)
5. Managing Fish Ponds
6. Selling Fish and other Fish Products
7. Other - Enable Q1.14a

**Q1.15a - Other – Specify.** Text  
(Any other fishing task not listed above)

**Q1.16 - Does John have any of these Functioning Challenges?** Series of Yes or No Options  
It may be noted that this question is meant to assess disability /impairment in faculties. It is well known that with age increasing, certain impairments are natural. These are not to be recorded here.

Only if the member suffers from some kind of disability e.g. he /she cannot see despite aids (glasses, etc.), then he/she should be recorded as having difficulty seeing. The member is not able to walk steadily e.g. he limps or walks haltingly, or walks unevenly to be called difficulty in walking. Similarly for other difficulties.

Note that all option should be answered. A blank option will prompt an error.

1. Problem Seeing
2. Difficulty Hearing
3. Difficulty Walking or Climbing steps
4. Difficulty Remembering or Concentrating
5. Difficulty with Self-care such as bathing or getting dressed
6. Difficulty communicating (e.g. dumb, stammering)

**Q1.17 - Do you have a Savings Account?** (Y/N) Single Select  
This question will be Enabled if Q1.9 or Q1.10 is Farmer, Fisherman/Fisherwoman or Forester.

1. Yes - Continue to Q1.18
2. No - Skip to Q1.21

**Q1.18 - Where do you save?** Multi Select  
1. Bank - Enable Q1.19  
2. Other Financial Institution(s) - Enable Q1.20

**Q1.19 - Which Bank(s) do you have an account with?** Multi Select

1. ANZ Bank
2. Baroda Bank
3. Bred Bank
4. BSP Bank
5. Habib Bank



6. HFC Bank
7. Westpac Bank

**Q1.20 - Which Financial Institution/s do you have an account with?** Multi Select

1. Fiji National Provident Fund (FNPF)
2. Unit Trust of Fiji
3. Fiji Holdings
4. RBF - Viti Bond
5. Kontiki Finance
6. Other - Enable Q1.20a

**Q1.20a - Other, Specify.** Text

(Any other Financial Institution not listed above)

**Q1.21 - What is the reason for not having a savings account?** Single Select

1. Not a priority
2. Don't have enough to save
3. Accessibility - Bank services are not available in area
4. Other - Enable Q1.21a

**Q1.21a - Other, Specify.** Text

(Any other reason not listed above)

**Q1.22 - Q1.22c** is a household based question that will be enabled when all the questions of every Individual in the household is completed.

**Q1.22 - Name of Respondent – the name of the person responding to the interview should be recorded here.** Single Select

**Q1.22a - What is Respondents Contact Number?** Numeric

Record respondent contact number

**Q1.22b - Are there any other members of this Household with Mobile Phone?** (Y/N)

Single Select

1. Yes - Continue to Q1.22c
2. No

**Q1.22c - Which member(s) listed below has own Mobile Phone?** Multi Select

In answering this question select names on drop down list. Drop down list will only include names of members of household who identify farmer, fisherman/ fisherwoman or forest worker as their primary and secondary occupation.

## **SECTION 2: HOUSING PARTICULARS**

This section is designed to capture and measure the impact of Agriculture, Livestock, Fishery and Forestry on living standards and conditions of household.

Questions asked in this section will capture accessibility to basic daily necessities like water,



electricity and proper sanitation. Data from these questions can be used as an indirect indicator of poverty and provide information on infrastructure needs in the Peri -Urban and Rural areas of Fiji.

**Q2.1 - Which type of Dwelling does this Household live in?** Single Select

This question refers to the type of dwelling that household use for residence. It will be answered by selecting one of the following options below:

1. Independent dwelling
2. A building housing two or more households
3. A Hostel/Lodging house
4. Other - Enable Q2.1a

See Annex 1 for definition

**Q2.1a – Other, Specify.** Text

(Any other type of dwelling not listed above)

**Q2.2 - What type of Building Material is used for the Outer Walls of the house?**

Single Select

This question refers to the main type of material used for the outer walls of the building.

Enumerators can observe and select answer from the five answers listed below:

1. Concrete, Brick or Cement
2. Wooden walls
3. Permanent walls of tin or corrugated iron
4. Walls of Traditional Bure Materials
5. Walls of makeshift or improvised materials
6. Other – Enable Q2.2a

**Q2.2a - Other, Specify.** Text

(Any other materials used for outer walls not listed above)

**Q 2.3 - What is the Main Source of Water Supply for the Household?** Single Select

The source of water supply refers to water used for any type of household use like drinking, washing etc. The main source of water supply will be the one that the household mainly relies on or where the household gets it water from most of the time. Note that source of water used for livestock or irrigation is not included in this question. It will be answered by selecting one of the following options below:

1. Metered
2. Piped without meter
3. From a communal standpipe
4. Roof-tank
5. Borehole
6. Well
7. River or Creek
8. Other – Enable Q2.3a

**Q2.3a - Other, Specify** Text

(Any other source of water supply not listed above)

**Q2.4 - What does your Household use for Lighting?** Single Select

There are five options listed for lighting source listed below:

1. Electricity - Enable Q2.5
2. Kerosene Lamp
3. Benzene Lamp
4. Solar power unit
5. Other - Enable Q2.4a

**Q2.4a - Other, Specify.** Text

(Any other source of lighting not listed above)

**Q2.5 - What is your Main Source of Power Supply?** Single Select

The Enumerator should select only one of the options based on the respondents answer on the main source of power supply in Fiji. Select one from the eight options below:

1. EFL
2. FSC
3. Vatukoula
4. Village power plant/Village Generator
5. PWD
6. Own plant/Generator
7. Solar power
8. Other – Enable Q2.5a

**Q2.5a - Other, Specify.** Text

(Any other source of power supply not listed above)

**Q2.6 - What does your Household use for Cooking?** Multi Select

This question refers to the type of fuel the household use for cooking and most household in the rural areas use more than one type. Listed below are the 5 commonly used fuel and enumerator can select more than one from the options below:

1. Wood
2. Kerosene
3. LPG
4. Electricity
5. Methane Gas
6. Other - Enable Q2.6a

**Q2.6a - Other, Specify.** Text

(Any other type of fuel use for cooking not listed above)

**Q2.7 - What kind of Toilet Facility is mostly used by the Household?** Single Select

This question refers to the type of toilet facility that the household mostly use. It will be answered by selecting one of the following options below:

1. Flush
2. Water Seal
3. Shared with other others



4. Pit Latrine
5. Other - Enable Q2.7a
6. None

**Q2.7a - Other, Specify.** Text

(Any other type of toilet facility not listed above)

**Q2.8 - Household Durables (Y/N) - Multi Select**

Select for all household durables available in the house. This is a Yes and No answer for all household durables available in the house. Do not ask again if you can see the item.

Answers from this question can be used as an indirect indicator of wealth and access to Infrastructure.

Note that all option should be answered in either Yes or No. A blank option will prompt an error.

1. Car
2. Carrier/Truck
3. Refrigerator
4. Computer/Laptops
5. Video/TV
6. Washing Machine
7. Gas/Electric Stove
8. Telephone/Mobile
9. Outboard Motor
10. Water Pump
11. Other – Enable Q2.7a

**Q2.7a - Other, Specify.** Text

(Any other type of household durables not listed above)

**SECTION 3: LAND**

The FAC 2020 is the main source of data on the actual land use in the Country. Information on land use is crucial to analyze Agriculture Productivity. This section provides general instructions on how to fill-in the land questions.

The questions on Land must be completed for all Households and all Institutional Farms. Where the dwelling unit is located on the farmland (and not, for example, in a nearby village or town), the land area of the Household's house should be included in the area of the farmland, provided the house is used mainly for residential purposes.

The area of the farmland should include the area where agriculture activities are practiced e.g. Shifting Cultivation, Planted Area, Fallow, Not Sown, Grazing, Aquaculture and Forestland. Open rangeland, such as land open to Communal Grazing and Natural Forest, is not considered to be part of the farmland. For farmlands having access to communal grazing land, their share of such land should NOT be included in the area of the farmland unless the household has been specifically assigned to a certain area bordered by fencing or other form of boundary demarcation. In cases where a Household bought land prior to the Census



reference day, the area of land bought should be included in the area of the farmland; in cases where a farmland sold land prior to the Census reference day, the area sold should be excluded. This section (3) will be activated when option 1, 2, 3, or 5 is selected from Q1.11.

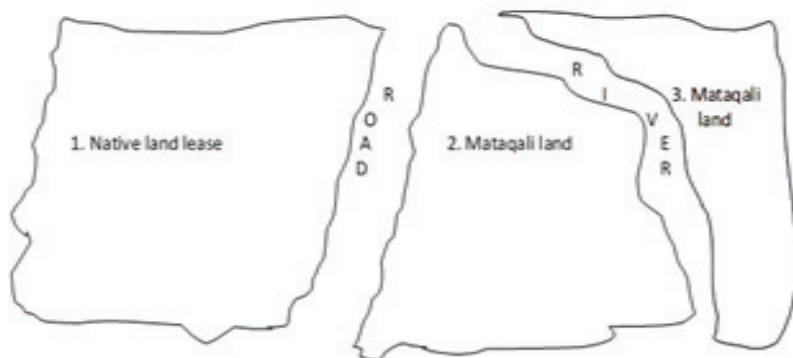
### Q3.1 - How many Pieces of Land does this Household Operate for Agriculture Activities?

Numeric

The question refers to all pieces of land used where Household practices Agriculture activities such as harvesting crops, raising livestock, aquaculture, or gathering wood/forestry products, kitchen gardens, land used for chicken or livestock and wooded land not currently farmed, customary land, etc.

Example 1

This household has three pieces of land - Enter 3 as answer to Q3.1



Please note that “0” is not an option if household has initially identified that they are involved in Agricultural activities.

Total area of farm (Q 3.1.8) is the sum total of area of all the pieces of land operated by the Agricultural Holding. It provides a measure of the size of the farm, which is an important element in the Agricultural Census analysis. It includes all land operated by the household without regard to title or legal form.

For each piece of land, questions must be answered on the Location, Tenure and the Use of the land.

### LOCATION

The location of the piece of operated land is important when desegregating land data by administrative units. If the location of each piece of operated land is not identified, all farmland would be assigned to the location of the house, which could lead to inconsistencies with data from other sources.

#### Q3.1.1 - Where is the Location of the Farmland? Single Select

The location of the farmland refers to the District/Tikina Vou in which the particular piece



of farmland is located. It will be answered by selecting one of the following options below:

1. Same District as the location of household
2. Different District from the location of household. - Enable Q3.1.2

This question is Rostered on Piece of Land and will seek information on each one of those.

### **Q3.1.2 - Province (Location of Farmland) Single Select**

This question captures the Province of the different District that the Farmland is located. It will be answered by selecting one Province listed below:

- |    |            |
|----|------------|
| 01 | Ba         |
| 02 | Bua        |
| 03 | Cakaudrove |
| 04 | Kadavu     |
| 05 | Lau        |
| 06 | Lomaiviti  |
| 07 | Macuata    |
| 08 | Nadroga    |
| 09 | Naitasiri  |
| 10 | Namosi     |
| 11 | Ra         |
| 12 | Rewa       |
| 13 | Serua      |
| 14 | Tailevu    |
| 15 | Rotuma     |

### **Q3.1.3 - District (Location of Farmland) Single Select**

This question captures the District of the Province selected in Q3.1.2. Select options provided in which district farmland is located. Refer to Annex 12

## **LAND TENURE**

Land Tenure describes land rights that provide legal security of tenure. Typically, legal ownership implies that the owner of land has the right to determine how the land is used (within certain constraints), and may have the right to sell or rent out the land. It also implies that the owner may access credit using the land as security.

### **Q3.1.4 - What is the Land Tenure of the Farmland? Single Select**

Select from options below:

1. Freehold - Enable Q3.1.5
2. Lease from the State (Crown Land) - Enable Q3.14b, Q3.1.5 & Q3.1.6
3. Native Lease – Enable Q3.1.5 & Q3.1.6
4. Traditional ownership (Mataqali, Tokatoka, Yavusa, Kovukovu/Kanakana)
5. Occupy iTaukei land with informal arrangement
6. Occupy without any legal arrangement – Enable Q3.1.6
7. Other – Enable Q3.1.4a

**Q3.1.4a - Other, Specify.** Text

For any other type of land tenure not listed above, you must specify the arrangement.

**Example:** Sharecropping/Contract Farming- Land area rented for a produce share (or the equivalent in money). Technical responsibility for farm management may be exclusively the farmer's or shared with the landlord if the latter contributes tools, fertilizers, etc. Economic risks of operation to income are shared by farmer and landlord.

**Q3.1.4b - What type of Lease from State do you have?** Single Select

This question is applicable only if the land is leased from State Land (Q3.1.4 - Option 2). It will be answered by selecting the options below:

1. Agricultural Lease
2. Residential Lease
3. Industrial Lease
4. Tourism Lease
5. Sub Lease

**LAND OWNERSHIP PARTICULARS****Q3.1.5 - Who is the Owner/ Leaseholder?** Single Select

This information is important for Land Ownership.

This question is applicable only if the land is Freehold and Native Lease (Q3.1.4 – Option 1, 2 & 3).

It will be answered by selecting the options below:

1. Member of the Household – Enable Q3.1.5a
2. Non-Household Member

**Q3.1.5a - Which Household Member is the Owner of the Farmland?** Single Select

The list of all Household members of age 15 Years or more will appear and the Enumerator should select the name of the person identified as the Owner of the farmland.

**Q3.1.6 - If the Land is on Lease/ Rent how much rent is paid annually for this farmland?**

Numeric

Where the land is on Lease/ Rent (Q3.1.4 - Option 2 & 3) - Record Annual Rent Paid. If land is occupied without any legal arrangement, then record agreed annual rate with the land owner. If land lease or rent is paid in kind, then, include cash equivalent of total rent in kind.

**Q 3.1.7 - How long has this Farmland been used for Agriculture Activity?** Numeric

State Number of Years

**LAND AREA****Q3.1.8 - What is the Total Area (in acres) of Farmland?** Numeric

Record Total Land Area of the parcel in acres as reported by respondent.

A farmer should be able to know the total area of each parcel/ piece of land. If total area is not known then estimate total land area using the following:

- Compare Land used to size of Rugby Field - 2.47 Acre (1 Ha)
- Compare Land use to size of Tennis Court - 0.125 Acre (0.05 Ha)
- Compare Land Size to size of Soccer Field - 1 Acre (0.405 Ha)



- For livestock farming, estimate land use size according to number of animals.  
e.g. 1 Cattle and a calf = 1 Acre.

### **LAND USE TYPE** (to be recorded for each piece land)

Land use reflects both:

- Activities undertaken; and
- Institutional Arrangements put in place for a given area.

Land Use provides a breakdown of the Total Area of the Holding according to type of use.

### **Q3.1.9 - What are the Main Uses of Farmland?** Multi Select

This question captures the land use type of the Agriculture activity on the Farmland.

- Temporary Crops (Short Term Crops)
- Fallow for one year or more
- Permanent Crops (no pastures)
- Permanent Crops with pastures
- Temporary Meadows and Pastures (Supply pastures)
- Permanent Meadows and Pastures
- Natural Forest
- Planted Forest
- Aquaculture
- Home Gardens
- Farm Buildings and Farm Yards
- Floriculture
- Other - Enable Q3.1.9a.

Refer to Annex 2

### **Q3.1.9a - Other, Specify.** Text

(Any other type of land use not listed above)

### **Q3.1.9b - What is the Farmland Area (in acres)?** Numeric

This question captures the Area of Farmland that is selected in Q3.1.9.

Area of each option selected should be recorded in Acres. Data on land use will be collected for every piece of land and must be equal to the Total Area of the Agricultural Farmland (Q3.1.8).

### **Accessibility to Farmland**

This set of questions will collect data on distances between place of dwelling of the farmer and his farmland. Questions on mode of transport used will highlight Infrastructure needs in each respective district or province.

### **Q3.1.10 - How long does it take to travel from your house to your farmland?** Single Select

- Less than 1 hour
- 1 - 2 hours
- 2 - 3 hours
- More than 3hrs

**Q3.1.11 - What is the main mode of transport to your farm land from your house?**

Single Select

Select main mode of transport.

1. Car
2. Bicycle
3. Motor Bike
4. Quad Bike
5. Public Transport
6. Transport Hire
7. Walk
8. Boat
9. Bamboo Raft
10. Horse
11. Tractor
12. Other – Enable Q3.1.11a

**Q3.1.11a - Others, Specify.** Text

(Any other mode of transport not listed above)

**IRRIGATION** – for all Crop Farmers

Irrigation refers to purposely providing land with water, other than rain, for improving crop production. Irrigation usually implies the existence of infrastructure and equipment for applying water to crops, such as Irrigation Canals, Pumps, Sprinklers or Localized Watering Systems. It also includes manual watering of plants using buckets, watering cans or other devices.

Uncontrolled land flooding by overflowing of rivers or streams or rain water is not considered as Irrigation.

**Q3.1.12- Is this farmland partially or fully irrigated?** (Y/N) Single Select

1. Yes - Continue to Q3.1.12a
2. No - move to next Section

**Q3.1.12a - What is the Method of Irrigation used on Farmland?** Multi Select

This question will be asked for all pieces of farmland recorded in Q3.1. Listed below are the type of Irrigation and it will be answered by selecting more than one options below:

1. Sprinklers
2. Manual Irrigation
3. Flood Irrigation
4. Drip Irrigation
5. Furrow/ Drains
6. Other – Enable Q3.1.12b

**Q3.1.12b - Other, Specify.** Text

(Any other type of Irrigation not listed above)



## SECTION 4: CROPS ON FARMLAND

Data collected in this section will identify each Type of Crop, Areas/Number of Plants (planted, harvested), Production, Market, Value and Quantity of Production used for home consumption and sale on all farm land. This Section also captures data on the use of Fertilizers and Chemicals for compiling environmental statistics.

Note: this section also include Sugarcane Farming Activities

Questions on sugarcane (Q4.3) will only appear if you select Option 135 for sugarcane from the crop list in Q 4.1

**Q4.1 - Which of these crop(s) does your household grow on your farmland(s)?** Multi Select  
This refers to crops currently grown and planted on your Farm-land/s in the last 12 months (10th Feb 2019 – 10th Feb 2020). Farmland should include all pieces of land identified in Q3.1

Ask for any other crops grown. Small crops (e.g. a few chilly plants for home use) are likely to be forgotten. It is important to record any crop that may be grown even occasionally. Seasonal crops that are not grown currently but have been grown in the last 12 months must also be captured.

Select Commodity options provided. Refer to Annex 2

Crop name will appear if you type first letter of the name of the crop.

### Q 4.1a - Other, Specify. Text

(Any other Crop Commodity not listed)

For each crop identified, other detailed questions like number of plants, area, harvest, production, farm inputs etc. will be asked.

### Q4.2.1 - How is this crop planted on your farmland? Multi select

If options 1 – 6 is selected, Q4.2.2a and Q4.2.3 will be enabled.

1. Single (Mono-Cropping)
2. Inter-Crop
3. Mixed-Crop
4. Scattered (Wild)
5. Associated Crops
6. Wild (not planted)
7. Hydroponic

[See Annex 3 for definition and photos]

### Q4.2.2a - What is the total number of plants/ tree crop currently grown on your farmland(s)? Numeric

If total number of plants cannot be provided, select “Too many to count”, then Q 4.2.2b & Q 4.2.2c is enabled. This apply for Single (Mono Cropping) in Q4.2.1. If there is more than one piece of land, enter the total number of all plants/tree crop of the commodity selected currently grown on all pieces of land. If total number of plants/tree crop is recorded, then Q 4.2.3 is enabled.

**Q4.2.2b - How many acres of land is currently planted with this crop on your farmland?**

Numeric

Refer to Q3.1.8 for estimation of area.

**Q4.2.2c - How many acres of Crop Commodity were harvested on your farmland in the last 12 months?** Numeric**Q4.2.3 - How many plants/trees were harvested from your farmland in the last 12 months?** Numeric

Record the number of plants / trees harvested from this piece of land. If more than one piece of land, enter the total number harvested. If some crops are planted and harvested more than once in a year, then add all areas planted and harvested together. The summed-up area is called gross cropped area.

For example, if the farmer planted 1 acre of Chinese cabbage in March, harvested in May then planted 0.5 acres in June and harvested in August then the total area harvested (gross cropped area) is 1.5 acres. Gross cropped area is always equal to or more than the net area sown. This may cause an error message. Record a comment e.g. “Two harvests”.

**Q4.2.4 – How many New Plants/ Trees were planted on your farmland in the last 12 months?** Numeric

This applies only for Permanent Tree Crops. Select 0 - None, if no new plant(s) planted.

**PRODUCTION**

This subsection will capture data on the quantity of crops harvested. This question will be enabled if any harvest is recorded in Q4.2.2c or Q4.2.3.

**Q4.2.5 - What was the quantity of the crop harvested from your farmland in the last 12 months?** Numeric

This question is only for crops harvested.

This refers to total production in the past 12 months. If the respondent cannot recall total quantity, ask the quantity of the last harvest then multiply with number of harvest done in the past 12 months.

**Q4.2.6 – What was the quantity harvested from your farmland’s natural forest or from the woods in the last 12 months?** Numeric

This question will be enabled when Ota, Voivoi and Masi are selected from Q4.1.

**Q4.2.7 – What was Unit of crop production?** Single select

Select the unit of quantity stated by respondent.

This question refers to units harvested in Q 4. 2. 5 &amp; Q4.2.6.

1. Bag
2. Basket
3. Box
4. Bucket
5. Bunch (Veta)
6. Bundle
7. Coil
8. Crate



9. Dozen
10. Heap
11. Kg
12. Leaves
13. Piece
14. Stalk
15. Tonnes
16. Whole Piece
17. Nut(s)
18. Other – Enable Q4.2.7

**Q4.2.7a - Other, Specify Text**

(Any other Unit of Production not listed)

**Q4.2.8 - What were the purposes of Harvesting /Gathering Crops in the last 12 months?**

Multi Select

This question will be enabled if volume harvested is recorded in Q4.2.5 or Q4.2.6.

1. Home Consumption – Enable Q4.2.8b
2. Sale – Enable Q4.2.8c and Q4.2.13 – Q4.2.14a
3. Gift
4. Social Obligation
5. Other – Enable Q4.2.8a

**Q 4.2.8a - Other, Specify. Text**

**Q4.2.8b - How much of the crop harvested did you consume at home in the last 12 months?** Single Select.

1.  $\frac{1}{4}$
2.  $\frac{1}{2}$
3.  $\frac{3}{4}$
4. All

**Q4.2.8c - How much of the crop harvested was sold in the last 12 months?** Single Select

1.  $\frac{1}{4}$
2.  $\frac{1}{2}$
3.  $\frac{3}{4}$
4. All

**VALUE ADDING**

Value adding questions will appear for the following crops – Coconut (Q4.2.9), Cocoa (Q4.2.10), Noni (Kura) – Q4.2.11 and Vanilla (Q4.2.12)

**Q4.2.9 - Which value added product did you make from Coconut harvested in the last 12 months?** Multi select



1. Accessories
2. Bags
3. Baskets
4. Coconut Soap
5. Copra
6. Furniture
7. Magimagi
8. Purse
9. Sasa Broom
10. Virgin Oil
11. Other – Enable Q4.2.9a
12. None

**Q4.2.9a - Other, specify Text**

**Q4.2.10 - Which value added product did you make from Cocoa harvested in the last 12 months?** Multi select

1. Chocolate
2. Cocoa Beans
3. Did not use any
4. Other – Enable Q4.2.10a

**Q 4.2.10a - Other, specify Text**

**Q4.2.11 - Which value added product did you make from Kura (Noni) harvested in the last 12 months?** Multi select

1. Noni Juice
2. Noni Soap
3. Noni Tea
4. Did not use any
5. Other – Enable Q4.2.11a

**Q4.2.11a - Other specify Text**

**Q4.2.12 - Which value added product did you make from Vanilla harvested in the last 12 months?** Multi select

1. Vanilla Bean Paste
2. Vanilla Soap
3. Did not use any
4. Other – Enable Q4.2.12a

**Q 4.2.12a - Other specify Text**



## MARKETS

Q4.2.13 - What was your market outlet in the last 12 months? Multi select

1. Farm
2. Market Agent (Middleman)
3. Municipal market (Wholesale)
4. Municipal market (Vendor)
5. Roadside
6. Hotel /Restaurant
7. Exporter
8. Other – Enable Q4.2.13a

**Q 4.2.13a - Other, specify Text**

## MARKET PRICE

For all markets selected in Q4.2.13, unit and price will have to be identified in Q4.2.14 and Q4.2.14a.

**Q4.2.14 - What was the price per unit of crop from the last sale?** Numeric

**Q4.2.14a – What was Unit of Sale?** Single Select

1. Bag
2. Basket
3. Box
4. Bucket
5. Bunch (Veta)
6. Bundle
7. Coil
8. Crate
9. Dozen
10. Heap
11. Kg
12. Leaves
13. Piece
14. Stalk
15. Tonnes
16. Whole Piece
17. Nut(s)
18. Other – Enable Q4.2.14b

**Q 4.2.14b - Other, specify Text**

## FARM INPUTS

Fertilizers refer to mineral or organic substances, natural or manufactured, which are applied to soil to supply plants with nutrients or to enhance plant growth.

**Q4.2.15 - What type of Organic Fertilizers were used on crop on your Farm-land in the**



**last 12 months?** Multi select

If no organic fertilizer has been used on this piece of land, please select option “None”

1. Poultry Manure
2. Fish Meal
3. Potting Mixture
4. Growth Formula
5. Phosphate
6. Alroc
7. Aglime
8. Black Urea
9. Teitei Blend
10. Other – Enable Q4.2.15a
11. None

**Q 4.2.15a - Other, specify Text**

**Q4.2.16 - What type of Inorganic fertilizers were used on crop in the last 12 months?**

Multi select

1. Urea
2. NPK
3. Triple Superphosphate
4. Hydrocomplex
5. Muriate of Potash
6. Blend A
7. Blend B
8. Blend C
9. Other – Enable Q4.2.16a
10. None

**Q 4.2.16a - Other, specify Text**

**Q4.2.17 - Which agriculture Chemicals were applied to crop in the last 12 months on your farmland?** Multi select

1. Herbicides/ Weedicides
2. Insecticides
3. Fungicides
4. Other – Enable Q4.2.17a
5. None

**Q4.2.17a – Other, specify Text**

**SUGARCANE**

This question refers to Option 135 selected in Q 4.1

**Q4.3 - What is your farm number?** Numeric

**Q4.3a - What is your sector number?** Numeric

**Q4.3b - Which of these varieties of sugarcane is grown on the Farm Land?** Multi select

Note that while there are many varieties of cane planted in Fiji options provided are for the



main varieties only

1. Mana
2. Naidiri
3. Ragnar
4. Vatu
5. Mali
6. Other – Enable Q4.3c

#### **Q4.3c - Other, specify Text**

It is important to record other new varieties planted and are not listed.

##### **Q4.3.1 - What is the age of the sugarcane variety currently grown on your farm-land?**

Numeric

The age is asked of every variety grown. Sugarcane age is described in Ratoon. Ratoon refers to the number of times a new crop has grown from the base of a cut-down sugarcane plant. The options are:

1. New plant
2. Ratoon year 1
3. Ratoon year 2
4. Ratoon 3 - 5 years
5. Ratoon 6 - 10 years
6. Ratoon more than 10 years
7. Mixed Age

##### **Q4.3.2 - How is selected sugarcane variety planted on your farm land?** Single select

Mostly sugarcane is grown as a Single (Mono-Cropping) crop. If options 1 is selected, Q 4.3.3 to Q4.3.6 will be enabled.

1. Single (Mono Cropping)
2. Inter - Crop
3. Mixed Variety

##### **Q4.3.3 - What is the area (acres) of selected sugarcane variety currently grown on your Farm Land?** Numeric

If the farmer is not able to confirm the area estimate as prescribed in Q3.1.8

##### **Q4.3.4 - What is the area (acres) of this new sugarcane variety planted on your farm land in the last 12 months?** Numeric

This question relates to area (acres) of the sugarcane planted during last 12 months (new crop raised by seed / seedling not by ratoon). If the farmer is not able to confirm total area planted, then estimate as prescribed in Q3.1.8

##### **Q4.3.5 - What was the area (acres) of this new sugarcane variety harvested on your farm land in the last 12 months?** Numeric

Enter total area (acres) of newly planted sugarcane harvested i.e. the crop was a non-ratoon crop.

**Q4.3.6 - What was the quantity (tonnes) of this new sugarcane variety harvested on your farm land in the last 12 months? Numeric**

All sugar cane harvested in large quantity is sold to sugar mills. The harvest reported in 2017 by the Fiji Sugar Corporation was 17.4 tonnes per acre (43 tonnes per hectare). Use this figures to check on the production figures reported. The yield may vary depending on soil, weather conditions, rainfall etc.

**Q4.3.7 - What type of Organic Fertilizers were used on the sugarcane variety on your farmland in the last 12 months? Multi select**

If no organic fertilizer has been used on this piece of land, please select option “None”

1. Poultry Manure
2. Fish Meal
3. Potting Mixture
4. Growth Formula
5. Phosphate Alroc
6. Aglime
7. Black Urea
8. Teitei Blend
9. Other – Enable Q4.3.7a
10. None

**Q4.3.7a - Other, specify Text****Q4.3.8 - What type of Inorganic fertilizers is/are used on sugarcane variety on your farmland in the last 12 months? Multi select**

1. Urea
2. NPK
3. Triple Superphosphate
4. Hydrocomplex
5. Muriate of Potash
6. Blend A
7. Blend B
8. Blend C
9. Other – Enable Q4.3.8a
10. None

**Q 4.3.8a - Other, specify Text****Q4.3.9 - Which agriculture Chemicals were applied to the sugarcane variety in the last 12 months on your farmland? Multi select**

1. Herbicides/ Weedicides
2. Insecticides
3. Fungicides
4. Other – Enable Q4.3.9a
5. None



## Q4.3.9a - Other, specify Text

**SECTION 5: LIVESTOCK**

Livestock or farm animals and birds are important sources of food and income for farmers. Livestock refers to all animals & birds kept or reared in captivity mainly for agricultural purposes. This includes cattle, horses, sheep, goats and pigs, as well as poultry and bees. This section covers all livestock raised on the household farm.

This section covers:

- Types of Livestock – identify all the farm animals
- A roster of questions will appear for each type of livestock ticked. Most of the questions are the same for each type of animal.
- Farming area – where stock are kept
- Stock count – number for each stock
- Production – how much milk/meat/eggs/honey produced
- Market – home consumption, sales, prices
- Livestock feed – types of feed.
- Livestock services – what services have been used

**Q5.1 - What types of Livestock farming are you involved in during the last 12 months?**

Multi select

1. Dairy cattle - for milk production mainly
2. Beef cattle - for beef production
3. Sheep
4. Goat
5. Pigs
6. Poultry/ Ducks- also select if farmers has small number of backyard
7. Chicken/ducks
8. Apiculture (Bee/ Hive)
9. Horse
10. Other – Enable Q5.1a

**Q5.1a - Other, specify Text**

“DO NOT INCLUDE PETS” such as cats or dogs, even if the respondent mentions them.

**5.2 DAIRY FARMING - FARMING AREA**

This sub-section on Dairy Farming will only appear when Option 1 in Q5.1 is selected.

**Q5.2.1 - How are your Dairy cattle kept?** Single select

This question is asked for all types of Livestock except for Apiculture.

1. Fenced
2. Tethered
3. Free Range
4. Shed

Dairy Cattle are not usually free range. Beef cattle are not usually kept in a shed in Fiji. But a farmer could import a very special type of cattle and keep it in a shed temporarily.

For Fenced or Shed cattle, ask:

**Q5.2.1a - Is the fenced pasture for your exclusive use or shared with other farmers?**

Single select

1. Exclusively for own cattle only - this will enable Q5.2.2
2. Shared with other farmers in the village

**Q5.2.2 - What is your total area (acres) of Dairy Cattle farm? Numeric**

Here, the total size of the fenced area or the shed that the animals are kept in is required to be recorded. For cattle, it usually needs around 1 acre for one cow and calf - this is the stocking ratio. However, this may vary from case to case. You should ask the respondent and make your own assessment.

Note the smallest area that can be recorded is 0.01 acres - (about 40 square metres, 48 square yards). Record smaller areas as 0.01 if needed for example for a shed.

**STOCK COUNT**

The stock count records the number of animals and the different types of animals on the farm.

**Q5.2.3 - What breed(s) of Dairy Cattle do you have on your farm? Multi select**

Select all different breed(s) of Dairy cattle on your farm.

1. Friesian
2. Jersey
3. Ayrshire
4. Other - Enable Q5.2.3a

Refer to Annex 5 for picture of breeds

**Q5.2.3a - Other, specify Text****Q5.2.4 - What class (es) of Dairy Cattle do you have/had in the last 12 months? Multi select**

select

Select all different class (es) of Dairy cattle in the last 12 months. All options selected from this question will enable Q5.2.4a to Q5.2.4f

1. Wet cow
2. Dry cow
3. Breeder bulls
4. Heifer
5. Steer
6. Bull Calf
7. Heifer Calf
8. Working Bullocks

**Note:** breeding ratio for cattle is 1 breeder bull to 20 female cattle's in a year. Number of bulls per cattle's may vary in different farms. The following questions- Q5.2.4a to Q5.2.4f, should be asked to all different classes of Dairy Cattle selected in Q5.2.4

**Q5.2.4a - How many Dairy cattle(s) do you currently have? Numeric**

This refers to the number of dairy cattle on the farm on the date of interview. Accurately record number of Cattles according to respondent's answer.



**Q5.2.4b - How many Dairy cattle(s) was sold to abattoir/rural slaughter house in the last 12 months?** (Formal) Numeric

**Q5.2.4c - How many Dairy cattle(s) was sold live (not to abattoir/ rural slaughterhouse) in the last 12 months?** Numeric

**Q5.2.4d - How many Dairy cattle(s) were loss in the last 12 months?** Numeric  
E.g. Loss due to flood, theft, missing, pest, dog attack, etc.

**Q5.2.4e - How many Dairy cattle(s) was given away as gift or for customary purposes in the last 12 months?** Numeric

**Q5.2.4f - How many Dairy cattle(s) was slaughtered in the last 12 months?** Numeric  
This refers to informal slaughtering - slaughter in the farm.  
- Q5.2.4f will enable Meat production questions: Q 5.2.12a & Q 5.2.12b.

## PRODUCTION

For Dairy cattle, questions relate to milk and meat production.

**Q5.2.5 - How many liters of milk was produced in the last 3 months?** Numeric  
Calculate from daily or weekly production if needed. If using daily production, remember that a cow will only produce milk for 210 days of the year. For example:

- On average a wet cow produces 5 liters per day for 210 days (lactation period). For 3 months milk production = 5 liters X 90 days.
- A low producing wet cow might only give 3 liters per day or 630 liters a year. For 3 months milk production = 3 liters X 90 days.
- A high yielding cow can produce 10 liters per day or 2100 liters a year. For 3 months milk production = 10 liters X 90 days

• **Q5.2.6 - What was the purpose of milk production in the last 3 months?** Multi select  
Another way of asking is: What was the milk used for?

1. Home Consumption – Enable Q5.2.7
2. Sale - Enable Q5.2.8 and Market Questions(Q5.2.11)
3. Gift
4. Value Adding
5. Other – Enable Q5.2.6a

**Q5.2.6a - Other, specify - any other use** Text

Note: Quantity of milk recorded in questions Q5.2.7 to Q5.2.10 should be equal or less than Q5.2.5.

For Q5.2.7 – Q5.2.10, quantity recorded should be in litres.

**Q5.2.7 – How much of the milk produced daily is usually consumed by the household in the last 3 months?** Numeric

**Q5.2.8 - How much of the milk produced daily is usually sold in the last 3 months?** Numeric

**Q5.2.9 - How much of the milk produced daily is usually given away in the last 3 months?**

Numeric

**Q5.2.10 - How much of the milk produced daily was usually rejected in the last 3 months?**

Numeric

This refers to quantity of milk found unfit for human consumption.

**MARKETS**

This question will be enabled if Option 2 was selected in question 5.2.6. It captures information on Milk sold by household.

**Q5.2.11 - Which markets did you sell the milk to in the last 3 months?** Multi select

1. FCDCL
2. FDL
3. Town Supplies
4. Other – Enable Q5.2.11a

**Q5.2.11a - Other, specify Text****Q5.2.11b - What was the price per litre of milk sold in the last sale?** Numeric

This question (prices of milk) will be asked to all market options selected in Q5.2.11

**MEAT PRODUCTION FROM DAIRY CATTLE****Q 5.2.12 -What were the purposes of slaughtering Dairy cattle?** Multi select

1. Home consumption – will enable Q5.2.12a
2. Sale - will enable Q5.2.12b and Meat market questions Q 5.2.13 to Q5.2.13b
3. Gift
4. Social obligation
5. Infected (e.g. Brucellosis)

Consider your answer on Q5.2.4f when recording options on Q5.2.12a and Q5.2.12b. Remember that total number of dairy cattle slaughtered should be equal to the number of cows identified as slaughtered in Q5.2.4f.

**Q 5.2.12a - How much beef from slaughtered dairy cattle did your household consume at home in the last 12 months?** Single select

1.  $\frac{1}{4}$
2.  $\frac{1}{2}$
3.  $\frac{3}{4}$
4. All

**Q5.2.12b - How much beef from slaughtered dairy cattle was sold in the last 12 months?**

Single select



1. ¼
2. ½
3. ¾
4. All

## MEAT MARKET

**Q 5.2.13 - What was your market outlet for the beef slaughtered from dairy cattle in the last 12 months?** Multi select

1. Farm
2. Roadside
3. Door to door
4. Other – Enable Q5.2.13a

**Q5.2.13a - Other, specify Text**

**Q5.2.13b - What was the price per kg of beef from slaughtered dairy cattle sold to selected market (ref Q 5.2.13) in the last sale?** Numeric

- This question will be asked to all market options selected in Q5.2.13

## LIVESTOCK FEED

This question is for Dairy Cattle. Similar questions will appear for other livestock categories at appropriate section.

**Q5.2.14 - What type of feed did you use in the farm in the last 12 months?** Multi select

1. Native Grass
2. Improved Pasture
3. Supplementary Feed
4. Concentrates
5. Other – Enable Q5.2.14a

**Q5.2.14a - Other, Specify Text e.g. some farmers are using mineral blocks.**

## LIVESTOCK SERVICES

**Q5.2.15 - Have you used any of these veterinary services in the last 12 months?** Multi select

1. Drenches
2. Clinical & Surgical
3. Artificial Insemination (AI)
4. Antibiotic treatments
5. Deworming
6. Other – Enable Q5.2.15a
7. None

**Q5.2.15a - Others, Specify Text**



### 5.3 BEEF CATTLE FARMING

Question for Livestock activities such as Beef, Sheep, Goat, and Pig farming will be similar with slight modification.

#### FARMING AREA

**Q5.3.1 - How are your Beef cattle kept?** Single select

Option 1 will enable Q5.3.1a

1. Fenced
2. Tethered
3. Shed
4. Free Range

**Q5.3.1a - Is the fenced pasture for your exclusive use or shared with other farmers?**

Single select

1. Exclusively for own cattle only- this will enable Q5.3.2
2. Shared with other farmers in the village

**Q5.3.2 - What is your total area (acres) of Beef Cattle farm?** Numeric

#### STOCK COUNT

The stock count records the number of animals and the different types of animals on the farm.

**Q5.3.3 - What breeds of Beef Cattle do you have on your farm?** Multi select

Select all breeds identified by the farmer. Other breeds on the farm which cannot be identified by the farmer (even with the help of the picture in annex 6), should be recorded as other.

1. Hereford
2. Santa Getrudis
3. Limousin
4. Brahman / Zebu
5. Other

**Q5.3.4 - What class (es) of Beef Cattle do you have?** Multi select

1. Cows(s)
2. Breeder bull
3. Heifer
4. Heifer calf
5. Bull calf
6. Steer
7. Working bullock

**Note:** breeding ratio for cattle is 1 breeder bull to 20 female cattle. Number of bulls per cattle may vary in different farms. The following questions- Q5.3.4a to Q5.3.4f, should be asked to all different classes of Beef Cattle selected in Q5.3.4

**Q5.3.4a - How many Beef Cattle do you currently have?** Numeric

This refers to the number of beef cattle on the farm on the date of interview.

**Q5.3.4b - How many Beef cattle was sold to an abattoir/ rural slaughter house in the last 12 months?** Numeric. Note: do not type in 0 but select option “none” on CAPI**Q5.3.4c - How many Beef Cattle was sold live (not to abattoir) in the last 12 months?** Numeric.**Q5.3.4d - How many Beef Cattle was loss in the last 12 months?** Numeric

E.g. Loss due to flood, theft, missing, pest, dog attack, etc.

**Q5.3.4e - How many Beef Cattle was given away in the last 12 months?** Numeric**Q5.3.4f - How many Beef Cattle was slaughtered in the last 12 months?** Numeric

This refers to informal slaughtering - slaughter in the farm. - Q5.3.4f - Will enable Meat production questions: Q 5.3.5, Q5.3.4a & Q 5.3.5b.

**MEAT PRODUCTION**

Consider your answer on Q5.3.4f when recording options on Q5.3.5a and Q5.3.5b. Remember that total number of beef slaughtered should be equal to the number of cows identified as slaughtered in Q5.3.4f.

**Q5.3.5 - What were the purposes of slaughtering Beef Cattle?** Multi select.

1. Home Consumption - Enable Q5.3.5a
2. Sale - Enable Q5.3.5b and Q5.3.6
3. Gift
4. Social Obligation
5. Infected (e.g. Brucellosis or any other disease)

**Q5.3.5a - How much of the slaughtered Beef did your household consume in the last 12 months?** Single select

1.  $\frac{1}{4}$
2.  $\frac{1}{2}$
3.  $\frac{3}{4}$
4. All

**Q5.3.5b - How much of the slaughtered Beef did you sell in the last 12 months?** Single select

1.  $\frac{1}{4}$
2.  $\frac{1}{2}$
3.  $\frac{3}{4}$
4. All



## MEAT MARKET

**Note:** Home slaughtered beef (and other meat) can only be sold informally i.e not sold in butchers but are sold on road side, in the village or sold directly to buyers for magiti.

### Q5.3.6 - What was your market outlet for the slaughtered beef in the last 12 months?

1. Farm Gate
2. Roadside
3. Door to door
4. Other Enable Q5.3.6a

#### Q5.3.6a - Others, Specify Text

### SALE OF BEEF CATTLE BY MARKET

For all markets selected in Q5.3.6, unit and price will be recorded in Q5.3.6b.

### Q5.3.6b – What was the price per Kg of slaughtered Beef for the last sale? Numeric

Record the price of a Kg (kilogram) of Beef only for the last sale.

### LIVESTOCK FEED

#### Q5.3.7 - What type of feed did you use in the farm in the last 12 months? Multi select

1. Native Grass – includes naturally existing grass such Paragrass, Batiki blue, Nadi blue, Navua sedges & T- grass
2. Improved Pasture (e.g. Juncao) – includes setaria, mulato, Signal grass, including the newly introduced Juncao grass
3. Supplementary Feed – eg dairy feed, calf pellets, mixed ration such as mill mix + coconut meal + molasses + chaffed grass or mixture of all
4. Concentrate – high in protein and nutrients.
5. Other – e.g. some farmers are using mineral blocks.

#### Q5.3.7a other specify

### LIVESTOCK SERVICES

#### Q5.3.8 - Have you used any of these veterinary services in the last 12 months? Multi

Select

1. Drenches
2. Clinical & Surgical
3. Artificial Insemination (AI)
4. Antibiotic treatments
5. Deworming
6. Other – Enable Q5.3.8a
7. None

#### Q 5.3.8a - Others, Specify Text



## 5.4 SHEEP FARMING - FARMING AREA

### Q5.4.1 - How are your Sheep kept? Multi Select

1. Fenced- option will enable Q5.4.1a
2. Tethered
3. Shed
4. Free Range

### Q5.4.1a - Is the fenced pasture for your exclusive use or shared with other farmers?

Single select

1. Exclusive for own use- option will enable

Q 5.4.2

2. Shared with other famers in the village

### Q5.4.2 - What is the total area (acres) of your Sheep farm? Numeric

Refer to Q 3.1.8 for full description of method for estimation area

## STOCK COUNT

### Q5.4.3 - What class (es) of Sheep do you have (stock breakdown)? Multi select

Select all the class (es) identified by the farmer.

Note that the farmer may have more than one class of sheep

1. Ewes
2. Rams
3. Female Hoggets
4. Male Hoggets
5. Lamb Female
6. Lamb Male

## SHEEP DETAILS BY TYPE

The following questions will be asked to each type of sheep, (Ewes, Rams, Female Hoggets, Male Hoggets, Lamb Female, Lamb Male) - Q5.4.3a to Q5.4.3f

### Q5.4.3a - How many sheep do you currently have? Numeric

This refers to the number of sheep on the farm on the date of interview

### Q5.4.3b - How many sheep was sold to an abattoir/ rural slaughterhouse in the last 12 months? Numeric.

### Q5.4.3c - How many sheep was sold live (not to abattoir) in the last 12 months? Numeric

### Q5.4.3d - How many sheep was loss in the last 12 months? Numeric

E.g. Loss due to flood, theft, missing, pest, dog attack, etc.

### Q5.4.3e - How many sheep was given away in the last 12 months? Numeric

### Q5.4.3f - How many sheep was slaughtered in the last 12 months? Numeric

This refers to animal slaughtering – slaughter in the farm - Q5.4.3f will enable meat



production: Q5.4.4

### **PRODUCTION**

Questions on Production – Q5.4.4 to Q5.4.4b will only be enabled if there is any sheep slaughtered on the farm (informal) in the last 12 months – Ref Q5.4.3f

#### **Q5.4.4 - What were the purposes of slaughtering sheep?** Multi select

1. Home Consumption- will enable Q 5.4.4a
2. Sale - will enable Q 5.4.4b and Market question- Q5.4.5
3. Gift
4. Social Obligation
5. Infected i.e. infected from any disease

Consider your answer on Q5.4.3f when recording options on Q5.4.4a and Q5.4.4b. Remember that total number of sheep slaughtered should be equal to the number of sheep identified as slaughtered in Q5.4.3f.

#### **Q5.4.4a - How much of the slaughtered sheep meat did you consume at home in the last 12 months?** Single select

1. 1/4
2. 1/2
3. 3/4
4. All

#### **Q5.4.4b - How much of the slaughtered sheep meat did you sell in the last 12 months?** Single select

1. 1/4
2. 1/2
3. 3/4
4. All

### **MEAT MARKET**

For all markets selected in Q5.4.5, unit and price will be recorded in Q5.4.5b

#### **Q5.4.5 – What was your market outlet for the slaughtered sheep/s in the last 12 months?**

1. Farm Gate
2. Roadside
3. Door to door
4. Other – Enable Q5.4.5

#### **Q5.4.5a - Other, specify Text**

For all markets selected in Q5.4.5, unit and price will be recorded in Q5.4.5b.

#### **Q5.4.5b - What was the price per kg of slaughtered sheep for the last sale?** Numeric

Record the price of a KG (kilogram) of sheep meat only for the last sale. You should record price received from actual sale only.



## LIVESTOCK FEED

### Q5.4.6 - What type of feed do you use in the farm for the last 12 months?

1. Native Grass
2. Improved Pasture
3. Supplementary Feed
4. Concentrate
5. Other – Enable Q5.4.6a

Q5.4.6a - Others, Specify Text e.g. some farmers are using mineral blocks.

## LIVESTOCK SERVICES

### Q5.4.7 - Have you used any of these veterinary services in the last 12 months? Multi select

1. Drenches
2. Clinical & Surgical
3. Artificial Insemination (AI)
4. Antibiotic treatments
5. Deworming
6. Other – Enable Q5.4.7a
7. None

### Q 5.4.7a - Others, Specify Text

## GOAT FARMING - FARMING AREA

### Q5.5.1 - How are your Goat(s) kept? Multi select

1. Fenced- Enable Q5.5.1
2. Tethered
3. Shed
4. Free Range

### Q5.5.1a - Is the fenced pasture for your exclusive use or shared with other farmers?

Single select

1. Exclusive for own use - Enable Q 5.5.2
2. Shared with other famers in the village

### Q5.5.2 - What is the total area (acres) of your Goat farm? Numeric

Refer to Q 3.1.8 for full description of method for estimation area

## STOCK COUNT

### Q5.5.3 - What class (es) of goat do you have? (Stock breakdown) Multi select

1. Does
2. Breeder Buck (Khasi)
3. Weaner Does



4. Weaner Buck
5. Kids Male
6. Kids Female

All options selected will enable Q5.5.3a to Q5.5.3f or in other words, the following questions below will be asked to each classes of goat selected in this question- Q5.5.3

**Q5.5.3a - How many goat/s do you currently have?** Numeric

This refers to the number of goat on the farm on the date of interview.

**Q5.5.3b - How many goat was sold to an abattoir/ rural slaughterhouse in the last 12 months?** Numeric.

**Q5.5.3c - How many goat was sold live (not to abattoir) in the last 12 months?** Numeric.

**Q5.5.3d - How many goat was loss in the last 12 months?** Numeric.

E.g. Lost due to flood, theft, missing, pest, dog attack, etc.

**Q5.5.3e - How many goat was given away in the last 12 months?** Numeric.

**Q5.5.3f - How many goat was slaughtered in the last 12 months?** Numeric.

This refers to informal slaughtering - slaughter in the farm - Q5.5.3f - Will enable Goat meat production: Q5.5.4a and Q5.5.4b

**Q5.5.4 - What were the purposes of slaughtering goat?** Multi select

1. Home Consumption - Enables Q5.5.4a
2. Sale - Enables Q5.5.4b and Market question- Q5.5.5
3. Gift
4. Social obligation
5. Infected from disease

Consider your answer on Q5.5.3f when recording options on Q5.5.4a and Q5.5.4b. Remember that total number of goat slaughtered should be equal to the number of goats identified as slaughtered in Q5.5.3f.

**Q5.5.4a - How much of the slaughtered Goat did your household consume in the last 12 months?** Single select

1. 1/4
2. 1/2
3. 3/4
4. All

**Q5.5.4b - How much of the slaughtered goat did you sell in the last 12 months?** Single select

1. 1/4
2. 1/2
3. 3/4
4. All



## MEAT MARKET

### Q5.5.5 – What was your market outlet for the slaughtered goat/s in the last 12 months?

1. Farm Gate
2. Roadside
3. Door to door
4. Other - Enable Q5.5.5a

#### Q5.5.5a - Others, Specify Text

For all markets selected in Q5.5.5, unit and price will be recorded in Q5.5.5b.

### Q5.5.5b – What was the price per kg of slaughtered goat meat for the last sale?

Record the price of a KG (kilogram) of goat meat only for the last sale. You should record price received from actual sale only.

## LIVESTOCK FEED

### Q5.5.6 - What type of feed do you use in the farm for the last 12 months?

1. Native Grass
2. Improved pasture
3. Supplementary feed
4. Concentrate
5. Other – Enable Q5.5.6a

#### Q5.5.6a - Others, Specify Text

## LIVESTOCK SERVICES

### Q5.5.7 - Have you used any of these veterinary services in the last 12 months? Multi select

1. Drenches
2. Clinical & Surgical
3. Artificial Insemination (AI)
4. Antibiotic treatments
5. Deworming
6. Other - Enable Q5.5.7a
7. None

#### Q 5.5.7a - Others, Specify Text

## 5.6 PIG FARMING

Q 5.6.1 – Q 5.6.2 for Pig farming are the same as all other livestock.

## FARMING AREA

### Q5.6.1 - How are your Pig kept? Multi select

Option 1 and 3 will enable Q5.6.1a

1. Pig Pen
2. Fenced
3. Shed



#### 4. Free Range

##### **Q5.6.1a - Is the Pig Pen/ Fence/ Shed for your exclusive use or shared with other farmers?**

Single select

1. Exclusive for own use- option will enable Q 5.6.2
2. Shared with other farmers in the village

##### **Q5.6.2 - What is the total area (acres) of your Pig farm?** Numeric

Here, the total size of the Pig Pen or Fence or Shed that the animals are kept in is required to be recorded.

Refer to Q 3.1.8 for full description of method for estimation area.

### **STOCK COUNT**

##### **Q 5.6.3 - What class (es) of Pig do you have in stock?** Multi select

All options selected will enable Q5.6.3a to Q5.6.3f

1. Sows
2. Boars
3. Gilts
4. Weaners (Kali)
5. Piglets

##### **Q5.6.3a - How many pig(s) do you currently have?** Numeric

This refers to the number of pigs on the farm on the date of interview.

##### **Q5.6.3b - How many pig(s) was sold to an abattoir/ rural slaughterhouse in the last 12 months?** Numeric

##### **Q5.6.3c - How many pig(s) was sold live (not to abattoir) in the last 12 months?** Numeric

##### **Q5.6.3d - How many pig(s) were loss in the last 12 months?** Numeric

E.g. Lost due to flood, theft, missing, pest, dog attack, etc.

##### **Q5.6.3e - How many pig(s) was given away in the last 12 months?** Numeric

##### **Q5.6.3f - How many pig(s) was slaughtered in the last 12 months?** Numeric

This refers to informal slaughtering – slaughter in the farm

- Q5.6.3f - Will enable pig production questions: Q5.6.4 to Q5.6.4b

### **PRODUCTION**

##### **Q5.6.4 - What were the purposes of slaughtered pig?** Multi select

1. Home Consumption- Enables Q5.6.4a
2. Sale - Enables 5.6.4b and Market questions (Q5.6.5)
3. Gift



4. Social obligation
5. Infected from disease

**Q5.6.4a - How much of the slaughtered Pig did your household consume in the last 12 months?** Single select

1. 1/4
2. 1/2
3. 3/4
4. All

**Q5.6.4b - How much of the slaughtered Pig did you sell in the last 12 months?** Single select

1. 1/4
2. 1/2
3. 3/4
4. All

## **MARKET**

**Q5.6.5 – What was your market outlet for the slaughtered pig/s in the last 12 months?**

Multi select

1. Farm
2. Roadside/ Stall
3. Door to door
4. Other - Enable Q5.6.5a

**Q5.6.5a - Other, specify Text**

## **SALE OF PIG BY MARKET**

For all markets selected in Q5.6.5, unit and price will be recorded in Q5.6.5b.

**Q5.6.5b - What was the price per kg of slaughtered Pig for the last sale?** Numeric

Record the price of a KG (kilogram) of pig meat only for the last sale.

## **LIVESTOCK FEED & SERVICES**

**Q5.6.6 - What type of feed did you use in the Pig farm in the last 12 months?** Multi select

The feed types for Pigs are different from other livestock feed.

1. Household Feed
2. Process Feed
3. Home-made ration
4. Other – Enable Q5.6.6a

**Q5.6.6a - Other, specify Text**



## LIVESTOCK SERVICES

**Q5.6.7 - Have you used any of these veterinary services in the last 12 months?** Multi select.

1. Drenches
2. Clinical & Surgical
3. Artificial Insemination (AI)
4. Antibiotic treatments
5. Deworming
6. Other – Enable Q5.6.7a
7. None

Q 5.6.7a - Other, specify Text

## 5.7 POULTRY FARMING - FARMING AREA

**Q5.7.1 – How are your birds kept?** Single Select

1. Fenced - Enable Q5.7.1a
2. Shed - Enable Q5.7.1b
3. Free Range

**Q5.7.1a – What is the total area (acre) of your Poultry farm?** Numeric

**Q5.7.1b - How many bird sheds do you have?**

This question relates to number sheds that the household has on the date of interview.

## STOCK COUNT

**Q5.7.2 - What type of Poultry do you have?** Multi-Select

1. Broiler - Meat bird
2. Layers - Female chickens laying eggs (6 months to 3 years old) – Enable Q5.7.6 to Q5.7.10
3. Local Chicken - Junglee murgi, free range chickens - male and female both.
4. Ducks - Both male and female.

Any options selected from Q5.7.2 will enable Q5.7.2a to Q5.7.2f

**Q5.7.2a – How many live birds do you currently have?** Numeric

This refers to number of birds (include chicks) on the farm on the date of interview.

**Q5.7.2b - How many live birds were sold to a slaughterhouse in the last 12 months?**

Numeric

Live birds including ducks can be sold to Crest, Rooster, Toa, Chute, Imam, Halal, etc. slaughterhouses.

**Q5.7.2c - How many live birds were sold to other than a slaughterhouse in the last 12 months?** Numeric.

**Q5.7.2d - How many birds were loss in the last 12 months?** Numeric

E.g. Loss due to flood, theft, missing, pest, dog attack, etc.



**Q5.7.2e - How many birds were given away in the last 12 months?** Numeric.

**Q5.7.2f - How many birds were slaughtered (informal) in the last 12 months?** Numeric.

This refers to informal slaughtering – slaughter in the farm.

Will enable meat bird production questions: Q5.7.3 to Q5.7.3b

## **MEAT BIRD PRODUCTION**

This questions only refers to Q5.7.2f

**Q5.7.3 – What was the purposes of slaughtering poultry birds in the last 12 months?**

Multi Select

1. Home Consumption – Enables Q5.7.3a
2. Sale – Enables Q5.7.3b and Market questions (Q5.7.4)
3. Gift
4. Social Obligation
5. Infected from a disease

**Q5.7.3a - How many of the slaughtered Poultry bird were consumed at home in the last 12 months?** Numeric

**Q5.7.3b - How many of the slaughtered Poultry bird have you sold in the last 12 months?**

Numeric

This will enable Q5.7.4

## **MARKET**

**Q5.7.4 - What was your market outlet for the slaughtered poultry bird in the last 12 months?** Multi Select

1. Farm
2. Municipal Market
3. Roadside
4. Other

Q5.7.4a – Other, Specify Text

## **SALE OF POULTRY BY MARKET**

For all markets selected in Q5.7.4, unit and price will be recorded in Q5.7.4b.

**Q5.7.4b – What was the price per bird of poultry in the last sale?** Numeric

Record the price of a KG (kilogram) of bird meat only for the last sale. You should record price received from actual sale only.

**Q5.7.5 - How many Culled Birds were sold in the last 12 months?**

Culled birds are chickens that had stopped laying eggs/have low egg yield.

## **EGG PRODUCTION**

Egg production is to be recorded in dozens.

The production questions for eggs are standard, as are the markets. In answer to the



question Q5.7.11b record the price that the farmer received for sale of one dozen of eggs for his last sale just before the date interview.

**Q5.7.6 - How many dozens of eggs were produced in the last 12 months?** Numeric.

**Q5.7.7 - How many dozens of eggs were consumed at home in the last 12 months?** Numeric.

**Q5.7.8 - How many dozens of eggs were sold in the last 12 months?** Numeric.  
Enable Q5.7.11 to Q5.7.11b.

**Q5.7.9 - How many dozens of eggs were given away in the last 12 months?** Numeric

**Q5.7.10 - How many dozens of eggs have you loss in the last 12 months?** Numeric  
E.g. Loss due to flood, theft, missing, pest, dog attack, stale eggs, crack eggs, etc.

## MARKETS FOR EGG

The following question will only be enable if farmers sold any eggs in the last 12 months:  
Ref Q5.7.8.

**Q5.7.11 – What was your market outlet for egg/s in the last 12 months?** Multi select

1. Farm
2. Municipal Markets
3. Roadside
4. Other - Enable Q5.7.11a

**Q5.7.11a - Other, Specify Text**

For all markets selected in Q5.7.11, unit and price will be recorded in Q5.7.11b.

**Q5.7.11b - What was the price of eggs per dozen sold to [selected market] in the last sale?** Numeric

Record the price per dozen only for the last sale. You should record price received from actual sale only.

## OTHER POULTRY PRODUCTS

This questions applies only to farmers who sell poultry manure

**Q5.7.12 - Did you sell poultry manure from your Farm in the last 12 months?** Y/N

If Yes, Q5.7.13 is enabled.

**Q5.7.13 - How much did you earn from sale of poultry manure in the last 12 months?**

If the respondent cannot recall sales for the whole year, ask for last month sale and calculate for 12 months.

Services and feed questions are not asked for poultry.

## 5.8 APICULTURE

The cultivation of bees for the production of honey is called apiculture. The term beekeeper



refers to a person who keeps honey bees in beehives, boxes, or other receptacles.

**Q5.8.1 - What type of Hives do you have?** Multi select.

The farmer may have different types of bee-hives.

All options selected will enable Q5.8.1a to Q5.8.1c

1. Nucleus Box (Nucleus Colony)
2. Single Story
3. Double Story
4. Triple Story

**APICULTURE DETAILS BY TYPE**

For each type of hive selected in Q5.8.1, the number of hives, production and market questions will be asked.

**Q5.8.1a - How many hives (types) do you currently have?** Numeric

Record number of all types of hives the household has on the farm on the day of interview.

**Q5.8.1b - How many hives have you received/acquired through purchase or assistance in the last 12 months?** Numeric.

**Q5.8.1c - How many hives were loss in the last 12 months?** Numeric.

**PRODUCTION**

Honey production (consumption/sale) must be recorded in kilograms (kg) or litres.

Q5.8.2 - What was the quantity of honey produced in the last 12 months? Numeric

**Q5.8.2a - What was the unit of production?** Single Select

1. Kilogram
2. Litres

**Q5.8.3 - What are the purposes of producing Honey?** Multi Select

1. Home Consumption - will enable Q5.8.3b
2. Sale - will enable Q5.8.3c to Q5.8.4b
3. Gift
4. Social obligation
5. Other – Enable Q5.8.3a

**Q5.8.3a – Others, Specify Text**

**Q5.8.3b – How much of the honey produced was consumed at home?** Numeric

**Q5.8.3c – How much of the honey produced was sold in the last 12 months?** Numeric

**MARKET**

**Q5.8.4 – What was your market outlet for honey in the last 12 months?** Multi Select

1. Farm
6. Municipal Market
7. Roadside



8. Hotel / Restaurant
9. Other

#### **Q5.8.4a - Others, Specify Text**

### **SALE OF HONEY**

**Q5.8.4b – What was the price per quantity of honey sold to [selected market] in the last sale?** Numeric.

For all markets selected in Q5.8.4, unit and price will be recorded in this question Q5.8.4b. Record the price per litre only for the last sale. You should record price received from actual sale only.

**Q5.8.4c - What was the unit of honey sold to [selected market] in the last sale?** Single Select

1. Kilogram
2. Litres

### **HORSE**

There are only 3 questions for horses.

### **STOCK COUNT**

**Q5.9.1 – How many horses do you have?**

**Q5.9.2 – How many horses are male?**

**Q5.9.3 – How many horses are female?**

## **SECTION 6: FORESTRY**

A large area covered mainly with trees and undergrowth is referred to as forest. WCA 2020 defines forest as land spanning more than 0.5 ha with trees higher than 5 metres and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ.

**Q6.1 - What were the uses of the Natural/Plantation forest in the last 12 months?** Multi select

1. Firewood
2. Food (ota)
3. Logs for timber
4. Conservation
5. Handicraft
6. Other – Enable Q6.1a
7. None

**Q6.1a - Other, specify Text**

**Q6.2 - What were the main purposes of gathering/collecting forest products from the natural/planted forest?** Multi select

1. Home Consumption– using the products (firewood, food, other wood products) at home only, no sales
2. For sale – no home use at all



3. Mainly home consumption, but some sale
4. Mainly sale, but some home consumption
5. Gifts – to family or friends
6. Social Obligations (e.g. customary)

**Q6.3 - Which of these timber species is planted on your forest land?** Multi select

1. Pine (pictured)
2. Mahogany
3. Sandalwood
4. Other – Enable Q6.3a
5. None

**Q6.3a -Other, specify Text**

**Q6.4 - How many years ago were the timber species planted?** Single select

1. Less than 5
2. 5-9 years
3. 10 or more years ago

**Q6.5 - Does this household operate any nursery for forest trees?** Single select

1. Yes
2. No

**Q6.6 - In the past year, has any forest area on the land that your household operates been cleared for agriculture, livestock farming or other development?** (Y/N) Single select

1. Yes
2. No

**Q6.7 - In the past year, has any forest area on the land your household operates been damaged by natural disasters?** Single select

1. Yes
2. No

## SECTION 7: FISHING

This section identifies what types of fishing activities and other fishing details that the household participates in.

**Q7.1 - In what types of fishing did this household engage, in the last month?** Multi select.

1. Inshore Fishing - Mangroves to inner reefs. It will enable Option 1, 2, 3 in Q7.1a. Includes Fish aggregating devices (FADs) inside the reef (option 7 in Q7.1).
2. Offshore Fishing – Outer reefs to open ocean. It will extend the Options in Q7.1a to Option 4 and 5. Includes Fish aggregating devices (FADs) outside the reef.
3. Fresh Water- Enable option 6 in Q7.1.a

**Q7.1a - In which areas / habitat did this household fish in the last month?** Multi select.

The appropriate options will appear depending on option selected in Q7.1.

1. Mangroves
2. Lagoon



3. Coastal Reefs
4. Outer Reefs
5. Pelagic/ Open Ocean
6. Fresh Water
7. Fish Aggregating Device

**Q7.2 - Did this household use the following in their fishing activities in the last month?**

Multi select

1. Fishnet – any type of net
2. Fish Fence
3. Hook and Line
4. Spear – includes harpoons
5. Gleaning – walking and collecting shellfish, beche-de-mer, and other species by hand
6. Fish Trap – fixed in position
7. Long Line – with a lot of hooks, usually behind a boat
8. Other – Enable Q7.2a

**Q7.2a - Other, Specify Text****Q7.3 - What is the main mode of transportation to area of catching, collecting fish/marine product?** Single select

This question is related to area of fishing selected in Q7.1

1. Own boat with motor
2. Own boat without motor (Canoe, sail etc.)
3. Hired/ Borrowed boat with motor
4. Hired/ Borrowed boat without motor
5. Shore based (no boat)
6. Bamboo Raft

**Q7.4 - What types of fish/ marine products has your household caught / harvested in the last month?** Multi select

Please see poster of different fish types. Refer to Annex 9

**FISH PRODUCTION****Q7.4.1 - What was the quantity of this fish type caught / harvested in the last month?**

Numeric

For this question, enter only the number. The unit will be recorded in Q7.4.2. e.g. if the respondents reports 7 kg of fish capture, please enter 7 in this Q7.4.1 and select kg as unit in Q7.4.2.

**Q7.4.2 - Select unit of fish production fish caught?** Single select

1. Piece
2. Kilogram
3. Tonne
4. Bundle
5. Other – Enable Q7.4.2a

**Q 7.4.2a - Other, specify Text****Q7.4.3 - What were the purposes of harvesting this fish type in the last month?** Multi



select

1. Home Consumption- Enable Q7.4.3b
2. Sale- Enable Q 7.4.3c and Market Question (Q7.4.4)
3. Gift
4. Other – Enable Q7.4.3a

**Q 7.4.3a - Other, Specify Text**

**Q 7.4.3b -How much of the fish caught did you consume at home in the last month?** Single select

1.  $\frac{1}{4}$
2.  $\frac{1}{2}$
3.  $\frac{3}{4}$
4. All

**Q 7.4.3c - How much of the fish caught was sold in the last month?** Single select

1.  $\frac{1}{4}$
2.  $\frac{1}{2}$
3.  $\frac{3}{4}$
4. All

**MARKETS**

Q7.4.4 – What was your market outlet for fish in the last 12 months? Multi select

1. Directly from farm (Farm gate)
2. Municipal market (Wholesale)
3. Municipal market (Vendor)
4. Roadside
5. Hotel/ Restaurant
6. Other – Enable Q7.4.4a

**Q7.4.4a - Other markets, specify Text**

**SALE OF FISH**

For all markets selected in Q7.4.4, unit and price will be recorded in Q7.4.4b and Q7.4.4c

**Q7.4.4b - What was the price per unit of fish sold to the market in the last sale?** Numeric  
Record the price per dozen only for the last sale. You should record price received from actual sale only.

**Q7.4.4c - Select unit of fish sold?** Single select

1. Piece
2. Kilogram
3. Tonne



4. Bundle
5. Other

## **SECTION 8: AQUACULTURE**

Aquaculture is the cultivation (farming) of marine organisms such as fish, molluscs (clams, mussels) crustaceans (prawns, lobster). Aquaculture activities means regular stocking, feeding and protection from predators to increase the supply of the marine organism.

This section will be asked if the household has some land and any person in the household indicates that are involved in aquaculture activities. The questions refer to aquaculture carried out by the household, not paid work for an aquaculture farm outside the household.

**Q8.1 - What type of aquaculture farming did you practice in the last 12 months?** Multi select

1. Land Based (e.g. Fish Pond – Tilapia / Prawn)
2. Inland Waters (e.g. Hapa)
3. Coastal Waters (Oyster, Nama etc)

**Q8.2 - What type of water was used for aquaculture farming in the last 12 months?** Multi select

1. Fresh Water
2. Brackish Waters (e.g. for Pearl)
3. Sea water

**Q8.3 - What type of aquatic organisms did you cultivate in the last 12 months?** Multi select

1. Tilapia
2. Prawn
3. Grass Carp
4. Oyster / Pearl
5. Giant Clams
6. Seaweeds
7. Sandfish
8. Other – Enable Q8.3a

**Q8.3a - Other, specify Text**

All the followed questions under Aquaculture Commodities (Q8.3.1 - Q8.3.6a) will be asked to all type of aquatic organisms selected in Q8.3 above.

## **AQUACULTURE COMMODITIES**

**Q8.3.1 - Did you harvest any of these organisms in the last 12 months?** Single select

1. Yes (continue to Q8.3.2-Q8.3.6a)
2. No (skip to Q8.3.7)

**Q8.3.2 - How much of this organism was harvested in the last 12 months?** Numeric

**Q8.3.3 - Unit of production of this organism?** Single select



1. Pieces
2. Kilograms
3. Tonnes
4. Bundles
5. Other – Enable Q8.3.3a

**Q8.3.3a Other specify Text**

**Q8.3.4 - What was the main purpose of harvesting this organism in the last 12 months?**

Multi select

1. Home Consumption
2. For sale - option enable Q8.3.5 & Q 8.3.6
3. Gift
4. Social Obligation
5. Other

**SALE OF AQUACULTURE PRODUCE BY MARKET**

**Q8.3.5 - What was your market outlet for this organism in the last 12 months?** Multi select

1. Directly from farm (farm gate)
2. Market Agent
3. Municipal market (Wholesale)
4. Municipal market (Vendor)
5. Hotels/ restaurant
6. Roadside
7. Other – Enable Q8.3.5a

**Q8.3.5a - Other, specify Text**

**Q8.3.6 - What was the price per unit of the aquatic organism sold to this market outlet in the last sale?** Numeric

**Q8.3.6a – Select Unit of sale?** Single select

1. Piece
2. Kilogram
3. Tonne
4. Bundle
5. Other

**AQUACULTURE FEED**

**Q8.3.7 - What type of feed do you use for your aquaculture farm?** Multi select

1. On-farm/ own mixed loose feed (such as fishmeal, rice pollard, mill mix, coconut meal, kitchen scraps, cassava and bele leaves, chicken manure)
2. Locally made/supplied pellets feed (Tilapia and prawn pellets)
3. Imported Manufactured feed (Shrimp Feed & Tilapia Floating Pellet)

**Q8.3.8 - How many times do you give feed in a day?** Single select

1. Once



2. Twice
3. Three times

Q8.3.9 – What amount of feed (kg) do you give in a day? Single select

1. 0.5 kg - 2kg
2. 2.5kg - 6kg
3. 6.5kg - 12 kg

## **SECTION 9: CLIMATE CHANGE AND CHALLENGES**

Climate change is any significant long-term change in the expected patterns of weather of a region over a significant period of time. Climate change is about abnormal variations to the climate and the effects of these variations on different forms of life. Many things are expected to happen as a result of climate change, and these items have been identified as issues for Fiji.

**Q9.1 - Do you understand what Climate Change is?** (Y/N) Single select

The purpose of this question is to know whether the respondent is aware or has heard anything about climate change.

**Q9.2 - Have you noticed or observed any of the following changes on your farm in the last 10 years?** (Y/N) Single select - Requires you to answer all

Encourage the respondent to recall and changes on his farm in the last 10 years. Explain each of the changes listed and try to assist him in recalling any changes happening on his farm.

1. Loss of soil fertility
2. Decline in crop yield
3. New pest and disease
4. Increased Soil erosion
5. Reduced water quality and supply
6. Change in cropping season
7. Increased weather uncertainty
8. Longer Dry Spell

**Q9.3 - Have any of these occurred on your farm in the last 10 years?** Multi select

This question asks for actual occurrence – remind the respondent that this covers the period from March 2010 to date. The events should be severe enough to affect their agricultural activities in some way.

1. Water Logging
2. Salt water intrusion
3. Lack of Fresh Water
4. Bush Fire
5. Pest and Disease
6. Other – Enable Q9.3a
7. None

**Q9.3a - Other, Specify Text****Q9.3.1 - How often has this event occurred in the last 10 years?** Single select

1. Once or twice
2. Once or twice most years
3. Once or twice most months

**Q9.4 - In the last ten years, have you adopted any of these farming practices used on your farm because of these changes?** Multi select

Option 1 will enable Q9.5.

1. Agroforestry
2. Planting climate resilient crop varieties
3. Climate resilient livestock breeds – (Fiji – national adaptation plan)
4. Use of recommended agriculture inputs
5. Crop rotation
6. Planting of mucuna cover crops (Nitrogen fixing crops)
7. Contour Farming
8. Waste Product Management
9. None

**Q9.5 - What species of trees are planted for agroforestry?** Multi select

1. Medicinal Trees
2. Timber & Firewood Trees
3. Nitrogen fixing Trees
4. Other – Enable Q9.5a

See annex 13 for details

**Q9.5a – Other, Specify Text****Q9.6 - What are the main challenges/risks to your agricultural activities?** Multi select

Options are as follows:

1. Pest/ disease
2. Availability/cost of planting materials/ seed for crops
3. Availability/cost of fertilizers/chemicals for crops livestock
4. Availability of replacement
5. Availability of drugs/drenches for livestock
6. Availability/ price of feed for livestock
7. Access to more land
8. Land tenure
9. Access to water
10. Access to markets
11. Access to finance
12. Access to Labour
13. Damage
14. Weather
15. Transportation costs



16. Infrastructure (for storage, roads/shipping services)
17. Stray Animals,
18. Theft,
19. Lack of technical advice,
20. Other, Specify - Enable Q9.6a
21. None

### **Q9.6a – Other, Specify Text**

## **SECTION 10: EQUIPMENT**

Questions in this section will record the type of tools and equipment's used by each farming household. In relation to light and heavy machinery, it is important to identify how the farmer is able to acquire the use of heavy or light machinery. Enumerators must make themselves familiar with all farming tools and machinery to be able to collect the right data and information for this section.

This section will provide data on the followings;

- Baseline Information used for Impact/Damage Assessment of any Natural Disasters in the country
- Baseline Information for providing Rehab-Assistance in terms of equipment's after disasters
- Farm Mechanization areas.
- Number of Farmers who own, hire and borrow hand tools and machinery.
- Total Value of Assets of the Agriculture Sector

### **Q10.1 - Q10.1 - Which of the following equipment was used by the household in the last 12 months? Multi select**

1. Hand Tools - Enable Q10.2- Q10.2.2
2. Small Machineries - Enable Q10.3 – Q10.3.2
3. Heavy Machineries - Enable Q10.4- Q 10.4.2

### **Q10.2 - Which of the following Hand Tools is owned by this household? Multi select**

1. Cane Knife
2. Fork
3. Spade
4. Hoe
5. Post Hole Spade
6. Axe
7. Wheel Barrow
8. Hand Operated Sprayer
9. Water tank for irrigation or stock watering
10. Apiculture hand tools (e.g., smoker, suit, comb, etc)
11. Hand operated poultry equipment (e.g., feeders, drinkers etc)
12. Rake
13. Brush Cutter
14. Hose Pipe



## 15. Other - Enable Q10.2a

### Q 10.2a - Other, Specify Text

The followed question will be asked to all selected hand tools in Q10.2 as identified by respondent

#### Q10.2.1 – Number of selected hand tool owned? Numeric

Refers to options selected in Q10.2

#### Q10.2.2 – How many of the other hand tool (Q 10.2a) does your household have? Numeric

This question will be activated if you answer Q 10.2a

### SMALL MACHINERY

Q10.3. - Which of the following small machinery/s was used household members in the last 12 months? Multi select from drop down list of small machinery selected

1. Mistblower
2. Chainsaw
3. Power slasher
4. Banana Injector
5. Irrigation water pump
6. Roto-tiller
7. Tractor implements
8. Peanut Drier
9. Hand tractor
10. Rock remover
11. Electric and diesel generator
12. Power tiller
13. Shredding Machine
14. Egg Grader
15. Yaqona Drier (electric or solar powered)
16. Honey Extractor
17. Brush Cutter
18. Other - Enable Q10.3a

#### Q10.3a - Other, specify Text

The followed question will be asked to all selected Small Machinery/s in Q10.3 as identified by respondent

#### Q10.3.1 – Does your household own/ hire/ borrow or share the small machinery identified? Single select

1. Own – Enable Q10.3.2
2. Hire
3. Borrow
4. Shared



**Q10.3.2 – Who in the household own the selected machinery?** Multi select

Select from drop down list of household members.

**Q10.3.3 – For Other small machinery, do you own, hire, borrow or share?** Single select.

**Q10.3.4 – For other small machinery who owns the machine?** Single select.

### **HEAVY MACHINERY**

**Q10.4. - Which of the following heavy machinery/s was used by household members in the last 12 months?** Multi select

1. Tractor
2. Digger
3. Pick Up Truck
4. Rice Harvester
5. Boat
6. Sugarcane Harvester
7. Forest Harvester
8. Portable Mills
9. Other - Enable Q10.4a

**Q10.4a – Other, Specify: this option will enable Q10.4.3 – Q10.4.4**

The followed question will be asked to all selected Heavy Machinery/s in Q10.4 as identified by respondent.

**Q10.4.1 – Does your household own/ hire/ borrow or share the heavy machinery identified?** Single select

1. Own – enable Q10.4.2
2. Hire
3. Borrow
4. Shared

**Q10.4.2 – Who in the household own the selected heavy machinery?** Single select

Select from drop down list of household members.

The two followed questions - Q10.4.3 and Q10.4.4 will only appear if the option on “others” is selected in Q10.4 and Q10.4a is answered.

**Q10.4.3 – Do you own, hire, borrow or share?** Single select

**Q10.4.4 – Who owns the machine?** Single select

### **SECTION 11: AGRICULTURE (CROP, LIVESTOCK, FISHERIES, FORESTRY, SUGAR) SERVICES**

This section contains question about services that support agricultural activities - e.g. finance, government and private sector training and support, markets for selling produce.

#### **ACCESSIBILITY TO AGRICULTURE FINANCE**

**Q11.1 - In the last 12 months, did your household take a loan from a financial institution to help develop your agriculture activities?** (Y/N) Single select.



If Yes, will enable Q11.2- Q 11.4a. If No, skip to Q11.5

**Q11.2 - Which household member has taken the loan?** Single select from drop down list of household members

**Q11.3 - Which institution was the source of that loan or credit?** Single select

1. FDB - Fiji Development Bank
2. FCDCL - Fiji Cooperative Dairy Company Limited
3. Micro credit facility
4. Sugarcane Growers Fund (SGF)
5. Other Banks
6. Other - Enable Q11.3a

**Q11.3a - Other specify Text**

**Q11.4 - What was the purpose of loan/credit?** Multi select

1. Farm purchase
2. Planting materials/ new varieties of crops
3. Replacement stock
4. Purchase fertilizer/ chemicals
5. Purchase tools or machinery
6. Construct farm buildings (animal housing/ storage/nursery/processing facility)
7. Purchase/ Repair Farm vehicles
8. Land clearing or preparation
9. Fisheries
10. Forestry
11. Aquaculture
12. Other – Enable Q11.4a

**Q11.4a - Other, specify Text**

#### ACCESSIBILITY TO GOVERNMENT/NGO ASSISTANCE

**Q11.5 - Have you received any other assistance for your agriculture activities from any of these organizations in the last 12 months?** Multi select

1. Government- will enable Q11.5.1
2. Non-Government Organization- will enable Q11.6.1
3. Private Organization
4. Donor
5. None – skip to Q11.7

#### GOVERNMENT - TYPE OF ASSISTANCE

**Q11.5.1 - What types of assistance did you receive from the government ministries in the last 12 months?** Multi select

1. Seedlings
2. Seeds
3. Nursery
4. Agro Inputs (e.g Fertilizer/Chemicals)
5. Feed



6. Fencing Materials
7. Farming Implements or Machinery
8. Extension Advice
9. Poultry Sheds
10. Layer birds
11. Sheep Stock
12. Water tanks
13. Incentive Grant
14. Fishing Boats (Outboard Engine)
15. Other - Enable Q11.5.1a

**Q11.5.1a - Other, specify other assistance Text**

**Q11.5.2 - Which government ministry you have received agriculture Crop/ Livestock/ Fisheries/ Forestry) assistance from? Multi select**

This question will be asked for all types of assistant selected in Q11.5.1

1. Ministry of Agriculture
2. Ministry of Fisheries
3. Ministry of Forestry
4. Ministry of Sugar
5. Ministry of Women, Children & Poverty Alleviation
6. Ministry of Youth & Sports
7. Ministry of Rural & Maritime Development
8. Prime Minister's Office
9. Ministry of Industry Trade & Tourism
10. Other Ministry - Enable Q11.5.2a

**Q11.5.2a - Other, specify other Government Ministry Text**

**PRIVATE SECTOR ASSISTANCE**

**Q11.6 - What were the type of assistance received from Private sector in the last 12 months? Multi select**

1. Seedlings
2. Seeds
3. Nursery
4. Agro Inputs (e.g. Fertilizer/Chemicals )
5. Farm Road
6. Feed
7. Fencing Materials
8. Farming Implements or Machinery
9. Extension Advice
10. Poultry Sheds
11. Layer birds
12. Sheep Stock
13. Water tanks
14. Incentive Grant
15. Agricultural Training



16. Fishing Boats (Outboard Engine)

17. Other – Enable Q11.6a

**Q11.6a - Other, specify Text**

**Q11.7 - How do you access Agriculture Services (crop, livestock, fisheries, aquaculture or forestry) in the last 12 months?** Multi select

1. Extension visit
2. Training/ workshop
3. Radio program
4. TV talkback show
5. Provincial/District Meeting
6. Agriculture shows
7. Roadshows
8. Field days
9. Farmer meetings/ other farmers
10. Social Media
11. Other – Enable Q11.7a

**Q11.7a – Others, Specify Text**

**ACCESSIBILITY TO MARKET**

The following questions will only be enabled if they have selected Sale in any question on purpose of production, purpose of slaughtering and purpose of harvesting in the previous sections on Crop, Livestock, Fishing and Aquaculture.

If the household harvested crop, honey, egg and aquaculture and slaughtered livestock for only home consumption then Questions on this sub-section will be skipped.

**Q11.8 - What is your main mode of transport from your farm to the market?** Single select

1. Drive (4wd/truck)
2. Drive car
3. Walk
4. Canoe/small boat
5. Maritime Vessels (e.g. Lomaiviti Princess)
6. Bamboo raft
7. Horse
8. Bus
9. Carrier
10. Other - Enable Q11.8a

**Q11.8a - Others, Specify Text**

**Q11.9 - How long does it take to get to the nearest market for selling your agricultural, forestry or fish products?** Single select

1. Less than 30 minutes
2. Between 30 to 59 minutes
3. 1 to 2 hours
4. More than 2 hours



5. Produce is collected by buyer (e.g. milk truck)
6. Farm gate sale only

### **SECTION 12: FOOD INSECURITY EXPERIENCE**

This short set of questions will provide an indicator of issues with food security across the country – allowing assessment of the villages or small areas where people are most at risk of hunger. This section can produce information that can assist planners and decision makers in evaluating the level of intervention by the Ministry over the years through Programs that procure and distribute planting materials, seeds and seedlings to the farmers. Also, will assist in evaluating, modifying and aligning existing policies, strategies and programs that can improve food and nutrition security for all Fijians.

#### **Q12.1 - Do you have access to food to feed your family a balanced meal three times a day during the last 12 months?** Single select.

A balanced meal means including enough proteins (e.g. meats, eggs or dairy product), vegetables and fruits, and carbohydrates with not too much fat or sugar. Not all meals need all components, but over the day there should be a balance. Option for Answer:

1. Always
2. Sometimes
3. Never

#### **Q12.2 - During the past 12 months, was there a time when your household ran out of food because of a lack of money or other resources?** Single select

This is a sensitive question Enumerators are encourage to respectively ask the question.

1. Often
2. Sometimes
3. Never

### **SECTION 13: LABOUR**

This section captures basic information on labour force for each farming household in the sector. It also identify gender desegregated information on agriculture labour.

#### **Q13.1 - Did this Household employ any non-household members for agriculture activities for the last 12 months?** Single select

1. Yes – continue to next set of questions (Q13.2.1- Q13.2.2b)
2. No – skip to END PAGE

#### **Q13.2.1 - How many labourer/s were hired in the last 12 months?** Numeric

#### **Q13.2.2a - How many are Male?** Numeric

#### **Q13.2.2b - How many are Female?** Numeric

You have completed the questions!  
Thank the respondent

Don't forget to **COMPLETE** the **end page** and take the GPS coordinates outside!

Location of the Housing Unit (GPS coordinates) Tap the button to capture the GPS coordinate



of the Housing Unit. Please note that you must be outside and nothing blocks the sky to be able to get a better readings of the coordinates. The length of time to acquire the coordinates depends on the surroundings and cloud cover. Please wait...

## ANNEXES

### ANNEX 1 - CONCEPTS AND DEFINITION

|  |   |
|--|---|
| <p><b>A building</b> housing two or more households- This type of dwelling is common in rural areas and common for various communities where several households/ married couples are living in the same dwelling. In some cases each family share the same living room, have a common cooking place but have different budget or provisions for food. This type of living arrangement should be classified as separate households.</p> | <p><b>Alroc</b> - like Extraphos and Potash- a blend of crushed volcanic rocks to give plant vitality</p>   |
| <p><b>A Hostel/Lodging House</b> – this type of dwelling are used by farmers or farm laborers if their farms are a distant from their permanent place of dwelling. This type of dwelling is used for temporary accommodation during planting or harvesting seasons. Lodging houses may be an open room but share cooking, wash and toilet facilities</p>   | <p><b>Antibiotic Treatments</b> – given to sick animals</p>   |
| <p><b>Aglime</b> – it assists in reducing the soil acidity.</p>  | <p><b>Artificial Insemination (AI)</b> - to breed animals from sire from other areas/ breeds</p>  |
|  | <p><b>Associated Crops</b> – where a crop is grown with another crop such as vanilla with coconut trees for support.</p>  |
|  | <p><b>Black Urea</b> (a granulated urea coated in an organic complex of carbon and other biological stimulants that increase the microbial activity around the granule, optimizing the effective use of nitrogen. Black Urea provides a low burn potential over the use of other traditional urea sources, reducing nitrogen loss via leaching and volatilization, whilst reducing environmental impact).</p> |
|  | <p><b>Boars</b> - Male breeders (Tamatama)</p>  |



|  |
|--|
| <b>Buck (Khasi)</b> – Adult/billy male goat, used for breeding on farm; Tamatama mate all year around.   |
| <b>Bulls</b> - Adult Bull used for breeding (Tamatama)   |
| <b>Broiler</b> - Meat bird   |
| <b>Bull Calf</b> - Castrated male cattle <6 months   |
| <b>Clinical &amp; Surgical</b> - e.g. castration by a vet, or extension officer.   |
| <b>Concentrates</b> - high in protein and nutrients. (Q5.2.14)   |
| <b>Deworming</b> - usually given to young animals a few months after birth   |
| <b>Does</b> - Adult female goat, nanny/mother goat, breeding female  |
| <b>Door to Door</b> – selling door to door as done in villages/ communities  |
| <b>Drenches</b> – injections or dosing generally given to healthy animals to prevent diseases  |
| <b>Drip Irrigation</b> – using a hose system to slowly feed water onto the land  |
| <b>Dry Cow</b> - cow not producing milk, calf weaned, pregnant cow, and cow without calf.  |
| <b>Employer</b> - a person who works on his or her own account or with one or few partners, and has engaged on a continuous basis one or more persons to work for him /her as employees. |
| <b>Exporter</b> - sale to Exporters. Should this exchange occur at farm gate then option 1 should be selected.   |
| <b>Fallow for one year or less</b> - Fallow land refers to arable land at prolonged rest before re-cultivation in the last 12 months.  |
| <b>Farm Gate</b> - selling directly from the farm  |

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| <b>Fenced</b> - completely enclosed by a fence this option will enable Q5.2.1a  |
| <b>Fish Meal</b> - source of calcium and magnesium in the soil for the crops.   |
| <b>Flood Irrigation</b> - Water is delivered to the field by ditch, pipe, or some other means and simply flows over the ground through the crop   |
| <b>Flush</b> - A flush toilet uses a cistern or holding tank for flushing and is exclusive used by an individual household. Exclusive use means that it is solely used by the household and not shared with any other household |
| <b>Free Range:-</b> No fences, animals /birds can wander /grace freely  |
| <b>Freehold</b> - Land that the household holds a legal formal title to.  |
| <b>From a communal standpipe</b> - where other households share a communal stand pipe with the household being interviewed. This type of setting is common in rural villages and communities.                                   |
| <b>From a communal standpipe</b> - where other households share a communal stand pipe with the household being interviewed. This type of setting is common in rural villages and communities.                                   |
| <b>Fungicides</b> – A substance use to kill fungus or moulds  |
| <b>Furrow/ Drain</b> – channels on land to take water from a source to where it is needed.  |
| <b>Gift</b> – Milk given without cost   |
| <b>Gilts (4 – 6 months)</b> Female pig not yet given birth to piglets (goneyalewa varau me va kawa)   |



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|--|
| <p><b>Growth Formula</b> - contains nutrients like limestone, calcium nitrate and mono- ammonium phosphate etc. to pump up the roots of flowers, vegetables, trees, shrubs, and house plants. Easy to apply, generally no water mixing needed.</p> |
| <p><b>Heifer</b> - Female cattle 6 months to &lt; 3 years, maiden not calved yet</p>   |
| <p><b>Heifer Calf</b> - Female cattle &lt;6 months</p>   |
| <p><b>Herbicides/ Weedicides</b> – A substance, usually chemical, for killing or preventing the growth of unwanted plants, such as weeds or invasive species.</p>  |
| <p><b>Home Consumption</b> – Milk used for food by this household, including any milk that is turned into any other products for the household to eat.</p>   |
| <p><b>Home-made ration</b> – homemade mix feed following a recipe to provide a good range of nutrients</p>   |
| <p><b>Hotels/Restaurant</b> – sale to hotels/ restaurants</p>  |
| <p><b>Household Feed</b> – waste/scraps from the kitchen</p>   |
| <p><b>Improved Pasture (e.g. Juncao)</b> – includes setaria, mulato, Signal grass, including the newly introduced Juncao grass.</p>  |
| <p><b>Independent dwelling</b> - one family house detached from any other house</p>  |
| <p><b>Insecticides</b> – A substance used to kill insects.</p>   |
| <p><b>Inter-Crop</b> – the plants are planted in a pattern with rows/columns of one crop between rows/ columns of another crop e.g. Yaqona can be intercropped with other commodities such as vegetables and Dalo (Taro).</p>                      |

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| <p><b>Kids Female</b> - Small &lt; 3 months female - milk sucking</p>   |
| <p><b>Kids Male</b> - Small &lt; 3 months male - milk sucking</p>   |
| <p><b>Land under Aquaculture</b> - This is land used for cultivation of fish, prawns or other aquatic species. The land (inland waters or coastal waters) may also include land used for aquaculture facilities.</p>  |
| <p><b>Land under Farm Buildings and Farmyards</b> - This refers to the area occupied by operating farm buildings (hangars, barns, cellars, silos), buildings for animal production (stables, cow sheds, sheep pens, poultry yards) and farm-yards. Area under the holder's house (including the yard around it) is also classified here if it is part of the agricultural holding - that is, it lies next to the agricultural land.</p> |
| <p><b>Land under Floriculture</b> - Land used for growing flowers for sale. (These are a type of temporary crop)</p>  |
| <p><b>Land under Home Gardens</b> - Land around the house that is cultivated or used for chickens rearing.</p>  |



**Land under Natural Forest** - It is the area that has been allowed to grow naturally without planting on farm-land. This includes area under natural wood-logs or timber tracts, constituting part of the farm which have or will have value as wood, timber, other forest products or for protection. Rows, belts, small clumps of natural trees, bamboo and other woody natural vegetation should be included in natural forest. Natural woodland or natural forest used only for recreation purposes should be excluded.

**Land under Permanent Crops (no pastures)** - Land cultivated with long-term crops which do not have to be replanted for several years; Examples of permanent crop are coconut, avocado, papaya, yaqona (kava), pineapple, banana, vanilla, passion fruit, sugarcane etc. Exclude areas with livestock grazing around the trees.

**Land under Permanent Crops with pastures** - Land cultivated with coconuts or other permanent trees mixed with pastures for livestock grazing purposes.

**Land under Permanent Meadows and Pastures** - Land cultivated or naturally grown with herbaceous forage crops (grasses or similar forages) for mowing or livestock grazing purposes should be classified under this category. Land would be classified under permanent meadows and pastures if it has been under such use for a period of five years or more.

**Land under Planted Forest** - An area planted with either native or exotic trees is classified as Planted forest. This includes planted woodlots or timber tracts, constituting part of the farm which have value as wood, timber, or other forest produces or for protection. Rows, belts, and small clumps of planted trees, bamboo and other wooded land falls under this category.

**Land under Temporary Crops** - includes all land used for crops with less than one-year growing cycle; Examples of temporary crops include vegetables and root crops. Do not include in this category vanilla, passion fruit, sugarcane and similar crops, as these are classified as permanent crops. Refers to the physical areas of land on which temporary crops are grown (often referred to as net cropped area). The gross cropped area identifies the number of times the physical land area under temporary crop is planted in the last 12 months. Therefore the gross cropped area less net cropped area equals crop intensity ( $GCA-NC=CI$ )

**Land under Temporary Meadows and Pastures (supply pastures)** - Land temporarily cultivated with grasses or similar forage for mowing or pasture. Land would be classified under temporary meadows and pastures if it has been under such use for a period less than five years.

**Layers** - Female chickens laying eggs (6 months to 3 years old)

**Lease from the State (Crown Land)** - Land leased by the state

**Local Chicken** - Jungle murgi, free range chickens - male and female both.

**Manual Irrigation** - carrying water in containers or using a hose by hand to plants that need water



|   |
|---|
| <b>Market Agent</b> – middlemen   |
| <b>Metered</b> - this may be available in peri urban areas where water is piped into the dwelling from a treated water source and use of water is paid  |
| <b>Mixed Crop</b> – two or more crops are sown/ planted together on the same piece of land in one crop season without following any systematic method. It is done deliberately. Usually the crops are short-term (temporary) crops. |
| <b>Municipal market (Vendor)</b> - Farmer selling own produce at municipal market.  |
| <b>Municipal market (Wholesale)</b> – selling of produce in large quantities.   |
| <b>Native Grass</b> – includes naturally existing grass such Paragrass, Batiki blue, Nadi blue, Navua sedges & T- grass   |
| <b>Native Lease</b> - This refers to land operated with a lease arranged through the Native Land Trust Board (NLTB).  |
| <b>NPK</b> - source of nitrogen, potassium and phosphorus in the soil   |
| <b>Nucleus Box (Nucleus Colony)</b> - colony consisting of 4 – 5 frames of bees.  |
| <b>Occupy iTaukei land with informal arrangement</b> - This refers to other informal arrangements such as gifts or in kind, that have been made with the village or land holding group.   |
| <b>Occupy without any legal arrangement</b> - This refers to squatting – where land is operated by farmer without ownership title and without paying any rent.  |
| <b>Paid Family Worker</b> – Could be paid in cash or non-cash   |
| <b>Phosphate</b> – fertilizer adds in more phosphorous (P) nutrients in the soil needed by the crop   |

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| <b>Piglets</b> - Small pigs suckling milk (1 day - 6 wks)   |
| <b>Piped without meter</b> - is where water is piped into the dwelling but not from a treated water source and use of water is not paid.  |
| <b>Planted woodland or planted forest</b> used only for recreation purposes should be excluded. A clear distinction must be made between land under planted forest and land under permanent crops. Cultivated food tree crops are generally considered to be permanent crops, whereas plantations of bamboo or such other cultivated non-food tree crops are considered to be planted forest. |
| <b>Potting Mixture</b> - potting mixture is a medium in which to grow plants, herbs and vegetables in a pot or other durable container.   |
| <b>Poultry Manure</b> – source of nitrogen to the soil.   |
| <b>Primary Occupation</b> - should consider the economic value (cash/non cash) of the activity and its impact to the wellbeing of the household. The activity in the highest cash/non cash value is the Primary occupation.   |
| <b>Process Feed</b> – purchased, commercial feed  |
| <b>Roadside</b> – at a stall by the road  |
| <b>Sale</b> – Milk sold, to any market  |
| <b>Scattered (Wild)</b> – the seeds are scattered and the crop is allowed to grow in wild without any planting  |
| <b>Self-employed</b> - a person producing goods or services for sale, working in his/her own business, and may engage one or more persons on temporary basis e.g. A cassava farmer who sells cassava from his own farm.   |



|  |
|--|
| <b>Shared with others</b> - Any type of toilet that is used or shared with other households  |
| <b>Shed</b> - animals are kept inside a building (can be small or large)   |
| <b>Single (Mono-Cropping)</b> – all the plants of one crop only are planted together in one area   |
| <b>Single Story</b> - contains 10 frames inside the box called brood chamber.  |
| <b>Sows</b> - Female Breeders  |
| <b>Sprinkler</b> – permanent or moveable, spraying water onto the plants.  |
| <b>Steer</b> - Castrated male cattle 6 months to < 3 years   |
| <b>Supplementary Feed</b> – e.g. dairy feed, calf pellets, mixed ration such as mill mix + coconut meal + molasses + chaffed grass or mixture of all   |
| <b>Teitei Blend</b> - source of nitrogen, potassium and phosphorus in the soil. This is needed for crop formation.   |
| <b>Tethered</b> - tied up to a tree or post.   |
| <b>Traditional ownership</b> (Mataqali, Tokatoka, Yavusa, Kovukovu/Kanakana) - This refers to land operated through an arrangement with the village or land holding group. No rent is required to be paid. |
| <b>Unpaid family worker</b> - this refers to respondents who work in their own family business and do not receive any payment for their work.  |
| <b>Urea</b> – source of nitrogen in the soil for plant growth  |

|   |
|---|
| <b>Value Adding</b> – making products such as ghee, yoghurt, or cheese (paneer) that is to be sold.   |
| <b>Wage/ Salary Earner</b> - A person who works and earns either a salary or a wage. A wage/ salary earner receive a wage/ salary for the time worked.  |
| <b>Water Seal</b> - A water seal toilet has a U-shaped pipe below the seat or squatting pan to prevent odour or block passage for flies.                |
| <b>Weaner Buck</b> - Males weaned off milk 3 months to 6 months   |
| <b>Weaner Does</b> - Females weaned off milk 3 months to 6 months till they give birth to kids.   |
| <b>Weaners (Kali)</b> - Small piglets not sucking milk now (6 – 8 wks)  |
| <b>Wet cow</b> - Lactating cow / milking cow / cow used for getting milk with baby calf – this option will enable Q 5.2.5 to Q5.2.11 on Milk production |
| <b>Working Bullock</b> - Castrated bulls used for farming / cultivation.  |
| <b>Ewes</b> - Adult female sheep, breeding female, mothers  |
| <b>Rams</b> - Adult male sheep, used for breeding on farm (Tamatama)  |
| <b>Female Hoggets</b> - Females weaned off milk for 3 months to 6 months till they give birth to lambs  |
| <b>Male Hoggets</b> - Males weaned off milk 3 for months to 6 months  |
| <b>Lamb Female</b> - Small < 3 months (milk sucking)  |
| <b>Lamb Male</b> - Small < 3 months   |
| <b>Town Supplies</b> - supplied to shop(s)/ sweet maker(s) etc  |



**Agroforestry** - Agroforestry is a sustainable land management system in which trees and other wooded plants are purposely grown on the same land as agricultural crops or live-stock. Agroforestry practices complement agricultural activities, for example by improving soil fertility, reducing soil erosion, improving watershed management, or providing shade and food for livestock.

**Planting climate resilient crop varieties** – climate resilient varieties of dalo, cassava and kumala (developed by Pacific Adaptation to Climate Change (PACC))

**Crop Rotation** – do you sow different type of crops on the same piece in different seasons

**Contour Farming** – plant crops to follow the contours of a slope of a field

**Waste Product Management** – using waste of farm for farming activities

## ANNEX 2 - COMMODITY LISTING

### LIST OF TEMPORARY CROPS

| No. | Commodity           | Code |
|-----|---------------------|------|
| 1   | Amaranthus          | 201  |
| 2   | Bele                | 202  |
| 3   | Capsicum            | 203  |
| 4   | Carrots             | 204  |
| 5   | Cassava             | 205  |
| 6   | Cauliflower         | 206  |
| 7   | Celery              | 207  |
| 8   | Chinese Cabbage     | 208  |
| 9   | Cucumber            | 209  |
| 10  | Dalo                | 210  |
| 11  | Dalo ni Tana        | 211  |
| 12  | Dhania (Corriander) | 212  |
| 13  | Eggplant            | 213  |
| 14  | English Cabbage     | 214  |
| 15  | French Bean         | 215  |
| 16  | Garlic              | 216  |
| 17  | Ginger              | 217  |
| 18  | Gourd               | 218  |
| 19  | Kawai               | 219  |

|    |               |     |
|----|---------------|-----|
| 20 | Kumala        | 220 |
| 21 | Lettuce       | 221 |
| 22 | Long Bean     | 222 |
| 23 | Maize         | 223 |
| 24 | Mung Bean     | 224 |
| 25 | Okra (Bhindi) | 225 |
| 26 | Peanut        | 226 |
| 27 | Pigeon Pea    | 227 |
| 28 | Pumpkin       | 228 |
| 29 | Raddish       | 229 |
| 30 | Rice          | 230 |
| 31 | Spring Onion  | 231 |
| 32 | Tivoli        | 232 |
| 33 | Tobacco       | 233 |
| 34 | Tomato        | 234 |
| 35 | Urd           | 235 |
| 36 | Watercress    | 236 |
| 37 | Watermelon    | 237 |
| 38 | Yam           | 238 |
| 39 | Yaqona        | 239 |
| 40 | Zucchini      | 240 |

| LIST OF PERMANENT CROPS |                       |      |
|-------------------------|-----------------------|------|
| No.                     | Commodity             | Code |
| 1                       | Avocado Pear          | 101  |
| 2                       | Banana                | 102  |
| 3                       | Breadfruit            | 103  |
| 4                       | Cardamom              | 104  |
| 5                       | Cherries              | 105  |
| 6                       | Chilies               | 106  |
| 7                       | Cinnamon              | 107  |
| 8                       | Cocoa                 | 108  |
| 9                       | Coconuts              | 109  |
| 10                      | Cowpeas               | 110  |
| 11                      | Dawa                  | 111  |
| 12                      | Dragon Fruit          | 112  |
| 13                      | Duruka                | 113  |
| 14                      | Guava                 | 114  |
| 15                      | Ivi                   | 115  |
| 16                      | Kavika - (Rose Apple) | 116  |
| 17                      | Kura                  | 117  |
| 18                      | Lemon                 | 118  |
| 19                      | Mandarins             | 119  |
| 20                      | Mango                 | 120  |
| 21                      | Nutmeg                | 121  |

|    |                 |     |
|----|-----------------|-----|
| 22 | Oranges         | 122 |
| 23 | Ota             | 123 |
| 24 | Passionfruit    | 124 |
| 25 | Pawpaw          | 125 |
| 26 | Pineapple       | 126 |
| 27 | Sour Lime       | 127 |
| 28 | Soursop         | 128 |
| 29 | Tarawau         | 129 |
| 30 | Vanilla         | 130 |
| 31 | Voivoi          | 131 |
| 32 | Vudi            | 132 |
| 33 | Vutu            | 133 |
| 34 | Wi- (Ambarella) | 134 |
| 35 | Sugarcane       | 135 |

| LIST OF LIVESTOCK COMMODITIES |                          |      |
|-------------------------------|--------------------------|------|
| No.                           | Commodity                | Code |
| 1                             | Apiculture (Bees/ Honey) | 301  |
| 2                             | Beef Cattle              | 302  |
| 3                             | Dairy Cattle             | 303  |
| 4                             | Goat                     | 304  |
| 5                             | Pig                      | 305  |
| 6                             | Poultry                  | 306  |
| 7                             | Sheep                    | 307  |

### ANNEX 3: PHOTOS OF DIFFERENT METHOD OF PLANTING



Hydroponic



Mono-cropping



Mixed Cropping



Inter-Cropping

| Methods | Definition             |  |
|---------|------------------------|--|
| 1.      | Single (Mono-Cropping) | Growing only one crop on the land in a given crop season   |
| 2.      | Inter-Crop             | More than one crop on a given area at one time arranged in a systematic pattern. E.g. One row/chain of English cabbage, another row/chain of pineapple   |
| 3.      | Mixed Crop             | Growing two or more crops simultaneously in the same field without rows and any pattern. Planted unsystematically  |
| 4.      | Scattered              | Seeds are planted and spread out throughout the farm   |
| 5.      | Associated Crops       | Temporary Crop grown in a compact plantation of permanent crops. Should be disguised from a mixed crop. Example vanilla supported by coconut trees   |
| 6.      | Wild                   | Seeds are not planted but are scattered by the wind, water and animals to grow in wild.  |
| 7.      | Hydroponic             | Hydroponics is a method of growing plants in a water based, nutrient rich solution. It does not use soil, instead the root system is supported using an inert medium such as perlite, rockwool, clay pellets, peat moss, or vermiculite. |



## ANNEX 4– CROP DENSITY

| Staff Guide on Crop Population Densities |                       |                     |                           |                         |                               |                              |
|--|-----------------------|---------------------|---------------------------|-------------------------|-------------------------------|------------------------------|
| Crops Code                               | Crops Name            | Spacing Unit        | No. of Plants/<br>Hectare | No. of Plants/<br>Acres | Expected Yield<br>(Tons) / Ha | Expected Yield<br>(Tons) /Ac |
| 201                                      | Amaranthus            | 0.5m x 1.5m         | 133,333                   | 53,333                  | 12                            | 4.8                          |
| 102                                      | Avocado Pear          | 9m x 9m             | 13,333                    | 5,333                   | 12                            | 4.8                          |
| 103                                      | Banana                | 3.3m x 1.8m         | 1,684                     | 674                     | 30                            | 12                           |
| 204                                      | Bele                  | 1m x 0.5m           | 13,400                    | 5,427                   | 12                            | 4.8                          |
| 105                                      | Breadfruit            | 12m x 12m           | 69                        | 28                      | 30                            | 12                           |
| 206                                      | Capsicum              | 0.75m x 0.4m        | 33,333                    | 13,333                  | 12                            | 4.8                          |
| 107                                      | Cardamom              | 1.8m x 1.8m         | 3,086                     | 1,234                   | 0.5                           | 0.2                          |
| 208                                      | Carrots               | 0.5m x 0.2m         | 250,000                   | 100,000                 | 12                            | 4.8                          |
| 209                                      | Cassava               | 1m x 0.5m           | 20,000                    | 8,000                   | 20                            | 8                            |
| 210                                      | Cauliflower           | 0.75m x 0.4m        | 33,333                    | 13,333                  | 10                            | 4                            |
| 211                                      | Celery                | 0.9m x 0.25m        | 44,444                    | 17,777                  | 10                            | 4                            |
| 112                                      | Cherries              | 3m x 2m             | 1,666                     | 666                     | 6                             | 2.4                          |
| 113                                      | Chillies              | 0.75m x 0.3m        | 44,444                    | 17,777.6                | 16                            | 6.4                          |
| 214                                      | Chinese Cabbage       | 0.75m x 0.3m        | 44,444                    | 17,777                  | 12                            | 4.8                          |
| 115                                      | Cinnamon              | 3m x 3m             | 1,111                     | 444                     | 2.5                           | 1                            |
| 116                                      | Cocoa                 | 2.5m x 2.5m         | 1,600                     | 640                     | 2.5                           | 1                            |
| 117                                      | Coconuts              | 10m x 10m           | 123                       | 50                      | 10                            | 4                            |
| 218                                      | Cowpeas               | 0.65m x 0.5m        | 30,769                    | 12,307                  | 6                             | 2.4                          |
| 119                                      | Cucumber              | 1m x 0.3m           | 33,333                    | 13,333                  | 12                            | 4.8                          |
| 220                                      | Dalo                  | 1m x 0.8m           | 12,500                    | 5,000                   | 20                            | 8                            |
| 221                                      | Dalo ni Tana          | 1m x 1m             | 10,000                    | 4,000                   | 20                            | 8                            |
| 122                                      | Dawa                  | 10m x 10m           | 100                       | 40                      | 10                            | 4                            |
| 223                                      | Dhania (Corriander)   | 0.3m x 0.06m        | 500,000                   | 200,000                 | 8                             | 3.2                          |
| 124                                      | Dragon Fruit          | 3m x 2m             | 1,666                     | 666                     | 6                             | 2.4                          |
| 125                                      | Duruka                | 1.3m x 0.3m         | 33,333                    | 13,333                  | 15                            | 6                            |
| 226                                      | Eggplant              | 1.5m x 0.5m         | 13,333                    | 5,333                   | 20                            | 8                            |
| 227                                      | English Cabbage       | 0.75m x 0.4m        | 33,333                    | 13,333                  | 20                            | 8                            |
| 228                                      | French Bean           | 0.5m x 1.5m         | 133,333                   | 53,333                  | 10                            | 4                            |
| 229                                      | Garlic                | 0.5m x 0.2m         | 100,000                   | 40,000                  | 7                             | 2.8                          |
| 230                                      | Ginger                | 0.6m x 0.2m         | 83,333                    | 33,333                  | 25                            | 6.25                         |
| 231                                      | Gourd                 | 3m x 2m             | 1,666                     | 666                     | 10                            | 4                            |
| 132                                      | Guava                 | 12m x 12m           | 69                        | 28                      | 10                            | 4                            |
| 133                                      | Ivi                   | 10m x 10m           | 100                       | 40                      | 10                            | 4                            |
| 134                                      | Kavika (Rose Apple)   | 10m x 10m           | 100                       | 40                      | 8                             | 3.2                          |
| 235                                      | Kawai                 | 1m x 1m             | 10,000                    | 4,000                   | 10                            | 4                            |
| 236                                      | Kumala                | 0.8m x 0.5m         | 25,000                    | 10,000                  | 10                            | 4                            |
| 137                                      | Kura                  | 4m x 4m             | 625                       | 250                     | 6                             | 2.4                          |
| 138                                      | Lemon                 | 5m x 5m             | 400                       | 160                     | 20                            | 8                            |
| 239                                      | Lettuce               | 0.75m x 0.4m        | 33,333                    | 13,333                  | 8                             | 3.2                          |
| 240                                      | Long Bean             | 0.75m x 0.2m        | 66,666                    | 26,666                  | 10                            | 4                            |
| 241                                      | Maize                 | 0.75m x 0.35m       | 38,461                    | 15,384                  | 3                             | 1.2                          |
| 142                                      | Mandarins             | 5m x 5m             | 400                       | 160                     | 20                            | 8                            |
| 143                                      | Mango                 | 10m x 10m           | 100                       | 40                      | 10                            | 4                            |
| 244                                      | Mung Bean             | 0.65m x 0.5m        | 30,769                    | 12,307                  | 6                             | 2                            |
| 145                                      | Nutmeg                | 8m x 8m             | 156                       | 62                      | 1                             | 0.4                          |
| 246                                      | Okra (Bhindi)         | 1m x 0.3m           | 33,333                    | 13,333                  | 15                            | 6                            |
| 147                                      | Oranges               | 5m x 5m             | 400                       | 160                     | 20                            | 8                            |
| 148                                      | Ota                   | 0.5m x 0.3m         | 66,666                    | 26,666                  | 8                             | 3.2                          |
| 149                                      | Passionfruit          | 3m x 3m             | 1,111                     | 450                     | 12                            | 4.8                          |
| 150                                      | Pawpaw                | 3m x 2m             | 16,666                    | 666                     | 80                            | 32                           |
| 251                                      | Peanut                | 0.65m x 0.5m        | 30,769                    | 12,307                  | 3                             | 1.2                          |
| 252                                      | Pigeon Pea            | 0.65m x 0.5m        | 30,769                    | 12,307                  | 2                             | 1                            |
| 153                                      | Pineapple             | 0.12m x 0.6m x 0.3m | 37,073                    | 14,815                  | 40                            | 16                           |
| 254                                      | Pumpkin               | 1.5m x 1m           | 6,666                     | 2,666                   | 10                            | 4                            |
| 255                                      | Radish                | 0.5m x 0.05m        | 400,000                   | 160,000                 | 15                            | 6                            |
| 256                                      | Rice                  | 0.2m x 0.15m        | 333,333                   | 133,333                 | 4                             | 1.6                          |
| 157                                      | Sour Lime             | 5m x 5m             | 400                       | 160                     | 20                            | 8                            |
| 158                                      | Soursop               | 4.5m x 4.5m         | 493                       | 197                     | 10                            | 4                            |
| 259                                      | Spring Onion          | 0.5m x 0.08m        | 250,000                   | 100,000                 | 10                            | 4                            |
| 160                                      | Tarawau               | 10m x 10m           | 100                       | 40                      | 10                            | 4                            |
| 261                                      | Tivoli                | 1m x 0.6m           | 16,666                    | 6,666                   | 20                            | 8                            |
| 262                                      | Tobacco               | 1.5m x 1.2m         | 5,555                     | 2,222                   | 2                             | 0.8                          |
| 263                                      | Tomato                | 0.75m x 1.5m        | 8,888                     | 3,555                   | 10                            | 4                            |
| 264                                      | Urd                   | 0.5m x 0.2m         | 100,000                   | 40,000                  | 2                             | 1                            |
| 165                                      | Vanilla               | 3m x 3m             | 1,111                     | 444                     | 10                            | 4                            |
| 166                                      | Voivoi                | 1m x 1m             | 10,000                    | 4,000                   | 8                             | 3                            |
| 167                                      | Vudi                  | 3.3m x 1.8m         | 1,684                     | 674                     | 30                            | 12.14                        |
| 168                                      | Vutu                  | 10m x 10m           | 100                       | 40                      | 8                             | 3                            |
| 269                                      | Watersress            | 0.5m x 0.3m         | 66,666                    | 26,666                  | 8                             | 3.2                          |
| 270                                      | Watermelon            | 3m x 1m             | 3,333                     | 1,333                   | 15                            | 6                            |
| 171                                      | Wi- (Ambarella)       | 12m x 12m           | 69                        | 28                      | 10                            | 4                            |
| 272                                      | Yam                   | 1m x 0.6m           | 16,666                    | 6,666                   | 20                            | 8                            |
| 173                                      | Yagona                | 2m x 2m             | 2,500                     | 1,000                   | 2                             | 0.8                          |
| 274                                      | Zucchini              | 1m x 0.3m           | 33,333                    | 13,333                  | 10                            | 4                            |
| 176                                      | Masi                  |                     |                           |                         |                               |                              |
| 175                                      | Sugarcane             |                     |                           |                         |                               |                              |
| 277                                      | Others Please Specify |                     |                           |                         |                               |                              |

Source: 2014 Farm Management Manual



**ANNEX 5 – DAIRY CATTLE BREEDS**



Ayshire



Friesian



Jersey

**ANNEX 6 – BEEF CATTLE BREEDS**



Hereford



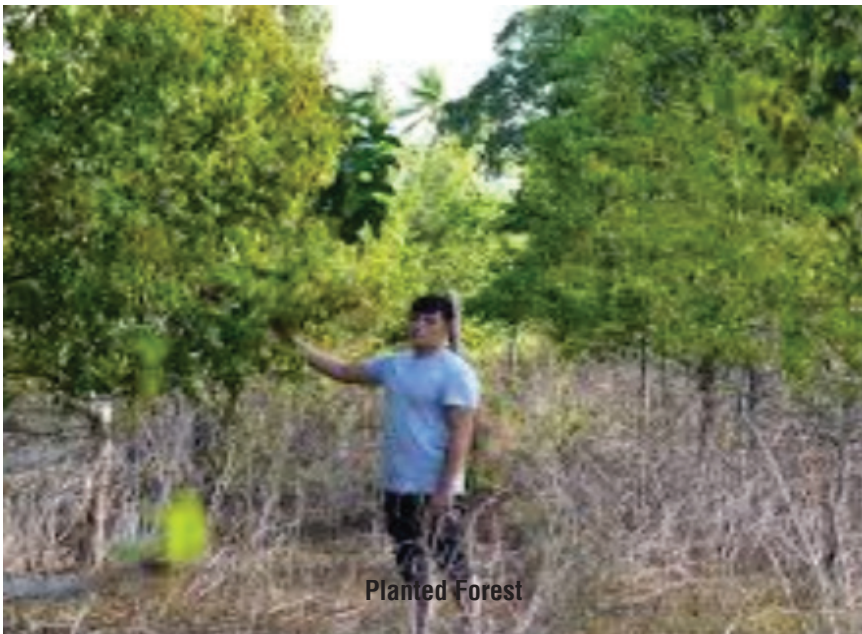
Brahman



Limousin



## ANNEX 7- TYPES OF FOREST



## ANNEX 8 – TYPES OF FISH

| Guide to Fish Type Matrix |   |      |   |      |                |
|---------------------------|---|------|---|------|----------------|
| Code                      | Inshore Fishing   | Code | Offshore Fishing                              | Code | Fresh Water    |
| 101                       | Meto, Dridri (Striated surgeonfish)                       | 201  | Wau (Wahoo)                                   | 301  | Tilapia        |
| 102                       | Dridrinitoga, Meto (Lined surgeonfish)                    | 202  | Walu (Spanish mackerel)                       | 302  | Mussels (Kai)  |
| 103                       | Balagnawa, Balagi (Yellowfin surgeon fish)                | 203  | Ogobuldro (Pikichandle barracuda)             | 303  | Grass Carp     |
| 104                       | Jila (Orahngespine unicornfish)                           | 204  | Ogo, Ogolevu (Great barracuda)                | 304  | Prawn          |
| 105                       | Ta (Blue spine unicornfish)                               | 205  | Yatusewa, Yatuvua (Skipjack)                  | 999  | Other, Specify |
| 106                       | Tauta, Saqanivatu (Bluefin trevally)                      | 206  | Yatunitoga (Yellowfin tuna)                   |      |                |
| 107                       | Saqa, Saqaleka (Giant trevally)                           | 207  | Yatulevu, Yatumatana (Bigeye tuna)            |      |                |
| 108                       | Sirisiriwai, Renua (Blue sea drub)                        | 208  | Yatuloa (Albacore tuna)                       |      |                |
| 109                       | Draunikuira (Tripletail wrasse)                           | 209  | Yatuyatu, Yatu, Kawakawa                      |      |                |
| 110                       | Drevulolo, Tuvu, Kollinwai (Clown corals)                 | 210  | Malmal (Common dolphinfish)                   |      |                |
| 111                       | Sabutu, Sabutukula (Pacific yellowtail emperor)           | 211  | Vuladriu, Opa (Opah)                          |      |                |
| 112                       | Lava, Donuloa (Blacksaddle coral grouper)                 | 212  | Sakusaisai, Saku-ucumoto (Swordfish)          |      |                |
| 113                       | Kawakawanitiri (White spotted grouper)                    | 213  | Sakuoroi, Sakukarawa (Blue Marlin)            |      |                |
| 114                       | Kasala, Kawakawa, Kerakera (Camouflage grouper)           | 214  | Sakuoria, Sakusisi (Striped Marlin)           |      |                |
| 115                       | Solsol, Votosiga (Malabar grouper)                        | 215  | Sakuloa, Sakulolo, Saku-salele (Black Marlin) |      |                |
| 116                       | Kawakawaloa, Tikilo, Kialo (Peacock hind)                 | 216  | Sakuvorovaqa (Sailfish)                       |      |                |
| 117                       | Kawakawadamu (Darkfin hind)                               | 217  | Saqaloa (Black Jack)                          |      |                |
| 118                       | Matu (Silver Biddy)                                       | 218  | Saqaqavotoga (Almaco Jack)                    |      |                |
| 119                       | Gurunwai (Black & White snapper)                          | 219  | Mamaninubu (Japanese large-eye bream)         |      |                |
| 120                       | Utouto, Utu (Green jobfish)                               | 220  | Sabutukula (Mozambique large-eye bream)       |      |                |
| 121                       | Bo (Humpback red snapper)                                 | 221  | Sewidri (Rusty jobfish)                       |      |                |
| 122                       | Kake, Kwake (Russell's snapper)                           | 222  | Pakapakabuldro (Golden eye jobfish)           |      |                |
| 123                       | Damu, Damunivetiri (Mangrove red snapper/Mangrove Jack)   | 223  | Pakapakaqai (Goldbanded jobfish)              |      |                |
| 124                       | Bati, Bai (Twospot red snapper)                           | 224  | Pakapakabatisewa (Sharptooth jobfish)         |      |                |
| 125                       | Tanabe, Dadreu (Blacktail snapper)                        | 225  | Bulete, Pakapakasewa (Laven der jobfish)      |      |                |
| 126                       | Osekula, Kiki (Yellowfin goatfish)                        | 226  | Pakapakabudamu (Crimson jobfish)              |      |                |
| 127                       | Cucu, Daunau (Indian goatfish)                            | 227  | Yalayala (Oblique-banded snapper)             |      |                |
| 128                       | Yawa (Milktfish)  | 228  | Tukuia, Canati (Ornate jobfish)               |      |                |
| 129                       | Koto (Flathead grey mullet)                               | 229  | Ruruka, Utoutoninubu (Scalimouth jobfish)     |      |                |
| 130                       | Kava (Squaretail mullet)                                  | 230  | Uluqa (Saddleback snapper)                    |      |                |
| 131                       | Ulaviraniqai, Dogosasa (Bicolour parrotfish)              | 231  | Uluqa (Cocoa snapper)                         |      |                |
| 132                       | Uluuria (Steephead parrotfish)                            | 232  | Laulausevusevu, Masai (Ruby Snapper)          |      |                |
| 133                       | Karakarawa, Bose (Daisy parrotfish)                       | 233  | Reveni, Onaga (Flame snapper)                 |      |                |
| 134                       | Nuqanuqa (Little spinefoot)                               | 234  | Drasevusevu, Batilalali (Pale snapper)        |      |                |
| 135                       | Nuqa, Nuqalevu, Volaca (Vermiculated spinefoot)           | 235  | Rosinbogi (Malabar blood snapper)             |      |                |
| 136                       | Busa, Gaka (Barred garfish)                               | 236  | Rosiloa (Timor snapper)                       |      |                |
| 137                       | Corocoro, Matalevu (Blotcheye soldierfish)                | 237  | Cevanibua, Cevaninubu (Brown spotted grouper) |      |                |
| 138                       | Dravisau, Dridra (Sabre squirrelfish)                     | 238  | Kulimidovu, Votoqaninubu (Comet grouper)      |      |                |
| 139                       | Sulutavoi (Mooontail bullseye)                            | 239  | Kulinimasi, Kasalaminubu (Speckled grouper)   |      |                |
| 140                       | Sokisoki, Sokisokitagan e (Spotfin porcupinefish)         | 240  | Balobi, Kawakawaninubu (Eightbar grouper)     |      |                |
| 141                       | Balagi, Ta (Surgeon Fish)                                 | 241  | Varavarantoga (Yellowwedged lyretail)         |      |                |
| 142                       | Nuqa (Rabbit Fish)  |      |   |      |                |
| 143                       | Ulavu (Parrot Fish)                                       |      |   |      |                |
| 144                       | Bo, Bati, Tiri damu, Utouto, Kake, Regurawa, (Snappers)   |      |   |      |                |
| 145                       | Kawago, Kacika, Mama, Sabutu damu, Kabatia, ect (Emperor) |      |   |      |                |
| 146                       | Saqa (Jacks/Trevally)                                     |      |   |      |                |
| 147                       | Ogo (Baracud da)  |      |   |      |                |
| 148                       | Kanace, (Mullet)  |      |   |      |                |
| 149                       | Ose, Mataroko (Goat Fish)                                 |      |   |      |                |
| 150                       | Draunikuira (Wrasse)                                      |      |   |      |                |
| 151                       | Donu, kawakawa (Groupers/Coral Trout)                     |      |   |      |                |
| 152                       | Kaikai (Pony Fish)  |      |   |      |                |
| 153                       | Qari (Mud Crabs)  |      |   |      |                |
| 154                       | Urau (Spiny Lobsters)                                     |      |   |      |                |
| 155                       | Tabataba (Slipper Lobster)                                |      |   |      |                |
| 156                       | Kai (Freshwater Mussels)                                  |      |   |      |                |
| 157                       | Kaikoso (Arc Shell/Blood Mussel)                          |      |   |      |                |
| 158                       | Nama (Sea Grapes)   |      |   |      |                |
| 159                       | Kuita (Octopus)   |      |   |      |                |
| 160                       | Sici (Sea Shells)   |      |   |      |                |
| 161                       | Cawaki (Sea Urchins)                                      |      |   |      |                |

**AQUACULTURE TYPES**

| <b>Land Based (e.g Fish Pond - Tilapia/Prawn)</b> | <b>Inland Waters (e.g., Hapa)</b> | <b>Marine Waters (e.g., Lumi, Oyster and Nama)</b> |
|---|-----------------------------------|--|
| Tilapia   | Tilapia                           | Shrimp   |
| Prawn   | Prawn                             | Black Lip Pearl Oyster                             |
| Grass Carp  | Grass Carp                        | Batwing Oyster                                     |
| Shrimp  | Shrimp                            | Pearl  |
| Other Aquatic Organism                            | Other Aquatic Organism            | Mabe Pearl   |
|   |                                   | Giant Clam   |
|   |                                   | Seaweeds   |
|   |                                   | Other Aquatic Organism                             |





ANNEX 9: POSTERS OF FISH TYPES

# PUBLIC NOTICE

## 4-MONTH BAN (JUNE THRU SEPTEMBER) ON HARVEST, SALE, PURCHASE, POSSESSION & EXPORT OF ALL SPECIES OF GROUPEL (KAWAKAWA) AND CORAL TROUT (DONU)

Any person or business found selling kawakawa and donu during the 4-month ban (June thru September) can have their fish confiscated and could receive high fines:



• For individuals, an instant fine of \$10,000, with the potential of up to \$50,000 in fines

• For corporations, an instant fine of \$20,000, with the potential of up to \$100,000 in fines.



NAME: Greeny Groupel  
SCIENTIFIC NAME: *Epinephelus taeniata*  
FIJIAN NAME: Kawakawa uluata



NAME: Camouflage Groupel  
SCIENTIFIC NAME: *Epinephelus cyanopodus*  
FIJIAN NAME: Pasa, Kawakawa, Marikara



NAME: Whitespotted Groupel  
SCIENTIFIC NAME: *Epinephelus cyanopodus*  
FIJIAN NAME: Kawakawa



NAME: Spotted Groupel  
SCIENTIFIC NAME: *Epinephelus marginatus*  
FIJIAN NAME: Kulimala, Palasikulu



NAME: Brown Marked Groupel  
SCIENTIFIC NAME: *Epinephelus leucopinnus*  
FIJIAN NAME: Cavatua, Cavatua



NAME: Spotted Groupel  
SCIENTIFIC NAME: *Parupeneus abrotanoides*  
FIJIAN NAME: Donu, Barica



NAME: Wrecker Groupel  
SCIENTIFIC NAME: *Epinephelus melanostomus*  
FIJIAN NAME: Saka, Vasega



NAME: Humpback Groupel  
SCIENTIFIC NAME: *Epinephelus maculatus*  
FIJIAN NAME: Cavakawaka



NAME: Blackspotted Coral Groupel  
SCIENTIFIC NAME: *Parupeneus laevis*  
FIJIAN NAME: Cavatua, Laka



NAME: Blue Rock Cod  
SCIENTIFIC NAME: *Epinephelus cyanopodus*  
FIJIAN NAME: Pasa, Pigeaia



NAME: Coral Groupel  
SCIENTIFIC NAME: *Epinephelus marginatus*  
FIJIAN NAME: Kulimala, Vasegakulu



NAME: Lyber Groupel  
SCIENTIFIC NAME: *Epinephelus melanocephalus*  
FIJIAN NAME: Kawakawa, Baki



NAME: Lizard Coral Groupel  
SCIENTIFIC NAME: *Parupeneus laevis*  
FIJIAN NAME: Cavu, Dredaka



NAME: Blotched Coral Groupel  
SCIENTIFIC NAME: *Epinephelus cyanopodus*  
FIJIAN NAME: Kawakawa, Kika, Sevula



NAME: Night Groupel  
SCIENTIFIC NAME: *Epinephelus melanurus*  
FIJIAN NAME: Pasa - Vasega



NAME: Red-striped Lyber Groupel  
SCIENTIFIC NAME: *Cathartes melanocephalus*  
FIJIAN NAME: Vasega, Vasega



NAME: Peacock Hind  
SCIENTIFIC NAME: *Cathartes melanocephalus*  
FIJIAN NAME: Taka, Vasega



NAME: Coral Hind  
SCIENTIFIC NAME: *Cathartes melanocephalus*  
FIJIAN NAME: Kika in Cavu, Pasa, Vasega



NAME: Giant Groupel  
SCIENTIFIC NAME: *Epinephelus melanostomus*  
FIJIAN NAME: Kava



NAME: Striped Coral Groupel  
SCIENTIFIC NAME: *Parupeneus melanostomus*  
FIJIAN NAME: Donu, Dredakavasega



NAME: Dark Hind  
SCIENTIFIC NAME: *Cathartes melanocephalus*  
FIJIAN NAME: Kawakawa



NAME: Whitespotted Groupel  
SCIENTIFIC NAME: *Epinephelus chlorostigma*  
FIJIAN NAME: Cavatua, Cavatua



NAME: White-striped Groupel  
SCIENTIFIC NAME: *Epinephelus argus*  
FIJIAN NAME: Suvula, Kawakawa



NAME: Parrotfish Groupel  
SCIENTIFIC NAME: *Amphiprion niger*  
FIJIAN NAME: Kawakawa, Kawakawa, Kawakawa



NAME: Tomato Hind  
SCIENTIFIC NAME: *Cathartes melanocephalus*  
FIJIAN NAME: Kava, Suvula



NAME: Masked Groupel  
SCIENTIFIC NAME: *Ornata abomergata*  
FIJIAN NAME: Vasega, Vasegakulu, Vasegakulu



NAME: Green Orange Spotted Groupel  
SCIENTIFIC NAME: *Epinephelus spiloides*  
FIJIAN NAME: Saka, Pasa, Saka



NAME: Blue-lined Rock Cod  
SCIENTIFIC NAME: *Cathartes melanocephalus*  
FIJIAN NAME: Kawakawa, Pasa, Kawakawa



NAME: Humpback Groupel  
SCIENTIFIC NAME: *Epinephelus maculatus*  
FIJIAN NAME: Kawakawa, Kika, Kawakawa, Kika, Kika

Kawakawa and donu are A-grade fish that are critical food and income for Fijians. But these fisheries are facing collapse, if no management action is taken. June through September are the peak breeding months for these fish. The 4-month seasonal ban is intended to ensure the fish species are allowed to successfully breed each year, so the stocks recover. If you see these fish on sale, during the 4-month ban period, call:

- Nausori Fisheries Office: 3478687/9964745
- Lami Fisheries Office: 3381322/9964752
- Lautoka Fisheries Office: 6465895/9964759
- Labasa Fisheries Office: 8818233/9964770

Visit [www.4fuvent.org/ban](http://www.4fuvent.org/ban) for more information.

# FISH POISONING

Twenty fish could be contaminated with the Ciguatera toxin and must be avoided for up to 3 years.



Local Name: **Donu**  
Common Name: Leopard coral grouper  
Scientific Name: *Plectropomus leopardus*  
Locally kept fish above 50cm



Local Name: **Donu Sedravu / Batsai**  
Common Name: Squawtail coral grouper  
Scientific Name: *Plectropomus areolatus*  
Locally kept fish above 50cm



Local Name: **Damu ni Veitiri**  
Common Name: Mangrove red snapper (Mangrove Jack)  
Scientific Name: *Luŋanus argentimaculatus*  
Locally kept fish above 50cm



Local Name: **Donu Saloa**  
Common Name: Black saddle coral grouper  
Scientific Name: *Plectropomus laevis*  
Locally kept fish above 70cm



Local Name: **Ogo**  
Common Name: Great barracuda  
Scientific Name: *Sphyraena barracuda*  
Locally very large fish above 1.5m in length



Local Name: **Ogo Buidromo**  
Common Name: Pick Handle Barracuda  
Scientific Name: *Sphyraena jello*



Local Name: **Delabulewa**  
Common Name: Brown Marbled Grouper  
Scientific Name: *Epinephelus fuscoguttatus*  
Locally kept fish above 50cm



Local Name: **Drekeni Levu**  
Common Name: Giant sweet lips  
Scientific Name: *Plectorhynchus albovittatus*  
Locally kept fish above 50cm



Local Name: **Kake Sedamu**  
Common Name: Russell's snapper  
Scientific Name: *Luŋanus russelli*



Local Name: **Tina ni Kake**  
Common Name: Long Spot Snapper / Dory  
Scientific Name: *Luŋanus fulviflamma*



Local Name: **Diarva**  
Common Name: Gold spot herring  
Scientific Name: *Herklotsichthys quadrimaculatus*



Local Name: **Sumusumu Sevula**  
Common Name: White spotted pufferfish  
Scientific Name: *Arothron hispidus*



Local Name: **Sumusumu Sailo**  
Common Name: Starry Pufferfish  
Scientific Name: *Arothron stellatus*



Local Name: **Dobaniyadi**  
Common Name: Long face emperor  
Scientific Name: *Lethrinus vivaceus*  
Locally kept fish above 50cm



Local Name: **Uloabo**  
Common Name: Green Jobfish  
Scientific Name: *Aprión vivaceus*  
Locally kept fish above 50cm



Local Name: **Dabea levu**  
Common Name: Giant Moray eel  
Scientific Name: *Gymnothorax javanicus*



Local Name: **Kake Sailo**  
Common Name: Black banded snapper  
Scientific Name: *Luŋanus semicinctus*



Local Name: **Bati**  
Common Name: Two Spot Red Snapper  
Scientific Name: *Luŋanus bohar*



Local Name: **Regurawa**  
Common Name: Rovalated snapper  
Scientific Name: *Luŋanus rivulatus*



Local Name: **Dabea**  
Common Name: Yellow margin moray  
Scientific Name: *Gymnothorax flavimarginatus*

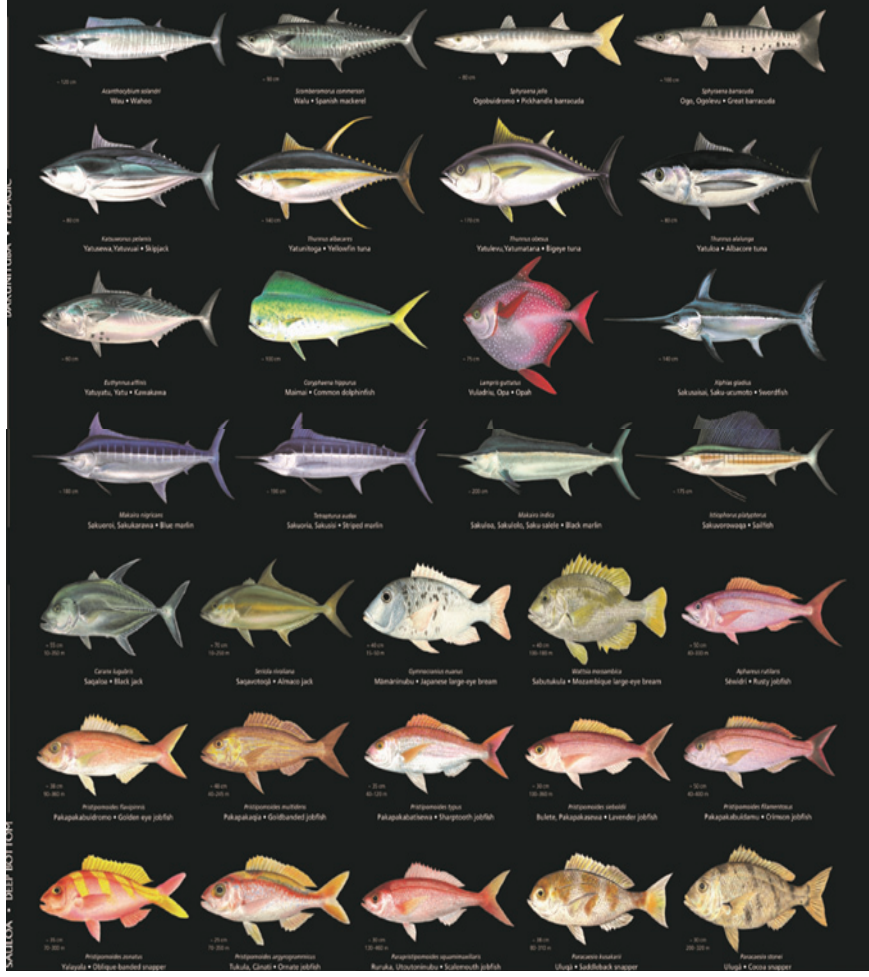
**Source:**  
Fiji Fisheries Department

## AVOID

- Donu
- Donu Sedravu
- Damu ni Veitiri
- Donu Saloa
- Ogo
- Ogo Buidromo
- Delabulewa
- Drekeni Levu
- Kake Sedamu
- Tina ni Kake
- Daniva
- Sumusumu Sevula
- Sumusumu Sailo
- Dokonivudi
- Utouto
- Kake Sailo
- Bati
- Regurawa
- Dabea Levu
- Dabea



# COMMON FOOD FISH OF FIJI (2)









## ANNEX 11 – LIST OF DISTRICTS/TIKINA VOU BY PROVINCE

| Province | Districts    | Code | Province       | Districts  | Code |
|----------|--------------|------|----------------|------------|------|
| Ba (01)  | Bulu         | 01   | Kadavu (04)    | Nabukelevu | 01   |
|          | Magodro      | 02   |                | Naceva     | 02   |
|          | Nacula       | 03   |                | Nakasaleka | 03   |
|          | Nadi         | 04   |                | Ono        | 04   |
|          | Nailaga      | 05   |                | Ravitaki   | 05   |
|          | Nalotawa     | 06   |                | Sanima     | 06   |
|          | Naloto       | 07   |                | Tavuki     | 07   |
|          | Naviti       | 08   |                | Yale       | 08   |
|          | Nawaka       | 09   |                | Yawe       | 09   |
|          | Qaliyalatina | 10   | Lau (05)       | Cicia      | 01   |
|          | Rukuruku     | 11   |                | Kabara     | 02   |
|          | Sabeto       | 12   |                | Lakeba     | 03   |
|          | Savatu       | 13   |                | Lomaloma   | 04   |
|          | Sikituru     | 14   |                | Matuku     | 05   |
|          | Tavua        | 15   |                | Moala      | 06   |
|          | Vaturu       | 16   |                | Moce       | 07   |
|          | Vitogo       | 17   |                | Mualevu    | 08   |
|          | Viwa         | 18   |                | Nayau      | 09   |
|          | Vuda         | 19   |                | Oneata     | 10   |
|          | Waya         | 20   |                | Ono        | 11   |
|          | Yasawa       | 21   |                | Totoya     | 12   |
| Bua (02) | Bua          | 01   |                | Vulaga     | 13   |
|          | Dama         | 02   | Lomaiviti (06) | Batiki     | 01   |
|          | Kubulau      | 03   |                | Bureta     | 02   |
|          | Lekutu       | 04   |                | Cawa       | 03   |
|          | Nadi         | 05   |                | Levuka     | 04   |
|          | Navakasiga   | 06   |                | Lovoni     | 05   |
|          | Solevu       | 07   |                | Moturiki   | 06   |
|          | Vuya         | 08   |                | Mudu       | 07   |
|          | Wainunu      | 09   |                | Nairai     | 08   |



| Province        | Districts  | Code | Province     | Districts   | Code |
|-----------------|------------|------|--------------|-------------|------|
| Cakaudrove (03) | Cakaudrove | 01   |              | Nasinu      | 09   |
|                 | Koroalau   | 02   |              | Navukailagi | 10   |
|                 | Laucala    | 03   |              | Sawaieke    | 11   |
|                 | Natewa     | 04   |              | Vanuaso     | 12   |
|                 | Navatu     | 05   | Macuata (07) | Cikobia     | 01   |
|                 | Naweni     | 06   |              | Dogotuki    | 02   |
|                 | Rabi       | 07   |              | Dreketi     | 03   |
|                 | Saqani     | 08   |              | Labasa      | 04   |
|                 | Savusavu   | 09   |              | Macuata     | 05   |
|                 | Tawake     | 10   |              | Mali        | 06   |
|                 | Tunuloa    | 11   |              | Nadogo      | 07   |
|                 | Vaturova   | 12   |              | Namuka      | 08   |
|                 | Vuna       | 13   |              | Sasa        | 09   |
|                 | Wailevu    | 14   |              | Seaqaqa     | 10   |
|                 | Wainikeli  | 15   |              | Udu         | 11   |
|                 | Wairiki    | 16   |              | Wailevu     | 12   |

| Province              | Districts      | Code | Province | Districts   | Code |
|-----------------------|----------------|------|----------|-------------|------|
| Nadroga / Navosa (08) | Bemana         | 01   | Ra (11)  | Bureivanua  | 01   |
|                       | Conua          | 02   |          | Burewai     | 02   |
|                       | Cuvu           | 03   |          | Kavula      | 03   |
|                       | Komave         | 04   |          | Lawaki      | 04   |
|                       | Koroinasau     | 05   |          | Mataso      | 05   |
|                       | Korolevu-i-wai | 06   |          | Nababa      | 06   |
|                       | Malolo         | 07   |          | Nailuva     | 07   |
|                       | Malomalo       | 08   |          | Naiyalayala | 08   |
|                       | Mavua          | 09   |          | Nakorotubu  | 09   |
|                       | Nadrau         | 10   |          | Nakuilava   | 10   |
|                       | Namataku       | 11   |          | Nalaba      | 11   |



| Province       | Districts      | Code | Province   | Districts  | Code |
|----------------|----------------|------|------------|------------|------|
|                | Naqalimare     | 12   |            | Nalawa     | 12   |
|                | Nasigatoka     | 13   |            | Naroko     | 13   |
|                | Nasikawa       | 14   |            | Nasau      | 14   |
|                | Navatusila     | 15   |            | Navitilevu | 15   |
|                | Noikoro        | 16   |            | Navolau    | 16   |
|                | Nokonoko       | 17   |            | Rakiraki   | 17   |
|                | Raviravi       | 18   |            | Raviravi   | 18   |
|                | Tuva           | 19   |            | Saivou     | 19   |
|                | Vatulele       | 20   |            | Tokaimalo  | 20   |
|                | Wai            | 21   | Rewa (12)  | Burebasaga | 01   |
|                | Waicoba        | 22   |            | Dreketi    | 02   |
| Naitasiri (09) | Lutu           | 01   |            | Noco       | 03   |
|                | Matailobau     | 02   |            | Raviravi   | 04   |
|                | Muaira         | 03   |            | Rewa       | 05   |
|                | Nabaitavo      | 04   |            | Sawau      | 06   |
|                | Nabobuco       | 05   |            | Suva       | 07   |
|                | Nadaravakawalu | 06   |            | Toga       | 08   |
|                | Nagonenicolo   | 07   |            | Vutia      | 09   |
|                | Naitasiri      | 08   | Serua (13) | Batiwai    | 01   |
|                | Navuakece      | 09   |            | Deuba      | 02   |
|                | Noemalu        | 10   |            | Nuku       | 03   |
|                | Rara           | 11   |            | Serua      | 04   |
|                | Solo-I-Ra      | 12   |            |            |      |
|                | Viria          | 13   |            |            |      |
|                | Vuna           | 14   |            |            |      |
| Waidina        | 15             |      |            |            |      |
| Waima          | 16             |      |            |            |      |
| Namosi (10)    | Namosi         | 01   |            |            |      |
|                | Naqarawai      | 02   |            |            |      |
|                | Veinuqa        | 03   |            |            |      |
|                | Veivatuloa     | 04   |            |            |      |
|                | Wainikoroiluva | 05   |            |            |      |



| Province     | Districts   | Code | Province    | Districts | Code |
|--------------|-------------|------|-------------|-----------|------|
| Tailevu (14) | Bau         | 01   | Rotuma (15) | Itumuta   | 01   |
|              | Buretu      | 02   |             | Itutiu    | 02   |
|              | Dawasamu    | 03   |             | Juju      | 03   |
|              | Dravo       | 04   |             | Malha'a   | 04   |
|              | Nailega     | 05   |             | Noatau    | 05   |
|              | Nakelo      | 06   |             | Oinafa    | 06   |
|              | Naloto      | 07   |             | Pepjei    | 07   |
|              | Namalata    | 08   |             |           |      |
|              | Namara      | 09   |             |           |      |
|              | Namata      | 10   |             |           |      |
|              | Namena      | 11   |             |           |      |
|              | Nasautoka   | 12   |             |           |      |
|              | Nausori     | 13   |             |           |      |
|              | Nayavu      | 14   |             |           |      |
|              | Nuku        | 15   |             |           |      |
|              | Sawakasa    | 16   |             |           |      |
|              | Tai         | 17   |             |           |      |
|              | Tai Vugalei | 18   |             |           |      |
|              | Tokatoka    | 19   |             |           |      |
|              | Verata      | 20   |             |           |      |
|              | Vugalei     | 21   |             |           |      |
|              | Wailotua    | 22   |             |           |      |



## ANNEX 12 - LIST OF INSTITUTIONAL FARM

| Division | Province               | Tikina    | Institutional Farm                               |  |
|----------|------------------------|-----------|--|--|
| Central  | Naitasiri              | Lutu      | Lutu Wainibuka Co-operative Society Ltd          |  |
|          |                        |           | Naicuvacuva Investment Co-operative Ltd          |  |
|          |                        | Naitasiri | Naduru Organic Farm Co-operative Ltd             |  |
|          |                        |           | Navuso Agriculture School                        |  |
|          |                        |           | Young Ginger Farmers Co-operative Ltd            |  |
|          |                        | Rara      | Naluwai Chilling Centre Farmers Co-operative Ltd |  |
|          |                        | Sawani    | Adi Cakobau School                               |  |
|          |                        | Namosi    | Deuba  | Navua Farmers Co-operative Association Ltd |
|          |                        |           |  | Veivatuloa                                 |
|          |                        |           | Veivatuloa                                       | Chevallier Hostel                          |
|          | Spices Fiji            |           |  |  |
|          | Waiyanitu Piggery Farm |           |  |  |
|          | Rewa                   |           | Dreketi  | Navovula and Wailumu Co-operative Ltd      |
|          |                        | Sawau     | Tikina Sawau Co-operative Ltd                    |  |
|          |                        | Toga      | Koronivia Vegetable Farmers Co-operative Ltd     |  |
|          | Serua                  | Batiwai   | Nakorovou Womens Group                           |  |
|          |                        | Deuba     | Golden Cowrie                                    |  |
|          |                        |           | Grace Road Farm                                  |  |
|          |                        |           | Sainiveiuto Village Youth                        |  |



| Division | Province                           | Tikina                         | Institutional Farm  |
|----------|------------------------------------|--------------------------------|---|
| Central  |                                    | Nuku                           | Nalebaleba Farming Group                                      |
|          |                                    |                                | Nuku Secondary School   |
|          |                                    |                                | Vale Kau  |
|          |                                    |                                | Wainadivo Youth Group   |
|          |                                    | Serua                          | Buno ga e rawata  |
|          |                                    |                                | Culanuku Womens Group   |
|          |                                    |                                | Lomary Secondary School                                       |
|          |                                    |                                | Marist Brothers   |
|          |                                    |                                | Namaqumaqua Womens Group                                      |
|          |                                    |                                | Navutulevu Womens Group                                       |
|          |                                    |                                | Noeleasi Youth Group  |
|          |                                    |                                | Ratu Latinara Secondary School                                |
|          |                                    |                                | Sema Youth Group  |
|          |                                    |                                | Vunicevuga Farming Group                                      |
|          | Vunirewa Methodist Training Centre |                                |   |
|          | Tailevu                            |                                | Dravo   |
|          |                                    | Maumi Farmers Co-operative Ltd |   |
|          |                                    | Naillega                       | Wainuqa Farmers Co-operative Limited                          |
|          |                                    | Namalata                       | Northland Farmers Co-operative Ltd (Waidalice Chiling Centre) |
|          |                                    | Namena                         | Queen Victoria School   |



| Division | Province | Tikina   | Institutional Farm                 |
|----------|----------|--|------------------------------------|
|          |          | Nasautoka Nairairai Development Project Co-operative Ltd             |                                    |
|          |          | Nausori  | Davuilevu Theological College      |
|          |          |  | Natakala Co-operative Ltd          |
|          |          | Sawakasa   | Ratu Kadavulevu Secondary School   |
|          |          | Tai Vugalei Waidewara Chilling Centre Milk Supplies Co-operative Ltd |                                    |
| Eastern  | Kadavu   | Kavala   | Kadavu Provincial Secondary School |
|          |          | Naceva   | Naisogoceva Womens Group           |
|          |          | Nakasaleka   | Naoti Women in Bee Keeping         |
|          |          |  | Narikoso Youth Bee Keeping         |
|          |          | Ono  | Ono Cotton Womens Group            |
|          |          | Ravitaki   | Kadavu Koro Women Group            |
|          |          |  | Mokoisa Women in Poultry           |
|          |          |  | Muani Women In Poultry             |
|          |          | Sanima   | Suesue Co-operative Ltd            |
|          |          | Tavuki   | Kadavu Kava Farmers Co-op Ltd      |
|          |          |  | Namalata Women in Poultry          |
|          |          |  | Vunisea Secondary School           |



| Division | Province  | Tikina                  | Institutional Farm                      |
|----------|-----------|-------------------------|---|
| Eastern  |           | Yawe                    | Korovou Women in Bee Keeping            |
|          |           |                         | Nalotu Women in bee keeping             |
|          |           |                         | Natokalau Women in Bee Keeping          |
|          |           |                         | Richmond Methodist High School          |
|          |           |                         | Tawava Women in Bee Keeping             |
|          |           |                         | Yawe Womens Group                       |
|          |           |                         | Muanicake Womens Group                  |
|          | Lau       | Totoya                  | Delaitalau Investment Co-operative Ltd  |
|          | Lomaiviti | Bureta                  | Navunivanua Sandalwood Co-operative Ltd |
|          |           |                         | Nasinu                                  |
| Levuka   |           | Delana Methodist School |   |
|          |           | Levuka                  | St. John College Cawaci                 |



| Division | Province | Tikina        | Institutional Farm           |
|----------|----------|---------------|------------------------------|
| Northern | Bua      | Dama          | Dama Village Project         |
|          |          |               | Driti Village Bee Project    |
|          |          |               | Nagadoa Village Bee Project  |
|          |          |               | Nagadoa Youth Investment     |
|          |          |               | Naruwai Village Project      |
|          |          |               | Nasau Village Bee Project    |
|          |          |               | Nawaca Village Bee Project   |
|          |          |               | Tavulomo Village Bee Project |
|          |          | Kubulau       | Kilaka Village               |
|          |          |               | Kiobo Village                |
|          |          |               | Kubulau Village              |
|          |          |               | Nadivakarua Village          |
|          |          |               | Nakayaga Estate              |
|          |          |               | Nakorovou Village            |
|          |          |               | Namalata Village             |
|          |          |               | Natokalau Village            |
|          |          |               | Navatu village               |
|          |          |               | Raviravi Village Project     |
|          |          |               | Saisaivua Village            |
|          |          | Waisa Village |                              |
|          |          | Lekutu        | Bainikea Village Project     |
|          |          |               | Droca Village Bee Project    |



| Division | Province         | Tikina   | Institutional Farm                          |
|----------|------------------|--|---|
| Northern | Bua              | Nadi   | Kavula Womens Group                         |
|          |                  |  | Namuavoivoi Village Bee Project             |
|          |                  |  | Nasarawaqa Co-operative Ltd                 |
|          |                  |  | Nukusolevu Co-operative Ltd                 |
|          |                  |  | Vaimasamasa Village Bee Project             |
|          |                  |  | Veilomani Farmers Group                     |
|          |                  |  | Volavanua Co-operative Ltd                  |
|          |                  |  | Nadi Methodist Development Co-operative Ltd |
|          |                  |  | Nasolo Bua Kava                             |
|          |                  | Navakasiga                                     | Bolaniuniu Villagee Group                   |
|          | Wainunu          | Daria Village Project                          |   |
|          | Cakaudrove       | Cakaudrove                                     | Bagasau Village Group                       |
|          |                  |  | Loa Village Group                           |
|          |                  |  | Nawi Village Group                          |
|          |                  |  | Tutu Training Centre                        |
|          |                  |  | Vunikura Village Group                      |
|          |                  | Veilomani Youth Group                          |   |
|          | Cakaudrove I wai | Nabau Investment Co-op Ltd (Somo-somo Village) |   |



| Division | Province   | Tikina   | Institutional Farm            |
|----------|------------|----------|-------------------------------|
| Northern | Cakaudrove | Laucala  | Laucala Island Resort         |
|          |            |          | Matagi Island Resort          |
|          |            | Koroalau | Bucalevu Secondary School     |
|          |            |          | Matakavou Project             |
|          |            |          | Nakawaga Group                |
|          |            |          | Nukubonu Womens Group         |
|          |            | Natewa   | Dawa Womens Group             |
|          |            |          | Natewa Village Group          |
|          |            |          | Natuvu Village Group          |
|          |            |          | Vusaratu Cooperative          |
|          |            |          | Vusasivo Village              |
|          |            | Navatu   | Nasinu Womens Group           |
|          |            |          | Navakaka Womens Group         |
|          |            | Rabi     | Banaban Womens Group          |
|          |            | Saqani   | Nautusolo Beef Scheme         |
|          |            |          | Navetau Womens Group          |
|          |            |          | Vuniwai Cooperative           |
|          |            | Savusavu | Manavure Co-operative Limited |
|          |            |          | Namale Island Resort          |



| Division | Province   | Tikina   | Institutional Farm                |
|----------|------------|----------|-----------------------------------|
| Northern | Cakaudrove |          | Nasakia Clan (Bagata Village)     |
|          |            |          | Nukubalavu Village                |
|          |            |          | Savudrodro Village                |
|          |            | Tunuloa  | Buca Womens Group                 |
|          |            |          | Dakuniba Village Group            |
|          |            |          | Kanakana Village Group            |
|          |            |          | Karoko Womens Group               |
|          |            |          | Koroivonu Village Group           |
|          |            |          | Koroivonu Womens Group            |
|          |            |          | Tukavesi Womens Group             |
|          |            | Vaturova | Korotasere Beef Scheme            |
|          |            |          | Nayarabale Youth Group            |
|          |            | Vuna     | Salialevu Estate                  |
|          |            |          | Ura Estate                        |
|          |            |          | Vatuwiri Estate                   |
|          |            |          | Wainiyaku Estate                  |
|          |            | Wailevu  | Dawara primary (Dawara village)   |
|          |            |          | Muanivatu primary (Urata village) |
|          |            |          | Nacodreudreu Group                |



| Division      | Province   | Tikina    | Institutional Farm                        |
|---------------|------------|-----------|---|
| Northern      | Cakaudrove |           | Nadamole village                          |
|               |            |           | Nakasa village                            |
|               |            |           | Nakorovatu School (Nakorovatu settlement) |
|               |            |           | Nasakea Clan Co-operative Ltd             |
|               |            |           | Natua Village Group                       |
|               |            |           | Nukuramase Group (Vunidawamoli Village)   |
|               |            |           | Qalata Primary School (Bagata Village)    |
|               |            |           | Senivutu Womens Group (Natuvu)            |
|               |            |           | Vesitagitagi Group (Urata village)        |
|               |            |           | Vuadomo Womens (Vuadomo village)          |
|               |            |           | Wailevu Primary School (Wailevu Village)  |
|               |            |           | Wailevu village                           |
|               |            |           | Yanawai Group (Dawara village)            |
|               |            |           | Wailevu East                              |
|               |            | Wainikeli | Nagasau Estate (Nivis Motors)             |
| Raiwasa Hotel |            |           |   |



| Division | Province              | Tikina                           | Institutional Farm                  |
|----------|-----------------------|----------------------------------|-------------------------------------|
| Northern | Cakaudrove            | Wairiki                          | Taveuni Organic Farmers (Delaivuna) |
|          | Macuata               | Dogotuki                         | Dogotuki District School            |
|          |                       |                                  | Dreketi                             |
|          |                       | Nabiti Village Group             |                                     |
|          |                       | Nakanacagi Womens Group          |                                     |
|          |                       | Rice Research Station            |                                     |
|          |                       | Vuniqalutu Village               |                                     |
|          |                       | Labasa                           | CMF Church                          |
|          |                       |                                  | Duruboubou Investment Korolevu      |
|          |                       |                                  | Friendly North Youth Group          |
|          |                       |                                  | FSC Research Station                |
|          |                       |                                  | His Holy Hand Catholic Church       |
|          |                       |                                  | Labasa Correction Centre            |
|          |                       |                                  | Naleba Youth Training Centre        |
|          |                       | Tosovata Womens Group (Bulileka) |                                     |
|          |                       | Macuata                          | Cadranasiga Boarding School         |
|          | Raviravi Womens Group |                                  |                                     |



| Division | Province | Tikina  | Institutional Farm                       |
|----------|----------|---------|--|
| Northern | Macuata  |         | Senisagale Bee Farmers Youth Co-op Ltd   |
|          |          | Mali    | Mali Village                             |
|          |          | Sasa    | Nabala Secondary School                  |
|          |          | Seaqaqa | Batiri Citrus                            |
|          |          |         | Batiri Village                           |
|          |          |         | Cakaudrove Holdings                      |
|          |          |         | Lomolomo Womens Group                    |
|          |          |         | Macuata Yasana Farm                      |
|          |          |         | Nagivuda Village Project                 |
|          |          |         | Naruvuka Womens Group                    |
|          |          |         | Veitacini Beef Farming Co-operatives Ltd |
|          |          | Udu     | Duavata Secondary School                 |
|          |          | Wailevu | Masiveni Qai Farmers Group               |



| Division | Province | Tikina  | Institutional Farm                  |
|----------|----------|---------|-------------------------------------|
| Western  | Ba       | Bulu    | Varavu Seaside Fishing Co-op Ltd    |
|          |          | Magodro | Nasivikoso Duavata Co-operative Ltd |
|          |          | Nacula  | Coconut Beach Resort                |
|          |          |         | Nanuya Island Resort                |
|          |          |         | Oarsman Bay Lodge                   |
|          |          |         | Safe Landing Resort                 |
|          |          | Nadi    | Bula Agro Carerras                  |
|          |          |         | Green Valley Fresh Produce          |
|          |          |         | Rara Loloma Operative               |
|          |          | Nailaga | Ba Correction Centre                |
|          |          |         | Ba Methodist                        |
|          |          |         | Veilomani Boys Home                 |
|          |          |         | Vuetiau Co-operative Ltd            |
|          |          | Naloto  | Nalote College                      |
|          |          |         | Nanuku College                      |
|          |          | Naviti  | Barefoot Manta Island               |
|          |          |         | Botaira Beach Resort                |
|          |          |         | White Sandy Beach                   |



| Division     | Province | Tikina   | Institutional Farm                             |
|--------------|----------|----------|--|
| Western      | Ba       | Nawaka   | Vucilevu Co-operative Ltd                      |
|              |          | Raviravi | Nawaicoba Co-operative Grazing Society Limited |
|              |          | Rukuruku | Crop Grow Enterprises                          |
|              |          | Sabeto   | Aviva Farm                                     |
|              |          |          | G.Group Fiji Limited                           |
|              |          |          | Grace Road Farm                                |
|              |          |          | Rise Beyond the reef                           |
|              |          | Sikituru | Gurdip enterprise                              |
|              |          | Tabataba | Nukuloa College                                |
|              |          | Vitogo   | Ambassador Institute                           |
|              |          | Vuda     | Lautoka Herbs & Vegetables Farmers Co-op Ltd   |
|              |          |          | Vuda bible School                              |
| Vuda Piggery |          |          |  |



| Division | Province       | Tikina        | Institutional Farm                         |
|----------|----------------|---------------|--|
| Western  |                | Waya          | Naqalia Lodge                              |
|          |                |               | Paradise Cove Resort                       |
|          |                | Yasawa        | Yasawa Island Resort                       |
|          | Nadroga/Navosa | Cuvu          | Lomawai Secondary School                   |
|          |                |               | Nadroga Technical College                  |
|          |                |               | CaneCoastal Cooperative                    |
|          |                | Korolevu iwai | Nasekawa College                           |
|          | Ra             | Nalawa        | Havuhavu Co-operative Ltd                  |
|          |                |               | Kaiwai Farmers Investment Co-operative Ltd |
|          |                |               | Nasavusavu Farmers Co-operatives Ltd       |
|          |                | Saivou        | Navatuvoka Co-operative Limited            |



## ANNEX 13 - TYPE OF AGRO-FORESTRY

| Fruit trees                          | Medicinal trees | Timber and firewood trees | Nitrogen fixing trees |
|--------------------------------------|-----------------|---------------------------|-----------------------|
| Guava                                | Pandanus        | Drala                     | Calliandra spp.       |
| Coconut                              | Ashoka          | Vesi                      | Nokonoko              |
| Breadfruit                           | Drumstick tree  | Mahogany                  | Vaivai                |
| Avocado                              | Frangipani      | Rosewood                  | Bainicagi             |
| Cashew Nut                           | Tamarind        | Cadamba                   | Pigeon pea            |
| Citrus                               |                 | Teak                      |                       |
| Custard apple (sweetsop and soursop) |                 | Sandalwood                |                       |
| Mango                                |                 |                           |                       |
| Pawpaw                               |                 |                           |                       |
| Ivi tree                             |                 |                           |                       |
| Kavika                               |                 |                           |                       |
| Wi                                   |                 |                           |                       |



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