











#### STRATEGIC PLANNING FOR AGRICULTURE & FISHERIES STATISTICS IN THE PACIFIC WORKSHOP

# Population census for agricultural and fisheries statistics

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# Overview

Regionally standardised questionnaire developed for the 2020 round of Population and Housing Census includes a core and supplementary agricultural (incl. fisheries, aquaculture, forestry and handicrafts) module.

- Rationale for inclusion
- 2. Applications of census data in an agricultural context
- Benefits and challenges
- 4. 2020 round of census: recommendations for the agricultural (for comment)













### Rational for inclusion of agriculture in census

- Basic data requirements are not being met,
  - capacity in agricultural statistics has declined since early '80s both collection and use of data
  - there are a declining number of countries reporting basic production data
  - declining resources are being allocated to agricultural statistics
- Agricultural statistics are not integrated in the National Statistical System
  - lack of coordination between NSO & Min. of Agriculture
  - duplicated efforts in data collection 
     conflicting numbers
  - National Statistical Plans need to include agricultural statistics
- Emerging data needs (impact of agriculture on environment; investment in agriculture; food commodities use in biofuels; water and land use, climate change, etc.)
- Currently we lack a sound basis for agricultural development, food security policy formulation, implementation, monitoring and evaluation







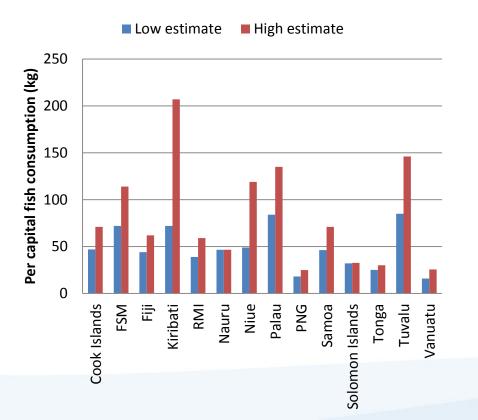






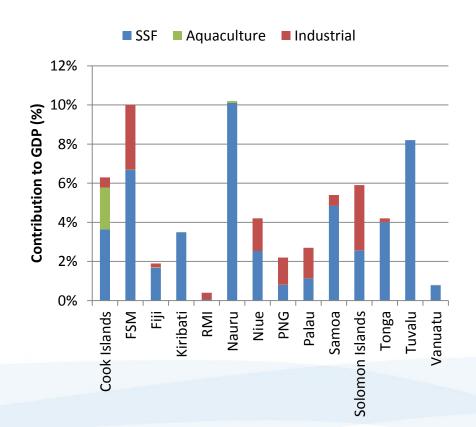
# Rational for including agriculture in census

- Important in the Pacific
  - Economic
  - Social and cultural
  - Subsistence and food security
  - Employment



#### SDGs

- Poverty
- Food security
- Environmental sustainability







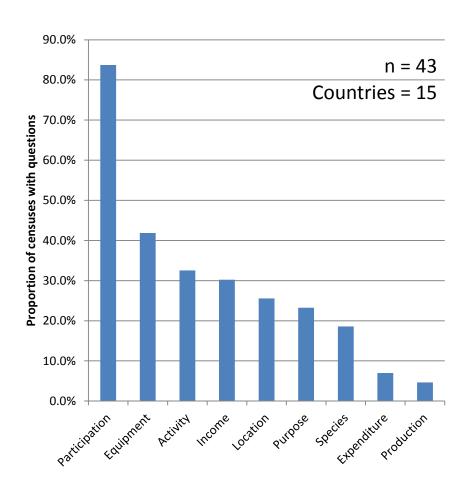








# History of inclusion (fisheries) in census



- **Participation** household participating in fishing (and aquaculture) activities
- **Equipment** asset ownership
- Activity type of fishing undertaken
- **Income** income generated from sales
- Location where fishing activity occurs
- **Purpose** use of production
- Species what species are targeted
- **Expenditure** household expenditure on fish for consumption
- Production volume













# Applications of census data

- 1. Policy development and performance (e.g., industrial vs small-scale)
- **2. Development planning and performance** (e.g., FAD deployment; hatchery)
- 3. Census may be the only source (e.g., CBEAFM; WCPFC)
- **4. Social and economic** (e.g., food use and security, livelihoods, cultural, poverty alleviation)
- Household listing for sample frames (statistical validity)













# Including agriculture in census?

#### **Benefits**

- Full coverage and access to household information
- Establish sampling frame for subsequent survey (participation)
- Opportunity to add supplemental module to replace agricultural census
- Fill existing data gaps
- Linkages (gender, age, education, income, employment status, health/nutrition, small area info, DRM, CC)

### **Challenges**

- Land/pond size
- Holding, parcel, vessel information collected at the household level (double counting)
- Cumbersome questionnaire
- Competing user requirements













### Recommended census thematic modules

C	Cover page	A.	<b>Household Forms</b>	В	Individual Forms
	(administrative detail)	A-1	Housing	B-1	Population Characteristics
R	Roster	A-2	Agriculture and	B-2	Disability
		Fishin	g	B-3	Education, Languages, Literacy
				B-4	Economic Activities Last Week
				B-5	Fertility and Mortality













# Recommended core questions

	Has any member of this household conducted the following activities in the last 12 months? [ ]					
	If 'yes', what is the <u>main</u> purpose?					
		Response	Purpose			
	Operated land for agriculture?	[]	[]			
B1.	Grown food crops?	[]	[]			
	Participated in fishing activities?	[]	[]			
	Raising livestock?	[]	[]			
	Conducted aquaculture?	[]	[]			
	Hunting?	[]	[]			
	Collection of forestry products?	[]	[]			
	Production of handicrafts?	[]	[]			
	What is the total area of all the land used for	agriculture p	ourposes?			
B2.	[ ]					
(Optional)						
(Optional)						













# Recommended supplementary - agriculture

B-AG1. (Optional)	p an p a sact						
B-AG2.	For each separate piece the area, current land us		•	•	l activities, list		
(Optional)	Parcel no	Total area	Current land use	land tenure	Irrigation		
(Optional)	[][][]	[][][]	[]	[]	[]		
	[][][]	[][][]	[]	[]	[ ]		













### Recommended supplementary – agriculture (cont.)

	Has any member of this household grown any of the following crops in the last 12								
	months?								
	If yes - What is the main	purpose of th	is crop?						
	If yes – How often do you	ı harvest this	crop?						
	If yes- What is the area o	f land used fo	or the crop?						
	If yes and sold - What is the income from the crop?								
B-AG3.	Crop	Grow?	(Optional)	(Optional)	(Optional)	(Optional)			
b-Ads.			Purpose?	Frequency?	Area?	Income?			
	1) Cucumber	[ ]	[ ]	[]	[ ][ ][ ]	[ ][ ][ ][ ]			
	2) Tomato	[ ]	[ ]	[ ]	[ ][ ][ ]	[ ][ ][ ][ ]			
	3) Taro	[ ]	[ ]	[ ]	[ ][ ][ ]	[ ][ ][ ][ ]			
	4) Pineapple	[ ]	[ ]	[ ]	[ ][ ][ ]	[ ][ ][ ][ ]			
	5) Etc.	[ ]	[ ]	[ ]	[ ][ ][ ]	[ ][ ][ ][ ]			
	Does this household now	have any of	the following frui	t trees or othe	r permanent				

If yes - What is the area of land used for the crop?

If yes- are these crops in a compact plantation?

#### B-AG4. (Optional)

	Cron	(Optional)	(Optional)	-	
	Crop	Area?	Plantation?	Income (\$)	
)	1) Mango	[ ]	[ ]	[ ][ ][ ][ ]	
	2) Breadfruit	[ ]	[ ]	[ ][ ][ ][ ]	
	3) Sakau	[ ]	[ ]	[ ][ ][ ][ ]	
	4) Betelnut	[ ]	[ ]	[ ][ ][ ][ ]	
	5) Etc.	[ ]		[ ][ ][ ][ ]	













# Recommended supplementary – livestock

Has any member of the household raised any of the following livestock or poultry during the last 12 months?

If yes — How many do you currently have?

If yes – What is the main purpose of this livestock?

B-L1

Livestock ( use country specific list)	Raise?	Number?	(Optional) Purpose?
1) Cows	[ ]	[ ][ ][ ]	[ ]
2) Pigs	[ ]	[ ][ ][ ]	[ ]
3) Chickens	[ ]	[ ][ ][ ]	[ ]
4) Goats	[ ]	[ ][ ][ ]	[ ]
5) Etc.	[ ]	[ ][ ][ ]	[ ]













# Recommended supplementary – management

	Vhich person(s) in this household tal ctivities?	ces the main decisi	ons for the household's crop and livestock
B-M1.	Name	Person Number	
-			













# Recommended supplementary – fisheries

	What means of fishing did this house	ehold use in the pas	t 3-months?		_
	Means of fishing	Used this type			
D F1		of fishing?			
B-F1.	1) Boat with motor - trolling, jigging,	vertical longline, et	:C	[]	
	2) Boat without motor (canoe, sale)	- hook and line, etc		[]	
	3) Shore based (no boat) - gleaning,	net fishing, etc		[]	
	Where did these fishing activities ta	ke place in the past	3-months?		
	(tick all that apply )				
	Lacation of Fishing Astron	Fished in this			
	Location of Fishing Activity	area?			
	1) Mangrove	[]			
B-F2.	2) Lagoon	[]			
	3) Reef	[]			
	4) Offshore (open water outside	r 1			
	reef)	[ ]			
	5) Fish aggregating device (incl.	r 1			
	buoy)	[]			
	6) Other (note)				













# Recommended supplementary – fisheries

What kinds of fish species were targe past 3-months? (tick all that apply)	ted and what is yo	ur production	and income estin
		(Optional)	(Optional)
Types of fish <b>B-F3.</b>	Targeted?	Production (kg)	Income (\$)
1) Invertebrates (sea cucumber,	[]	[][][]	[ ][ ][ ][ ]
2) Reef fish (grouper, parrot fish,	[]	[][][]	[ ][ ][ ][ ]
3) Pelagic fish (skipjack, tuna, wahoo,	[]	[][][]	[ ][ ][ ][ ]
4) Deepwater (snapper, )	[]	[][][]	[ ][ ][ ][ ]
5) Other (eels, rays, shark,	[ ]	[][][]	[ ][ ][ ][ ]













### Recommended supplementary – forestry

B-FO1.	Does this household have a forest or wooded land either nearby or elsewhere? [ ]
(Optional)	
B-FO2. (Optional)	What was the main purpose of this forest or wooded land? [ ]

## Recommended supplementary – hunting

B-SH1. (Optional)	Has any member of this household done any hunting in the last 12 months? [ ]
B-SH2. (Optional)	What was the main purpose of the household's hunting activities? [ ]













# Recommended supplementary – aquaculture

	Does this household have any of the following aquaculture facilities today?							
	If yes - What is the purpose of this facility?							
	<i>If yes</i> – How often do you harvest?							
	If yes - How much stock (e.g., number of fish) do you currently have?							
	Facility	Have	(Optional)	(Optional)	(Optional)	(Optional)		
B-AQ1. (Optional)		Have?	Purpose?	Frequency?	Standing stock	Income (\$)		
(Optional)	1) Tilapia (freshwater)	[ ]	[ ]	[ ]	[][][][]	[][][]		
	2) Prawn (freshwater)	[ ]	[ ]	[ ]	[][][][]	[][][]		
	3) Clam (saltwater)	[ ]	[ ]	[ ]	[][][][]	[][][]		
	4) Seaweed (saltwater)	[ ]	[ ]	[ ]	[][][][]	[][][]		
	5) Etc.	[ ]	[ ]	[ ]	[][][][]	[][][]		
	What is the total area of the currently stocked ponds / aquaculture							
B-AQ2.	a) Less than one rugby field		a) < 0.5 ha					
(Optional)	b) 2-3 rugby fields	OR	b) 0.5–4.9 ha					
	c) 3+ rugby fields		c) >5 ha					