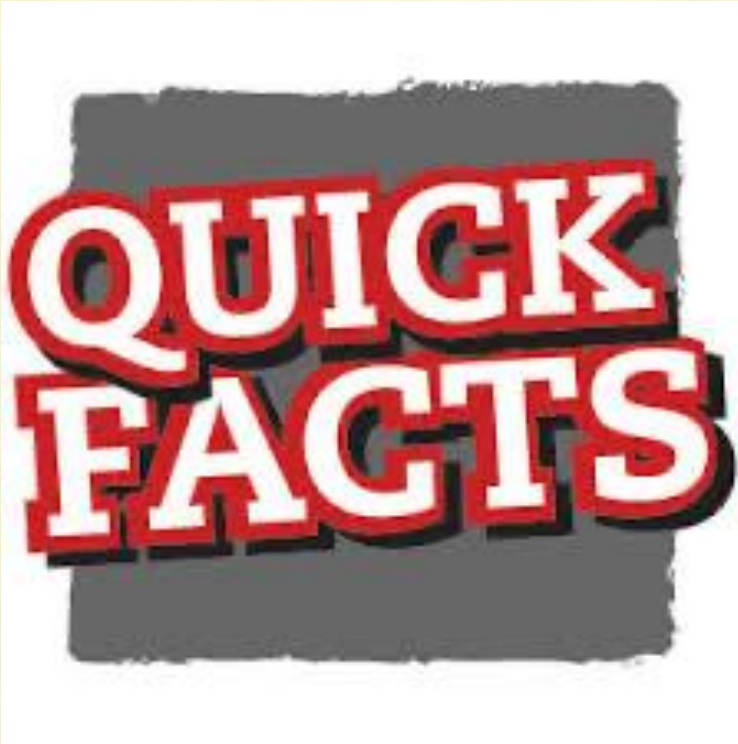
A background image of a lush green rice field under a blue sky with scattered clouds. The field is in the foreground, and there are trees and a dirt path on the left and right sides. The text is overlaid on this image.

Rapid Assessment of Rice Value Chain in Brgy. San Nicolas, San Simon, Pampanga in the context of Climate Change and Social Inclusion

ACOPIADO. CABARDO. CABRAL. MEDINA. ROSETES. SERIÑO.

Profile: Brgy. San Nicolas, San Simon, Pampanga



- ✓ Situated at approximately 15.0042, 120.8136, in the island of Luzon.
- ✓ Elevation at these coordinates is estimated at 3.2 meters or 10.5 feet above mean sea level.
- ✓ Population of 2,197 (2015 Census), which represented 4.13% of the total population of San Simon
- ✓ Principal industries are farming, fishing and poultry and swine industries
- ✓ Two public markets: one in the old poblacion area and another one located in the industrial zone area

Research Questions

- What are the adaptive strategies of San Simon farmers in response to climate change?
- How is social inclusion evident throughout the rice value chain in San Simon Pampanga?

Methodology

- ✓ Desk review for secondary data
- ✓ Key informant interviews
- ✓ Site visit
- ✓ Observation





FIELD WORK



Key Informants

1. **Mr. Mark Intal** - Sales Manager, Quantum Growth (for INAVET) microorganisms for soil health / soil conditioner
2. **Mr. Aurelio Pangan**
 - Small-scale rice farmer with 1.5 hectare of land for rice production
 - Adopter of Quantum Growth
 - President of irrigators association (Brgy. San Nicholas Bagong Pag-asa Irrigators Association)
3. **Mrs. Pangan** - wife of Mr. Aurelio Pangan
4. **Mr. Joel Sagum**
 - Large-scale rice farmer with 13 hectares of land for rice production
 - mechanize rice farming
 - from San Luis, Pampanga



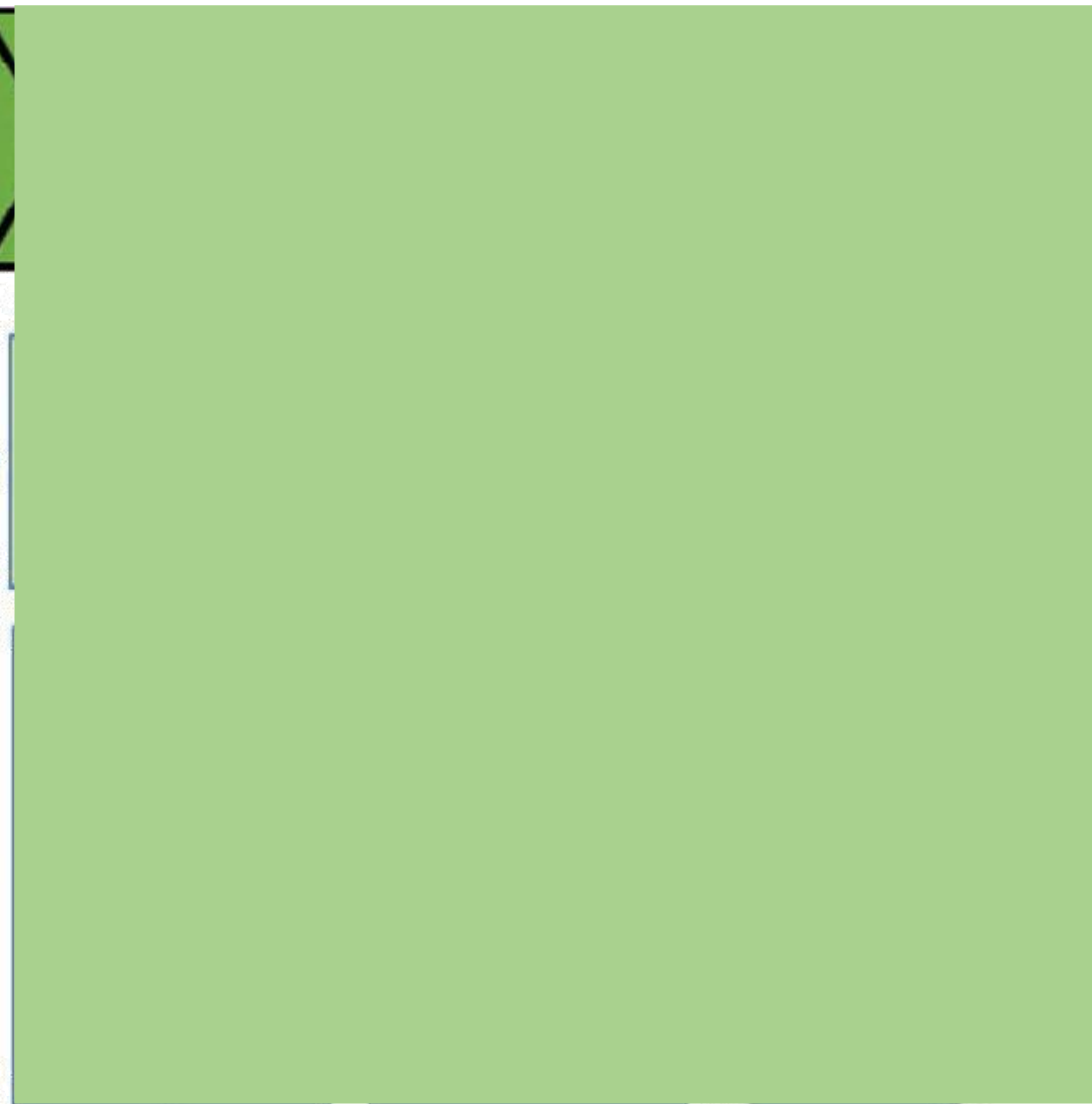


FUNCTIONS	INPUT PROVISION	PRODUCTION	AGGREGATION
TASKS	Provision of: seed, Fertilizer, pesticide irrigation water; machinery; and capital; Provision of extension services	Variety selection; Land preparation; Crop establishment; Crop care & management; Harvesting & threshing	Weighing, handling, trading, trucking, drying, and storage of paddy rice

Seeds: SL-Agritech
Quantum Growth (soil conditioner) and insecticide; NIA
Combine harvester

Rice varieties:
Rc 222 (inbred),
SL-8 (hybrid)

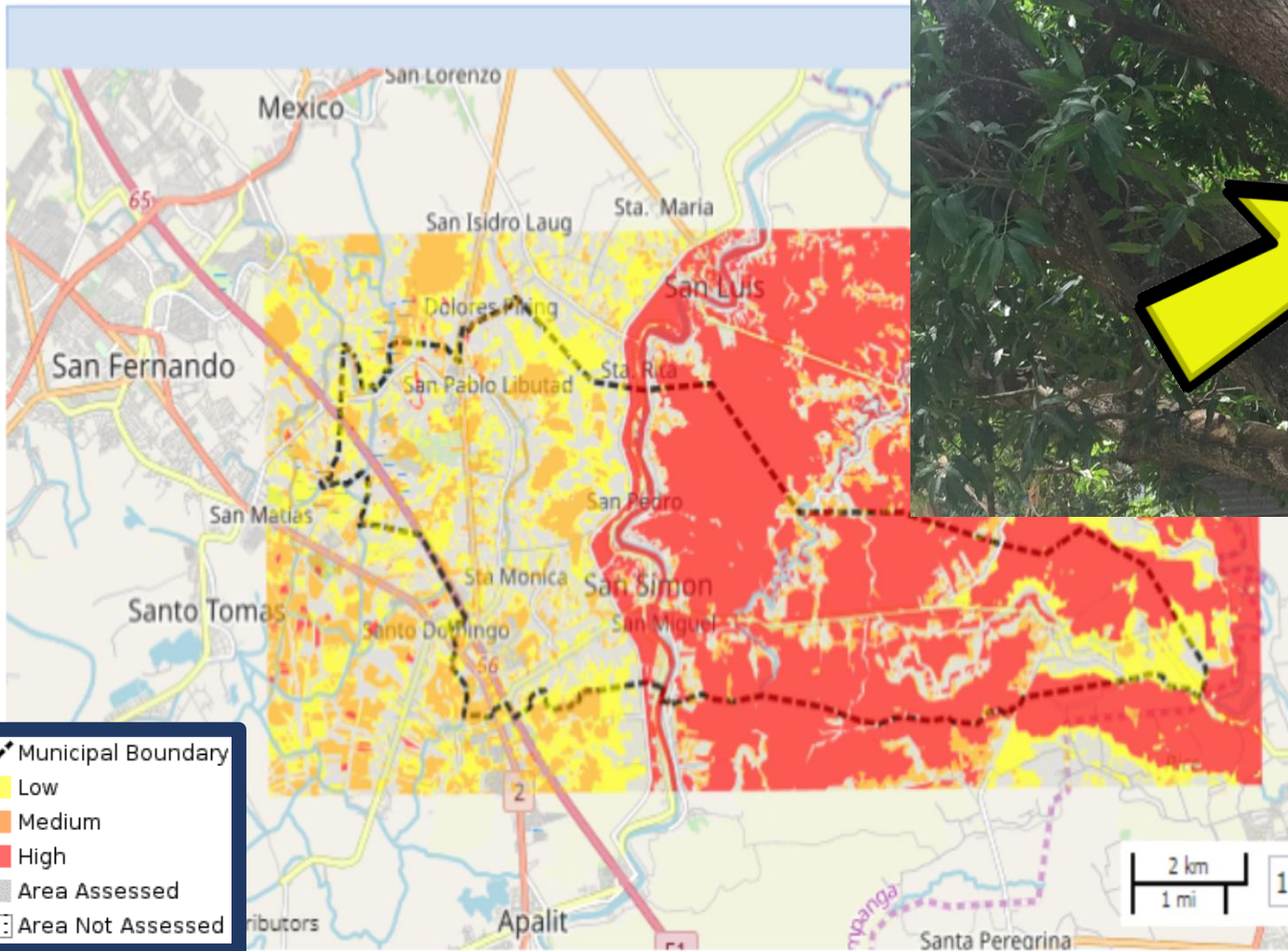
Traders (Bocaue, Bulacan) perform the job of collection and consolidation of wet palay for distribution and processing due to lack of facilities



Climate Change Exposure: Flooding

- ✓ Yearly until 2017 (Candaba catch basin area – addressed problem of fish cages): residents have adapted already
- ✓ **Physical Risk:** Complete Crop Loss
Adaptive Strategies:
 1. *Crop Insurance*
 2. *Adjusted Crop Calendar such that there is no crop stand in September/ October*
 3. *Use of short duration variety*
 4. *Use of Quantum Growth*
 5. *Ratooning*
- ✓ **Transitional Risk:** unreliable information of water availability from National Water Resources Board

San Simon Flood Hazard Map



SOCIAL INCLUSION



INPUT SUPPLIER: INAVET TECHNOLOGIES, INC.

- Employs 10 workers: 5 females, 5 males under Quantum Growth Team
- Considers farmer feedbacks and suggestions prior to operationalizing Quantum Growth technology
- Use "now, pay later" program to encourage more farmers

- Collaborates with farmer associations (e.g. Agri Coop PH) and government agencies (e.g. DAR) in educating farmers about the technology

QUANTUM GROWTH[®]

2017 ACTUAL RICE EXPERIMENT
Pangan Farm, San Simon, Pampanga

NSIC - RC 222 1-HECTARE INBRED VARIETY	Without Quantum Growth	QUANTUM GROWTH
Land Preparation	Php 6,000	Php 6,000
Planting to Harvesting	22,000	22,000
Seeds	4,080	4,080
Fertilizer	8,000	6,000
Pesticides and Herbicides	5,800	3,600
Irrigation and Water	10,000	10,000
Mechanization	1,600	-
QUANTUM GROWTH	-	7,000
TOTAL OPERATING EXPENSES	Php 57,480	Php 58,680



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INAVET
Nutrition Technologies, Inc.

sunstar.com.ph/article/1787365

PAMPANGA

San Simon promotes high-yield farming





SOCIAL INCLUSION

San Nicolas Bagong Pag-asa Irrigators Association Inc. (160 members), which employs workers for various farming activities:

- Transplanting: 20 Females, 4 Males
- Pulling of seedlings: 2 Females, 6 Males
- Record keeping – 1 Female
- The role of the wife (Mrs. Pangan) is essential in managing household activities (e.g. preparing meals during harvesting) as well as in making other farm decisions



AMC Learning is Fun!



Because
we all ate
today,
let's thank
our
farmers!

