2020 Fiji Agriculture Census

Volume IV:
Administration Report

2020 FIJI AGRICULTURE CENSUS

Crops, Livestock, Fisheries & Forests

FOREWORD

Agriculture Census enables compilation of data at community-level and ensure that issues affecting farmers, farm communities and agricultural operations are included when decisions are made on matters that affect them and their livelihood. It increases the quality of evidence based policy making, guide development of Agricultural Statistics in Fiji and address unprecedented data demand to monitor national targets and Sustainable Development Goals.

Timely and Reliable Statistical information is crucial for the benefit of society and the economy as a whole – not only in policy making and the evaluation of performance, but also in directing economic and social activities and providing valuable data and evidence for analysts, researchers, civil societies and the general public.

On that note, I would like to take this time to sincerely thank Government for the allocation of F$4.5m, which enable the Ministry to undertake the 2020 Fiji Agriculture Census - the 5th in a series of Agriculture Censuses conducted in Fiji. I also acknowledge UNFAO for their continuous technical guidance to our Statistics Team and the Ministry in ensuring that we successfully achieve expected targets of this Operation.

I hope that other stakeholders and users such as Academics, Tertiary Students, and Consultants etc. will use these reports as basis of any future research and analysis on Fiji's Agriculture Sector.

To my team and all our immediate Stakeholders from Government whose hard work and commitment enables the compilation of these Publications – Thank you so much for your continuous support and I look forward to more future collaboration. It is indeed an honour to be part of this Team and present the 2020 Fiji Agriculture Census Report – Volume 1, 2, 3 & 4.

Vinaka Vakalevu.

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Dr. Mahendra Reddy
Minister for Agriculture, Waterways & Environment

PREFACE

The Ministry of Agriculture is pleased to present 2020 Fiji Agriculture Census Administration Report.

The report highlights series of activities undertaken in the conduct of the 2020 Agriculture Census. All systems and processes considered are clearly defined in this publication together with photographs and info graphics of census activities.

Considering the structure of Fiji's Agriculture Sector, it is anticipated that future agriculture censuses and survey planning will consider content of this report which should guide data collection, processing and dissemination.

We extend our appreciation and gratitude to all parties who had contributed in the 2020 Fiji Agricultural Census and the completion of this publication.

Detailed agriculture census information is available online at http://www.agriculture.org.fj. If you would like more information, you can also call our help desk on phone no. (679) 338 4233 or e-mail agrihelp@govnet.gov.fj.

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Mr. Ritesh Dass
2020 Fiji Agriculture Census Commissioner

CONTENTS

ACRONYMS

FAC   Fiji Agriculture Census

MoA   Ministry of Agriculture

FAO   Food and Agriculture Organization of the United Nations

FARS   Fiji Agriculture & Rural Statistics Unit

CAPI   Computer Assisted Personal Interviewing

AC   Area Coordinators

EA   Enumeration Area

FDB   Fiji Development Bank

FS   Field Supervisor

WFP   World Food Programme

GPS   Global Positioning System

SPSS   Statistical Package for the Social Sciences

GIS   Geographic Information System

COMPOSITION OF THE NATIONAL STEERING COMMITTEE OF THE 2020 FIJI AGRICULTURE CENSUS

Permanent Secretary	Ministry of Agriculture	Chairman
Permanent Secretary	Ministry of Fisheries	Vice Chairman
Permanent Secretary	Ministry of Forestry	Vice Chairman
Chief Economist	Ministry of Agriculture	Secretary
Chief Executive	Fiji Bureau of Statistics	Member
Permanent Secretary	Ministry of Economy	Member
Permanent Secretary	Ministry of Sugar Industry	Member
Permanent Secretary	Ministry of Rural & Maritime Development	Member
Permanent Secretary	Ministry of iTaukei Affairs	Member
Permanent Secretary	Ministry of Health and Medical Services	Member
Permanent Secretary	Ministry of Women, Children and Poverty Alleviation	Member

COMPOSITION OF THE TECHNICAL WORKING GROUP OF THE 2020 FIJI AGRICULTURE CENSUS

Chief Economist	Ministry of Agriculture	Chairperson
Director Crop Extension Division	Ministry of Agriculture	Member
Director Animal Health & Production	Ministry of Agriculture	Member
Director of Planning, Policy and Research	Ministry of Sugar Industry	Member
Principal Agriculture Officer (HQ)	Ministry of Agriculture	Member
Principal Agriculture Officer (Eastern)	Ministry of Agriculture	Member
Principal Agriculture Officer (AH&P)	Ministry of Agriculture	Member
Senior Research Officer (Land Use)	Ministry of Agriculture	Member
Principal Economic Planning Officer	Ministry of Fisheries	Member
Senior Economic Planning Officer	Ministry of Fisheries	Member
Principal Economic Planning Officer	Ministry of Fisheries	Member
Senior Forestry Officer	Ministry of Forestry	Member
Chief Statistician (Economics)	Fiji Bureau of Statistics	Member
Chief Statistician (Social Statistics)	Fiji Bureau of Statistics	Member
Principal Statistician	Fiji Bureau of Statistics	Member
Principal Economic Planning Officer	Ministry of Rural & Maritime Development	Member
Principal Research Officer	Ministry of Women, Children and Poverty Alleviation	Member
Senior Women Interest Officer	Ministry of Women, Children and Poverty Alleviation	Member
Manager	Fiji National Food and Nutrition Centre	Member
Director Development Services	Ministry of iTaukei Affairs	Member
Consultants	UNFAO	Member
Rasmiyya Aliyeva (Statistician)	FAO Sub-regional office for Pacific Island	Member
Senior Economic Planning Officer (Statistics)	Ministry of Agriculture	Member
Senior Economic Planning Officer (Budget)	Ministry of Agriculture	Member
Economic Planning Officer (GIS)	Ministry of Agriculture	Member
Project Staff (s)	Fiji Agriculture & Rural Statistics Unit	Member

CONSULTANTS OF THE 2020 FIJI AGRICULTURE CENSUS

Technical assistance provided substantial impact to the whole process of conducting and preparing the report of the 2020FAC. This was mainly offered by FAO through the following consultants:

Name of consultant	Area of expertise	2020FAC job title	Areas of technical assistance
Ms. Helen Stott	Former New Zealand Statistician, NZ Bureau of Statistics	**Expert on Agriculture Statistics**	• Advised on the methodology for 2020FAC • Prepared the project training programme • Prepared the data dissemination plan for 2020FAC • Oversaw work on the design of household and non-household questionnaires for 2020FAC • Worked in collaboration with the experts on CAPI/data processing on the CAPI system for 2020FAC • Provided guidance and on-the-job training to national staff on managing and implementing 2020FAC
Mr. Gene Lorica	Former System Analyst and Officer in Charge of the Assistant National Statistician for Systems Development Division and IT, Philippine Statistics Authority	**Expert on CAPI and Data Processing**	• Developed requirements for the CAPI system, including questionnaires and validation checks • Supervised the development, operational testing and finalization of the CAPI data collection system for 2020FAC • Provided input for manuals and training materials • Assisted in designing of a data processing and tabulation system • Prepared full technical documentation on the CAPI, data processing and tabulation system • Provided guidance and on-the-job training to Ministry of Agriculture Statistics Staff on the development and implementation of CAPI, survey solutions, and use of selected software for data tabulation • Assisted with the planning and conduct of the pilot census (training, operation, technical support, analysis, etc.) • Evaluated the pilot and finalized census methodology, technical support plan, instruments, manuals, etc.
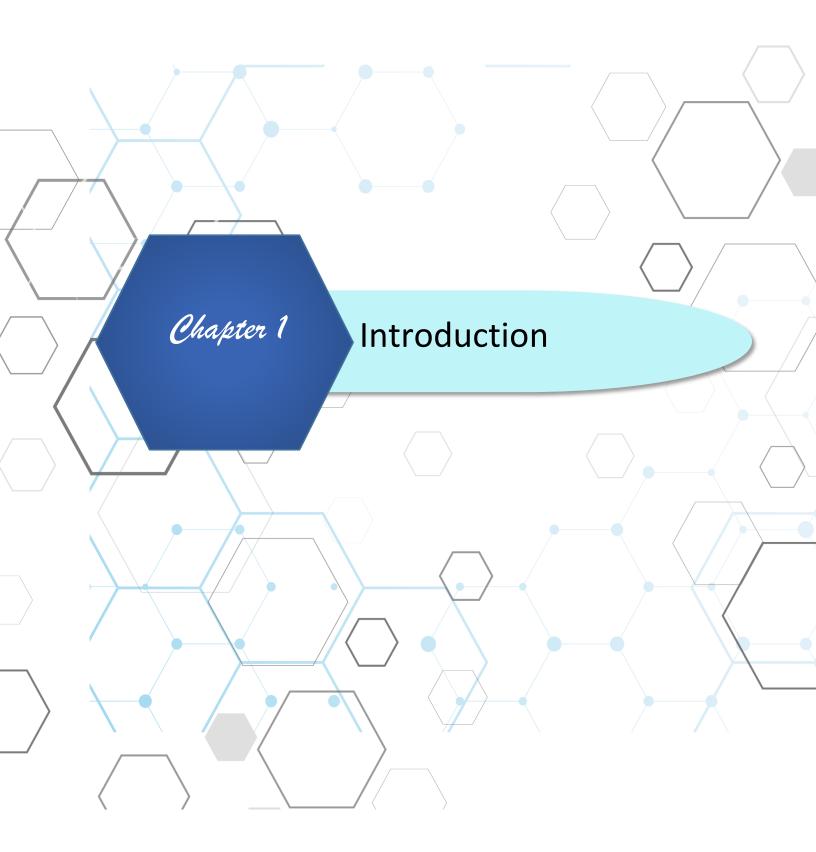
Name of consultant	Area of expertise	2020FAC job title	Areas of technical assistance
Dr. Vidya Dhar	Former Additional Director General, Ministry of Agriculture and Farmers Welfare, Government of India	**Expert on Agriculture Statistics**	• Reviewed progress made in the preparation to agriculture census • Assisted with the evaluation of the pilot census (operation, analysis, etc.), and finalization the census methodology, listing frame, plan, instruments, editing specifications and manuals for the census operation • Developed methodology for the post-enumeration survey • Provided guidance and on-the-job training to staff on managing and implementing the agriculture census • Oversaw the training of enumerators and initial data collection • Assisted with editing and quality checks • Assisted in evaluating the results of the agriculture census, considering • The census coverage, quality checks, field validation and editing of census tables • Assisted with planning the follow-up statistical activities: reviewing the plan for surveys, updating statistics training and succession plan • Assisted with analysing and disseminating census results, conducted training (remotely) on analysis and report writing, oversaw the final editing and the production of clean data • Oversaw work on the preparation of the Fiji Agriculture Census report and assisted in finalizing the report
Ms. Lanieta Makita Vakadewabuka **Mr. Waisiki Gonemaituba**	Former Principal Statistician, Fiji Bureau of Statistics Former Chief Economist, Ministry of Agriculture	**National Consultant on Statistics**	• Assisted in determining the data items for 2020FAC and using classifications, advised on the census methodology, and assisted in undertaking the user workshop • Assisted in designing the household and non-household sector questionnaires and field operation manual • Assisted the census staff with the preparation of the main census activity including:

Name of consultant	Area of expertise	2020FAC job title	Areas of technical assistance
			• census public awareness and promotion • census field operation • recruitment of census staff
Mr Lachlan Bruce	Survey Consultant for the United Nations, Asian Development Bank, and World Bank in Asia and the Pacific	**Expert on CAPI and Data Processing**	• Launched and deployed final CAPI system for fieldwork • Provided training on CAPI Quality Control to Area Coordinators and Headquarters staff • Troubleshot CAPI issues during fieldwork • Oversaw data cleaning • Design of a data processing an tabulation system • Production of final data tables • Production of lessons for a remote video-based training course on Statistical Package for the Social Sciences (SPSS) • Prepared full technical documentation data processing and tabulation system

LIST OF TABLES AND FIGURES

Chapter 1

Introduction

CHAPTER 1: INTRODUCTION

1.1 Fiji Agriculture Statistics System

The Fiji National Statistical System coordinated by National Statistics Office (Fiji Bureau of Statistics) is made up of general statistics decentralized by sector. Thus, the establishment of Agriculture Statistics system to coordinate compilation of agriculture information.

In 1990, after the first two (2) agriculture censuses (1968 & 1978), the Ministry of Agriculture established the Agriculture Statistics Unit under the Economic Planning & Statistics Division. The unit was established to ensure implementation of agriculture census and surveys considering new data requirements. The other two censuses were conducted in 1991 and 2009.

The immediate objectives of the 2009 NAC were to provide a benchmark as an objective criteria for planning and policy decisions in sustainable agricultural and rural development; and to strengthen and improve the ongoing Fiji Agriculture Statistics System to generate key agricultural data on a regular basis using the results of agriculture census as benchmark. Dissemination of statistical information were anticipated to be released as regular report.

The major challenge identified with Fiji's Agriculture Statistics system is the lack of quality agricultural information and evidence upon which to base sound planning and policy decisions. This weakness is primarily due to the lack of regular collection and survey activity to supplement existing administrative data reporting and is further compounded by the fact that collected data are often not publicly available. There is a clearly identified need to introduce some form of regular and sustainable agricultural statistical system in Fiji to produce the type and quality of information needed to guide evidence-based decision making. The timely availability of accurate and relevant agricultural data and business statistics is critical to the formulation of policies and strategies as well as the monitoring and evaluation of sector performance

1.2 2020 Fiji Agriculture Census

"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."

The Agriculture Census is one of the key pillars of any National Statistical System, and in many developing countries it is often the only means of producing statistical information, on the structure or growth of the agriculture sector captured at the smallest unit of data collection – household level.

The Fijian Government's 5-Year and 20-Year National Development Plan (NDP) commits to carry out a National Agriculture Census in 2020. This timeline corresponded well with the World Program for Census of Agriculture 2020 [WCA 2020]. The NDP is committed to support the achievement of the following goals:

- Develop a national food and nutrition security policy or framework; and
- Continue broad-based support to agriculture as a key driver to economic growth and poverty alleviation

The World Programme for Census of Agriculture 2020 (WCA 2020) is the tenth decennial programme, which provides the basis of implementing agricultural censuses in Food and Agriculture Organization (FAO) member countries between 2016 and 2025. Fiji through the Ministry of Agriculture, along with other Pacific Island countries (Guam, Samoa, Niue and Vanuatu) adopted the World Census of Agriculture (WAC) 2020 Guidelines for conducting National Census of Agriculture in 2020.

Most Fijians depend on agriculture [crop & livestock], fishing and forest for their livelihood. As a small island state, Fiji is vulnerable to climate change, natural disasters and economic shocks. Therefore it is imperative to have the

necessary data sets that clearly identifies this occurrences and allows for a responsive development strategies based on evidence.

The 2020 Fiji Agriculture Census was undertaken on the 10th – 29th February 2020, covering 70,991 agricultural households in the rural sector and selected Peri-urban boundary where agriculture activities are commonly practiced. This was the first time that all four (4) sub-sectors of Agriculture- Crop, Livestock, Fisheries and Forestry were fully enumerated.

The Ministry of Agriculture adopted the Computer- Assisted Personal Interviewing (CAPI) system through Survey Solution software on tablets for data collection during the Agriculture Census. The adoption of this new technology substantially improved quality and transparency of data collected, shortened data processing and timely dissemination of results for Census data users. Across the world, some countries are leading this global trend, and Fiji is part of this revolutionary move.

The 2020FAC slogan *"Your Voice, Your Future, Be Counted"* was instigated to help farmers recognize that participating in this important national exercise is their responsibility and decision for better future in agriculture.

Figure 1.0   History of Agriculture Census in Fiji

1ST AGRICULTURE CENSUS: SAMPLE

1968

Sample size: 17,000; Sampling Unit: Household; Enumeration Period: 12 months (1 year). List of Household as a frame was established from Household Head economic activity in 1966 Population Census and later stratified geographically. Ariel Photograph was also used.

2nd AGRICULTURE CENSUS: SAMPLE

Sample size: 2800; Sampling Unit: Farm Enumeration Period: 22 months (1 year & 10 months) Combination of List and Cluster Sampling were used. Involved a stratification by agriculture sector & within the Commercial sector, further stratification by size of farm was used. Aerial photography and postal enquiry was used

1978

3rd AGRICULTURE CENSUS: SAMPLE

Sample size: 1,270; Sampling Unit: Segment; Enumeration Period: 2 months. Aerial Sampling Frame (ASF) was used as the Methodology. The final sample size of 1,270 SMs was fixed for Fiji allocating 1,220 SMs to the rural sector and 50 SMs to the Peri-urban sector. The 24 LSF belonged to the list frame and were enumerated 100%. Data was collected from 9,607 farms

1991

4th AGRICULTURE CENSUS: SAMPLE

Sample size: 9,342; Sampling Unit: Segments & Holdings; Enumeration Period: 12 months (1 year). The survey design used the multiple sampling frame methodology. This methodology combines the advantages of an area frame (complete coverage) and a list frame (rare commodities and large and special farms). Size of Segment was 1ha or 1 km2.

2009

5th AGRICULTURE CENSUS: FULL ENUMERATION

Frame: 70,161 Sampling Unit: Household; Enumeration Period: 3 weeks; First full enumeration agriculture census exercise to be undertaken in the rural and part of peri-urban areas where agriculture is mainly practiced. Furthermore, it was an integrated exercise whereby all 4 agriculture sub-sectors was covered; crop, livestock, fisheries and forestry.

2020

Chapter 2

Preparation

2.1 Stages of 2020 Fiji Agriculture Census Preparation

The 2020FAC was conducted in several stages, which are preparation, enumeration, data processing, and data presentation. The preparation for the 2020FAC started in 2016, but field implementation began in 2018 by Review of Farmer's listing. The main activity, which is the complete enumeration of rural and selected Peri-urban areas was carried out in February 2020 followed by other stages seen in the following chart.

2019

- Demarcation of Agriculture Census Boundary
- Development of Work plan and Budget
- Formulation of National Steering Committee and Technical Working Group
- Cabinet Approval on Implementation of 2020FAC
- Designing of Questionnaire and Training Manuals
- Conduct Questionnaire Pre-Test and Pilot Census Exercise
- Conduct Training
- Data User Conference
- Promotion and Awareness
- Establishment of CAPI IT system
- Development of Tabulation Plan and Data Processing Validation Plan

2020

- Recruitment of Census Field Staff (Enumerators)
- Training
- Logistics
- Field Enumeration
- Post Enumeration
- Data Processing and Validation
- Publication of Agriculture Census Report
- Data Dissemination Awareness
- Data Archiving

2018

- Review and Update Farmers Household Listing
- Consultation with other 2 Ministries; Ministry of Fisheries and Ministry of Forestry

2016

- Conduct In-Depth Country Assessment (IDCA)
- Basis Statistics Capacity Building
- Farming Household Baseline Survey (FHBS)

2017

- Establishment of Farmers Socio Economic Database (CS Pro)
- Plot of Large Scale Farms Coordinates

2.2 Structure of the 2020 Fiji Agriculture Census

On 17th May 2019, the Fijian Government through a Cabinet decision approved the implementation of 2020 Fiji Agriculture Census by the Ministry of Agriculture to be undertaken on 10th February to 29th February 2020 and also endorsed the establishment of 2020FAC National Steering Committee and Technical Working Group.

2.2.1 Establishment of National Steering

The National Steering Committee is a high level committee that involved Permanent Secretaries and Directors who are able to provide high-level advice and in a better position to make decisions on behalf of the institutions or ministry they represent. The Committee oversee governance and overall coordination of 2020FAC and endorse the overall plans and direction of the census. The NSC met when required during the period of the census preparation, implementation and before dissemination.

The Committee was Coordinated and Chaired by Permanent Secretary for Agriculture and members comprised of other Permanent Secretaries and Head of relevant organizations from eight Ministries. The Secretariat was the National Census Coordinator located at the Ministry of Agriculture. *(See Table 2.1 for names of NSC members)*

Table 2.1: Members of National Steering Committee

Position	Ministry	Role
Permanent Secretary	Ministry of Agriculture	Chairman
Permanent Secretary	Ministry of Fisheries	Vice Chairman
Permanent Secretary	Ministry of Forestry	Vice Chairman
Chief Economist	Ministry of Agriculture	Secretary
Chief Executive	Fiji Bureau of Statistics	Member
Permanent Secretary	Ministry of Economy	Member
Permanent Secretary	Ministry of Sugar Industry	Member
Permanent Secretary	Ministry of Rural & Maritime Development	Member
Permanent Secretary	Ministry of iTaukei Affairs	Member
Permanent Secretary	Ministry of Health and Medical Services	Member
Permanent Secretary	Ministry of Women, Children and Poverty Alleviation	Member

The first meeting was called on 29th November 2018 whereby members were enlightened on the overview, objectives, scope, coverage, work plan and budget of 2020FAC. A series of meetings were conducted throughout the preparation phase and before the dissemination of the 2020FAC reports to seek the committees support and endorsement. The final Questionnaire was presented and endorsed by the committee on 18th October 2019 and a Memorandum was circulated on 30th January 2020 to all NSC members for the engagement of trained officers on different 2020FAC roles.

The 2020FAC operation was officially launched through a Press conference at the Census Operation Room by the Minister for Agriculture, Waterways and Environment, Hon. Dr. Mahendra Reddy on 7th February 2020 attended by NSC members, stakeholders, global partners and media partners.

Figure 2.1: 1st NSC Meeting, 2018

NSC Awareness and Introductory Meeting at MoA HQ

Figure 2.2: Endorsement of 2020FAC Questionnaire, NSC Meeting

National Steering Committee Meeting for Endorsement of the 2020FAC Questionnaire

Figure 2.3: Launching of 2020FAC Operation Press Conference

Press Conference for 2020FAC Field Operation

2.2.2 Establishment of Technical Working Group (TWG)

The 2020FAC Technical Working Group was established on 20th December 2018 after a round table discussion with officers responsible for the management of statistics in the four agricultural sub-sectors in Fiji; Ministry of Agriculture, Ministry of Fisheries, Ministry of Forestry and Ministry of Sugar. Key stakeholders and data users from four (4) respective Ministries were identified and invited to be part of the extended Technical Working Group.

The TWG Committee was responsible for overall planning and direction of 2020 FAC, provided advice, support and assisted in executing Agriculture Census that ensures collection of quality data and meets the needs of users. It was Coordinated and Chaired by 2020FAC Coordinator, the Chief Economist of Ministry of Agriculture and members were Principals and Senior Technical Officers from eight Ministries and consultants from FAO. Meetings were conducted on monthly basis to ensure effective and timely implementation of the 2020FAC Work plan. *(See Table 2.2 for names of TWG members)*

Table 2.2: Members of Technical Working Group

Position	Ministry	Role
Chief Economist	Ministry of Agriculture	National Census Coordinator/Chairperson
Director Crop Extension Division	Ministry of Agriculture	Member
Director Animal Health & Production	Ministry of Agriculture	Member
Director of Planning, Policy and Research	Ministry of Sugar Industry	Member
Principal Economic Planning Officer	Ministry of Fisheries	Member
Senior Economic Planning Officer	Ministry of Fisheries	Member

Position	Ministry	Role
Principal Economic Planning Officer	Ministry of Forestry	Member
Senior Forestry Officer	Ministry of Forestry	Member
Chief Statistician (Economics)	Fiji Bureau of Statistics	Member
Chief Statistician (Social Statistics)	Fiji Bureau of Statistics	Member
Principal Statistician	Fiji Bureau of Statistics	Member
Principal Economic Planning Officer	Ministry of Rural & Maritime Development	Member
Principal Research Officer	Ministry of Women, Children and Poverty Alleviation	Member
Senior Women Interest Officer	Ministry of Women, Children and Poverty Alleviation	Member
Manager	Fiji National Food and Nutrition Centre	Member
Director Development Services	Ministry of iTaukei Affairs	Member
Consultants	UNFAO	Member
Rasmiyya Aliyeva (Statistician)	FAO Sub-regional office for Pacific Island	Member
Senior Economic Planning Officer (Statistics	Ministry of Agriculture	Member
Senior Economic Planning Officer (Budget)	Ministry of Agriculture	Secretariat
Economic Planning Officer (GIS)	Ministry of Agriculture	Member
Project Staff	Ministry of Agriculture	Members

Figure 2.4: 2020FAC Technical Working Group Meeting

2020FAC Technical Working Group Meeting at Main Census Operation Room

2.2.3: Fiji Agriculture Census Operation Structure

The NSC appointed Permanent Secretary of Agriculture as 2020FAC Commissioner. The Agriculture Census Commissioner was assisted by the Agriculture Census National Coordinator, who is the Chief Economist responsible for Economic Planning and Statistics Division of the Ministry.

The 2020FAC National Coordinator was accountable to the Agriculture Census Commissioner for all Agriculture census activities. Working under the Agriculture Census National Coordinator was the Agriculture Census Field Coordinator who was the Director Crop Extension. The Agriculture Census Field Coordinator was responsible for all preparatory activities connected with agriculture census field operation and is responsible for supervision of all Regional Coordinators.
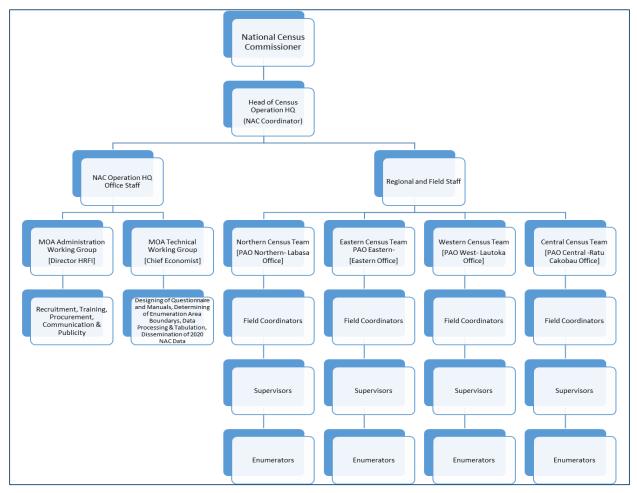
Figure 2.5: Organization Structure

The 2020FAC engaged 430 enumerators (36% male, 64% female), 146 field supervisors and 118 area coordinators who were trained and deployed to collect information. Out of the 118 Area Coordinators, 84% from Ministry of Agriculture, 8% from Ministry of Fisheries, 4% from Ministry of Forestry, and 3% from Ministry of iTaukei Affairs. All field supervisors were selected from the Ministry of Agriculture

Headquarters Team consists of ten government officials selected from five Ministries who were part of the Technical Group. All data processing activity were carried out at the Main Census Data Processing Room.

Two MoA IT officers were responsible for coordinating IT activities at the three main Regional census office during the census period.

Figure 2.6: Survey Solution Headquarter Staff Operating at Census Data Processing Room

2020FAC Main Data Processing Centre – Headquarter Staff from 5 Ministries performing final checks on all questionnaires received from the field before final approval

Table 2.3: Distribution of 2020FAC Staff during field operation

Census Staff	Central	Eastern	Northern	Western	Total
Number of Regional Coordinators	1	1	1	1	4
Number of Headquarters Staff	3	2	3	2	10
Number of Area Coordinators	31	16	31	40	118
Number of Field Supervisors	37	23	40	46	146
Number of Enumerators	114	54	122	140	430

2.2.4: Establishment of 2020FAC Operation Room

The 2020FAC operation room was established in October 2019 at level 2, New Wing Robinson Complex, Ministry of Agriculture Headquarters, Raiwaqa. The room was occupied by the following Teams; Mapping and GIS, Questionnaire Design, Statistics IT, Data Processing, Logistics, Field Assistants, Field Supervisors and Consultants. Infrastructure upgrade to support CAPI system includes; Installation of TV screen, high speed internet, teleconferencing equipment, computers, laptops for live coverage of census, quality checks, verification, team brief, and other related activities concerning census delivery.

Maps were printed and presented to highlight demarcated enumeration areas and guide for logistics plan.

Figure 2.7: 2020FAC Main Operation room

2020FAC Main Operation Centre, Raiwaqa Office

2020FAC Main Operation Centre, Raiwaqa Office

At field level, MoA regional offices were upgraded and equipped to support 2020FAC process. This includes installation of computers, TV Screen, high speed internet, and Camera for communication, quality checks, verification and clarification of issues, etc. It was also recommended that the 2020FAC setup at regional offices will remain after the census operation to support sustainability of agricultural statistical system.

The distribution of 2020FAC Major Equipment's across the four regions is tabulated below.

Table 2.4: Distribution of Major Census Equipment's across Regions

Items	HQ/Eastern	Central	North	West	Total
Desktops	20	5	5	5	27
Laptops	16	18	18	18	70
TV Screen	2	1	1	1	5
Video Teleconferencing	1	1	1	1	4
Internet Modem	7	7	7	7	28
Cordless Phones	1	1	1	1	4
First Aid Kit	23	34	40	44	141
Power banks	9	50	46	50	155
Torches	23	37	40	56	156
Census Bags	64	114	122	140	440
Tablets	88	168	175	209	640
Census Uniform	106	186	197	229	718
Calculator	54	109	122	140	425

Figure 2.8: 2020FAC Northern Operation room

MoA IT officers setting up the Northern Census Regional HQ

MoA IT officers setting up the Northern Census Regional HQ

2.2.5: Regional Coordinators Awareness

In January 2020, the Fiji Agriculture Census Commissioner appointed all Agriculture Regional Managers as 2020FAC Regional Coordinators for the purpose of organising and administrating the enumeration exercise in their Division. Regional Coordinators Training was conducted and attended by Principal Officers of four (4) Ministries in all Geographical Divisions.

Figure 2.9: 2020FAC Regional Coordinators Awareness Workshop

2020FAC Regional Coordinators Awareness Workshop at Tanoa Hotel, Nadi

2.3 BUDGET AND PLANNING

2.3.1 Budget

The Fijian Government is aware of the high demand of Agriculture Information and the urgent need to establish a sustainable Agriculture Statistics System for Fiji, therefore, allocated $4.5 million (FJD) to Ministry of Agriculture in 2019/20 fiscal year for agriculture census preparatory work and also for actual implementation of 2020 Fiji Agriculture Census (FAC). The UN Food & Agriculture Organization continued to assist the development of agriculture statistics and censuses through Technical support worth of $762,000 (FJD).

The largest budget proportion of 63.6% was allocated for Enumerators Training and Field Data Collection Operation, followed by 11.0% for Procurement of Field Data Operation Equipment's, 10.5% for procurement and production of Promotional items, 4.8% for Contingencies, 4.4% for Training of Supervisors and Area Coordinators, 2.7% for awareness activities, 1.7% for establishing the Census Operation HQ and remained 1.4% was for other census activities listed in Table 2.5 below. . The largest budget in Enumerators Training and Field Data Collection Operation was spent on wages of enumerators, allowances, training and other costing.

Table 2.5: Budget Allocation for Major Census Activities

Major Activity	Budget Allocation (FJD)
Establishing the Census Operation HQ	74,834.62
Organizing Steering Committee	4,050.00
Organizing TWG Committee	12,960.00
Launching Awareness	9,262.00
Procurement and Production of 2020FAC Promotional Items	471,862.50
Awareness Activities	122,495.15
Questionnaire Design	2,066.40
Evaluate options for CAPI, processing and outputs	7,790.80
Setting up IT infrastructure and system testing	7,839.00
2020FAC Pilot Exercise	8,731.96
Data User Conference	9,000.00
Procurement of Census Operation Items and Equipment's	493,946.00
Training of Supervisors & Area Coordinators	199,666.10
Census Enumerators Training and Field Data Collection Operation	2,861,209.76
Contingencies	214,285.71
Total 2020FAC Budget	**4,500,000.00**

2.3.2 Work plan

In addition to budgeting, the other important thing is scheduling. In this regard, the first thing to be prepared is network planning. The network planning is a draft of schedule of activities, which is useful to arrange the census activities, identify which ones are critical path activities and which are not, and determine the best working method.

Table 2.6: 2020 National Agriculture Census Workplan

MAJOR ACTIVITY	2018/2019				2019/20												2020/2021											
	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Output 1: Updated List of Agriculture Holdings																												
Activity 1.1: Review of Farmers Listing	■	■	■	■	■	■																						
Activity 1.2: Plotting of Large Scale Farms (GPS)	■	■	■	■	■	■																						
Activity 1.3: Entering the New Farming Household (C,SC,S) in to the Computer	■	■	■	■	■	■																						
Activity 1.4: Map the Large Scale Farms	■	■	■	■	■	■																						
Output 2: Determined Agriculture Census Enumeration Areas/Boundaries																												
Activity 2.1: Demarcation of Agriculture Census Boundaries	■	■	■	■	■	■																						
Activity 2.2: Determining the Size of Enumeration Areas	■	■	■	■	■	■	■	■	■	■																		
Activity 2.3: Allocating the Enumeration Areas/Boundaries	■	■	■	■	■	■	■	■	■	■																		
Output: 3: Structure for Census Operation																												
Activity 3.1: Establishing the Census Operation HQ	■	■	■	■	■	■	■																					
Activity 3.2: Estimating the Required Resources	■	■	■	■	■	■	■	■	■	■																		
Activity 3:3: Prepare Work Plans and Estimating Budget	■	■	■	■	■	■																						
Activity 3.4: Defining the Census Scope & Objective	■	■	■	■	■	■	■	■	■																			
Activity 3.5: Formulating Preliminary Content and methodology	■	■	■	■	■	■	■	■	■	■																		
Activity 3.6: Organizing Steering Committee		■								■		■			■			■										
Activity 3.7: Organizing TWG Committee				■			■			■	■	■	■	■	■	■	■	■										
Activity 3.8: Formulating the Cabinet Submission	■	■	■	■	■																							
Activity 3.9: Country Visit- Census Study Tour - Key Census Staff						■	■	■																				
Activity 3.10: Evaluate options for CAPI, processing and outputs	■	■	■	■	■	■	■	■	■	■																		
Activity 3.11: Preparing FAO TCP Proposal	■	■	■	■																								
Output: 4: Census Development																												
Activity 4.1: Preparing Tabulation Plan					■	■	■	■	■																			

Table 2.6: 2020 National Agriculture Census Workplan

MAJOR ACTIVITY	2018/2019				2019/20												2020/2021											
	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Activity 4.2: Prepare data dissemination plan					X	X	X	X	X																			
Activity 4.3: Prepare awareness and publicity plan (incl logo etc)					X	X	X	X	X																			
Activity 4.4: Finalize requirements and Procurement of Equipment					X	X	X	X	X																			
Activity 4.5: Finalizing Content, Concepts and Definitions		X	X	X	X	X	X																					
Activity 4.6: Designing & Testing Questionnaires (separate questionnaire for hhld and LSF, institutions?)		X	X	X	X	X	X																					
Activity 4.2: Preparing Editing Specifications							X	X																				
Activity 4.7: Conducting Data User Conference							X	X																				
Activity 4.8: Preparing Manuals				X	X	X	X																					
Activity 4.9: Setting up IT infrastructure and system testing		X	X	X	X	X	X	X	X																			
Activity 4.10: Setting up CAPI Management & Output System		X	X	X	X	X	X	X	X																			
Activity 4.11: Designing a CS Pro Data Processing & Tabulation System									X	X																		
Activity 4.12: Conducting the Pilot Census (Training, Operation, Analysis, etc.)											X	X																
Activity 4.13: Evaluate pilot and finalize Census methodology, plan, instruments, manuals													X	X														
Activity 4.14: Printing Census Materials and distributing materials, tablets etc.															X	X												
Activity 4.15: Conducting Census Public Awareness & Promotion Materials									X	X	X	X	X	X	X	X												
Output 5: Collected 2020 Agriculture Census Data																												
Activity 5.1: Organizing the Census Field Operation													X	X	X	X												
Activity 5.2: Recruiting Census Staff																X	X											
Activity 5:3: Training Coordinators, Supervisors & Office Staff														X	X													
Activity 5.4: Training Enumerators (including Mock Exercise)																	X											
Activity 5.5: Collecting Census Data																	X											

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Table 2.6: 2020 National Agriculture Census Workplan

MAJOR ACTIVITY	2018/2019				2019/20												2020/2021											
	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Activity 5.6: Conducting Supervisors and Headquarters Verification Check																	▓	▓										
Activity 5.7: Conducting Quality Checks *(Post-Enumeration Survey)*																	▓	▓	▓									
Output 6: A secured and cleaned Database																												
Activity 6.1: Recruiting and Training Data Processing Staff																	▓	▓										
Activity 6.2: Validating Census Data																			▓	▓	▓	▓						
Activity 6.3: Extracting & Validating Census Tables																					▓	▓	▓	▓				
Activity 6.4: Analyzing Census Results																									▓	▓	▓	
Output 7: Disseminated 2020 Agriculture Census Results																												
Activity 7.1: Formulating a Census Report																											▓	▓
Activity 7.2: Preparing Publication (Hard Copy, CD)																											▓	▓
Activity 7.3: Prepare other outputs. Maps etc																											▓	▓
Activity 7.4: Conducting Dissemination Seminars and Workshops																												
Activity 7.5: Establishing a Website for Agriculture Statistics																										▓	▓	▓
Output 8: Short and Medium Term Plan Formulated																												
Activity 8.1: Reviewing the Survey & Census Plan																										▓	▓	▓
Activity 8.2: Update farmers listing and establish ongoing frame maintenance procedures																										▓	▓	▓
Activity 8.3: Formulating Statistics Training and Succession Plan																										▓	▓	▓

2.4 PUBLICITY

The 2020FAC was officially launched on 18th October 2019 at Grand Pacific Hotel in conjunction with the third National Steering Committee Meeting at which the content of the Questionnaire was endorsed. The awareness plan was launched to gain the support and cooperation of all households and institutions engaged in agricultural activities in the country. Awareness Team from the Economic Planning & Statistics Division were deployed to all provinces, schools, Government agencies and agricultural institutions for distribution of promotional materials and awareness consultations.

Launching of the 2020FAC Awareness Campaign

2020FAC Awareness Committee planning meeting

Awareness at District Office

2020FAC Street Banner at Labasa Agriculture Office, Northern Division

MoA Officials posting 2020FAC Banners
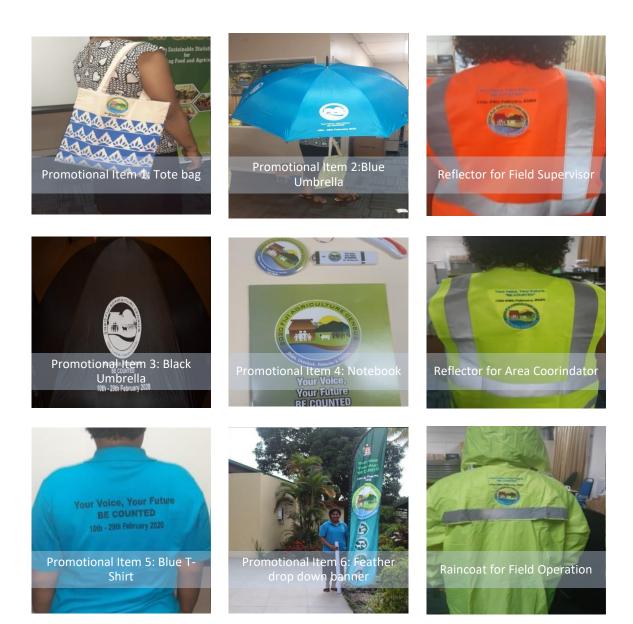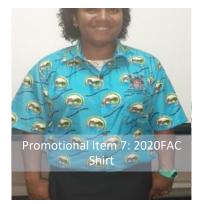
The District Officers, Advisory Councils and Village leaders were the point of contacts during the awareness exercise. A media campaign advertising the 2020FAC was aired through local TV, radio networks and Cinema advertisement. Regular radio talkback shows were organized on a fortnightly basis leading up to the census. Other awareness mode were through;

- printed banners,
- posters
- stickers
- bags,
- T-shirts
- caps
- Leaflets and pamphlets (English and iTaukei language)
- MoA Facebook Page

Promotional Item 1: Tote bag

Promotional Item 2: Blue Umbrella

Reflector for Field Supervisor

Promotional Item 3: Black Umbrella

Promotional Item 4: Notebook

Reflector for Area Coorindator

Promotional Item 5: Blue T-Shirt

Promotional Item 6: Feather drop down banner

Raincoat for Field Operation

Promotional Item 7: 2020FAC Shirt

2.5 RECRUITMENT OF ENUMERATORS

The mass recruitment of 430 enumerators was conducted in four geographical divisions on 12th December 2019 to accommodate the data collection needs of the 2020FAC. The recruitment of these officers considered the existing OMRS process of the Fijian Civic Service. The table below highlights the chronological events undertaken to ensure successful recruitment of enumerators. Attach as Annexure 6 & 7 are recruitment documents.

Table 2.7: Chronological Events of 2020FAC Recruitment Activities

Activity	Date
Job Advertisement- Fiji Sun Newspaper	30th November 2019
Application Close 4.00pm	6th December 2019
Registration of Applications	5th - 8th December 2019
Short Listing	9th December 2019
Job Test	12th December 2019
Submission to PS/Minister	16th December 2019
Training of Enumerators	20th - 31st January 2020
Successful Candidates issued with Appointment Letters	7th February 2020

2.6 TRAINING

There were eleven trainings held across the country from December 2019 to February 2020. These includes training for Area Coordinators, Field Supervisors, Enumerators and Headquarters Staff. Training manual is attached as Annexure 4 to this report. All trainings s were facilitated by National Agriculture Census Coordinator, FAO Consultants and selected officers from Economic Planning & Statistics Division.

2.6.1 Area Coordinators

Area Coordinators training was the first to be conducted in two different locations (Tanoa International Hotel, Nadi and NFNC Conference room, Labasa) on 11th to 13th December 2020 which accommodated 118 selected technical officers from Ministry of Agriculture, Ministry of Fisheries, Ministry of Forestry, Ministry of iTaukei Affairs and Ministry of Rural and Maritime Development.

Table 2.8: Scope and Objectives of Area Coordinators Training

Day	Session	Themes	Learning Objectives
11/12/2019	1st Session	Importance of Statistics in Agriculture & Gender Mainstreaming	• Understand the importance of Statistics and the conduct of 2020 FAC • Have the Gender lenses in data collection, management, processing and dissemination
	2nd Session	Computer Assisted Personal Interviewing (CAPI)	• Know the CAPI system and Survey Solution • Know the difference between Administrator, HQ and Supervisor/Area Coordinator • Understand and familiar with the workflow of Survey Solution • Know how to access Supervisor/Area Coordinator account • Know and Understand Supervisor/Area Coordinator primary functions • Know and familiar with the use of Supervisor/Area Coordinator to approve/reject completed cases • Know about creating field reports

Day	Session	Themes	Learning Objectives
	3rd Session (Practical Exercise)	Comprehensive practice with Headquarters, Supervisors and Interviewer	
	4th Session	Mock Trial (Interviewer, Supervisor, HQ) by Group	
	5th Session	Group Presentation	
12/12/2019	1st Session	Introduction of 2020 FAC Questionnaire (Section 1 – 3)	• Know the content of the Questionnaire
	2nd Session	Introduction of 2020 FAC Questionnaire (Section 4- 9)	• Understand the purpose of each section and questions
	3rd Session	Introduction of 2020 FAC Questionnaire (Section 10- 13)	• Understand and familiar with the flow of Questions
	4th Session	Practical Exercise - Comprehensive practice on checking of questions using Supervisors account	
	5th Session	Mock Trial (Interviewer, Supervisor, HQ) by Group	
	6th Session	Group Presentation- overall experience of Training in Day 2	
13/12/2019	1st Session	Review Exercise	Test
	2nd Session	Practical Operation	Understand and familiar with the operation of CAPI System, features and Role of AC's
	3rd Session	Practical Operation	
	4th Session	Group Presentation	

The training materials such as Programs, Tests, Presentations and Photos can be found in Annexure 8 to 12

2020FAC Area Coordinators Training for Central, Eastern and Western Staff

2020FAC Area Coordinators Training for Northern Staff

2020FAC Area Coordinators Training for Central, Eastern and Western Staff

2.6.2 Field Supervisors

Field Supervisors (FS) training was conducted in two different locations; Tanoa International Hotel Nadi and National Gymnasium, Suva on 13th to 17th January 2020. The three days training covered themes highlighted below.

- Introduction on Fiji Agriculture Statistics System
- Introduction on Agriculture Census
- Introduction on CAPI System
- 2020 FAC Questionnaire Development
- Complete Orientation on 2020FAC Questionnaire
- Roles and Responsibility of Field Supervisors
- Enumeration Workplan and Resources
- EA Coverage Planning

The one week program covered series of presentations, quizzes, group discussions, mock exercises, planning and workplan formulations.

Field Supervisors of Naitasiri province formulating their enumeration area workplan using district enumeration boundary

Field Supervisors Training at Central Division – establishing their enumeration area workplan

Field Supervisors Training at Western Division

Field Supervisors Training at Western Division

Attached as Annexure 13 - 19 are the training program, quiz, presentations and photos

2.6.3 Enumerators

A total of 430 Enumerators attended two weeks training course at seven (7) different training venues prior to data collection. The seven (7) training centres were:

- Central Division – Suva Civic Centre and CCC Church Hall in Nausori,
- Eastern Division – Southern Cross Hotel,
- Western Division – Tanoa International Hotel and Civic Centre in Ba and
- Northern Division – AOG Church in Labasa and Yaroi Village Hall in Cakaudrove.

These trainings were conducted from 20th – 30th January 2020; the programme included a first week classroom session and 2nd week field exercise. The training materials and contents are attached as annexures.

Enumerators Training at Suva Civic Centre, Central Division

2020FAC Consultants at the Area Coordinators Training in

Field Supervisors Training at Western Division

Table 2.9: Timeline for 2020FAC Trainings

Training	Location	Timeline
Area Coordinators Training	Central, Western & Eastern Division	11th – 13th December 2019
	Northern Division	18th – 20th December 2019
Field Supervisors Training	Western, Northern Division	13th – 17th January 2020
	Central, Eastern Division	13th – 17th January 2020
Enumerators Training	Central, Eastern & Western Division	20th – 28th January 2020
	Northern Division	22nd – 30th January 2020
Headquarters Training	FAC Operation Room	6th – 7th February 2020

Enumerators Training at Western Division

Enumerators Training at Western Division

Enumerators Training at Ba Civic Centre
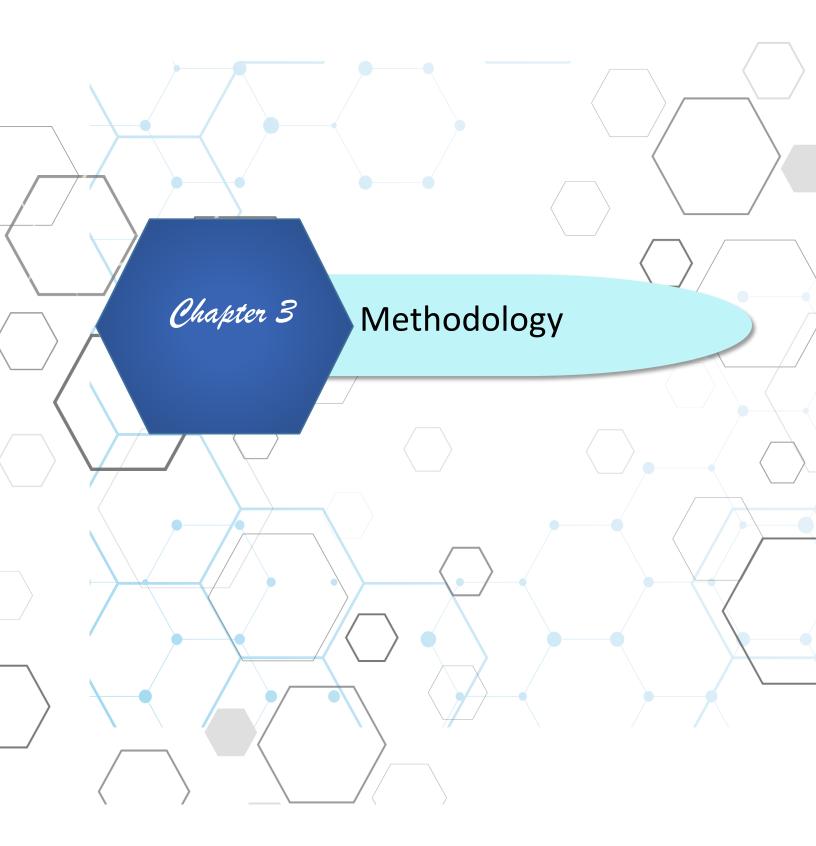
Enumerators Training at Southern Cross Hotel

Enumerators in Northern Division trialling out the 2020FAC Data Collection Tool

Chapter 3

Methodology

3.1 Authority for the Agriculture Census

The Government of Fiji, through a Cabinet decision on 17 May 2019, approved the Implementation of the 2020 Fiji Agriculture Census by the MoA.

3.2 Objectives

The aim of the agricultural census is to provide basic structural data on agriculture such as farm sizes, cropping patterns, and use of machinery and inputs, etc. Specifically, the objectives of 2020FAC were;

- 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 censuses and surveys.
- To provide basic data to help monitor progress of the agriculture sector towards national, regional and global development targets, in particular the Sustainable Development Goals (SDGs).

3.3 Scope

The 2020FAC aims to measure the structure of Fiji's agriculture sector. The scope covers all four agricultural sub-sectors: crop, livestock, fisheries, forestry; and incorporates all related activities. This was not possible with previous censuses due their limited scope, which only captured information on crop and livestock, with coverage on other sub-sectors only recorded if the interviewed farming households also practiced these activities.
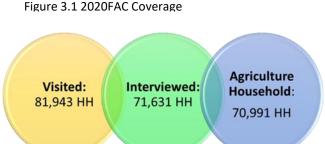
In the present agriculture census, data has been collected at household and institutional (holding) levels. Institutional data has been collected from institutions like schools, group-owned farming organizations and large commercial farms that are not owned by households.

3.4 Coverage

For the purpose of the 2020FAC, 81,943 households were visited, whereby 71,631 were successfully interviewed. The attempts to interview the remaining 10,312 households were not successful due to the following reasons:

- Refusal to interview after three attempts
- Entire household absent for six months or more
- No household member at home despite three visits

Figure 3.1 2020FAC Coverage

Visited: 81,943 HH
Interviewed: 71,631 HH
Agriculture Household: 70,991 HH

Out of the 71,631households interviewed, 99.1% (70,991) were involved in agricultural activities. These households came from 197 districts and 4,178 localities in rural and part of the peri-urban areas of Fiji. The selection of areas in the peri-urban sector was based on the result of the 2017 Population and Housing Census. The selected areas were

identified, verified on the ground and demarcated by the MoA GIS team before they were recognized as the 2020FAC boundary.

The previous four agriculture censuses (1968, 1978, 1991, and 2009) were conducted on a sample basis, and covered only rural and maritime areas due to limitations on budget and other resources. This restricted coverage resulted in truncating the scope of farming households and farmers in Fiji and, therefore, provided an incomplete frame for agriculture production surveys that were subsequently conducted by MoA. However, the 2020FAC is the first ever agriculture census conducted on a complete enumeration basis encompassing all the four sub-sectors of agriculture and covering the entire rural and part of the peri-urban areas in Fiji where agriculture is commonly practiced. This census will, therefore, generate a complete frame for future agriculture surveys that will be conducted by MoA and other interested agencies.

Table 3.1: Coverage of 2020FAC by Sectors

Division	Sector	Number of Localities	Total Household Visited	Total Household Interviewed	Total Agriculture Household Interviewed
Central	Rural	976	18,009	15,946	15,819
	Part of Peri-urban	119	2,420	2,232	2,210
	Total	1,095	20,429	18,178	18,029
Eastern	Rural	379	6,598	5,831	5,776
	Part of Peri-urban	11	198	195	193
	Total	390	6,796	6,026	5,969
Northern	Rural	1,478	20,708	17,974	17,864
	Part of Peri-urban	63	2,571	2,397	2,358
	Total	1,541	23,279	20,371	20,222
Western	Rural	1,039	25,913	22,295	22,059
	Part of Peri-urban	113	5,526	4,761	4,712
	Total	1,152	31,439	27,056	26,771
TOTAL		**4,178**	**81,943**	**71,631**	**70,991**

3.6 Demarcation of 2020FAC Enumeration Areas

A vital component of the census work is the delineation of statistical areas which are referred to as Enumeration Areas (EAs) for field enumeration – the spatial foundation for census datasets. In this process, the entire land area of the country is subdivided into smaller units that can be easily covered by enumerators during enumeration period. The existing administrative Tikina (District) boundary of Fiji was found to be the best unit that divides up the entire country, therefore was adopted for the first time as 'Fiji Agriculture Census Enumeration Areas'. Fiji has a total of 197 districts with the inclusion of Rabi and the seven districts of Rotuma. These altogether forms EAs for 2020 Fiji Agriculture Census (FAC).

Figure 3.2 2020FAC Demarcation Exercise Preparation

Field Supervisor Viliame Naiorosui with Field Assistant Eremasi marking the Enumeration Area boundaries

Since this area includes some of the major residential subdivisions of the major towns and cities where majority of the households are engaged in non-agricultural activities, a demarcation work was carried out in order to carefully delineate this boundary within the peri urban areas. Economic criterion has been a key criterion for this delineation process. The portion of the economically active population who were engaged in agricultural activities was carefully identified and also mapped out for census. Therefore the overall coverage for Census were from all the rural districts of Fiji and part of peri-urban areas.

Refer to Volume 2 of 2020FAC Publications for detail and output of this exercise.

Identified areas in the Peri-urban areas with extensive use of agriculture activities

3.7 Questionnaire

The 2020FAC Questionnaire design considered the following baseline characteristics: previous census questions and internationally recommended questions by WCA 2020, data needs for monitoring SDGs, addressing issues related to food security, poverty, gender equality, globalization of markets, etc. The following thematic areas were adopted:

 I. Household Composition
 II. Household Particulars
 III. Farm Land
 IV. Crops on Farm Land
 V. Livestock Farming
 VI. Forestry
 VII. Fisheries
 VIII. Aquaculture
 IX. Climate Change and Challenges
 X. Equipment
 XI. Agriculture Services
 XII. Food Insecurity

Details of data captured on different themes can be found in Annex 2.

To start, MoA, through the Fiji Agriculture & Rural Statistics Unit (FARS), designed two questionnaires: (i) Households and (ii) Institutions (non-households) with technical assistance and guidance from FAO consultants, the Technical Working Group (TWG) and technical staff of all the sub-sectors (crop, livestock, fisheries and forestry).

The 2020FAC questionnaire was designed after the scope, coverage and approach were determined. The following were agreed upon:

- **Type of Holding:** Both the Household and Institutional (non-household) Holdings were targeted
- **Method of Data Collection:** The electronic questionnaire was designed on World Bank Survey Solution Questionnaire Designer software as the tool for conducting face-to-face interviews.

Data items were determined from the following:

Output of Questionnaire Framework: "Essential Themes and Frame items" that was circulated to core agricultural agencies: Ministry of Agriculture, Ministry of Forestry and Ministry of Fisheries (see Figure 3- Planning Matrix for identifying Essential and Frame Items for 2020FAC).

Figure 3.3: Planning Matrix for identifying Essential and Frame Items for 2020FAC

Planning content for 2019 Agriculture Census

	Organisation:		Please complete for all your priority items. Return to Sainiana Kirisitiana <sainiana.kirisitiana@govnet.gov.fj> by 15 October 2015				
	Completed by:						
	Date:						
	Item Number	Item	2009 Agriculture Census?	Do you require for 2019? Please give reasons	Fiji Policy/ Strategy Relevance?	Other reasons to collect	Other comments
		See World Census of Agriculture 2020 Volume 1 chapter 7 and 8 for details.					
Theme 01: Identification and general characteristics							
E F	0101	Identification and location of agricultural holding	Y				
	0102	Respondent for the holding	N				
E	0103	Legal status of agricultural holder (type of holder)	Y				
E	0104	Sex of agricultural holder	Y				
E	0105	Age of agricultural holder	Y -group				
	0106	National/ethnic group of household head or agricultural holder	Y				
E F	0107	Main purpose of production of the holding	N				
E F	0108	Other economic activities of the household	Y				
	0109	Proportion of income from holding's agricultural production in household's total income	Y				
	0110	Main agricultural activity of the holding	Y				
	0111-0113	Details of hired manager (presence, age, sex)	Manager not identified				
	Other	add rows as needed					
Theme 02: Land							
E F	0201	Total area of holding	Y				
E	0202	Area of holding according to land use types	Y				
E	0203	Area of holding according to land tenure types	Y				
	0204-0206	Parcel details - location, area, Land use, Land tenure, rent	Y				
	0207	Rent	N				
	0209, 0210	Use of shifting cultivation, Years since cleared	N				
	Other	add rows as needed					

E   Essential Item

F   Frame item for future in depth survey

Outputs or data needs were identified from the following internal and external stakeholders' consultations:

- June 2019 @ 10am to 4.00pm: MoA, Crop Extension Division
- June 2019 @ 10am to 4.00pm : MoA, Animal Health & Production Division
- June 2019 @ 10am to 1.00pm : Ministry of Fisheries
- June 2019 @ 2pm to 4.30pm : Ministry of Health (National Food & Nutrition Centre)
- June 2019 @ 9am to 10.00am : Ministry of Rural & Maritime Development
- 5 June 2019 @ 11am to 1.00pm : Ministry of Women, Children and Poverty Alleviation
- 5June 2019 @ 2pm to 4.00pm : Ministry of iTaukei Affairs

Primary Reference Documents: World Programme for the Census of Agriculture 2020, 2009 National Agriculture Census Questionnaire

The identified data items were mapped and analyzed based on other alternative sources, priorities and frames for future in-depth surveys. As a result, 13 sections were introduced which contained 413 questions.

The Questionnaire was designed on the World Bank Survey Solution Questionnaire Designer software proposed by FAO as part of the CAPI system. The Questionnaire designer used a structural design that allows easy flow and capture of information supported by the use of rosters (even rosters within rosters), sections and subsections. An administrator had to assign users for the enumerators, area coordinators (supervisors) and headquarters staff.

A draft questionnaire was presented at the TWG Meeting and Data User Conference on 29 November 2019 at Tanoa International Hotel, Suva, followed by consultation with Professors from Fiji National University and University of the South Pacific who were invited to scrutinize the 2020FAC Draft Questionnaire. The questionnaire was finalized after incorporating inputs received from these consultations.

Table 3.2: 2020FAC Questionnaire Component and Linkage to SDG

Section	Purpose	Data Items	SDG Linkage
1. Household Composition	The purpose of this section is to determine Households that mainly relies on Agriculture as main economic activity, identify the population that considered farming or fishing or forest activity as their primary and secondary occupation and those that only assist in agricultural activities in Fiji. And also determine and analyze the role of women in agriculture sector. Data collected from this section is also useful in determining the frame for special gender surveys and other agricultural related surveys in the future.	**Household Members** – Sex, Relationship to Head, Age, Religion, Marital Status, Highest Education Completed, Mobile Contacts (Farmer, Fisher, Forester), Economic Activity (Primary Occupation, Secondary Occupation), Occupation Status, Involvement in Agriculture Activities, Savings, Attended any Agriculture Training, Functioning Challenges	1 NO POVERTY; 2 ZERO HUNGER; 3 GOOD HEALTH AND WELL-BEING; 5 GENDER EQUALITY; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 14 LIFE BELOW WATER; 15 LIFE ON LAND
2. Housing Particulars	Data collected in this section is useful for infrastructure development planning that could support the initiatives and plans of Government agencies in the Economic sectors in promoting economic growth, employment creation, reducing poverty and ensuring sustainability of livelihood of all Fijians who relies on Agriculture as their main economic activity. This section is also useful in identifying vulnerable areas in farming and depth of impact a disaster can create to farms and households and project identification process which measures the impact of farming in the well-being of every agricultural household.	Household- Type of House, Type of Building Material for Outer Walls, Main Source of Water Supply, Use for Cooking, Type of Toilet Facility, Household Durables	1 NO POVERTY; 3 GOOD HEALTH AND WELL-BEING; 6 CLEAN WATER AND SANITATION; 7 AFFORDABLE AND CLEAN ENERGY; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 13 CLIMATE ACTION
3. Land		Number of Piece of Land Operated by Household, Location of the Farm Land [Province, District], Land Tenureship, Land Ownership, Number of Years of Operating Land for Agriculture purpose, Land Area, Land Use Type, Accessibility to Farm Land	15 LIFE ON LAND; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 5 GENDER EQUALITY

Section	Purpose	Data Items	SDG Linkage
4. Crop Production	Data Collected in this section will be used as a sampling frame for crop surveys in the future and also a complete enumeration census provides an unique opportunity to determine the status and structure of crop farming in the country. Production data in an agricultural census are useful as benchmarks for current crop production statistics and determine the different utilization rate of harvested crops, and use of fertilizers and chemicals which is useful in assessing and analyzing its impact to the Environment.	Type of Crops, Method of Planting, Areas, Number of Plants, Production, Market, Type of Farm Input	
5. Livestock	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 covered all livestock that were raised on the household farm during the census period. The number of livestock is one of the essential items of the agricultural census, and is especially useful as a means of providing sampling frames for detail livestock surveys. Production data in an agricultural census are useful as benchmarks for current livestock production statistics. Items in this section will also provide data on the type of markets used by farmers, value of production, and proportion of production used for consumption and sales, type of feeds used, and veterinary services.	Type of Livestock, Method of Keeping Livestock, Stock Population, Production, Market, Livestock Feed & Services	
6. Forestry		Type of Forest Areas, Uses of Natural/Plantation forest, Purpose of Harvesting, Type of Species planted on forest land, Number of years ago were the Natural/Planted Forest trees planted, Operated Nursery, Deforestation for farming purpose, Impact of Natural Disaster	

Section	Purpose	Data Items	SDG Linkage
7. Fishing	This section provides items that captured fisheries activities conducted at household level. It was not intended to cover the activities of large-scale commercial fishing enterprises. The items was collected either from fishers who also have agricultural farms, or for other households as well when conducting a wider agricultural census. In this census, the items would be collected for fishers who don't have farms and also fishers who have farms. In this case, the data collected should provide a complete frame of household capture fisheries activities or a complete picture of household fisheries in the country. These data would provide a more complete account of household fishing activities of the nation. Production data in an agricultural census are useful as benchmarks for current informal production statistics.	Usual area of collecting fish, Main Mode of Transportation to area of collecting fish, Methods of Fishing, Type of Fish, Production/Harvesting, Market	1 NO POVERTY; 2 ZERO HUNGER; 3 GOOD HEALTH AND WELL-BEING; 5 GENDER EQUALITY; 14 LIFE BELOW WATER
8. Aquaculture	Data collected in this section is useful for assessing food and nutrition security in Fiji, income generating activities in rural areas, and other economic indicators for both man and woman at different age groups in Rural Areas.	Type of Aquaculture farming practiced, Type of Water used for Aquaculture farming, Type of Aquatic Organisms, Production/Harvest, Market and Feed	1 NO POVERTY; 2 ZERO HUNGER; 3 GOOD HEALTH AND WELL-BEING; 5 GENDER EQUALITY; 14 LIFE BELOW WATER; 15 LIFE ON LAND
9. Climate Change	This section provided data on the farmers level of understanding on climate change, measures the level of Climate Change awareness platforms implemented by the Government agencies at the lowest administrative units per regions, impact of climate change and causes of changes by geographical areas, adoption of climate change mitigation practices by farmers and species of trees planted for agroforestry.	Understanding Climate Change, Noticed or Observed any change by type, Causes of Change, Frequency of Occurrence, Climate Adoption/Mitigation Practice	13 CLIMATE ACTION

Section	Purpose	Data Items	SDG Linkage
10. Equipment	A broad concept of machinery and equipment is used for the agricultural census, covering all machinery, equipment and implements used as inputs to agricultural production. This includes everything from simple hand tools, such as a hoe, to complex machinery, such as a combine harvester. However, the main interest centers on farm mechanization. This section provided data on Inventories of all Farming Equipment's in the country, 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, Ratio of Farm to Machineries by Geographical Areas that could be a challenge for moving towards Commercial Farming, Number of Farmers who owned, hired and borrowed hand tools, small machineries and heavy machineries, Total Value of Assets of the Agriculture Sector	Types, Qty and Ownership of Hand Tools, Small Machineries and Heavy Machineries	2 ZERO HUNGER 5 GENDER EQUALITY 12 RESPONSIBLE CONSUMPTION AND PRODUCTION 13 CLIMATE ACTION
11. Agriculture Services	Credit for agricultural purposes refers to any type of credit approved and available for purposes related to the operations of the agricultural holding. This includes credit for purchasing crop and livestock inputs, constructing farm buildings and purchasing farm machinery. Credit not related to agricultural operations, such as for construction of the holder's house, for other family businesses or for consumption expenditure, should be excluded. Data from this section can also be used as basis of evaluating Government (MoA) interventions over the years and status of farmers market accessibility in Fiji as we move towards commercialization	Accessibility to Agriculture Finance (Source, Purpose and Responsible member for Loan), Accessibility to Government Assistance, Accessibility to Market	2 ZERO HUNGER 5 GENDER EQUALITY
12. Household Food Security	Household food security refers to the situation in which all members of a household at all times are consuming enough safe and nutritious food for normal growth and development and for an active and healthy life. A household is food-insecure if it is not able to procure enough food or if its members are unable to eat adequate safe or nutritious food due to limited resources. Food insecurity refers to conditions related to a household not producing enough food and not having enough resources to buy.	Have access to food to feed family a balanced meal three times a day? A time when a household ran out of food because of a lack of money or other resources?	2 ZERO HUNGER 5 GENDER EQUALITY

Section	Purpose	Data Items	SDG Linkage
	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 procures 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.		

3.8 Pilot Census

A Pilot Census was carried out in selected localities throughout Fiji to test the questionnaires, data collection methods, the training programme for field staff, instruction manuals, data editing and coding procedures, data processing and tabulation.

The first questionnaire pre-test was conducted in-house from 20–26 June 2019, before the first field pre-test, which was undertaken on 10 July 2019. The main purpose was to test the flow and structure of questions in the questionnaire. Two teams of enumerators and observers from four ministries (Ministry of Agriculture, Ministry of Fisheries, Ministry of Forestry and Ministry of Women) were deployed in Deuba District, Serua, for field pre-test. The second pre-test was conducted in the Sigatoka area along the sugarcane belt-areas in Ba. The duration of interview per questionnaire and enumerators depth of understanding on 2020FAC questionnaire was also tested.

The results of the Pilot Census were utilized to make further improvements in the census instruments including the data processing system. A complete set of tables was produced using data from the pilot to evaluate the quality of data and tabulation software.

Selected officials from Ministry of Agriculture, Ministry of Fisheries and Forestry that were engaged in the Pilot Census Training

Ministry of Fisheries officials at the Pilot Census Training at HQ

Officers familiarising themselves with the Tablet

Pilot Census Training at the 2020FAC Operation Room HQ

National Agriculture Census Coordinator closing the Pilot Census Training

2020FAC Pilot Exercise Operation

Pilot Census Online Coverage map- Survey Solution Software

MoA officer conducting interview during the Pilot Census – Western Division

Pilot Exercise in Western Division

3.9 Field Operation Manual

The manuals are very helpful in establishing the procedures to be followed and the work expected to be carried out during such large-scale data collection exercises. The majority of the staff could carry out the census work and resolve the challenges in their own way, but it is essential that they all proceeded in the same manner at all levels (high-level staff, supervisors, enumerators). For this, they must follow the same concept, definitions and procedures. With a comprehensive instruction manual, it is much easier to achieve this objective and maintain data comparability.

There were two manuals prepared for the 2020FAC:

•   Field Operation Manual for Enumerators and Field Supervisors

•   Data Verification Manual for Area Coordinators (Supervisors)

Both the manuals clearly lay down concepts, definitions, procedures and instructions that are relevant to the nature of field operation and office data verification using the survey solution supervisors' account. Due to time and resource constraints, the activities for both the questionnaire and manual development were undertaken simultaneously under the guidance of FAO Consultants. Thorough consultations with Technical Operational Divisions, Crop Extension, Animal Health and Production, Ministry of Fisheries and Ministry of Forestry, along with the clear process documented in the 2017 Population & Housing Supervisors Manual, contributed to the successful drafting of 2020FAC Field Operation Manual and Area Coordinators Manual. Apart from the Consultation, the 2009 NAC Field Operation Manual was also used as a reference document.

The draft manual was used at the Area Coordinators, Field Supervisors and Enumerators Training. Thereafter, it was updated incorporating the feedback and printed in a handy A5-size document convenient for Enumerators and Field Supervisors, and was made available a week before the field work for census commenced on 10 February 2020.

The content of the two manuals are as follows;

Field Operation Manual

Part 1: Overview of 2020FAC
(Introduction, Coverage, Scope, Reference Period, Concepts and Definitions)
Part 2: Roles and Responsibility – Enumerator and Field Supervisor
(Responsibility and Terms and Conditions of Service)
Part 3: Field Operation Structure and CAPI system Structure
Part 4: Survey Operations
(Interview Techniques, Hours of Work, Enumeration Area, Method & Techniques of Covering EA and Map Reading, Approach of Addressing Empty Dwellings and Refusals, Method of Last Coverage Checks and Labelling, Data Quality Control)
Part 5: 2020FAC Questionnaire Components

Area Coordinators Manual

Part 1: Terms of Reference and Roles
Part 2: Instructions of how to use features exist in the CAPI Supervisors account

3.10 Census Reference Period

The census has two main reference periods – namely, the census reference year and the census reference day. The 2020 Fiji Agriculture Census used a reference year on a fixed period of twelve months from the date of census (10th February 2019 – 10th February 2020) whilst specific items had the enumeration day as time reference: Farm land parcel identification and legal status of farmer, household composition (de-jure- past 6 months), holding area, number of parcels, tenure, number of trees, area under compact plantation of banana, plantain and coconut, livestock, machinery and equipment owned, membership to farm organizations.

The census reference day is a point in time used for livestock numbers and other inventory items.

The main reference period for most questions in the 2020FAC covered the last 12 months from the date of census (10th Feb 2020). However, for better recall and accurate reporting, shorter reference period were also included and simple calculations were recommended to capture the last 12 months data e.g. for fishing activities, questions were referenced at weekly basis

3.11 Enumeration Period

The field work of 2020 Fiji Agriculture Census was undertaken during 10 to 29 February 2020, covering 70,991 agricultural households in the rural sector and selected peri-urban boundary areas where agricultural activities are commonly practiced. This was the first time that all four sub-sectors of agriculture: crop, livestock, fisheries and forestry were covered on a complete enumeration basis.

3.12 Use of Computer Assisted Personal Interviewing (CAPI)

The Ministry of Agriculture adopted the Computer Assisted Personal Interviewing (CAPI) system through Survey Solution software on tablets for data collection during the 2020FAC. Each census enumerator was provided with a tablet for use in the census data collection, replacing the paper questionnaires used in past censuses. CAPI was used for both the household and institutional questionnaires.

As mentioned earlier, the census questionnaires were designed to accommodate the CAPI methodology. Questionnaires were loaded into the tablets and the census enumerators then asked the questions as displayed on the screen and entered responses directly into the tablets. Once an interview was completed, the questionnaire was submitted electronically to the respective area coordinator.
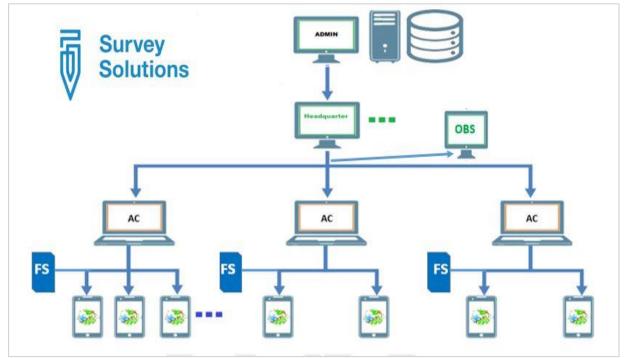
Within the CAPI system, the questionnaires were structured to provide a coherent sequence of questions and to lead enumerators efficiently through the questionnaire. Each question to be asked was displayed on the screen, and questions that were not relevant based on the answers to previous questions were automatically skipped.

A comprehensive array of data validation checks was incorporated into the CAPI data collection system to help enumerators identify possible errors/outliers in the data reported. This was done as the responses were recorded so that enumerators could correct the data on the spot. This greatly improved data quality compared with previous censuses.

There were two types of validation checks. The first was a check for data that were incorrect, such as the area under different land-use categories for a parcel not adding to the area of the parcel. Here, an error message was displayed on the screen, and the enumerator was required to correct the data. The second was a check on data that might be wrong or were unusual in some way, such as a household having 1,000 cattle. Here, a warning message was displayed on the screen, and the enumerator had to verify with the respondent that the data were correct. Apart from the two validation checks, there were field supervisors assigned to all enumerators to provide agriculture technical advice. The field supervisors were required to provide last checks on all cases before they were synced daily.

The adoption of this new technology substantially improved the quality and transparency of data collected, shortened duration of data processing and led to timely dissemination of results for Census data users. Across the world, some countries are leading this global trend and Fiji is part of this revolutionary move.

Figure 3.4: Structure of the 2020FAC CAPI System

3.13 Data Processing

3.13.1 Receipt and scrutiny at HQ

In addition to ongoing case checks by AC and HQ staff, each day the database was downloaded from the server in SPSS format. An automated syntax was used to produce daily update reports offering greater detail than is available in Survey Solutions reporting. Two key reports were produced and distributed to the management team on a daily basis.

The first report produced was a daily monitoring report showing survey progress on key metrics such as farmers, agricultural activities, number of land parcels, land tenure and size, count of key crops and area planted, etc. Secondly a report of interviewers was produced for quality control; monitoring the number of rejected cases and errors per interviewer.

3.13.2 Checking completeness

Data completeness is an essential component of the data quality framework and is closely related to validity and accuracy. If data is missing, information cannot be validated and if it's not validated, it cannot be considered accurate. With Survey Solutions, data cleaning should be minimal since the data entry and built-in case management systems check for most of the fieldwork problems encountered with other data entry systems. This enables the supervisors to take advantage of CAPI by checking the quality and completeness of the data as they are collected. If the questionnaire is designed with all relevant validation checks, enabling and filtering conditions, data verification and editing will be minimized significantly. The 2020FAC adopted SPSS software for data processing of which manual statistical procedures was formulated to identify, delete, and replace missing values.

Despite all the validation checks and enabling conditions, there were still many incomplete cases identified during the 2020FAC data collection period resulted from technical glitch, human errors, etc. The incomplete cases found

during the enumeration period were returned/rejected to Enumerators for farm revisit and verification. However, incomplete cases found after data processing was addressed using historic and admin data. It allowed us to use alternative sources to fill in gaps, but it did not fundamentally change the intended use of this data or alter the information stored in the census datasets from a confidentiality perspective. Moreover, other alternative methods used were phone interview and using related information from other variables in the household questionnaire. All these methods were undertaken in ensuring completeness and achievement of a comprehensive agriculture census data.

3.13.3 Data cleaning at HQ using computer algorithms

Upon completion of fieldwork the data was exported in SPSS and several cleaning tasks were undertaken. Although CAPI methodology greatly improves the quality of data collection there is still a small amount of cleaning work required at the end of fieldwork compared with paper based collection. All tasks were recorded and data modified using SPSS syntax files to ensure traceability and accuracy during the cleaning process. Cleaning activities are summarized below:

- Check of numeric question for outlier values: A report was produced of all numeric variables providing descriptive statistics such as mean, median, minimum and maximum values. This was reviewed to identify any variables with outlying values which needed to be corrected.
- Check for missing values: Data was reviewed for missing values which were then populated either through call back to respondents or automatic imputation as appropriate.
- Re-coding of other specify values: All other specify values were reviewed and if required coded back into an existing code or if a large enough number of similar other specify responses were received a new answer category was created.
- Locality corrections – In some instances localities in the field did not completely match the sample frame, e.g. additional villages, village in different administration area. In these cases localities were re-coded using SPSS syntax.

3.13.4 Tabulation

During fieldwork the tabulation system had been developed in SPSS syntax based upon the Tabulations Specifications. The tabulations cover all questions in the questionnaire and are disaggregated by division, province and district, size of farm holding, gender, age among others. The tabulations were run during fieldwork on interim data so they could undergo quality control checks and modifications. Once data cleaning was complete the tabulations were run again and checked again before publication.

3.13.5 Evaluation

The 2020FAC Demographic data were evaluated using the followings;
    1. 2017 Population Demographic Data
    2. 2018 Farmers Socio-Economic Demographic Data
Land and Production data were evaluated using the followings;
    1. CBUL recipient database
    2. Annual Production Report
    3. Livestock Commodity Report
    4. Other alternative reports

3.14 Data Dissemination

The products, services, dissemination methods and tools of Disseminating 2020FAC results and findings were determined through Technical Working Group Committee meetings, consultations with stakeholders and Data User Conference. A Preliminary Report was prepared and submitted to the Permanent Secretary of Agriculture on 14th August 2020. The final result of the 2020FAC are anticipated to be tabulated, analyzed, printed and published in four (4) Volumes; (1) Descriptive Analysis Report (2) Detail Analysis and Report of 2020FAC Enumeration Area (3) Gender Analysis Report (4) Administrative Report.   All volumes will be printed and also available at the MoA website. It would also set up a platform for Agriculture Statistics Online Output System whereby results will be presented

through online dashboard system and Arc-GIS (Maps), Videos and Info-graphics. This report covers the General Tables derived from the 2020 FAC data after statistical processing.

3.15 Data Archiving

An anonymized (de-identified) version of the database in SPSS format has been produced, in which all respondent details such as names, household number and GPS co-ordinates have been removed. These identifying variables are stored in a separate database that can be re-identified by running an SPSS syntax. The 2020 FAC micro-data, final tables and final reports will be secured in the MoA main server located in the MoA IT room with limited access by the Stats IT Officers.

Chapter 4

Field Operation

4.1 Data Collection

The field operation was undertaken at division level. A total of 430 enumerators were placed in 146 field teams headed by field supervisors (Central Division- 37, Eastern Division- 23, Northern Division- 40 and Western Division- 46). Each field teams had 4 or 5 enumerators and one field supervisor. All Field Team reported to 118 area coordinators who performed data scrutinization and verification before it is approved to be vetted by a team at headquarter.

This was also the first time CAPI system was adopted whereby each enumerators were provided with tablets for data collection and field supervisors as their communication tool. About 60% of tablets used Vodafone network while 40% were accessed through Digicel network particularly in the Eastern Division. During the operation, Telecom Fiji Limited were engaged at Regional Census Stations to assist MoA IT staff in sustaining and managing the network connectivity for smooth flow of census operation.

Figure 4.1: Enumerators collecting data during census enumeration period

There were 82 vehicles from Ministry of Agriculture, Ministry of Infrastructure, Ministry of iTaukei Affairs, Ministry of Women, Children and Poverty Alleviation and Ministry of Rural and Maritime Development engaged where possible; transportation in Eastern Division was provided by Ministry of Infrastructure.

Figure 4.3: Enumerators collecting data during census enumeration period in Naitasiri and maritime areas

The Principal Agricultural Officer (PAO) of each division and Senior Agriculture Officers (SAO) of each province was responsible for overall management of Regional and Province operation together with support of divisional administrative officers and finance personnel. The field technical operation was coordinated by Field Supervisors and quality control activities were conducted by Area Coordinators and Headquarters. The FARS GIS team and Land Resource Planning and Development Team played an important role in assisting Field Supervisors and enumerators in identifying enumeration boundaries.

Data collection started on 10th February and ended on 29th February 2020 with 430 fulltime enumerators. The favourable weather was one factor for the successful completion of the exercise. All Divisions managed to complete the exercise on 29th of February. A Household 2020FAC Questionnaire was used for collection of information from households. A massive participation of Ministry of Agriculture and other Government agencies technical and administrative staff, assured the success of census field work.

Figure 4.4: Area Coordinators in the Northern, Eastern, Western and Central Regional Census Centres during the 2020FAC Enumeration period

Area Coorindators at Northern Census Regional HQ scrutinizing the Questionnaire

Area Coorindators at Western Division Regional Census HQ verifying Questionnaire from the field
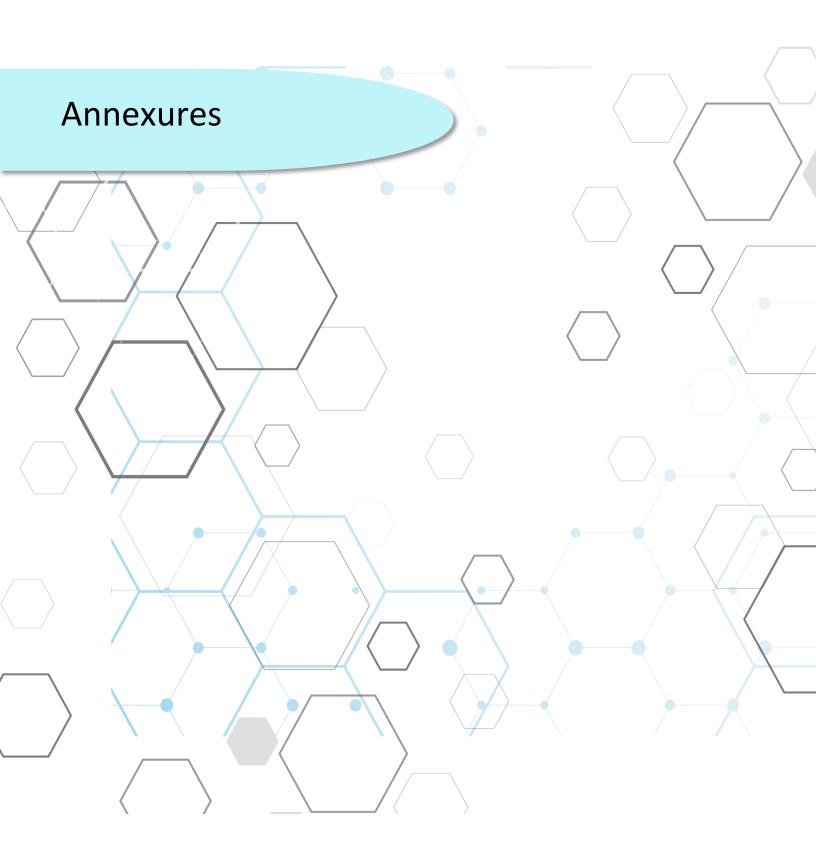
Area Coorindators at Central Division Regional HQ checking the questionnaire at Ratu Cakobau House

Eastern Area Coorindators scrutinizing Questionnaire at Main Census Operation room

4.2 Post Enumeration Census (PEC)

After the enumeration phase, a post enumeration exercise was undertaken to verify quality of data collated. Farmers listing was considered as baseline for 2020 PEC. 2020FAC coverage was verified at locality level during PEC exercise.

In April 2020, four (4) teams were deployed to conduct random post-enumeration exercise at selected areas in the Central, Northern and Western Division. The areas were identified through comprehensive coverage analysis of 2020FAC areas, 2018 Reviewed Farmers Listing and coverage map from Survey Solution. Districts and Localities with less than 70% coverage were selected and re-visited during post enumeration.

Annexures

Annexure 1: Terms of Reference: National Steering Committee

TERMS OF REFERENCE FOR THE 2020 AGRICULTURE CENSUS NATIONAL STEERING COMMITTEE MEETING

The National Steering Committee is a high level committee involves high-ranking officials who are able to provide high-level advice and are in a position to make decisions on behalf of the institutions or ministry they represent. The Committee oversee governance and the overall coordination of the National Agriculture Census.

The Committee is responsible for the endorsement of the overall planning and direction of the census and will meet as required during the period of the census preparation and implementation from September 2018 to September 2020. The Secretariat for the Task Force will be the National Census Coordinator located at the Ministry of Agriculture.

The Terms of Reference are:

➢ Endorse the following census undertakings; work plan, scope and coverage, main methodological principles, questionnaires, manuals, budgetary and personal requirements, plans for the publicity campaign, logistical needs, pretest and pilot censuses and post enumeration survey plan.
➢ Assist in resolving operational and logistical problems in implementing NAC 2020, and in mobilizing resources and expertise required for the successful conduct of the census.
➢ Ensure large public support through the promotion of a wide census publicity campaign
➢ Monitor progress in the work plan for implementing NAC 2020, and provide support for the overall planning and direction of the census.
➢ Endorse the dissemination of the NAC 2020 results

Membership to comprise of Head of relevant organizations or Permanent Secretaries from Ministries as follows;

Permanent Secretary	-	Ministry of Agriculture
Permanent Secretary	-	Ministry of Economy
Permanent Secretary	-	Ministry of Fisheries
Permanent Secretary	-	Ministry of Forests
Permanent Secretary	-	Ministry of Rural and Maritime Development
Permanent Secretary	-	Ministry of iTaukei Affairs
Permanent Secretary	-	Ministry of Health
Permanent Secretary	-	Ministry of Sugar
Permanent Secretary	-	Ministry of Women, Children & Poverty Alleviation
Government Statistician	-	Fiji Bureau of Statistics
National Census Coordinator	-	Ministry of Agriculture

TERMS OF REFERENCE FOR THE 2020 AGRICULTURE CENSUS TECHNICAL WORKING GROUP (TWG)

The Technical Working Group (TWG) will be responsible for the overall planning and direction of the 2019 Agriculture Census, subject to review by the Ministry of Agriculture census coordinator. Its primary function is to advice, support and assist in the implementation of the Agriculture Census to ensure quality data that meets the needs of the users.

The working group members are representatives of the key stakeholders and users of the Agriculture Census data. The TWG will bring together technical specialists from different agencies under the leadership of the Ministry of Agriculture.

In particular, the TWG will carry out the following tasks.

1.0 Bring together professional staff from different organisations as needed to assist with the design of the Census and to coordinate the activities of different institutions contributing to census implementation

2.0 Provide guidance on roles and responsibilities of the agencies with respect to the Agriculture census and liaises with other agencies involved in agriculture or which may be called upon to participate in the operation.

3.0 Provide input on the strength and weaknesses of the 2009 Census and consider recommendations made to solve problems previously encountered

4.0 Assist the Ministry to identify approaches and mechanisms needed to improve data quality in the census.

5.0 Recommend the census work plan, scope and coverage, main methodological principles.

6.0 Assist with prioritising content for the questionnaires and endorses the final questionnaire.

7.0 Evaluate and advise on the budget and personnel requirements, and support the funding and resource mobilisation processes

8.0 Assist with the publicity campaign and logistical needs,

9.0 Provide support for the analysis and dissemination of the results of NAC 2019, and assist in ensuring that the census results are fully utilized.

10.0 Provide input to the plan for post census agriculture statistics activities

11.0 Report on progress to the Steering Committee from time to time

The committee is expected to meet monthly, but may be called on more or less frequently to meet the needs of the census processes.

Sub-committees may be formed to focus on particular issues if needed from time to time.

Membership to comprise of technical personnel from Ministries and Agencies as follows;

Agricultural Census Coordinator (CE) - **MOA (Chairperson)**
Agricultural Statistician   MoA - **Secretary**
Head of Divisions - **MOA**
Ministry of Economy
Ministry of Fisheries
Ministry of Forests
Ministry of Rural & Maritime Development
Fiji Bureau of Statistics
National Food and Nutrition Committee
FAO
Ministry of iTaukei Affairs
Ministry of Women, Children and Poverty Alleviation
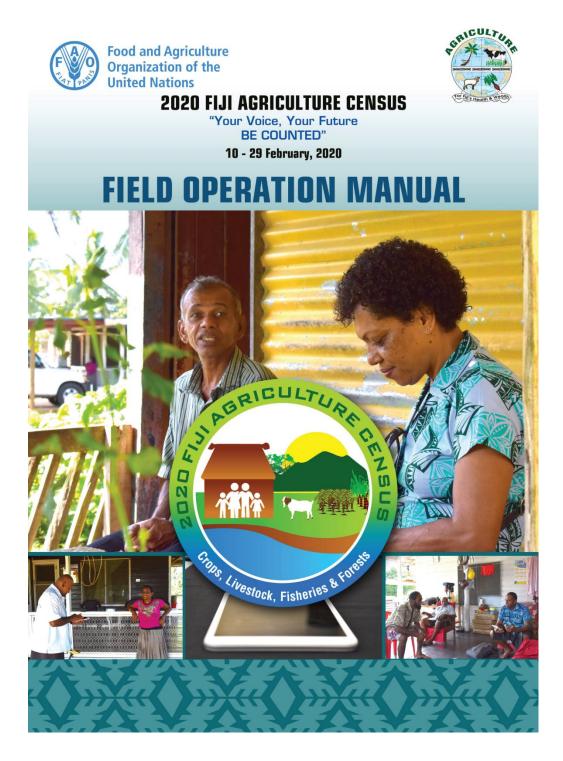**Ministry of Health**

Field Operation *Manual*

Field Operation *Manual*

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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

FCDCL___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.
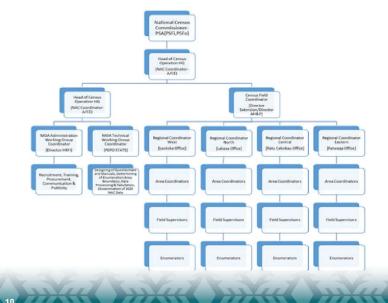
Ensure that the Public Service Code of Conduct is strictly adhered to.
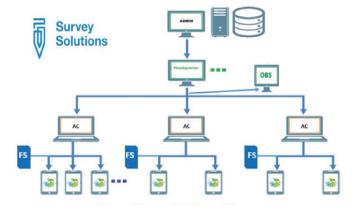
THE CENSUS ENUMERATOR

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

3.1 CAPI SYSTEM STRUCTURE

PART 3: 2020 FAC ORGANISATIONAL 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/Veivatuloa District Boundary (Rewa/Namosi) Province bdy at coordinate [4992 – 7367] 0.08 Km W of Vunisoco Road Junction.

Description: From starting point follow District bdy Northwest to Waimanu River where it meets Suva/Namosi Distict 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 unable 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.

PART 5: 2020 FIJI AGRICULTURE CENSUS QUESTIONNAIRE
Select Availability of Respondent
1. Respondent is Available for Interview – Enable Section 1, 2 and END PAGE
2. 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 a 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 house 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
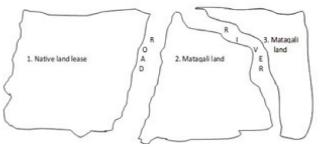
reference day, the area of land bought should be included in the area of the farmland; in cases where a farmland sold land prior to the Census reference day, the area sold should be excluded. This section (3) will be activated when option 1, 2, 3, or 5 is selected from Q1.11.

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:
i. Activities undertaken; and
ii. 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.

1. Temporary Crops (Short Term Crops)
2. Fallow for one year or more
3. Permanent Crops (no pastures)
4. Permanent Crops with pastures
5. Temporary Meadows and Pastures (Supply pastures)
6. Permanent Meadows and Pastures
7. Natural Forest
8. Planted Forest
9. Aquaculture
10. Home Gardens
11. Farm Buildings and Farm Yards
12. Floriculture
13. 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

1. Less than 1 hour
2. 1 - 2 hours
3. 2 - 3 hours
4. 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 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 & 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. ¼
2. ½
3. ¾
4. All

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

1. ¼
2. ½
3. ¾
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. Ayshire
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 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. ¼
2. ½
3. ¾
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. ¼
2. ½
3. ¾
4. All

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

1. ¼
2. ½
3. ¾
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

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production: Q5.4.4

PRODUCTION
Questions on Production – Q5.4.4 to Q5.4.4b will only 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 famers 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. ¼
2. ½
3. ¾
4. All

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

1. 1/4
2. 1/2
3. 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 procures 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

A building 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.

A Hostel/Lodging House – 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

Aglime – it assists in reducing the soil acidity.

Alroc - like Extraphos and Potash- a blend of crushed volcanic rocks to give plant vitality

Antibiotic Treatments – given to sick animals

Artificial Insemination (AI) - to breed animals from sire from other areas/ breeds

Associated Crops – where a crop is grown with another crop such as vanilla with coconut trees for support.

Black Urea (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).

Boars - Male breeders (Tamatama)

Buck (Khasi) – Adult/billy male goat, used for breeding on farm; Tamatama mate all year around.

Bulls - Adult Bull used for breeding (Tamatama)

Broiler - Meat bird

Bull Calf - Castrated male cattle <6 months

Clinical & Surgical - e.g. castration by a vet, or extension officer.

Concentrates - high in protein and nutrients. (Q5.2.14)

Deworming - usually given to young animals a few months after birth

Does - Adult female goat, nanny/mother goat, breeding female

Door to Door – selling door to door as done in villages/ communities

Drenches – injections or dosing generally given to healthy animals to prevent diseases

Drip Irrigation – using a hose system to slowly feed water onto the land

Dry Cow - cow not producing milk, calf weaned, pregnant cow, and cow without calf.

Employer - 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.

Exporter - sale to Exporters. Should this exchange occur at farm gate then option 1 should be selected.

Fallow for one year or less - Fallow land refers to arable land at prolonged rest before re-cultivation in the last 12 months.

Farm Gate - selling directly from the farm

Fenced - completely enclosed by a fence this option will enable Q5.2.1a

Fish Meal - source of calcium and magnesium in the soil for the crops.

Flood Irrigation - Water is delivered to the field by ditch, pipe, or some other means and simply flows over the ground through the crop

Flush - 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

Free Range:- No fences, animals /birds can wander /grace freely

Freehold - Land that the household holds a legal formal title to.

From a communal standpipe - where other households share a communal stand pipe with the household being interviewed. This type of setting is common in rural villages and communities.

From a communal standpipe - where other households share a communal stand pipe with the household being interviewed. This type of setting is common in rural villages and communities.

Fungicides – A substance use to kill fungus or moulds

Furrow/ Drain – channels on land to take water from a source to where it is needed.

Gift – Milk given without cost

Gilts (4 – 6 months) Female pig not yet given birth to piglets (goneyalewa varau me va kawa)

Growth Formula - 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.

Heifer - Female cattle 6 months to < 3 years, maiden not calved yet

Heifer Calf - Female cattle <6 months

Herbicides/ Weedicides – A substance, usually chemical, for killing or preventing the growth of unwanted plants, such as weeds or invasive species.

Home Consumption – Milk used for food by this household, including any milk that is turned into any other products for the household to eat.

Home-made ration – homemade mix feed following a recipe to provide a good range of nutrients

Hotels/Restaurant – sale to hotels/restaurants

Household Feed – waste/scraps from the kitchen

Improved Pasture (e.g. Juncao) – includes setaria, mulato, Signal grass, including the newly introduced Juncao grass.

Independent dwelling - one family house detached from any other house

Insecticides – A substance used to kill insects.

Inter-Crop – 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).

Kids Female - Small < 3 months female - milk sucking

Kids Male - Small < 3 months male - milk sucking

Land under Aquaculture - 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.

Land under Farm Buildings and Farmyards - 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.

Land under Floriculture - Land used for growing flowers for sale. (These are a type of temporary crop)

Land under Home Gardens - Land around the house that is cultivated or used for chickens rearing.

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 - Junglee 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

Market Agent – middlemen

Metered - 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

Mixed Crop – 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.

Municipal market (Vendor) - Farmer selling own produce at municipal market.

Municipal market (Wholesale) – selling of produce in large quantities.

Native Grass – includes naturally existing grass such Paragrass, Batiki blue, Nadi blue, Navua sedges & T- grass

Native Lease - This refers to land operated with a lease arranged through the Native Land Trust Board (NLTB).

NPK - source of nitrogen, potassium and phosphorus in the soil

Nucleus Box (Nucleus Colony) - colony consisting of 4 – 5 frames of bees.

Occupy iTaukei land with informal arrangement - This refers to other informal arrangements such as gifts or in kind, that have been made with the village or land holding group.

Occupy without any legal arrangement - This refers to squatting – where land is operated by farmer without ownership title and without paying any rent.

Paid Family Worker – Could be paid in cash or non-cash

Phosphate – fertilizer adds in more phosphorous (P) nutrients in the soil needed by the crop

Piglets - Small pigs suckling milk (1 day - 6 wks)

Piped without meter - is where water is piped into the dwelling but not from a treated water source and use of water is not paid.

Planted woodland or planted forest 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.

Potting Mixture - potting mixture is a medium in which to grow plants, herbs and vegetables in a pot or other durable container.

Poultry Manure – source of nitrogen to the soil.

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.

Process Feed – purchased, commercial feed

Roadside – at a stall by the road

Sale – Milk sold, to any market

Scattered (Wild) – the seeds are scattered and the crop is allowed to grow in wild without any planting

Self-employed - 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.

Shared with others - Any type of toilet that is used or shared with other households

Shed - animals are kept inside a building (can be small or large)

Single (Mono-Cropping) – all the plants of one crop only are planted together in one area

Single Story - contains 10 frames inside the box called brood chamber.

Sows - Female Breeders

Sprinkler – permanent or moveable, spraying water onto the plants.

Steer - Castrated male cattle 6 months to < 3 years

Supplementary Feed – e.g. dairy feed, calf pellets, mixed ration such as mill mix + coconut meal + molasses + chaffed grass or mixture of all

Teitei Blend - source of nitrogen, potassium and phosphorus in the soil. This is needed for crop formation.

Tethered - tied up to a tree or post.

Traditional ownership (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.

Unpaid family worker - this refers to respondents who work in their own family business and do not receive any payment for their work.

Urea – source of nitrogen in the soil for plant growth

Value Adding – making products such as ghee, yoghurt, or cheese (paneer) that is to be sold.

Wage/ Salary Earner - A person who works and earns either a salary or a wage. A wage/ salary earner receive a wage/ salary for the time worked.

Water Seal - A water seal toilet has a U-shaped pipe below the seat or squatting pan to prevent odour or block passage for flies.

Weaner Buck - Males weaned off milk 3 months to 6 months

Weaner Does - Females weaned off milk 3 months to 6 months till they give birth to kids.

Weaners (Kali) - Small piglets not sucking milk now (6 – 8 wks)

Wet cow - 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

Working Bullock - Castrated bulls used for farming / cultivation.

Ewes - Adult female sheep, breeding female, mothers

Rams - Adult male sheep, used for breeding on farm (Tamatama)

Female Hoggets - Females weaned off milk for 3 months to 6 months till they give birth to lambs

Male Hoggets - Males weaned off milk 3 for months to 6 months

Lamb Female - Small < 3 months (milk sucking)

Lamb Male - Small < 3 months

Town Supplies - supplied to shop(s)/ sweet maker(s) etc

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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

Hydrophonic

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/ Hectare	No. of Plants/ Acres	Expected Yield (Tons) / Ha	Expected Yield (Tons) /Ac
201	Amaranthus	0.5m x .15m	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	Cardamon	1.8m x1.8m	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 3m	1,666	666	6	2.4
113	Chillies	0.75m x 0.3m	44,444	17777.6	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 x2.5m	1,600	640	2.5	1
117	Coconuts	10m x 10m	123	50	10	4
118	Cowpeas	0.65m x 0.5m	30,769	12,307	6	2.4
219	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 .15m	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	Raddish	0.5m 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	
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	Watercress	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	Yaqona	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

Friesien

Jersey

ANNEX 6– BEEF CATTLE BREEDS

Hereford

Brahman

Limousin

ANNEX 7– TYPES OF FOREST

Natural Forest

Planted 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	Balaginawa, Balagi(Yellowfin surgeon fish)	203	Ogobuidromo (Pickhandle barracuda)	303	Grass Carp
104	Jila (Orahngespine unicornfish)	204	Ogo, Ogolevu (Great barracuda)	304	Prawn
105	Ta (Bluespine unicornfish)	205	Yatusewa, Yatuvuai (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 chub)	208	Yatuloa (Albacore tuna)		
109	Draunikura (Tripletail wrasse)	209	Yatuyatu, Yatu, Kawakawa		
110	Drevuiolo, Tuvu, Koliniwai (Clown coris)	210	Maimai (Common dolphinfish)		
111	Sabutu, Sabutukula(Pacific yellowtail emperor)	211	Vuladriru, Opa (Opah)		
112	Lava, Donuloa(Blacksaddled 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	Soisoi, Votosiga (Malabar grouper)	215	Sakuloa, Sakulolo, Saku-salele (Black Marlin)		
116	Kawakawaloa, Tikilo, Kialo (Peacock hind)	216	Sakuvorowaqa(Sailfish)		
117	Kawakawadamu (Darkfin hind)	217	Saqaloa (Black Jack)		
118	Matu (Silver Biddy)	218	Saqavotoqa (Almaco Jack)		
119	Guruniwai (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	Sewidiri (Rusty jobfish)		
122	Kake, Kwake (Rusell's snapper)	222	Pakapakabuidromo (Golden eye jobfish)		
123	Damu, Damuniveitiri (Mangrive red snapper/Mangrove Jack)	223	Pakapakaqia (Goldbanded jobfish)		
124	Bati, Baji (Twospot red snapper)	224	Pakapakabatisewa(Sharptooth jobfish)		
125	Tanabe, Dadreu (Blacktail snapper)	225	Bulete, Pakapakasewa (Lavender jobfish)		
126	Osekula, Kiki (Yellowfin goatfish)	226	Pakapakabuidamu(Crimson jobfish)		
127	Cucu, Daunau (Indian goatfish)	227	Yalayala (Oblique-banded snapper)		
128	Yawa (Milkfish)	228	Tukula, Canati (Ornate jobfish)		
129	Koto (Flathead grey mullet)	229	Ruruka, Utoutoninubu (Scalemouth jobfish)		
130	Kava (Squaretail mullet)	230	Uluqa (Saddleback snapper)		
131	Ulavidraniqai, Dogosasa(Bicolour parrotfish)	231	Uluga (Cocoa snapper)		
132	Ulurua (Steephead parrotfish)	232	Laulausevusevu, Masai (Ruby Snapper)		
133	Karakarawa, Bose (Daisy parrotfish)	233	Reveni, Onaqa (Flame snapper)		
134	Nuqanuqa (Little spinefoot)	234	Drasesevu, Batikailai (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 (Brownspotted grouper)		
138	Dravisau, Dradra (Sabre squirrelfish)	238	Kulinidovu, Votoqaninubu (Comet grouper)		
139	Sulutavoi (Mooontail bullseye)	239	Kulinimasi, Kasalaninubu (Speckled grouper)		
140	Sokisoki, Sokisokitagane (Spotfin porcupinefish)	240	Balobi, Kawakawaninubu (Eightbar grouper)		
141	Balagi, Ta (Surgeon Fish)	241	Varavaranitoga (Yellowedged lyretail)		
142	Nuqa (Rabbit Fish)				
143	Ulavi (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 (Baracudda)				
148	Kanace, (Mullet)				
149	Ose, Mataroko (Goat Fish)				
150	Draunikura (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

Land Based (e.g Fish Pond - Tilapia/Prawn)	Inland Waters (e.g., Hapa)	Marine Waters (e.g., Lumi, Oyster and Nama)
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
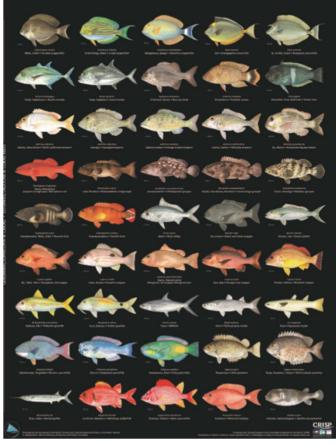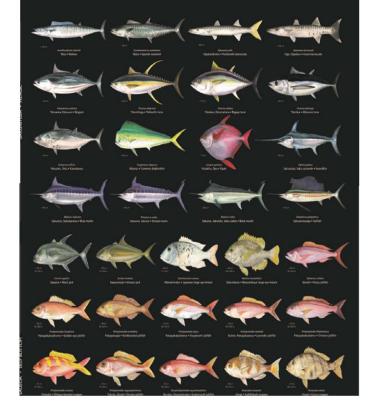
COMMON FOOD FISH OF FIJI (1)

COMMON FOOD FISH OF FIJI (2)

MARINE INVERTEBRATES OF THE PACIFIC ISLANDS

ANNEX 10 – ENUMERATION AREA WORK PLAN

Enumeration Area Work Plan

EA#/ District #:
Name of Field Supervisor:

Week Number	Date	Locality Name	Name of Intervier/Enumerator	Total No. of Household	Expected No. of Households completed per day	Planned date and time(s) for Sync	Planned sync location	Date for Field Supervisors to accompany Enumerator in this EA

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			

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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	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 Trainning Centre
	Tailevu	Dravo	DVN Development Co-operative Limited
			Maumi Farmers Co-operative Ltd
		Nailega	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 Waid-ewara 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 Farm-ers 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 Method-ist High School
			Tawava Women in Bee Keeping
			Yawe Womens Group
			Muanicake Womens Group
	Lau	Totoya	Delaitalau Invest-ment Co-operative Ltd
	Lomaiviti	Bureta	Navunivanua Sandalwood Co-operative Ltd
		Nasinu	Levuka Public School
			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

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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	Monfort Institute
		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	Drawa Village Project
			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			

2020 Fiji Agriculture Census with the Theme:
Your Voice, Your Future
"BE COUNTED"

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TERMS OF REFERENCE FOR THE 2020 FIJI AGRICULTURE CENSUS AREA COORDINATOR

Area Coordinators primary responsibility is to review the questionnaire and check that it has been correctly filled, verify the quality of collected data and reject the interviews that need to be redone.

Area Coordinators should be familiar with the assigned District area, especially its geographical setting that could contribute in the successful planning and operation of the data 2020 Fiji Agriculture Census.

Area Coordinator shall continue to advice Regional Coordinators in regards to data collated by each Enumeration team and update on all datasets send to Headquarters from their respective areas.

Area Coordinators will carry out the following tasks.

1.0 Track questionnaires completed in the field that require correction by interviewers.

2.0 Review questionnaires and check that it has been correctly filled in; verify the quality of collected data and reject the interviews that need to be redone; respond to enumeration Team enquiries

3.0 Monitor Enumerators performance and frequently discuss with Field Supervisors regarding the improvement and organization of fieldwork

Area Coordinators will work on computers that are connected to internet to be able to reach the Survey Solutions HQ server. They will be issued with credentials (user name and password) to access the server. Each supervisor can see the interviews of his/her team only.

Area Coordinators are expected to also participate in all upcoming Agriculture Census activities after their training such as the Field Supervisors and Enumerators Training and Data Collection exercise from the 13th of January to 29th of February 2020.

Area Coordinators will be paid all necessary allowance pertaining to activities they undertake during the 2020 Fiji Agriculture Census.

Area Coordinators comprise of selected Technical personnel from Ministries as follows;

Ministry of Agriculture
Ministry of Fisheries
Ministry of Forestry
Ministry of Rural & Maritime Development
Ministry of iTaukei Affairs

CAPI SUPERVISOR ROLE IN SURVEY SOLUTIONS

This manual is a step by step procedure in carrying out the main responsibility of the Area Coordinator in Survey Solutions platform. PCs/Laptops that will be used by the Area Coordinators must have web browser (preferably Chrome) and good internet connection as basic requirement.

- The main responsibility of Area Coordinator (CAPI Supervisor) is to ensure that data in questionnaires uploaded by interviewers under his/her team are complete, consistent and acceptable.
- AC may reject or approve a questionnaire based on the result of evaluation done.
- Rejected questionnaires will be sent back to their respective interviewers for their appropriate actions on problems pointed out (commented) by the Area Coordinator.
- Approved questionnaires will be sent to headquarters (HQ) for further review. The HQ may also approve or reject questionnaires.
- Questionnaires rejected by HQ will be sent back to their respective Area Coordinators for their appropriate actions on the data item commented by the HQ, i.e., either sending back the questionnaire to the interviewer or providing explanations to the comments.

*Go to https://fjnace 20.mysurvey.solutions using any web browser (Chrome is recommended). The login page will be shown on the screen. Supply your login name and password then click Login button.
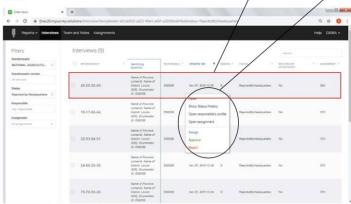
- After the successful login, the initial screen will be shown (Survey and Statuses Report) as shown

- In the example page above, the number is "9" below the column "REJECTED BY HQ".
- Note that you have to act on those interviews rejected by headquarter before reviewing "completed" interviews. This is to ensure that the enumerators will be able to download (if the questionnaires will be rejected by you) those with issues raised by the headquarter while they are still in the area of enumeration.
- You should review "completed" interviews only when there are no more rejected (by HQ) interviews on the list.

When the number is clicked a page showing those rejected interviews (cards) will be shown on the Interview dashboard Click the card anywhere inside the interview **rectangle box** to show the **pop up** menu.

The options that will appear on a pop up menu are:

1) Open - this will open the interview screen which will enable you to review the data, write comments or instructions to enumerator on data item or the questionnaire comment box, tag data item to easily go back to it when the rejected interview is returned to you by the enumerator, and reject or approve the interview.

2) Show Status History - this will show the interview status history and all the comments written on the interview comment box. You can also open the interview by clicking the "View Interview" hyperlink at the bottom of the pop up history box.

3) Open responsible profile - This will open a page that shows the tablet's device information and details about transactions done by the device such as trafic usage, synchronization activity, and connection statistics. This an auxialliary option that will help you in troubleshooting problems that might occur during the field operation.

4) Open assignments - This will open a page that shows the details about the assignment, specifically, the area of enumeration. Note that in this Census, all enumerators are given one and only one assignment at a time which is one district at a time. This is another auxialliary option that will help you in troubleshooting problems that might occur during the field operation.
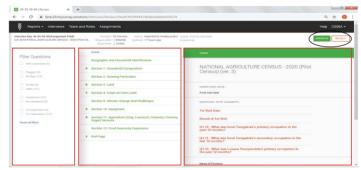
5) Assign - this will enable you to reassign an interview to a different enumerator.

6) Approve - select this option if the interview is for approval, i.e., to be passed on to headquarter for final review and action. You will be prompted to enter comment/message to the headquarter.

7) Reject - select this option if there are issues that need to be resolved or fixed by the enumerator. You will be prompted by the program to enter your comment/message to the interviewer.

1) Open
When the option "Open" is selected the page shown below will appear. The page is divided into three segments. These are the Filter Questions, Middle Section and Questions (or Data) segments.

- Entries in the middle segment will change depending on the selected options in the filter questions while the items in the question segment depends on the selected entry in the middle segment.

- You may click the buttons **"APPROVE" or "REJECT"** located at the top right corner of the page.
- If there is a need for clarifications from the enumerator or explanation for the headquarter, you may write comment on the question by opening a comment box in the question segment. **See sample screen below.**
- You may also tag a question in the question segment. Tagging a question is just like book marking a data on questionnaire. See sample screen below.

Show Status History
question which will make it easier for you to go back to that tagged question when reviewing When the option "Show Status History" is clicked, a pop up box will appear showing the transactions that happened on the interview (questionnaire).

- The columns in this list are the details about each transaction state.
- These information are the comments written by the person who made the transaction, date, person who initiated the transaction, responsible interviewer, and the state or status.
- Click "X" button or click anywhere outside the pop up box to close the list.
- You may also click the "Cancel" button at the bottom of this list. Similarly, you can open the questionnaire by clicking the "View Interview".

3) Reject

When the option **"Reject"** is clicked, a pop up box will appear.

If the questionnaire was rejected by the Headquarter or there are error/warning messages that you have accepted, type a brief but clear and complete explanation or justification. Otherwise, you may leave this blank.

- Once all rejected interviews (cards) have been acted upon, you may review those interviews that have been uploaded by the enumerators (completed).
- The procedure is the same as what was discussed above. Generate the "Surveys and Statuses" report then open the Interview dashboard showing the completed interviews only by clicking the number under the "Completed" column.

You may also filter the list of interviews by filling out the filter boxes. Click on a filter box then select the filter data that you want to be used. In the example screen below, you may filter the list by enumerator.

You may also use the **search box** to find a particular interview card on the list. Just type the number or a text in the box. As you type letters or numbers, the corresponding texts on the list will be marked with yellow color.

Reports
Survey solutions has provided several reports that you can use in monitoring the progress of the field operation in your assigned area and in analyzing results at the aggregate level. These reports are: 1) Surveys and Statuses; 2) Team Members and Statuses; 3) Status Duration; 4) Quantity; 5) Speed; 6) Map Report; and 7) Survey Statistics

1) Surveys and Statuses

- This is the initial report (page) shown when you login in the server.
- This shows the number of interviews by status which you can also use to open the Interview dashboard by status by just clicking the number.
- The status that can be clicked are completed, rejected by supervisor, approved by supervisor, and rejected by headquarter.

2) Team Members and Statuses
- This is similar to the Survey and Statuses report with differences on the row items.
- Instead of the survey, the rows in this report are the login name of the enumerators under the group. This means that the report is about the number of interviews done by enumerators by status.
- You can also click the number in a cell to open the interview dashboard for a particular enumerator and status of the interviews.

3) Status Duration
- Number of days that assignments and interviews have stayed in their current status.
- You can use this report to see if there are interviews that have not been acted upon by enumerators or the headquarter.
- You can also use this to see if you have missed some interviews that are waiting for your action.

4) Quantity
- Number of interview completions by interviewer on a daily, weekly basis.
- Note that rejected and then completed interviews are counted as separate completion events.
- This means that the total completed questionnaires here is higher than the actual interviews.

5) Speed

There are two types of reports that you can generate when you select this report option. These are:

a. Average time that it takes from the time that the 1st screen of the CAPI was shown on the screen of the tablet until the completion (complete button is tapped!) of the interviewer and

b. Average time from when an interview is assigned to an interviewer to when the complete button is pressed on a tablet.

- These reports can be on a daily, weekly or monthly basis. The first report can be used to monitor the average time that it takes for an interviewer to complete an interview.

- Since the computation of the duration is from the time the interviewer started until the "Complete" button is tapped, it is possible that the average may not be accurate because some interviews that have been postponed and completed after several hours or days will have very long duration.

- But most of the time, the average will show the correct one which is around an hour. If there are enumerators whose daily average duration is consistently much less than 30 minutes, you have to scrutinize the interviews submitted by those enumerators and find out if there is a pattern that will show that some questions were intentionally answered negatively to avoid answering succeeding questions.

- If this happened, inform the field supervisor to investigate possible cheating of those enumerators.

6) Map Report

- This is a geospatial report which you can use to check if interviews submitted by enumerators were actually done in their assigned area of enumeration.
- The main purpose of this report is for you to be able to check the coverage of enumeration in a particular area by just viewing if all housing units or buildings have their corresponding interviews.
- Unfortunately, the accuracy of GPS coordinates acquired using tablet varies depending on the surroundings at the time the coordinates were taken, hence, it is possible that the marker may be off by at most 30 meters.
- The best possible way to check for the completeness of enumeration is to compare the number of roofs with the number of markers. The numbers need not exactly match but if there is a very big discrepancy, then it is possible that there is under coverage in the locality.

7) Survey Statistics

- Summary statistics can be generated for non-categorical or continuous data.
- These are number of occurrences (count), average, sum, minimum value, maximum value, and some other statistics.
- The sum, minimum and maximum values are rounded to the nearest whole number.
- For categorical data, the statistics that can be generated are frequency distribution (one-way table) and one by one (two-way table) cross tabulations.
- In the current version of Survey Solutions, only simple single/multi select question data can be tabulated.
- Although you can cross tabulate two multi-select data be very careful in interpreting the resulting table.

Generating Statistical Table

Click the menu "Reports", then select "Survey Statistics". The initial screen for generating statistics is shown below.

The screen is divided into two sections.

Min and Max parameter boxes can be used to select records that are inside the maximum and minimum values only (range). Just type the values inside the box and the statistics on the right panel would be refreshed. To filter our missing values, type 0 in Min filter box.

For categorical data, the screen that will appear is shown below.

The columns will change to all possible options (values) for the selected question. The data shown on the table are the number of occurrences (count) for each value, i.e, number of persons by relationship to head by enumerator in the example screen above.

To be able to filter (include universe) the counts using values from another categorical data, select the "Condition Question". All possible values (options) for that condition question will appear on the Filter section. Just click a value (it will be highlighted) to filter the result and click it again to remove it as a filter value. You may select more than one filter value at a time. See examples below.

Initially, the table shows counts as if no condition questions is supplied.

This table shows the number of male members by relationship to head by enumerator.

The table above shows the number of male and female members of households by relationship to head by enumerator, which is the same table as with no condition question or no selected filter values.

To make the condition question become the row variable, click "Pivot table". To go back to table by enumerator, click "Pivot table" twice.

You may export the table to an Excel file, Comma delimited file, or Tab delimited file by just clicking the corresponding link located at the bottom of the table.

Evaluating Data at Aggregate Level

Population by Sex by Interviewer

2020 Fiji Agriculture Census
"Your Voice
Your Future
BE COUNTED"

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Ministry of Agriculture
VACANCIES

DATA COLLECTORS/ENUMERATORS
2020 FIJI AGRICULTURE CENSUS

The Ministry of Agriculture is conducting a nationwide agriculture census that shall contribute to the growth of the sector, influencing policy and planning.

We are seeking 430 enumerators to collect, document and report results across the Central/Eastern, Northern and Western divisions.

You will need to have effective communication skills and the ability to work with technology and techniques to capture data.

To apply visit www.fiji.gov.fj/vacancies

Applications must be submitted to Recruitment Assessment Centres in Suva, Labasa and Lautoka by Thursday, 12 December 2019.

For further information, please contact Alitiana Mua on email amua@govnet.gov.fj

2020 FIJI AGRICULTURE CENSUS

MINISTRY OF AGRICULTURE
APPLICATION FORM

Post Applied for:

Vacancy No.:

PERSONAL INFORMATION

Family Name:

Given Names:

Date of Birth: __ / __ / ____ (dd) (mm) (yyyy)	Gender: M ☐ F ☐	Marital Status: Single ☐ Married ☐
Residential Address: Province: .... District: .... Village/Settlement:	**Postal Address:**	**Phone Contact:** .... **Email Address:** ....

EDUCATION INFORMATION

Please state a brief summary of Academic Qualification or Equivalent starting from the most recent

Year	Qualification gained	Institution

WORK EXPERIENCE

Please state a brief summary of Work Experience starting from the most recent

Year	Position Held	Organisation

I .... hereby declare that all information I have provided on this application form and the attached documentation is true and up todate. I understand that any false information given may result in a job offer being withdrawn.

Signed:	Date:

All applicants for employment in the Fiji Agriculture Census through the Ministry of Agriculture must be of good character, with clean police record, and good background that demonstrates their commitment to this exercise. Applicants are requested to attach with this application form a cover letter, an updated CV and with at least two recent referees as stated in the advertisement.

Applications can also be sent by email to AgriPPU@govnet.gov.fj by the closing date.

2020 FIJI AGRICULTURE CENSUS

AREA COORDINATORS TRAINING PROGRAM

Date: 11th – 13th December 2019
Venue: Tanoa International Hotel, Nadi
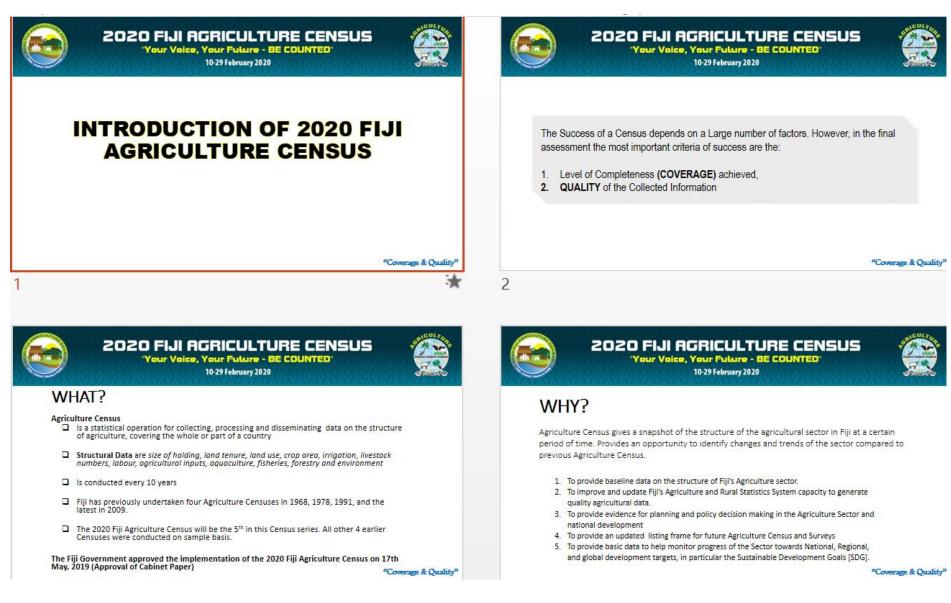
Day 1: Wednesday 11th December 2019		
Time	Activity	Facilitator
8.00	Registration	
8.30	Welcome & Prayer	FAC Coordinator
8.40	Opening Address	Chief Guest
9.00	Introduction of Participants	
9.15	Photo Session	Ms Silovate Bebenisala
9.20	Training Overview	PEPO Stats
Part 1: Importance of Statistics in Agriculture		
Learning Objectives: - Understand the importance of Statistics and the conduct of 2020 FAC - Have the Gender lenses in data collection, management, processing and dissemination		
9.30	Importance of Statistics in Agriculture	Ms Itziar Gonzalez , Policy Officer, Food and Agriculture Organization of the United Nation (FAO)
9.45	Gender Mainstreaming	
10.00	Introduction of Fiji Agriculture Census (including Census Boundary)	Ms Virisine Lalasava, SEPO Stats
10.15	MORNING TEA	
Part 2: Computer Assisted Personal Interviewing (CAPI)		
Learning Objectives: - Know the CAPI system and Survey Solution - Know the difference between Administrator, HQ and Supervisor/Area Coordinator - Understand and familiar with the workflow of Survey Solution - Know how to access Supervisor/Area Coordinator account - Know and Understand Supervisor/Area Coordinator primary functions - Know and familiar with the use of Supervisor/Area Coordinator to approve/reject completed cases - Know about creating field reports		
10.15	Introduction of CAPI & Survey Solution	Ulamila Raikoti/Ita Tunidau
10.30	1. Introduction of Interview Management with HQ and Supervisor/Area Coordinator 2. Differences b/t HQ and Supervisor/AC 3. Review overview of workflow and interview 4. Introduction to HQ and Supervisors 5. Supervisors/AC primary functions in SuSo 6. Supervisors/AC primary responsibility in SuSo	PEPO Stats, Ms Sainiana Kirisitiana
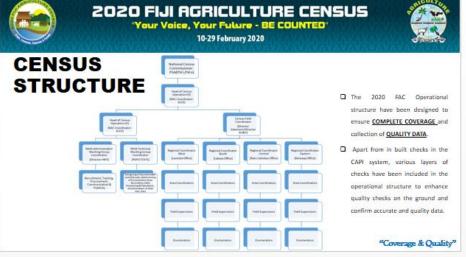
	7. Generate Monitoring Tables, Survey Reports and Statistics in SuSo	
12.00	LUNCH	
Part 3- Practice 1: Comprehensive practice with Headquarters, Supervisors and Interviewer		
1.00	1. Mastering the whole system- CENSUS MODE 2. Interviews synchronize and complete an interview 3. Log in 4. Review and approve/reject the completed interview 5. Monitor the Data Collection Exercise use Survey Statistics, Maps, Survey Reports 6. Generate Survey and Statistics Report	Hand on PEPO Stats Questionnaire Design Team (Ita Tunidau, Ulamila, Alitia)
3.00	AFTERNOON TEA	
3.15	Mock Trial 1- (Interviewer, Supervisor, HQ) by Group	Hand On
4.15	Group Presentation 1 on the overall experience of Training in Day 1	Group
4.30	END OF DAY 1 WITH A DEVOTION	
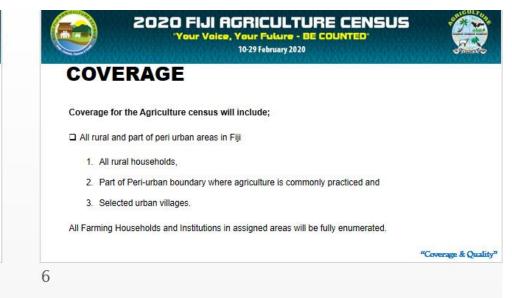
Day 2: Thursday 12th December 2019	
Devotion	
Day 1 Review Exercise- Test	PEPO Stats
Part 4: Introduction of 2020 FAC Questionnaire : Ms. Lanieta Vakadewabuka	
Learning Objectives: • Know the content of the Questionnaire • Understand the purpose of each section and questions • Understand and familiar with the flow of Questions	
Geography and Household Identification	PEPO Stats
Section 1: Household Composition *[Discussion and Use of CAPI]*	
Section 2: Household Particulars *[Discussion and Use of CAPI]*	SEPO Stats/Viliame N
Section 3: Land *[Discussion and Use of CAPI]*	
MORNING TEA	
Section 4: Crop on Farm Land *[Discussion and Use of CAPI]*	Ita Tunidau
Section 5: Livestock *[Discussion and Use of CAPI]*	Mr Gene Lorica
Section 6: Forestry *[Discussion and Use of CAPI]*	PEPO Stats
Section 7- 8: Fisheries & Aquaculture *[Discussion and Use of CAPI]*	Ms Pranishma, Senior Economic Planning Officer
Section 9: Climate Change *[Discussion and Use of CAPI]*	SEPO Stats, PEPO Stats
LUNCH	
Section 10: Equipment *[Discussion and Use of CAPI]*	Ulamila
Section 11: Agriculture Services *[Discussion and Use of CAPI]*	
Section 12: Food Security *[Discussion and Use of CAPI]*	PEPO Stats/Alitia Yaya
Section 13: Employment *[Discussion and Use of CAPI]*	
Practical Exercise 3- Comprehensive practice on checking of questions using Supervisors account	
Testing the Understanding of Questions while Checking the Questionnaire (Default Interviews)	PEPO Stats Questionnaire Design Team
AFTERNOON TEA	
Mock Trial 2- (Interviewer, Supervisor, HQ) by Group	PEPO Stats Questionnaire Design Team
Group Presentation 2 on the overall experience of Training in Day 2	Group
END OF DAY 2 WITH A DEVOTION	

Day 3: Friday 13th December 2019		
8.00	Devotion	
8.10	Day 2 Review Exercise- Test	PEPO Stats
8.30	General Overview of the Full Day Practical Operation Exercise	PEPO Stats/Ita Tunidau
8.45	*Practical Operation 1* – Teams Divided as Interviewers and Supervisors	PEPO Stats Questionnaire Design Team
10.00	MORNING TEA	
10.15	*Continue of Practical Operation 1* – Teams Divided as Interviewers and Supervisors	PEPO Stats Questionnaire Design Team
11.00	*Practical Operation 2* – Switch of Teams Role *Figure 1*	PEPO Stats Questionnaire Design Team
12.00	LUNCH	
1.00	Group Presentation 3 on Survey Reports, Statistics Reports and Tables	Group
2.30	Group Presentation 4 on the overall experience of Training in Day 3	Group
3.00	AFTERNOON TEA	
3.15	Terms of Reference of Area Coordinators	PEPO Stats/SEPO Stats
3.30	Announcement of the Assigned Areas of Each Area Coordinators during the 2020 FAC	PEPO Stats/SEPO Stats
4.00	CERTIFICATE PRESENTATION	
4.15	CLOSING REMARKS & PRAYER	Chief Economist
4.30	END OF TRAINING	

2020 FIJI AGRICULTURE CENSUS
"Your Voice, Your Future - BE COUNTED"
10-29 February 2020

INTRODUCTION OF 2020 FIJI AGRICULTURE CENSUS

"Coverage & Quality"

1

2020 FIJI AGRICULTURE CENSUS
"Your Voice, Your Future - BE COUNTED"
10-29 February 2020

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. Level of Completeness (COVERAGE) achieved,
2. QUALITY of the Collected Information

"Coverage & Quality"

2

2020 FIJI AGRICULTURE CENSUS
"Your Voice, Your Future - BE COUNTED"
10-29 February 2020

WHAT?

Agriculture Census
- Is a statistical operation for collecting, processing and disseminating data on the structure of agriculture, covering the whole or part of a country

- **Structural Data** are *size of holding, land tenure, land use, crop area, irrigation, livestock numbers, labour, agricultural inputs, aquaculture, fisheries, forestry and environment*

- Is conducted every 10 years

- Fiji has previously undertaken four Agriculture Censuses in 1968, 1978, 1991, and the latest in 2009.

- The 2020 Fiji Agriculture Census will be the 5th in this Census series. All other 4 earlier Censuses were conducted on sample basis.

The Fiji Government approved the implementation of the 2020 Fiji Agriculture Census on 17th May, 2019 (Approval of Cabinet Paper)

"Coverage & Quality"

2020 FIJI AGRICULTURE CENSUS
"Your Voice, Your Future - BE COUNTED"
10-29 February 2020

WHY?

Agriculture Census gives a snapshot of the structure of the agricultural sector in Fiji at a certain period of time. Provides an opportunity to identify changes and trends of the sector compared to previous Agriculture Census.

1. To provide baseline data on the structure of Fiji's Agriculture sector.
2. To improve and update Fiji's Agriculture and Rural Statistics System capacity to generate quality agricultural data.
3. To provide evidence for planning and policy decision making in the Agriculture Sector and national development
4. To provide an updated listing frame for future Agriculture Census and Surveys
5. 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].

"Coverage & Quality"

Slide 5 — CENSUS STRUCTURE

- 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 operational structure to enhance quality checks on the ground and confirm accurate and quality data.

"Coverage & Quality"

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Slide 6 — 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.

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6

SCOPE

- 2020 FAC – Integrated Census of all 4 agriculture sub-sectors

1. Crop,
2. Livestock,
3. Fisheries,
4. Forest

Data will be collected at holding/household level and community-level.

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

Design of Census questionnaire captures 13 Sections of Agriculture information:

- 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

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CENSUS BOUNDARIES

- Baseline

  - Farming Household Baseline Survey 2015/16
  - Review of Farmers Listing 2018
  - 2017 Population Census Locality Data
  - Formulated Boundary Description & Field Visit (using Satellite Imagery)
  - Ground- Truthing (Verifying the Description on the Field)

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FARM

❑ Any Household or Institution that has land used for agriculture.

❑ Used in broad sense covering all the four sub-sectors namely Crop production, Livestock rearing, Fisheries (including Aquaculture) and the Forestry.

❑ The land may be owned, leased, occupied with traditional arrangements or occupied and farmed with no formal arrangement for its use.

❑ A farm has also been interchangeably referred to as an Agricultural Holding.

"Coverage & Quality"
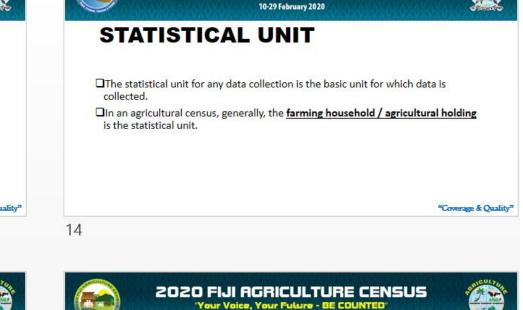
STATISTICAL UNIT

❑ The statistical unit for any data collection is the basic unit for which data is collected.

❑ In an agricultural census, generally, the **farming household / agricultural holding** is the statistical unit.

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FARMING HOUSEHOLD/AGRIUCULTURAL HOLDING

- A **Household** is a small group of persons who share the **same living accommodation** and **contribute their income and wealth** and to acquire certain goods and services and share the same eating arrangement.

- Therefore a **farming household** would have the same description as a household and identifying farming or practice of agriculture activity as their main economic activity.

- An **Agricultural Holding** is defined as a Farming Unit under **single management** comprising all crop & livestock production and all land used wholly or partly for agricultural production purposes, without regard to title, legal form or size. It is **operated jointly by two or more individuals or households, by a clan or tribe, or by a juridical person such as a corporation, institution, cooperative or government agency**. There are two types of agricultural holdings:

    1. Holdings in the household sector (farming household) – that is, those operated by household members; and
    2. Holdings in the non-household sector (institution), such as corporations and government institutions. In Fiji, as in most developing countries, the majority of agricultural production is in the household sector. The concept of "agricultural holding" is therefore closely related to the concept of "household".

- Therefore, in view of most of agricultural production coming from the household sector in Fiji, the household has been treated as Agricultural holding and adopted as the basic unit of data collection for FAC 2020.

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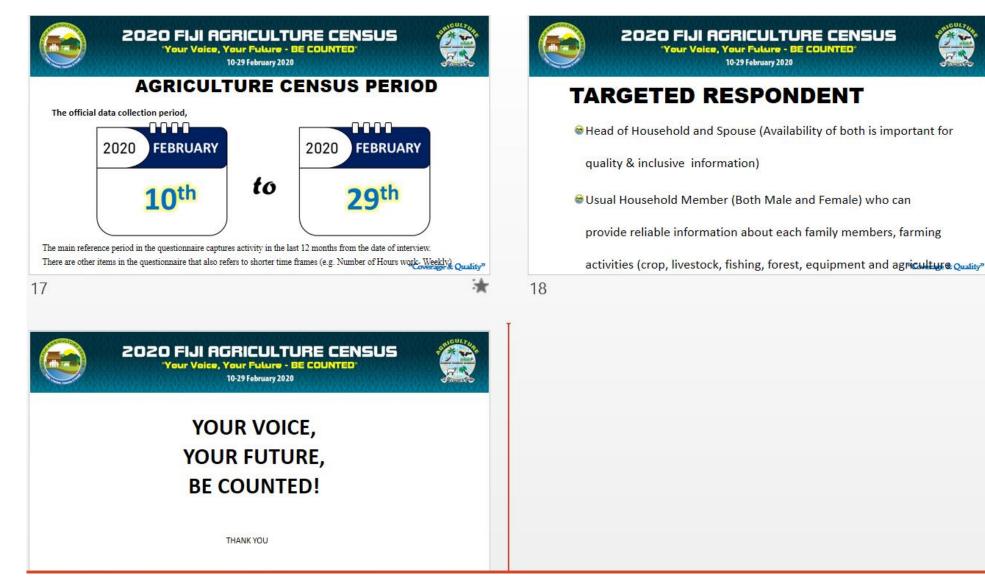
FAO CONSULTANTS

- Mr. Vidyadhar Tripathi (Statistician – India)

- Mr. Gene Lorica (Statistician – Philippine Bureau of Statistics)

- Ms. Lanieta Vakadewabuka (Statistician – FBoS)

- Mr Bruce Lachlan (IT Programmer-ADB)

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AGRICULTURE CENSUS PERIOD

The official data collection period,

2020 FEBRUARY **10th** to 2020 FEBRUARY **29th**

The main reference period in the questionnaire captures activity in the last 12 months from the date of interview.
There are other items in the questionnaire that also refers to shorter time frames (e.g. Number of Hours work- Weekly)

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TARGETED RESPONDENT

- Head of Household and Spouse (Availability of both is important for quality & inclusive information)

- Usual Household Member (Both Male and Female) who can provide reliable information about each family members, farming activities (crop, livestock, fishing, forest, equipment and agriculture

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YOUR VOICE,
YOUR FUTURE,
BE COUNTED!

THANK YOU

2020 FIJI AGRICULTURE CENSUS

Your Voice, Your Future
"BE COUNTED"
10 - 29 FEBRUARY, 2020

Gender Mainstreaming
in agriculture statistics

2020 Fiji Agriculture Census 1st Area Coordinators Training

Nadi, Fiji December 2019

1

Why is important?

- Agriculture is central to the achievement of many of the SDGs

- Women make essential contributions to agriculture although their role varies considerably across countries and is changing rapidly

- Gender gap in agriculture suggested (ownership; decision making etc.)but... data are scarce and frequently incomparable

- Eliminating gender disparities in agriculture, a goal in its own right, a benefit for all

- When agricultural reforms are done without a gender perspective, impact of new policies and programmes on women and men might be overlooked or misunderstood

- Improved targeting in planning and reform processes will make them more effective and sustainable, and should be grounded in empirical information (gender statistics)

2

What does it mean?

- **Sex-disaggregated** data are tabulated and presented separately for women and men, or girls and boys in order to get quantitative statistical information on differences and inequalities between women and men

- When sex-disaggregated data are analysed, provide **information about gender disparities and roles** of women and men in a given context

- Gender statistics reflect differences and inequalities in the situation of women and men in all areas of life

- **Producing gender statistics requires the systematic incorporation of a gender perspective at all stages of data production, analysis and dissemination (across and within departments)**

- Gender statistics is part of a larger process of "mainstreaming" a gender perspective: assessing the implications for women and men of any planned action in all areas and at all levels

The yield gap between men and women farmers averages around **20-30%** mostly due to differences in resource use.

Given equal access to resources as men, women would achieve the same yield levels, boosting total agricultural output in developing countries by **2.5-4%**

This additional yield could reduce the number of undernourished people in the world by **100-150m or 12-17%**

For the full story, visit farmingfirst.org/women

Some ideas on how can be done

- Data producers and data users should be familiar with the terminology

- Aspects especially relevant: household head or head of an agricultural holding in order to capture information about who owns key assets and who makes decisions

- Beware of bias in data collection, compromises quality and relevance of the data. Gender bias refers to the underreporting or misreporting (ex. "unemployed women")

- Making women's contributions visible may shed light on specific problems that are not adequately addressed in national policy (and is complex)

- Importance of collecting data for each individual household member, other characteristics such as age and education are also key: participation!

- Analysing aspects such as area of holding, cropping patterns, and use of different practices can help to focus on the problems faced by women in operating agricultural holdings

FAO World Programme for the Census of Agriculture 2020

Slide 5

FOOD AND AGRICULTURE MATTER

Tied to the principle of leaving no one behind, and driven by means of partnerships and accountability, FAO's broad priorities in the 2030 Agenda are to:

- End poverty, hunger and malnutrition

- Enable sustainable development in agriculture, fisheries and forestry

- Respond to climate change

FOOD and AGRICULTURE in the 2030 AGENDA

THE 17 SUSTAINABLE DEVELOPMENT GOALS

Slide 6

COUNTRY GENDER ASSESSMENT OF AGRICULTURE AND THE RURAL SECTOR

- A **large share of rural women** (40.5 percent) work as own-account workers and contributing family workers on family farms

- On average, rural women **earn a quarter less** than rural men. Furthermore, there is a significant urban-rural wage gap of 44.5 percent

- **Gendered divisions of labour** are apparent in the agricultural sector (**Crop production**: Women carry out the time-intensive work of garden maintenance, harvesting, processing and marketing; **fisheries** harvest shellfish or invertebrates, fish with hand lines from shore, processing and cooking for sale in small market settings)

- In addition to agricultural work and other productive employment, women spend large amounts of time on **reproductive work**

  - Women are usually excluded from formal **decision-making processes concerning land** in the largely male-dominated mataqali systems

  - In rural Fiji it is common for women's **husbands or brothers to be the public voice** for the family in community or village councils.

Slide 7

GENDER STATISTICS

Characteristics	Examples
(1) Data are collected and presented *disaggregated by sex* as a primary and overall classification;	Percentage of female farmers and male farmers that own tractors, mechanical ploughs and / or threshing equipment
(2) Data reflect gender differences and issues	Data on men's and women's wages in agriculture.
(3) Data are based on concepts and definitions that adequately reflect the diversity of women and men and capture all aspects of their lives;	A time use survey that captures information about women's and men's specific roles in unpaid work (that would not be covered in a labour force survey).
(4) Data collection tools and methods take into account stereotypes and social and cultural factors that may induce gender biases in the data.	Ensuring that an agricultural census collects data not only at the holding but also at individual level, so that women's role in farming is accurately reflected
(5) Data capture intra-household or intra-holding differences in ownership of assets, resource allocation, decision-making, and so on.	An agricultural census that collects data on both ownership and management of agricultural resources at individual level. A household survey with questions for women and men about who usually makes specific decisions within the household.

Slide 1

2020 FIJI AGRICULTURE CENSUS
'Your Voice, Your Future - BE COUNTED'
10-29 February 2020

PART I: INTRODUCTION OF COMPUTER ASSISTED PERSONAL INTERVIEWING (CAPI) & SURVEY SOLUTION

AREA COORDINATORS TRAINING
TANOA INTERNATIONAL HOTEL, NADI
11TH – 13TH DEC, 2019

Slide 2

OBJECTIVE

▶ Know the CAPI system and Survey Solution

▶ Understand the significance of CAPI System

▶ Know the components of CAPI System

Slide 3

"Using mobile devices for cost-effective and faster data collection"

Slide 4

WHAT IS CAPI ABOUT?

□ CAPI is a technology that uses mobile devices (such as personal digital assistants, laptops, tablets and smartphones) and Internet or cellular networks to assist interviewers in collecting data in the field.

□ Interview data are collected through electronic questionnaires on mobile devices and transmitted to survey headquarters for real-time quality control and analysis.

□ CAPI also offers active data collection management tools such as automatic survey progress reports, which allow survey managers to monitor and organize fieldwork efficiently.

Slide 5

BENEFITS OF CAPI

- Improve timeliness of data collection
- Ensure data quality and comparability
- Allow collection of new types of information/data
- Cost-effective, sustainable solution for NSOs

Slide 6

WHAT ARE THE BENEFITS OF CAPI COMPARED TO PAPI DATA COLLECTION?

Studies have proved that CAPI-based surveys are more cost-effective, faster and of higher quality than PAPI-based surveys

		CAPI	PAPI
QUALITY	Multiple question types	yes	yes
	Error & response quality checks	automatic, high precision	manual, low precision
	Survey progress monitoring	real time over cellular/internet networks	manual, at end of survey round
	Capturing of images, sound, video, GPS position, etc.	yes	no, needs external devices
	Question skip	automatic, high speed	manual, slow
TIMELINESS	Interview case assignment to data collectors in field	electronic, real time over cellular/internet networks	paper based, slow by hand
	On-field location of interview case	fast, assisted by automatic inbuilt map in tablet	slow, paper based
	Finished interview transmission to headquarters	electronic, real time over cellular/internet networks	paper based, slow by hand
	Off-network operation capability	yes	yes
	Printing	very minimum	very large
	Paper storage & data entry	no	yes
COST	Acquisition and maintenance of server & tablet devices	free: to low cost cloud servers available, tablets last long if handled with care, mobile device prices have continued to fall	no
	Field staff training	yes	yes

Slide 7

WB Survey Solutions

□ Survey Solutions is a completely free-of-charge data collection, survey management and data management software designed to be easy to learn and operated with minimal technical assistance.

□ Survey Solutions is preferable compared to other CAPI software because;
  ✓ it combines the functionalities of data capturing, survey management and data management in a tool that is simple and straightforward, yet sufficiently powerful for use in small- and large-scale surveys.

Survey Solutions

Slide 8

WB Survey Solutions

□ Used worldwide for surveys and census
□ Use Android devices - tablets/phones.
□ Main Components
  ✓ Questionnaire Designer
  ✓ Tester Application
  ✓ Server
  ✓ Tablets (Interviewer App)
  ✓ Supervisor (Area Coordinators)
  ✓ Headquarters

Survey Solutions

Slide 9

Data Collection
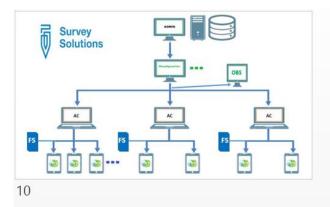
□ 3 Main components of data collection

1. Interviewer App (tablet)

2. Supervisor Interface (tablet or computer)

3. Headquarters (computer)

Slide 10

Survey Solutions

Slide 11

1.Creates Questionnaire

- Develops questionnaire content – modules/sections, rosters, questions, etc.
- Creates skip patterns/enabling conditions and validation checks
- Available free-of-charge online: https://solutions.worldbank.org/
- Incorporates reference tasks for quality checks

https://designer.mysurvey.solutions/questionnaire/details/a7cd2f19cd2340e4a60fc26f3bbd646a/chapter/dabf58e8deed2e79c4adc26a57c0ac98/question/1156e4688a554f14b5b775c109e67b85

Slide 12

2. Pretests Questionnaire

- Receives the draft questionnaire from designer and checks errors in questionnaire by allowing user to run the questionnaire in tablet or browser as in real survey. Works on Android-based tablets and tester app can be downloaded for free from the Google Play app store

https://webtester.mysurvey.solutions/WebTester/interview/ad54bb72e5894953aa1c63c522302b40/Cover

NATIONAL AGRICULTURE CENSUS - 2020 (Final Test)

Slide 13

3. Centralized and Field- Based Survey Management

- Defines the survey project – survey staff, sample, questionnaire, interviews
- Manages workload – assigns cases to supervisors, interviewers, receives progress reports, approves or rejects finished interview cases
- Quality control – reviews supervisors' and interviewers' work
- Manages and exports data to SPSS, STATA, etc.
- Centralized survey management is operated online using free Cloud server or local server
- Field-Based survey management is operated online

Slide 14

4. Data Collection

- Receives case assignments – new questionnaires, new interview cases from HQs or supervisor
- Collects data from respondents
- Submits case assignment – confirms that all questions are answered, sends completed assignment for review
- Functionality to add photo attachments to interviews using the tablet's built-in camera for identification and complementary documentation purposes
- Capability of loading satellite imagery on tablets to improve field logistics and automate the area measurement of plots or parcels
- Works on Android-based tablet devices
- Transmits data online over network connected to HQ and interviewer. Also works offline, later synchronizing data with HQ and interviewer once network is available
- Application can be downloaded for free

Slide 15

Resource requirements for a successful use of CAPI with Survey Solutions

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Slide 16

ADVANTAGES

- Improve data quality by correcting survey process during the field operation
- System records all events with timestamps that happen on a tablet: Data entry, Data correction, Responsibility changes, etc.
- Analysis of time per interview, time per question, section.
- Quality control, monitoring and evaluation
- Put all the checks in the questionnaire, data is almost edited and final when field work is completed.

Slide 17

CHALLENGES

- New Technology
  - ✓ More planning/training/testing has to be done
- Network
  - ✓ Need internet to login and synchronize data
  - ✓ Can continue data collection with no internet
- Battery Life (tablet)
  - ✓ For charging batteries / have spare batteries for backup
  - ✓ Use of solar charger

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Timeliness:

Data collection → Data entry → Data cleaning → Data processing → CAPI → Policy decisions

Data analysis

From data collection to policy: 2-4 months

Slide 1

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PART IV: OVERVIEW OF THE SURVEY WORKFLOW

AREA COORDINATORS TRAINING

Slide 2

SURVEY WORKFLOW

To understand your role as a Area Coordinator and how the use the Area Coordinator software, you must first understand the survey workflow

Slide 3

SURVEY WORKFLOW

- HEADQUARTERS, designated by the building at the top of the figure. Determines the Area of Enumeration. It is a 3rd level of Data Quality Assurance.

- AREA COORDINATORS/SUPERVISORS denoted by the laptops in the middle. It is a 2nd Level of Data Quality Assurance

- INTERVIEWERS, represented by hands holding a tablet, collect data on assigned area of enumeration and send completed interviews to AC for review
- 1st level data quality assurance: Built in Data Validation checks

Slide 4

SURVEY WORKFLOW

- Area Coordinator,
  - received completed questionnaires,
  - review these questionnaires to confirm that all questions are answered and that answers are accurate, coherent, and plausible.
  - approve or reject them
- If Area Coordinator approves a completed interview received from an interviewer, the interview is sent to HQ as represented by the paper with a checkmark.
- If a team supervisor rejects a completed interviews received from an interviewer, the interview is returned to the interviewer initially responsible for completing it, as represented by the paper with an X.
- Receiving the rejected interview, the interviewer must either correct it or provide explanatory notes on strange or implausible answers.
- When the interview are corrected, the interviewer sends them back to the team supervisor for approval or rejection, a process that continues until the interview are completed with the highest level of quality according to the team supervisor.

Slide 5

WHY THE SURVEY WORKFLOW MATTERS FOR YOUR WORK?

Your understanding the survey workflow is critical for at least **two reasons**;

1. **Area Coordinators are first and strongest line of defence for survey quality.**
   + You MUST ensure that all interviews for your team are completed.
   + You MUST review each interviews to ensure its quality.
   + You can either approve or reject an interview. This decision must be taken after a thorough review of each interview
   + Headquarters will hold YOU accountable for how well you ensure the quality of data collected by your team.

2. **Area Coordinators need to understand the status of EACH interview** in order to manage the work of your team and ensure that all interviews are **completed, reviewed, and approved.**

Slide 6

DIFFERENT STATUS IN THE SURVEY WORKFLOW
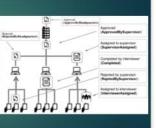
As an interview moves through the survey workflow, it takes on a different status,

- When an interview is completed by an interviewer and sent to the AC, that interviewer is marked as completed by the interviewer (in the terminology of the software, **Completed**).
- If the AC approves a completed interview, in the terminology of the software, it is known as **ApprovedBySupervisor**).
- If the AC rejects the completed interview, that interview takes on the status of rejected by the AC (in the terminology of the software, **RejectedBySupervisor**).
- When headquarters rejects an interview, that interview is considered as rejected by headquarters (in the terminology of the software, **RejectedByHeadquarters**)
- When headquarters approves an interview, that interview is considered as approved by headquarters (in the terminology of the software, **ApproveByHeadquarters**)

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PART II: AREA COORDINATORS ROLES AND FUNCTIONS IN SURVEY SOLUTION

AREA COORDINATORS TRAINING
TANOA INTERNATIONAL HOTEL, NADI
11TH – 13TH DEC, 2019

OBJECTIVE

▶ Know how to access AC Account

▶ Know and Understand AC Primary Functions

▶ Know and Familiar with the use of AC account to Review the Interviews/Questionnaire

▶ Know how to Approve/Reject Completed Interviews

WORKING ENVIRONMENT

❑ PCs/Laptops must have web browser (preferably Chrome) and good internet connection as basic requirement.

   ❖ 4 Regional FAC Major Stations; Nausori , Lautoka, Labasa, Suva(Eastern)

   ❖ Computers, Laptops

   ❖ Govnet Internet Connection/Wi-Fi

AREA COORDINATORS PROCEDURES ON SUSO

❑ As a Area Coordinator (AC), you are the primary link between the Headquarters and the Enumerators in regard to all census related matters.

❑ Each AC will be responsible for a number of interviewers or enumerators

   ✓ Example:

   Area Coordinator – Suliasi Naibuka

   - **Districts :** Noemalu, Nabobuco, Nagonenicolo, Mua-i-ra, Nadaravakawalu

   - **Number of Field Supervisors :** 2

   - **Number of Enumerators :** 7

❑ Each Enumerator is estimated to cover **10 household/day**

❑ **Area Coordinator is estimated to be reviewing 50 -70 Questionnaire per day**

THE MAIN RESPONSIBILITY OF AREA COORDINATOR (CAPI SUPERVISOR) IS TO;

❑ Ensure that data in questionnaires uploaded by interviewers under his/her team are **complete, consistent and acceptable.**

❑ Reject or approve a questionnaire based on the result of evaluation done.

   ❖ **Rejected questionnaires** will be sent back to their respective interviewers for their appropriate actions on problems pointed out (commented) by the Area Coordinator.

   ❖ **Approved questionnaires** will be sent to headquarters (HQ) for further review. The HQ may also approve or reject questionnaires.

   ❖ **Questionnaires rejected by HQ** will be sent back to their respective Area Coordinators for their appropriate actions on the data item commented by the HQ, i.e., either sending back the questionnaire to the interviewer or providing explanations to the comments.

❑ Each Area Coordinator can see the interviews of his/her team only.

ACCESSING THE AREA COORDINATORS ACCOUNT

❑ Go to **https://fjnac20.mysurvey.solutions** using any web browser (Chrome is recommended).

❑ The login page will be shown on the screen.

   o AC will be issued with credentials (user name and password) to access the server.

   o Enter your **login name and password** then click **Login button.**

CHECKING INTERVIEWS

❑ After the successful login, the initial screen will be shown (Survey and Statuses Report).

❑ It is important to know as a Supervisor that your work is to check the questionnaires with the status;

   ✓ **Completed**...completed by the enumerators for you to check and approve or otherwise.
   ✓ **Rejected by Headquarters**...questionnaire which you have approved has been rejected by AC's and needs further clarification either by you or your enumerator out in the field.

SURVEY AND STATUS REPORT

Click the number of questionnaires **Rejected by HQ"** In the example page above, the number is "9" below the column "REJECTED BY HQ".

Note that you have to act on those interviews rejected by headquarter before reviewing "**completed**" interviews.

• This is to ensure that the enumerators will be able to download (if the questionnaires will be rejected by you) those with issues raised by the headquarter while they are still in the area of enumeration.

• You should review "completed" interviews only when there are no more rejected (by HQ) interviews on the list.

Annexure 10 List of Area Coordinators and Field Supervisors

CENSUS STAFF FOR CENTRAL DIVISION

Provincial Office	Field Supervisors	Ministry	Area Coordinators	Ministry	District
Naitasiri	Selesitino	MOA (Extension)	Sufi Nabuka	MOA	Navuakece/Viria/Wailoku
	Timoci Sauturaga	MOA (AH&P)	Asilika Nai	MOA	Matailobau/Baru/Soloira
	Jolame Naureure	MOA (Extension)	Sailoora Bati	MOA	Nabobuco/Nagonenicolo
	Tevita Navukeidrau	MOA (Extension)	Paulini Dulaki	MOA	Lutu/Nabaitavo/Waima
	Ilaisa Gonebure	MOA (Extension)	Priya Lal	MOA	Naduruvakawalu/Muaira/Noemalu
	Vatemosi	MOA (Extension)	Savenaca Tuivaga	MOA	Vunu/Naitasiri
	Asenaca	MOA (Extension)	Namosimalu	MOA	Vunu/Naitasiri
	Nayasi Niurua	MOA (Extension)	Christelle Oakley	MOA	Navuakece/Viria
	Reenal	MOA (AH&P)			
	Waisake Maseikula	MOA			
Tailevu	Anare Lawecola	MOA (Extension)	Tevita Vala	MOA	Nailega/Naloto/Nasautoka
	Viliame Bulimaibau	MOA (AH&P)	Farasiko Soloto	MOA	Dawasamu/Namena
	Josivini Rosana	MOA (Extension)	Roselyn McGoon	EP&S Staff	Namalata/Sawakasa
	Milika Saunivalu	MOA (Extension)	Atelaita Rasaku	MOA	Verata/Tai/Tai Vugalei
	Vika Katzuki	MOA (Extension)	Akariva Vesavesa	MOA	Bau/Dravo
	Ajay Singh	MOA (Extension)	Malti Prasad	MOA	Tokatoka/Naku
	Maca	MOA (Extension)	Raisiru Ciri	MOA	Barotu/Nakelo
	Iva Navukwa	MOA (Extension)	Nilesh	MOA	Namata/Nausori
	Mariam	MOA (Extension)	Helen Mua	EP&S Staff	Namata/Nausori
	Romanu	MOA (AH&P)			
	Sofia Niumai	MOA (Extension)			
	Araraiasa Soro	MOA (AH&P)			
Rewa	Mereoni Kunatuba	MOA (Extension)	Seremaia Tabuatalei	MOA	Ravirevi/Sawau/Dreketi
	Luisa Marana	MOA (Extension)	Titilia Davetanivalu	EP&S Staff	Suva
	Rajeshni Hari	MOA (AH&P)	Silovate Vavaitamana	EP&S Staff	Noco/Barebasaga/Vutia
	Sainimili	MOA (AH&P)	Sera Nakidikida	MOA	Rewa/Toga
Serua	Rosalia Kerewoni	MOA (Extension)	Elisha	EP&S Staff	Batiwai/Nuku
	Sera Leweniqila	MOA (Extension)	Yogesh Maharaj	MOA	Deuba
	Artika Deo	MOA (AH&P)			
Namosi	Joseva Balivakarua	MOA (Extension)	Simione Nabure	MOA	Namosi/Veivatuloa
	Asenaca Tivitivi	MOA (Extension)			

CENSUS STAFF FOR NORTHERN DIVISION

Provincial Office	Field Supervisors	Ministry	Area Coordinators	Ministry	District
Bua	Bidiya Chand	MOA (Extension)	Jocami Soronamata	MOA (Extension)	Wainunu/Solevu
	Fozia Nisha	MOA (Extension)	Alefina Ditau Matagasau	MOA (Extension)	Kubulau/Nadi
	Maika Cama	MOA (Extension)	Lusiana Turraitoga	MOA (Extension)	Bua/Navakasiga
	Venina Ranadi	MOA (Extension)	Laisiasa Tuiwanunu	MOA (AH&P)	Lekutu
	Selema Lave	MOA (Extension)	Joane Rakaboe	EP&S Staff	Dama/Vuya
	Losana Nakato	MOA (Extension)			
Cakaudrove	Arvin Chetty	MOA (Extension)	Isei Sorokiau	MOA (Extension)	Vaturova/Navatu
	Paulina Vacoga	MOA (Extension)	Inise Saukoro	MOA (Extension)	Wailevu
	Aisake Dradra	MOA (Extension)	Saula Tavitavi	MOA (Extension)	Wainikeli
	Reshmi Lata	MOA (Extension)	Laitia Busele	MOA (AH&P)	Naweni/Wairiki
	Beren Teresia	MOA (Extension)	Jimi Abana	MOA (Extension)	Cakaudrove/Laucala
	Taina Dau	MOA (AH&P)	Naomi	MOA	Cakaudrove/Laucala
	Mereoni Boladuadua	MOA (Research)	Virisine Lalasava	EP&S Staff	Natewa/Tunuloa
	Cheery Lal	MOA (Research)	Salome Vakatawa	EP&S Staff	Savusavu
	Lote Atama	MOA (Extension)	Semisi Tukilakila	MOA Staff	Vuna
	Tima Ting	MOA (Extension)	Sefanaia Nakidakala	MOA Staff	Koroalau/Sagani/Tawake
	Lusiana Tunumaitoga	MOA (Extension)			
	Tomu Baca	MOA (Extension)			
	Nicklesh Ram	MOA (Research)			
Macuata	Dawendra Nath	MOA (Extension)	Ashwini Lata Lal	MOA (Extension)	Labasa
	Atama	MOA (Extension)	Kelera Baleidrokadroka	MOA (Land Use)	Macuata
	Apenisa Macedru	MOA (Extension)	Diana Ralulu	MOA (Extension)	Dogotuki/Udu/Cikobia
	Dharmendra Prasad	MOA (AH&P)	Permila Devi	MOA (Extension)	Labasa
	Savenaca Lomayalewa	MOA (Land Use)	Niraj Lal	MOA (Extension)	Wailevu
	Jacoro Waqatabu	MOA (Land Use)	Are Saulige	MOA (Land Use)	Wailevu
	Verenaisi Mateni	MOA (AH&P)	Kalolaini Colaitiniyara	MOA (Research)	Seaqaqa
	Iosefo Raqitawa	MOA	Pensia Donuca	MOA (AH&P)	Sasa
	Yaminiasi Rovabakola	MOA (Extension)	Diren Chand - SAO Rice	MOA (Extension)	Dreketi
	Kameli Katonivere	MOA (AH&P)	Sainimilika Boginivalu	EP&S Staff	Nadogo
	Swastika Devi	MOA (AH&P)	Ita Tunidau	EP&S Staff	Labasa
	Kinivilliame Colaitiniyara	MOA (Extension)	Swastika Deo	MOA Staff	Labasa
	Epeli Rasesere	MOA (Extension)	Iisapeci Batisaresare	EP&S Staff	Namuka/Mali
	Rajeshwar Sami	MOA (Extension)			
	Mosese Bobi	MOA (Extension)			

CENSUS STAFF FOR EASTERN DIVISION

Provincial Office	Field Supervisors	Ministry	Area Coordinators	Ministry	District
Kadavu	Sireli Tuiviti	MOA	Pena Balelwai	MOA	Nakasaleka/Naceva/Yale/Ono
	Penaia Nasaba	MOA	Iowane Roqouca	MoA Staff	Tavuki/Yawe/Sanima
	Esala Kaibugata	MOA			
Lomaiviti	Inoke Liwa	MOA	Sevuloni Beci	MOA	Bureta/Lovoni I Vanua/Lovoni I Wai
	Sosiceni Kubunameca	MOA	Timoci Toga	MOA	Levuka/Nasinu
	Aoseli Yadrabogi	MOA	Salome Tamani	EP&S Staff	Cawa/Moturiki
	Akuila Kuritoko	MOA			
	Lagani Rabukawaqa	MOA			
	Pita Domoni	MOA			
	Akuila Komainabili	MOA			
Lau	Waqaimalagi Bluvakaloloma	MOA	Tavaita Tamani	MOA	Totoya/Matuku
	Losi Isimeli	MOA	Sela Saru	MOA	Lomaloma(Vanuabalavu)
	Sepesa Lesivakayawa	MOA	Kitione Kapuneli	MOA	Moala
	Cama Tuidelaivakaca	MOA	Jemesa Uluinayau	MOA	Lakeba
	Jone Beseti Moela	MOA	Tevita Conikeli	EP&S Staff	Kabara/Mocer/Oneata/Ono/Vulaga
	Selivincei Baledrokadroka	MOA			
Rotuma	Take Veiqaravi	MOA	Joseta Vuidreketi	MOA	Itutiu/Juju/Malhaa/Oinafa/Itumuta/Pepjei/Noatau

Annexure 11 Photo Gallery of Area Coordinators Training – Central, Eastern and Western Division

Annexure 13 Field Supervisors Training Program (Central, Eastern, Northern and Western Division)

TRAINING PROGRAM				
DAY 1	**DAY2**	**DAY3**	**DAY 4**	**DAY 5**
Monday (13th Jan 2020)	**Tuesday (14th Jan 2020)**	**Wednesday (15th Jan 2020)**	**Thursday (16th Jan 2020)**	**Friday (17th Jan 2020)**
Prayer	Prayer	Prayer	Prayer	Prayer
Welcome	Recap of Day 1	Recap of Day 2	Recap of Day 3	Presentation of Workplan by Enumeration Area (Central Division)
Introduction of the Fiji Agriculture Statistics System	**Section 4: Crops on Farm Land**	**Section 12: Food Insecurity**	Distribution of Enumeration Areas and Number of Enumerators/ FS	
Introduction of Census	**Section 5: Livestock**		EA Coverage Planning	
Introduction of CAPI System				
Morning Tea	Morning Tea	Morning Tea	Morning Tea	Morning Tea
2020 FAC Questionnaire Development	**Section 6: Forestry**	**Oral Quiz and General Discussion**	EA Coverage Planning	Presentation of Workplan by Enumeration Area (Northern Division)
Oral Quiz and General Discussion on FAC	**Section 7: Fisheries**	TEST		
Geography & Identification	**Section 8: Aquaculture**	Roles & Responsibility of Field Supervisors		
Section 1: Household Composition	**Section 9: Climate Change**		Presentation of Workplan by EA Coverage (Central Division)	
Lunch	Lunch	Lunch	Lunch	Lunch
Section 2 Housing Particulars	**Section 10: Equipment**	Enumeration Workplan & Resources	Presentation of Workplan by EA Coverage (Central Division)	Presentation of Workplan by EA Coverage (Eastern Division)
Section 3: Land	**Section 11: Agriculture Services**	**Group Work on Enumeration Workplan**		
Afternoon Tea	Afternoon Tea	Afternoon Tea	Afternoon Tea	Afternoon Tea
Group Work & Mock Exercise on Section 1, 2, 3	**Group Work & Mock Exercise on Section 4, 5, 6, 7, 8, 9, 10, 11**	**Mock Exercise - Enumeration Plan Meeting (FS and Enumerators) and Interview**	Presentation of Workplan by EA Coverage (Central Division)	**Presentation of Certificates, Awareness Kit**

Annexure 14 Field Supervisors Enumeration Area Workplan Matrix

Enumeration Area Work Plan

EA#/ District #:
Name of Field Supervisor:

Week Number	Date	Locality Name	Name of Interview /Enumerator	Total No. of Household	Expected No. of Households completed per day	Planned date and time(s) for Sync	Planned sync location	Available Strong Network	Date for Field Supervisors to accompany Enumerator in this EA

<u>Enumeration Area Awareness Workplan</u>

EA#/ District #:

Week	Date	Locality Name	Method of Awareness (Visit TNK/Advisory Councilors, Village Meeting, Hand out Questionnaire Matrix in all household/Organise Turaga ni Koro's meeting with Roko Tuis office	Logistics	Budget
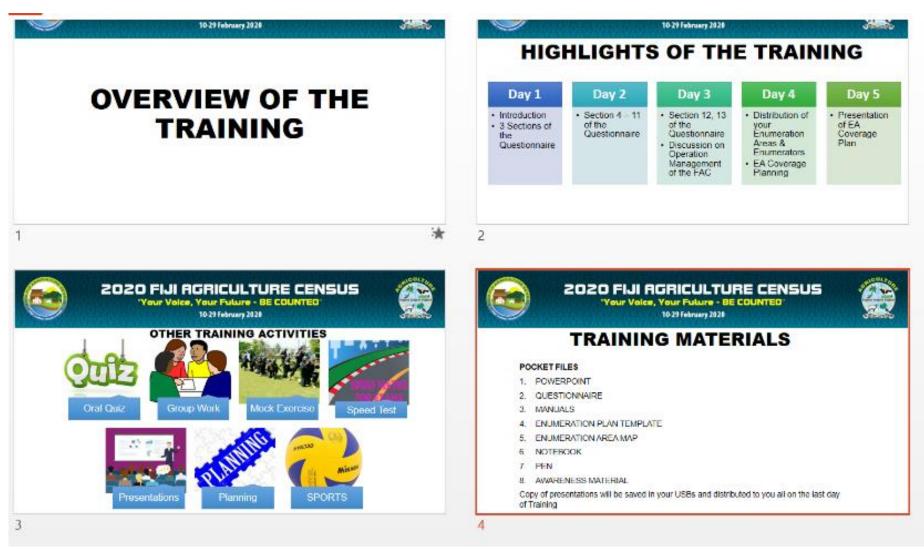
BUDGET FOR ENUMERATION AREA

EA#/ District #:
Localities

Activity	Week	Date	Budget Items	Description	Qty	Unit Price	Total Cost
eg. Awareness							

Annexure 18 Field Supervisors Roles and Responsibility Presentation

Slide 5

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TERMS AND CONDITIONS OF SERVICE

- 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 household/holding in your assigned area is visited according to their availability.
- Ensure that the Public Service Code of Conduct is strictly adhered to.

Quality & Coverage

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Slide 6

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10-29 February 2020

EA COVERAGE WORKPLAN

Quality & Coverage

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Slide

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'Your Voice, Your Future - BE COUNTED'
10-29 February 2020

AGRICULTURE CENSUS PERIOD

The official data collection period,

2020 FEBRUARY **10th** *to* 2020 FEBRUARY **29th**

The main reference period in the questionnaire captures activity in the last 12 months from the date of interview. There are other items in the questionnaire that also refers to shorter time frames (e.g. Number of...)

Quality & Coverage

Slide

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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. Level of Completeness (**COVERAGE**) achieved,
2. **QUALITY** of the Collected Information

Quality & Coverage

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10-29 February 2020

OVERVIEW OF CENTRAL DIVISION

Census Centre : IBC
Field Operation Centre : SAO's office

Province	Number of Enumeration Area	Number of Enumerators	Number of Field Supervisors (including staff from other Ministries)	Number of Area Coordinators
Naitasiri	16	36	11	9
Namosi	5	7	3	2
Rewa	9	20	4	4
Serua	4	10	4	3
Tailevu	22	41	13	12
TOTAL	56	114	35	30

Quality & Coverage

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10-29 February 2020

OVERVIEW OF EASTERN DIVISION

Census Centre : Eastern Office, HQ Raiwaqa/FARS Mini Conference Room
Field Operation Centre : SAO's office

Province	Number of Enumeration Area	Number of Enumerators	Number of Field Supervisors (including staff from other Ministries)	Number of Area Coordinators
Kadavu	9	13	4	4
Lomaiviti	12	Levuka (6), Koro (2), Gau,Batiki, Nairai (1)	9	6
Lau	13	Moala(2), Cicia(1),Lakeba(2),Vanua Balavu (4), Boat 1(6), Boat 2(6), Boat 3 (8)	7	7
Rotuma	7		2	2

Quality & Coverage

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'Your Voice, Your Future - BE COUNTED'
10-29 February 2020

OVERVIEW OF NORTHERN DIVISION

Census Centre : Agriculture Office, Labasa
Field Operation Centre : SAO's office

Province	Number of Enumeration Area	Number of Enumerators	Number of Field Supervisors (including staff from other Ministries)	Number of Area Coordinators
Cakaudrove	16	52	15	13
Bua	9	21	7	6
Macuata	13	49	18	12

Quality & Coverage

2020 FIJI AGRICULTURE CENSUS
'Your Voice, Your Future - BE COUNTED'
10-29 February 2020

IMPORTANT COMPONENT TO CONSIDER IN PLANNING

► Objective
► Quality
► Coverage
► Timeframe
► Resources
► Security
► Welfare

Quality & Coverage

2020 AGRICULTURE CENSUS QUESTIONNAIRE TRAINING PROGRAMME

24th June – 25th JUNE, 2019

Ministry of Agriculture LWRM Conference Room, Level 2, New Wing Building

Time	Item	Responsible
Wednesday - 24/07/2019		
8.00am - 8.30am	Participants Arrival and Registration	
8.30am - 9.00am	Opening Prayer	
	Introduction of Participants	
	Overview of the Training	
9.00am - 10.00am	Section I: Household Composition	
10.00am - 10.15am	**Morning Tea**	
10.15am - 11.15am	Section II: Land	
11.15am - 1.00pm	Section III: Crop	
1.00pm - 2.00pm	**Lunch**	
2.00pm - 2.30pm	Recap of Section I,II,III	
2.30pm - 4.00pm	Section IV: Livestock	
4.00pm - 4.30pm	Discussion and Closing Prayer	
Thursday- 25/07/2019		
8.00am - 8.30am	Participants Arrival	
8.45am - 9.00am	Opening Prayer	
	Review of Day 1 Training	
9.00am - 10.00am	Section V: Forestry	
10.00am - 10.15am	**Morning Tea**	
10.15am - 11.30am	Section VI: Fisheries	

Time	Item	Responsible
11.30am - 12.30pm	Section VII: Equipment	
12.30pm - 1.30pm	Section VIII: Services For Agriculture	
1.30pm - 2.30pm	**Lunch**	
2.30pm - 3.30pm	Discussion and Closing Prayer	
END OF TRAINING		

TRAINING PROGRAM- WEEK 1

DAY 1 Monday (20th Jan 2020)	DAY2 Tuesday (21st Jan 2020)	DAY3 Wednesday (22nd Jan 2020)	DAY 4 Thursday (23rd Jan 2020)	DAY 5 Friday (24th Jan 2020)
Prayer	Prayer	Prayer	Prayer	Prayer
Welcome- Census Commisioners Statement	Recap of Day 1	Recap of Day 2	Recap of Day 3- **Test**	Recap of Day 4
Photo Session	Section 1: Household Composition	Section 8: Aquaculture	Introduction on CAPI	Discuss Findings from Field Exercise
Introduction of Trainers & Participants Overview of the Training	Section 2: Household Particulars	Section 9: Climate Change		
Morning Tea (15 mins)	Morning Tea (15 mins)	Morning Tea (15 mins)	Morning Tea (15 mins)	Morning Tea (15 mins)
Introduction of Census	Section 3: Land	Group Work and Presentation 2 (Sec 4-9)		Announcement of Enumeration Areas & EA Maps
Questionnaire Development	**Case Study 1 Exercise**	Section 10: Equipment	Part 7: Live Demo of Questionnaire Flow on Tablet	Survey Operations
Census Coverage Tool- EA Maps	Section 4: Crops on Farm Land	Section 11: Agriculture Service		
Lunch (1 hr)	Lunch (1 hr)	Lunch (1 hr)	Lunch (1 hr)	Lunch (1 hr)
Roles & Responsibility of Enumerators	Section 5: Livestock	Section 12: Food Security	Mock Exercise- Partner Interview	**Role Play by Group**
Group Work & Discussion - 1	Ice- Breaker 1	Section 13: Labour	**Individual Exercise**	
Afternoon Tea (15 mins)	Afternoon Tea (15 mins)	Afternoon Tea (15 mins)	Afternoon Tea (15 mins)	Afternoon Tea (15 mins)
Group Presentation	Section 6: Forestry	Group Activity- Calculation & Fill in the Blanks	Field Exercise	End of Week 1
	Section 7: Fisheries			
END DAY 1- DEVOTION	**END DAY 2- DEVOTION**	**END DAY 3- DEVOTION**	**END DAY 4-DEVOTION**	

TRAINING PROGRAM- WEEK 2

DAY 6	DAY 7	DAY 8
Monday	**Tuesday**	**Wednesday**
Prayer	Prayer	Prayer
Recap (Speed Test-Section 1 - 4)	Recap (Speed Test -Section 5 - 8)	Recap (Speed Test - Section 9 - 13)
Survey Operations - Interview Skills (Manual) - Hours of Work (Manual)	**Field Exercise**	Welcome - Field Supervisors & Area Coordinators
		Introduction of AC & FS
Morning Tea (15 mins)	Morning Tea (15 mins)	Morning Tea (15 mins)
- Absence of Occupants & Empty Dwellings - Refusals (Manual) - Last Coverage Checks & Labelling (Manual)	**Field Exercise**	Discussion and Group work by Enumeration Areas [Enumeration Coverage Plan and Team Brief]
Lunch (1 hr)	Lunch (1 hr)	Lunch (1 hr)
CAPI Activity- Partner Interview	**Field Exercise**	**Presentation by Team on Enumeration Work Plan**
Afternoon Tea (15 mins)	Afternoon Tea (15 mins)	Afternoon Tea (15 mins)
Mock Exercise/Role Play- CAPI Interview	**Summary of Field Exercise from AC and HQ [Trainers]**	**Presentation by Team on Enumeration Work Plan**
		Announcement of Regional Meeting Date for Distribution of Census Materials
		END OF ENUMERATORS TRAINING

Annexure 22 Enumerators Training Group Work

DAY 1

1 What is your General Understanding of Agriculture Census and how is it different from Population and Housing Census?
2 Identify and Discuss 2 sections from the 2020 FAC Questionnaire?
3 As an Enumerator for the 2020 FAC, what are roles and responsibilities?
4 Explain 2 objectives, scope and coverage of the 2020FAC?
5 What are the specific Features of an Enumeration Area Map?
6 Why is it important to have Enumeration Area in every Data Collection Process?
7 The 2020 FAC Slogan is "Your Voice, Your Future, BE COUNTED"- Explain?
8 Select 2 Agriculture sub-sectors and Explain how will they benefit from items collected from the Census?

DAY 3 (Sec 4-9)

Trainers distribute sections by Group

For each of this section, discuss and present on the following:

1 The importance of the section
2 How will it benefit planning and development of the sector?
3 Which Question will enable all the Market Questions in the Crop, Livestock, Forestry and Fisheries sections?
4 Explain with Examples on what you understand about these agricultural Terms?

a) Method of Planting
b) Agro-Forestry
c) Contour Farming
d) Crop Rotation

Trainers distribute these terms to each group

e) Climate Resilient Livestock Breed
f) Water Logging
g) Fish Aggregating Device
h) Farm Gate

Arvin Singh lives in Muaniweni Naitasiri and is married to Anita for the last 18 years. Arvin is 49 years old, and Anita is 47 years old. Arvin is a farmer and Anita helps out with farming at least 3 days in a week, manages household chores and also assist her husband market their farm produce every Saturday. They have 3 children; Ashnil, Vinash and Sangeeta. All Children are currently attending school, Ashnil is in Year 13, and Vinash is in Year 11 and Sangeeta in Year 8. Both Arvin and Anita are high school sweet hearts completing their education at Year 10 at Muaniweni Secondary School. According to Mr. Singh, he attended 2 Agriculture Trainings with the Ministry of Agriculture and an Aquaculture Training with the Ministry of Fisheries. They own 2 pieces of Land which are both on Native Lease. Their House is located where their farm is and the 2nd farm land is located in Naqali. The size of each of their farm land is equivalent to a rugby and a soccer field. Mr. Singh owns a 3 tons Hilux Truck which he uses for farming activity and transporting his commodity such as Dalo, Vegetables, Ginger, and Watermelon to the market for sale. Apart from these crop commodities, He also sells Goat every 3 months at the market. Whenever he's free and as a favorite pass time, Arvin also goes out fishing offshore with his friends at night. For the last 21 months Mrs. Singh has been regularly visiting the eye department at the local hospital for regular eye checkup. Mr. Singh comes from a long line of Vegetable Farmers from Muaniweni who identify farming as the only source of income and to them it is the only activity that involves the whole family.

Answer questions on Section 1, 2 and 3 of the Questionnaire according to this CASE STUDY. For other items that are not highlighted in the Case Study, record your answer according to your assumption based on the given information and your area knowledge.

GENERAL KNOWLEDGE

All participant with first name starts with letter L, STAND

Pick a question from the BOX and Answer

1. **How many provinces in Fiji including Rotuma?**
2. **Name the deepest River in Fiji?**
3. **Name the largest River in Fiji?**
4. **Which Province have the most Urban Centers?**
5. **When was the last Agriculture Census undertaken?**
6. **What is the name of the passage between Northern Viti Levu (Ra Province) and South Western Vanualevu (Bua Province)?**
7. **How many Districts in Fiji?**
8. **Who is the Minister for Agriculture and name all his portfolios?**
9. **What is the Total Population of Fiji?**
10. **Name the Highest Mountain in Fiji?**

GROUP ACTIVITY

Calculation and Fill in the Blanks - 10 BLANKS

— — — — — —   — — — —

Do the following calculations and identify corresponding Letters to your numerical answers to enable you to fill in the blanks
in a sequential manner.

Answer		Question
18	Production	A farmer grows English Cabbage and usually harvest crop three times in a year. He responded that the earlier two harvest for the year harvest for the year was 3 tons each and his end of the year harvest was 12 tons. Use his total annual harvest to find the corresponding alphabet.
9	Geo ID	What Geographical ID code identifies Naitasiri Province? Use the code to find the corresponding alphabet.

20	Map	As an Enumerator you will be issued with a scale of 1: 50 000 to assist you with the coverage of your area. Your Map shows a road that links up two localities within your boundary with a length of 5cm. What will be the actual distance on the ground between this two localities? Multiply the actual distance by 8 and find the corresponding alphabet of that number.
5	Number of Plants	On a 4 acres farm land, half of the area is planted with Dalo on a spacing of 1m x 0.8m, Calculate the estimated Number of Dalo Plants on the farm. And divide the Number of Plants by 2 and use the first digit of your answer to find the corresponding alphabet
19	Area	Three households shares a 570 acres of land for farming. A farmer who is the main respondent from one of these household identify that he utilizes 1/3 of the land. What is his total farm area? Use the first 2 digits of your answer to find the corresponding alphabet
8	Proportion	A farmer harvested 18 boxes of Tomatoes in the last 12 months, whereby half of it goes to the market and the other half consumed at home. From all the proportion that were sold, 1 box of tomato was sold on the roadside and remained ones were sold at municipal market. Use the number sold at Municipal Market to find the corresponding alphabet?
4	Age	Recording age as a discrete variable - A female respondent who has forgotten her date of birth, identify Fiji's actual Independence Day as the same day she was born. What will be recorded as her age during Agriculture Census week? Use the first digit of your answer to find the corresponding alphabet
1	Price	Jone earned $2,000 from the sale of 200 bundles of Dalo from his farm in the last 12 months, what was the farm gate price of one bundle? Use the first digit of your answer to find the corresponding alphabet.
19	Production	A farmer has a cow that only produces Milk for home consumption. According to the respondent, the cow produces 5 liters per day for 210 days in a year. How much milk is consumed by the household in a year? Use the first 2 digits of the answer and add 9 to find the corresponding alphabet of the answer.
19	Stock Count	A household has 10 cattle's during the day of interview- 10th February 2020. In the last 12 months, 5 were sold live to abattoir, 2 were slaughtered in the village for social obligations and 2 were stolen from the farm. Use the total number of Opening Stock from 10th February 2019 to identify the corresponding alphabet

Annexure 25 Enumerators Training Individual Exercise

For half a page, explain how you will introduce the 2020 Agriculture Census to your respondent. Clearly highlight the objectives in a simple sentences that can be easily understood by the household. Write your answers in your own words or language that is easy for you to explain better.

Each participant will stand and read their answers. As a trainer please guide and provide the correct answer.

QUESTIONNAIRE FIELD PRE-TEST REPORT SAMPLE

Western Division

Ba Province- Nadi District

19/09/2019 – 21/09/2019

INTRODUCTION

The Fiji Agriculture & Rural Statistics Unit is progressively preparing groundwork activities for the upcoming Agriculture Census scheduled on the 10th – 29th February, 2020. The development of Census Questionnaire is an important activity of the Census preparation as it normally consumes more time and resources.

Two rounds of Questionnaire Field Pre-Testing has been completed in Serua and Ba Province. The 2nd Field Pre-Test was done in Ba Province due to the need of covering all sections of Questionnaires including Sugarcane sub-section.

OBJECTIVES

The objectives of this exercise were as follows;

1. To test the flow of Questionnaire
2. To test the duration of Questionnaire per interview.
3. To test the simplicity and clarity of questions for both Interviewer and Interviewee.
4. To test the CAPI System at a smaller scale.
5. To test the relevancy of responses to the questions.

SCOPE OF COVERAGE

There were 30 households identified by PAO Western with the support of SAO Ba and ATO Nadi.

A team of 8 Project Officers was divided into 2 Teams in Rada Settlement of Nadi District to carry out the exercise.

HIGHLIGHTS OF THE PRE-TESTED QUESTIONNAIRE

The Team was given the 4th Draft Questionnaire to test on the field. The 4th Draft Questionnaire has the following components

- **Number of Questions** : 484

- **Number of Questions with skip conditions** : 297

- **Number of Questions with validation conditions** : 75

- **Number of Sections**: 11

11 SECTIONS IN THE QUESTIONNAIRE

Geographical Location

1. Household Composition

2. Household Particulars

3. Land

4. Crop Farming

5. Livestock Farming

6. Forest

7. Fishing

8. Aquaculture Farming

9. Farming Equipment

10. Agriculture Services

11. Food Security

FINDINGS FROM THE 2ND PRE-TEST
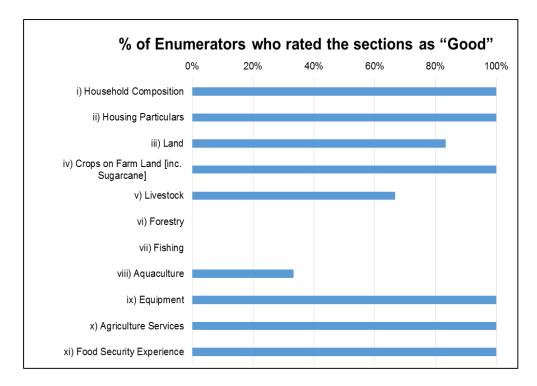
❑ **Number of Households covered :** 18 Households

❑ **Common Comments from Enumerators**

i) Household Composition	ii) Housing Particulars	iii) Land	iv) Crops on Farm Land [inc. Sugarcane	v) Livestock	vi) Forestry	vii) Fishing	viii) Aqua-culture	ix) Equipment	x) Agriculture Services	xi) Food Security Experience
-Respondent complains about the repetition of questions for every household members	-Question is mostly answered through observation	-Problem in identifying land area when the respondents only point the piece of land without any knowledge of his land distribution. -No checks on total land area with the distribution of land on agriculture activities.	-Farmers using lines and chains to measure their land area and if a matrix can be provided to assist in the calculation of land. -If grouping of crop not to be asked because it consumes time in searching the commodity. -Validation checks to be placed on the land area of commodities planted to tally up to the total land of planted crops.	-The milk production is not consumed or sold but processed into ghee, where to note that answer?	If the questions could be simplified If 3 sandalwood trees are planted which category does it belongs to? (Natural Forest / Planted Forest)	Type of fish to be simplified. Respondents mentioned the type of fish in Fijian, Enumerators find it hard to identify the English name	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question

☐ **Enumerators Rating of the Sections**

Enumerator No.	i) Household Composition	ii) Housing Particulars	iii) Land	iv) Crops on Farm Land [inc. Sugarcane]	v) Livestock	vi) Forestry	vii) Fishing	viii) Aquaculture	ix) Equipment	x) Agriculture Services	xi) Food Security Experience	Average Time (minutes)
ENU08	Good - Answered all the question	Good - Answer all the question through observation	Good - Answered all the question	Good Vegetables and Fruits	Good - Sheep and Poutry farming was answered	Answered all the question	Did not answer	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	32.5
ENU11	Good - Answered all the question	Good - Answer all the question through observation	Good - Answered all the question	Good Root Crops Vegetables and Fruits	Did not answer.	Did not answer	Did not answer	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	32.5
ENU07	Good - Answered all the question	Good - Answer all the question	Good - Answered all the question	Good Vegetables and Fruits, Sugarcane	Average - Dairy, Goat	Did not answer	Did not answer	Did not answer	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	51
ENU02	Good - Answered all the question	Good - Answer all the question	Good - Answered all the question	Good Vegetables and Fruits	Good - Beef, Sheep, Goat, Poultry	Did not answer	Did not answer	Did not answer	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	54
ENU09	Good - Answered all the question	Good - Answer all the question	Average	Good Vegetables and Fruits, Sugarcane	Good - Goat and Poutry	Answered all the question	Did not answer	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	81.5
ENU03	Good - Answered all the question	Good - Answer all the question	Good - Answered all the question	Good Root Crops Vegetables and Fruits	Good - Goat and Poultry and Dairy farming	Did not answer	Did not answer	Did not answer	Good - Answered all the question	Good - Answered all the question	Good - Answered all the question	49.5

❑ **Percentage of Enumerators Who Rated the Sections as "Good"**

% of Enumerators who rated the sections as "Good"

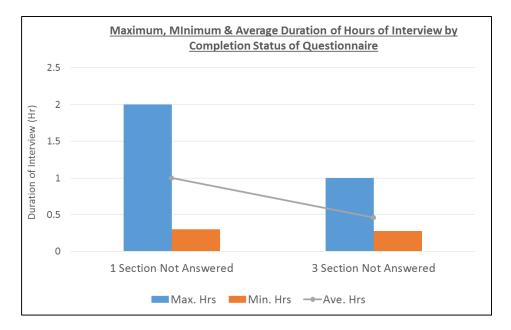| Section	%
i) Household Composition	100%
ii) Housing Particulars	100%
iii) Land	~85%
iv) Crops on Farm Land [inc. Sugarcane]	100%
v) Livestock	~67%
vi) Forestry	0%
vii) Fishing	0%
viii) Aquaculture	~33%
ix) Equipment	100%
x) Agriculture Services	100%
xi) Food Security Experience	100%

"Good" in terms of;

- ✓ Understanding of questions
- ✓ Clear flow of questions without technical complications
- ✓ Clear Validation and Enabling Conditions
- ✓ Simple
- ✓ Clear and accurate response from respondents

As for the Forestry and Fishing Questions they were answered but with average understanding.

❑ **Duration of Interview by Completion Status of Questionnaire**
- Out of the 18 interviews, none attempted all sections
- The completion status of Questionnaire were as follows;
  - o 1 section not answered
  - o 3 sections not answered
- For the 1 unanswered section (6 interviews)
  - o Max. Hrs. : 2 (Due to technical problem which can be controlled)
  - o Min. Hrs. : 0.30
  - o Ave. Hrs. : 1

- For the 3 unanswered sections (12 interviews),
  - Max. Hr. : 1
  - Min. Hrs. : 0.28
  - Ave. Hrs. : 0.46

Maximum, MInimum & Average Duration of Hours of Interview by Completion Status of Questionnaire

We see that with clear understanding of questions through trainings, good flow of questions, proper validation and skip patterns, with good network, good instructions, right respondents and good infrastructure (power banks), we can achieve one interview in less than 1 hour.

RESOURCES USED

- ❏ 9 Tablets
- ❏ 1 Laptop
- ❏ 1 15 Seater Mini Bus – Human Resource and Finance
- ❏ 1 Twin Cab – Nadi Office
- ❏ Recharge Cards

PERIOD

The team left Headquarters Office, Suva at midday on Thursday (19/09/2019) to meet with the Nadi Locality Officers for briefing.

The Pretesting Period was from 8am to 5pm on Friday (20/09/2019) and Team returned to Suva on Saturday (21/09/2019).

CHALLENGES FROM ENUMERATORS

- ❏ Understanding of Technical Questions [eg. Fisheries Questions on species]
- ❏ Technical logics of Questionnaire designs.

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- ❑ The Network Coverage
- ❑ The distances of the house were very far apart and some houses were vacant during the visit.
- ❑ Using a Van for fieldwork is not appropriate because of the road standard and the time management of distributing staff to households.
- ❑ Security of the staff - leaving a female enumerator alone with a male farmer without the present of some family members.
- ❑ Battery Low
- ❑ Lack of Awareness
- ❑ Incomplete Information when only one respondents available - Head of Household. Complete information when assisted by Spouse.

CHALLENGES FROM HQ

- ❑ Supervisors were not checking their respective Questionnaires
- ❑ Lack of communication from Supervisors
- ❑ Last minute changes in the questionnaire caused the delay in sending assignments

RECOMMENDATION

- ❑ Simple Questionnaire for Enumerators
- ❑ Good Validation conditions and Skipping logics for data quality checks
- ❑ Questionnaire to be readily available on time
- ❑ Proper Trainings, Manuals and guidelines to be provided
- ❑ To be well informed of the Network Coverage of the area
- ❑ The awareness to the Villages and Settlements to be in advance to avoid vacant houses.
- ❑ Security of the staff to be a priority when doing a field visit.
- ❑ Encourage availability of both Head of Household and Spouse during the interview
- ❑ Standby Paper mode Questionnaire during interview period
- ❑ The type of vehicles to be used due to the distance of the houses and the road type.
- ❑ Security of the staff to be a priority when doing a field visit.
- ❑ Clear Role and Responsibilities of Supervisors, Area Coordinators
- ❑ Manual for the Enumerators, Supervisors and Area Coordinators

2020 NAC PREPARATION PROGRESS REPORT

PROGRESS UPDATE OF OUTPUT 4: CENSUS DEVELOPMENT

Weekly Update as of 28th June 2019

OUTPUT 4	CENSUS DEVELOPMENT
Planned Activities	4.1: Preparing Tabulation Plan 4.2: Prepare data dissemination plan 4.3: Prepare awareness and publicity plan (incl. logo etc.) 4.4: Finalize requirements and Procurement of Equipment (Tablets, Computers, Power Banks, Photocopier, OHS Items, etc.) 4.5: Finalizing Content, Concepts and Definitions 4.6: Designing & Testing Questionnaires (separate questionnaire for hhld and LSF, institutions?) 4.7: Preparing Editing Specifications 4.8: Conducting Data User Conference 4.9: Preparing Manuals 4.10: Setting up IT infrastructure and system testing 4.11: Setting up CAPI Management & Output System 4.12: Designing a CS Pro Data Processing & Tabulation System 4.13: Conducting the Pilot Census (Training, Operation, Analysis, etc.) 4.14: Evaluate pilot and finalise Census methodology, plan, instruments, manuals 4.15: Printing Census Materials and distributing materials, tablets etc. 4.16: Conducting Census Public Awareness & Promotion Materials
Timeline	October 2018 – December 2019
Total Budget	$308,774
Status	**50% completed**

Update of the planned activities of this week [3rd – 7th June, 2019]

1. **Household Questionnaire**

   o **Status** : **3rd Draft and Pre-Test Completed**
   o **Brief about the Questionnaire**
       ✓ 9 Sections in the Questionnaire

           1. Household Composition

2. Land
3. Crops on Farm Land
4. Livestock
5. Forestry
6. Fishing
7. Equipment
8. Services for Agriculture
9. Food Security Experience

✓ Total Number of Questions : **629**
✓ Questions with enabling conditions : **463**
✓ Questions with validation conditions : **79**
✓ Rosters : **41**
✓ Duration of Interview : **Average of 1 hour 10 minutes**

o 3RD Draft Questionnaire (attached) was completed and Pre-Tested this week. An average total of 1 hour 10 minutes was the duration spend per interview per enumerator during the Pre-Test.

2. **Modifying Questionnaire on Survey Solution Software**
   - **Status: Ongoing**
   - **Who were involved? :** Mr Gene (Consultant), A/PEPO Stats, Ulamila Raikoti, Ita Tunidau & Alitia Yaya

3. **Table Specifications**
   - **Status : 40% Completed**
   - We have completed Table Specs for Household Specifications, Economic Activity, and Land Sections

4. **Technical Working Group Meeting (TWG Meeting)**
   o **Status:** Completed 4th TWG Meeting on 28th June 2019 with the presence of 13 members from 9 Ministries.
      o Ministry of Economy : Mr Tui Sikivou
      o Ministry of Rural & Maritime Development : Ms Raijieli Bakewa
      o Ministry of Women, Children & Poverty Alleviation : Ms Amelia Nairoba, Ms Anareta Apole
      o Ministry of Fisheries : Ms Leilani Kotobalavu, Ms Pranishma
      o Ministry of Forestry : Ms Olivia Vakaloloma
      o Ministry of Agriculture : Mr Epeli Dugucagi, Ms Diana Ralulu, Ms Sera Bose, Ms Sainiana Kirisitiana, Ms Virisine Lalasava, FARS Staff
      o Fiji Bureau of Statistics : Ms Maria Musudroka, Ms Sala
      o Local Consultant : Ms Lanieta Vakadewabuka

- o The Meeting was focused on 3 Technical Areas; Questionnaire, Table Specifications and Awareness Plan.

5. **Completion of Census Enumeration Areas**
    - o **Status: Completed** the Demarcation of District Boundaries on the 1:50,000 Topographic Map. Currently working on the Demarcation of Town Boundaries and Peri-Urban Boundaries on Map as well
    - o **Officers Involved:** EPO GIS, Viliame N, Tevita C, Mosese T

This activity will proceed next week particularly on the Descriptions of Census Boundaries

URGENT MATTERS THAT NEEDS MANAGEMENT INTERVENTIONS FOR SWIFT TRANSITION OF CENSUS PREPARATION AND OPERATION

- o **IT Assessment:** The Census RIE and Procurement Plan will await for the IT Assessment Report

- o **Confirmation of Agriculture Census LOGO, SLOGAN AND NAME OF CENSUS**
- o
- o **Office Space for CENSUS OPERATION ROOM**

These are important activities which urgently requires Office Space for CENSUS OPERATION.

Planned Activities for Next Week (01-05/07/2019)

1. Review validation checks in CAPI based on edit
2. 4TH Draft Questionnaire
3. Consultation with Forestry
4. Finalize Procurement plan
5. 1st Draft Institutional Questionnaire
6. Identify Manuals and Prepare manual layout
7. Identify concepts and definitions
8. 1st Draft Census Brochure, Pamphlets, Video Footage
9. Census Boundaries

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2020 FIJI AGRICULTURE CENSUS

SNAP SHOTS