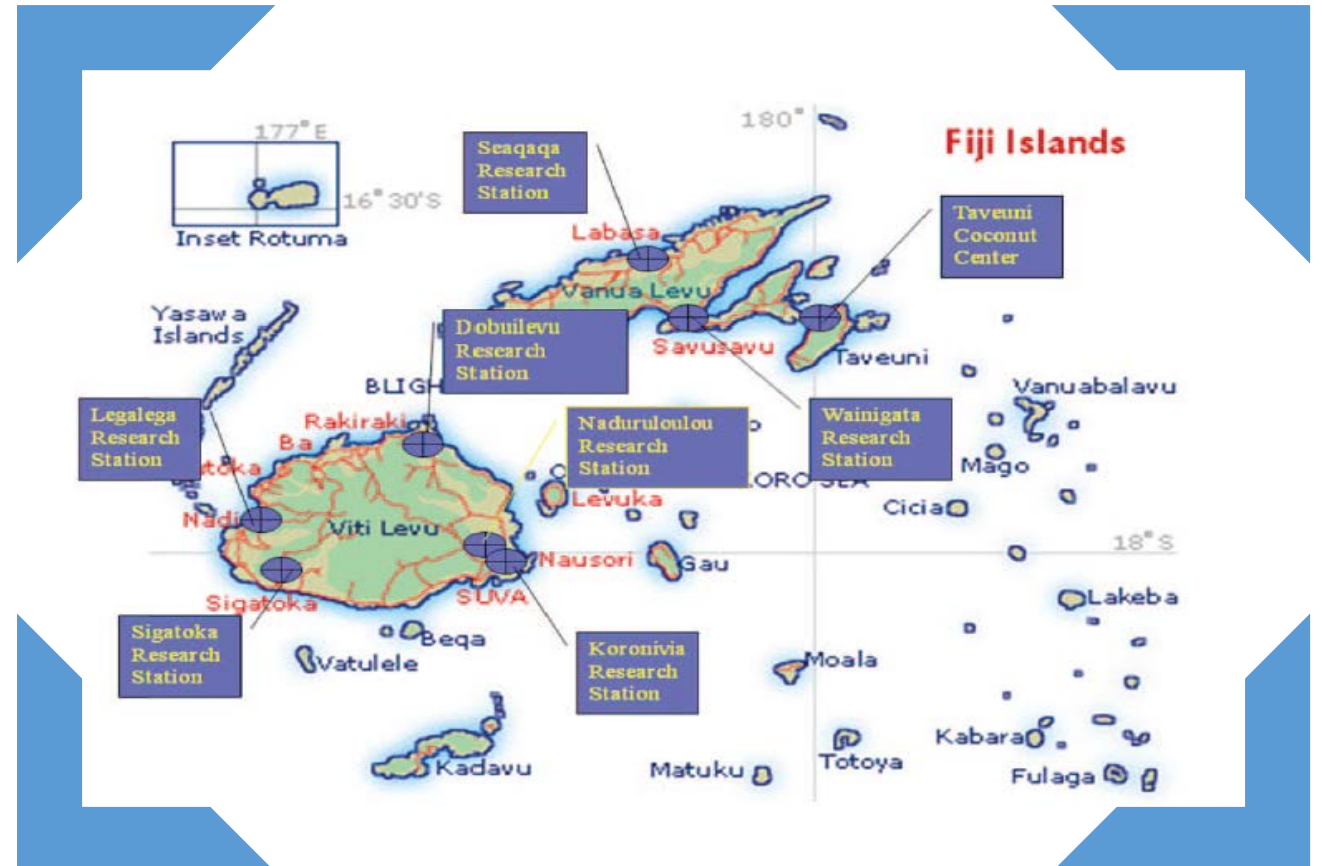




# AGRICULTURE DEVELOPMENT AND ICTs IN FIJI



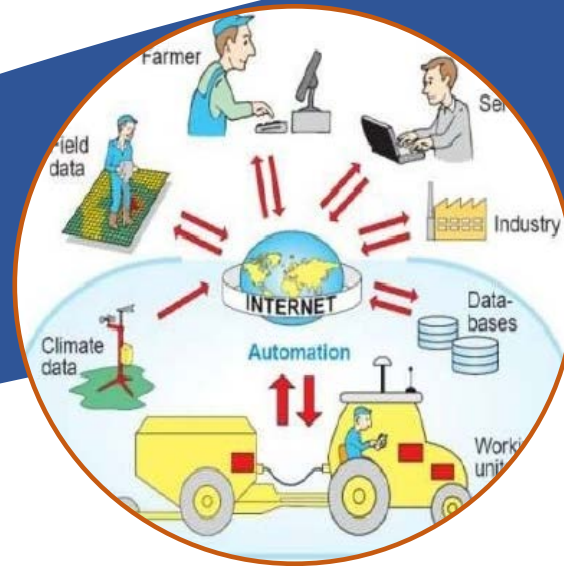
Presentation By: Sushma Chand,  
Ministry of Agriculture, Fiji



WHERE WE ARE  
NOW?



WHERE WE WANT  
TO BE?



WHAT ARE THE  
NEXT STEPS?



**WHERE WE ARE NOW?**

**National ICT Policies exist**

**Use of GIS Technology**

**Online Software Assessment Tools used for IRA and Drought Monitoring**

**Weather & Early Warning Capacity at Extension Stations**



## **FIJI CROP & LIVESTOCK COUNCIL**

**Farmer- oriented SMS Mobile Phone Service (Application)**

**10,000 registered farmers**

**Apps include:**

**mRegistration, mAlerts & mPolling  
(for farmer registration and support),**

**AgriTips, mPrices (market information),**

**mCollect,**

**Fiji Makete**



## **GIS TECHNOLOGY**

**Farmers Baseline Survey – GPS Locators**

**District Boundaries – Agriculture Locality Officers Boundaries**

**Agriculture Risk Mapping – Using Agriculture Data to produce Risk Maps**



## **AGROMET INFORMATION and ONLINE ASSESSMENT TOOLS**

**Weather Forecasting capacity in Agriculture Research Stations – Use of the Stevenson Screen, Rain Gauge**

**Online Assessment Capacity used for Initial Rapid Assessments and Drought Monitoring Surveys - Kobotoolbox**

# Fiji-MAKETE

A Trade at Hand business matching system

Fiji-Makete Operators  
Input Offers

1 Farmers call Fiji-Makete operators:  
3:00 - 290 / 291 / 292  
777-9789  
752-8849



Products offers are published online

Product	Quantity	Price (F)	Availability	Contact
Cassava	500 kg	25 /kg	05/09/2011	881 8211
Watermelon	2 tons	18 /kg	10/09/2011	941 0857



2 For potential buyers to go through and select

2

Buyers then call farmers to purchase products and define exchange location, price, etc.



3 Sellers call back to update existing offer

Operators modify or delete offers online for offer accuracy

Business opportunity number increase!



Income growth!

Business opportunity number decrease!



Market disruption!



Sellers did not call back to update their current offer

Operators have no idea to delete or not, online offers

INCREASING ACCESS TO MARKET ANALYSIS & TRADE INFORMATION

**Benefits:** Alternative way to market produce, Inexpensive (e.g. Buyers do not have to run around looking for produce), Establishes a relationship between buyers & sellers (farmers/producers), Price of produce is known – Enables Good Decision Making

**Challenges:** Farmers do not have access to internet, Cost of txt message, Availability of Experts.

Moderator to Review: Chain of events 1 - 3		
WEBSITE MODERATOR	BUYER	MARKET
Post on Website	Notice availability of produce	Ready
	Call Farmer and negotiate price in terms of purchase	Happy
	and ask Moderator to post	Happy
Moderator to Review: Chain of events 3,2 & 4		
WEBSITE MODERATOR	BUYER	MARKET
	Unhappy	Unhappy



## USE OF GIS TECHNOLOGY

Ra	
PROVINCE	Ra
L_STAFF	Moreen Prasad
TOT_TIKINA	4
T_1	Naiyalayala
T_2	Navolau
T_3	Rakiraki
T_4	Raviravi
T_5	
VILL_SETT	11
TOT_POP	939
TOT_HH	215
TOT_AREA_H	32090

Ra	
PROVINCE	Ra
L_STAFF	Manasa Niqara
TOT_TIKINA	5
T_1	Saivou
T_2	Nailuva
T_3	Nalaba
T_4	Naroko
T_5	Tokaimalo
VILL_SETT	43
TOT_POP	2610
TOT_HH	630
TOT_AREA_H	38431

Ra	
PROVINCE	Ra
L_STAFF	Asenaca Tiviti
TOT_TIKINA	4
T_1	Bureiwai
T_2	Kavula
T_3	Mataso
T_4	Nakorotubu
T_5	
VILL_SETT	29
TOT_POP	1251
TOT_HH	288
TOT_AREA_H	14896

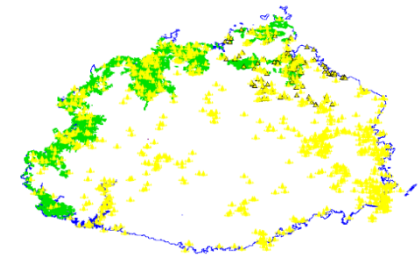
Ra	
PROVINCE	Ra
L_STAFF	Paula Makubuna
TOT_TIKINA	2
T_1	Lawaki
T_2	Nasau
T_3	
T_4	
T_5	
VILL_SETT	13
TOT_POP	1046
TOT_HH	265
TOT_AREA_H	12898

Ra	
PROVINCE	Ra
L_STAFF	Meciusela Tikoi
TOT_TIKINA	3
T_1	Bureivanua
T_2	Nakuilava
T_3	Navitilevu
T_4	
T_5	
VILL_SETT	21
TOT_POP	1285
TOT_HH	340
TOT_AREA_H	21591

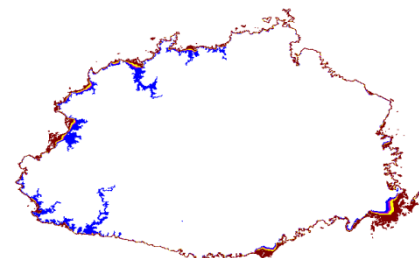


# Agriculture Risk Informed Mapping

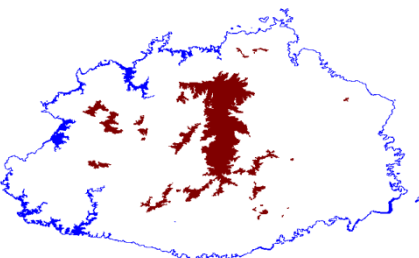
## Distribution of Agriculture Capital Projects



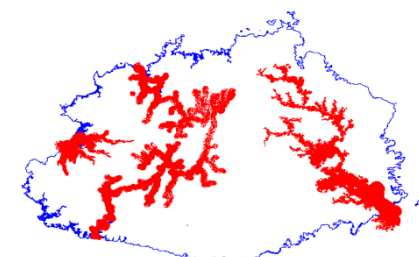
Agriculture Data



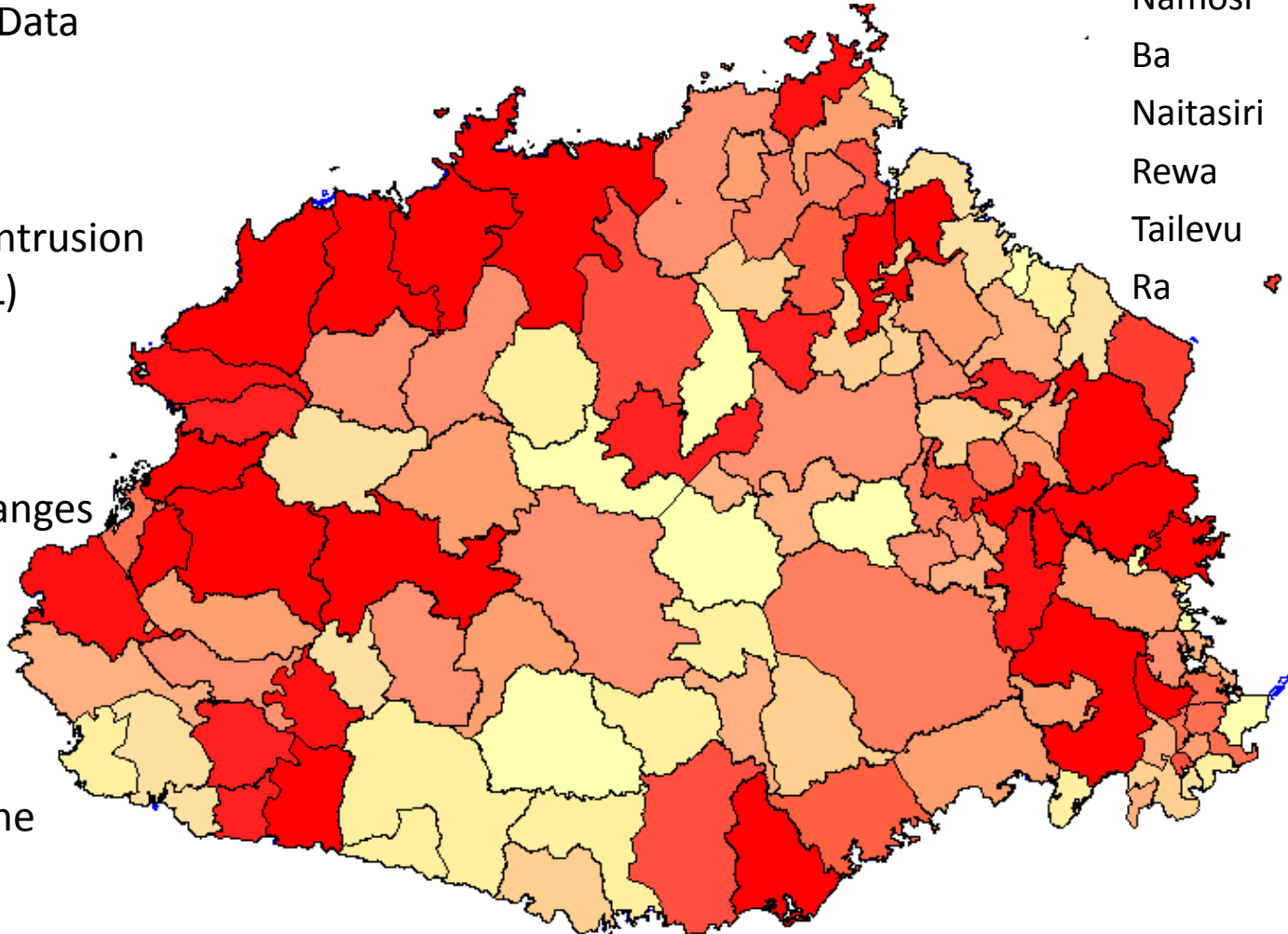
Salt Water Intrusion  
(2-5m AMSL)



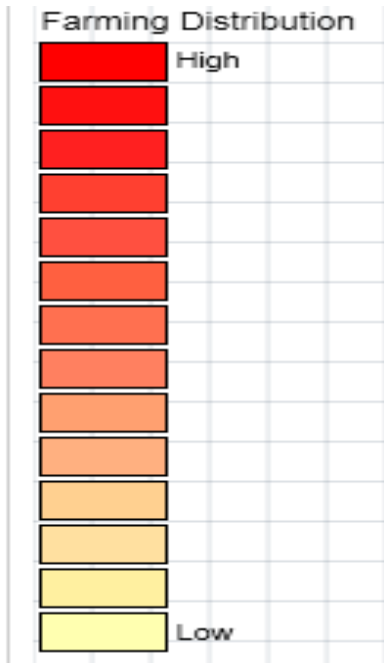
Mountain Ranges  
(Landslide)

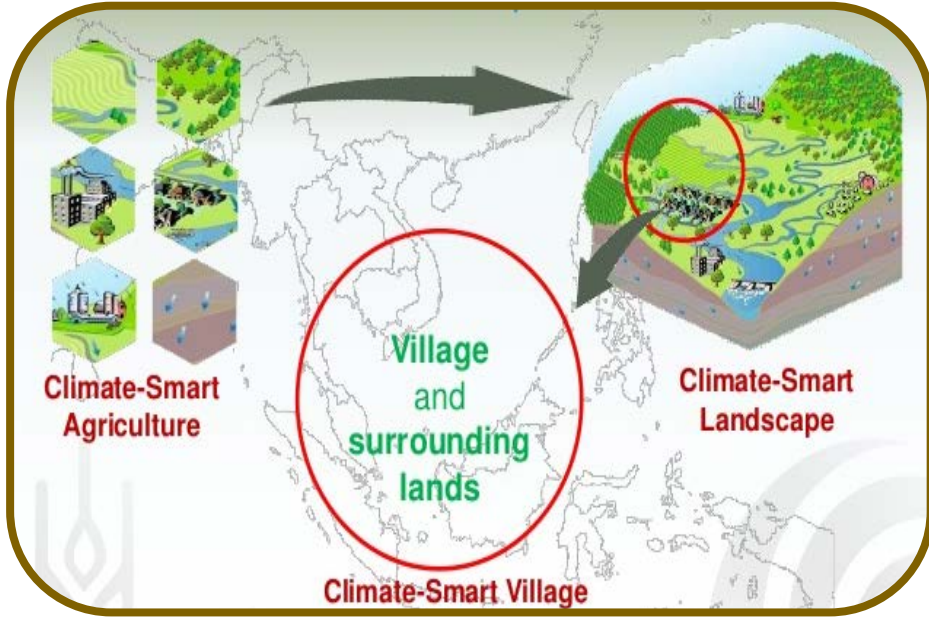


Flooding Zone  
(3-5m High)



Province	No. Projects
Nadroga/Navosa	147
Serua	42
Namosi	18
Ba	258
Naitasiri	117
Rewa	46
Tailevu	165
Ra	120





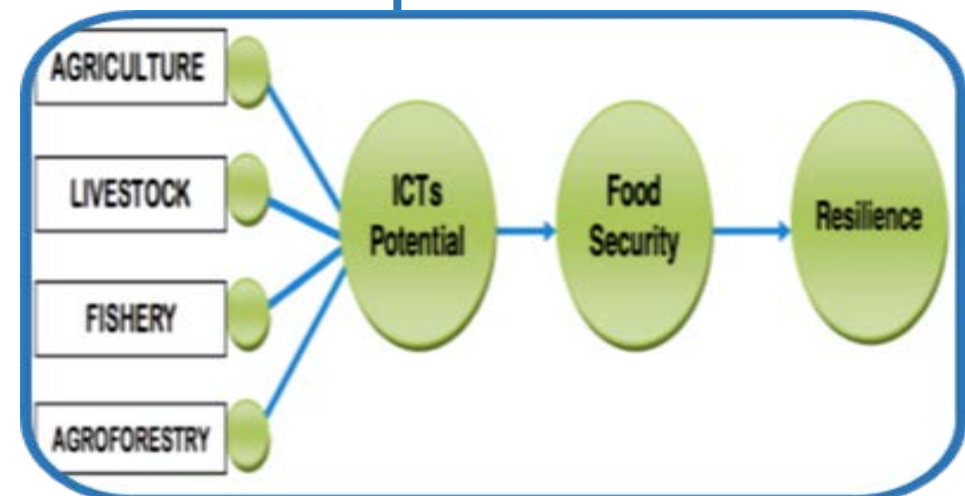
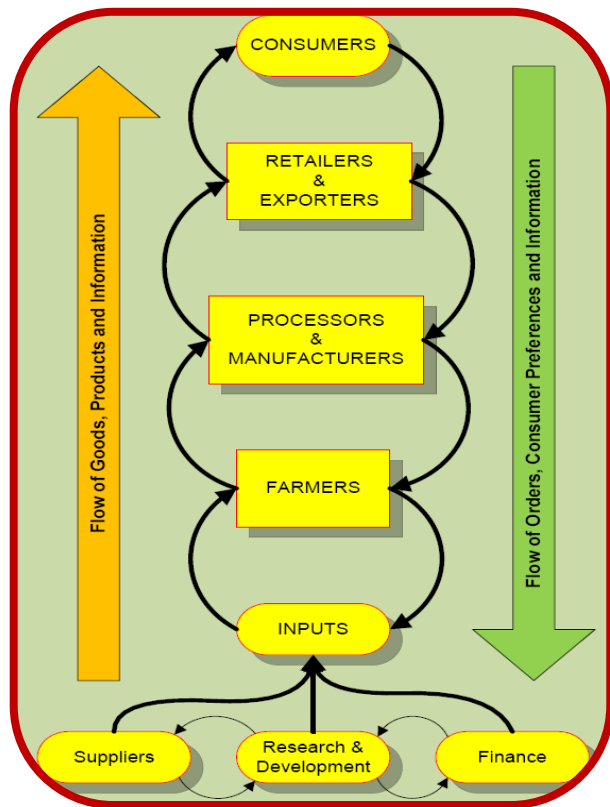
## WHERE WE WANT TO BE?

Precision Agriculture

Climate Smart Agriculture

Sustainable Agriculture Development

Value Chain and Market Accessibility





# WHAT ARE THE NEXT STEPS?



# Overcoming the Challenges:



Institutional Arrangements & Politics



Information Management & Sharing



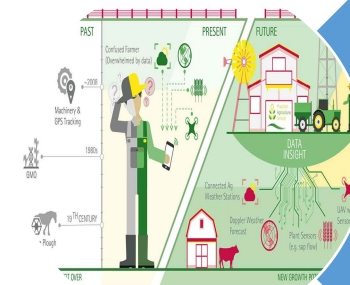
Finance



Localising ICTs



ICT Infrastructure & Literacy



Understanding the Potential for & Adapting to E-Agriculture



Thank you