

# Rice and Water:

## *A Quenching Productive Discussion*

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# Water is a vital resource in rice production

## The presentation will cover the following:

- Information about water use
- Information about farmers' sources of water
- Information about water source and crop diversification

# Data Source: RBFHS 2011 WS

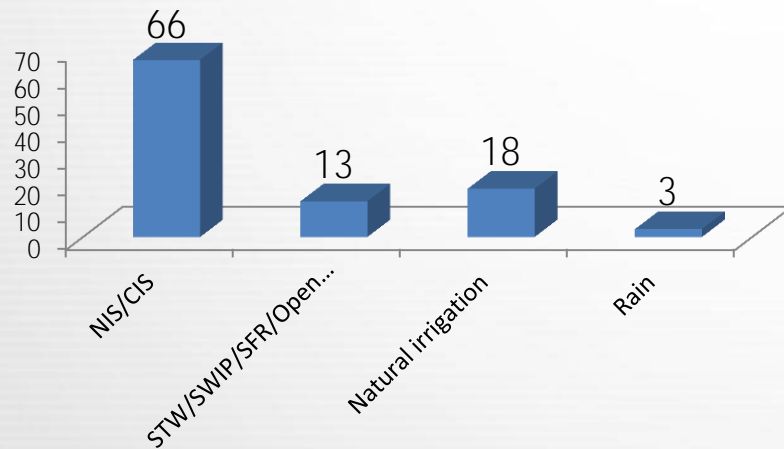
## Village ecosystem classification

Irrigated = 50% of rice area have irrigation

Non-irrigated area = less than 50% of rice area have irrigation

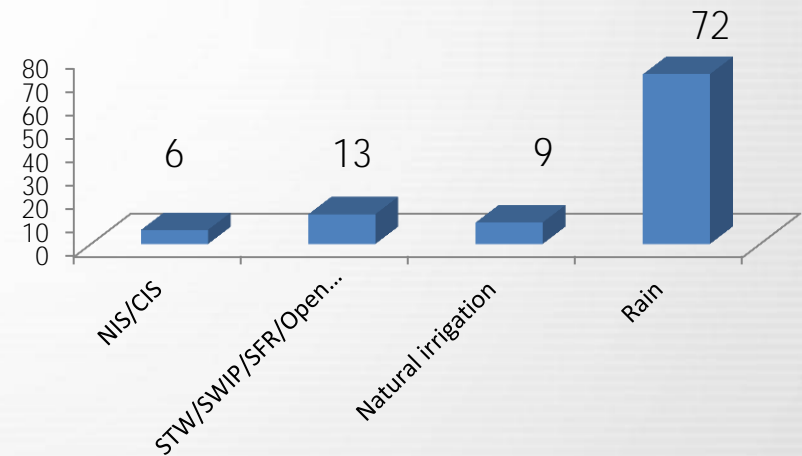
# Sources of water by ecosystem

Irrigated



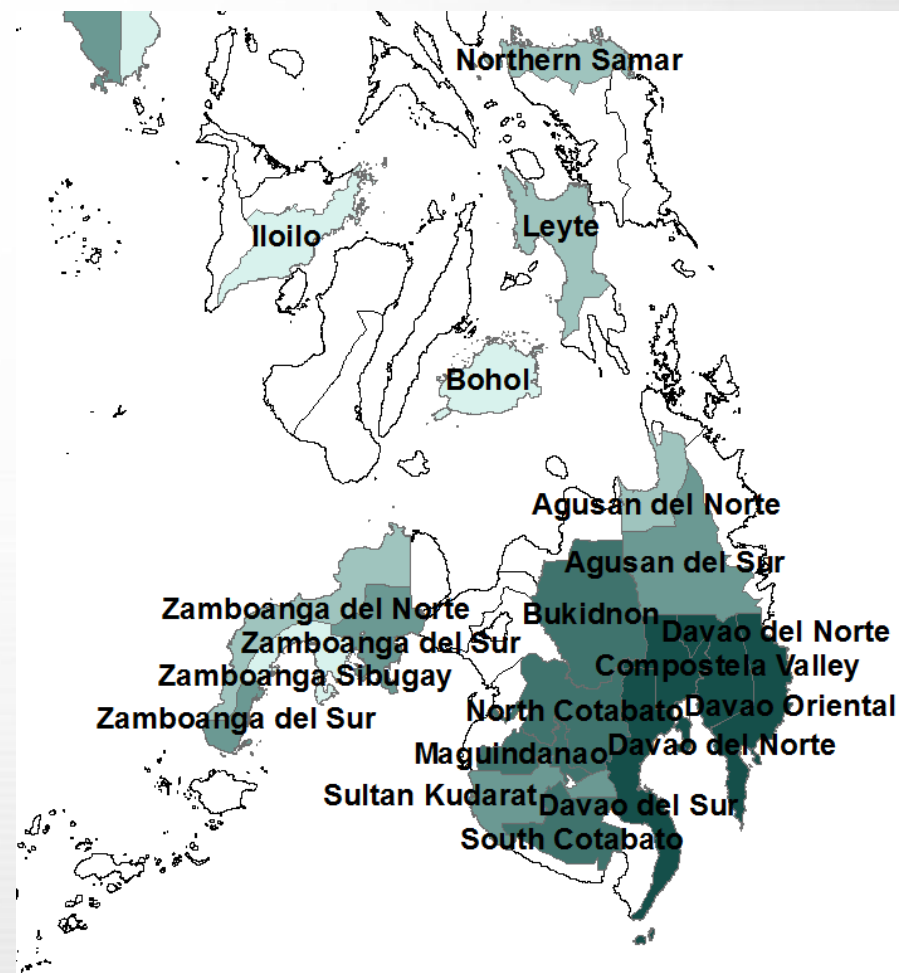
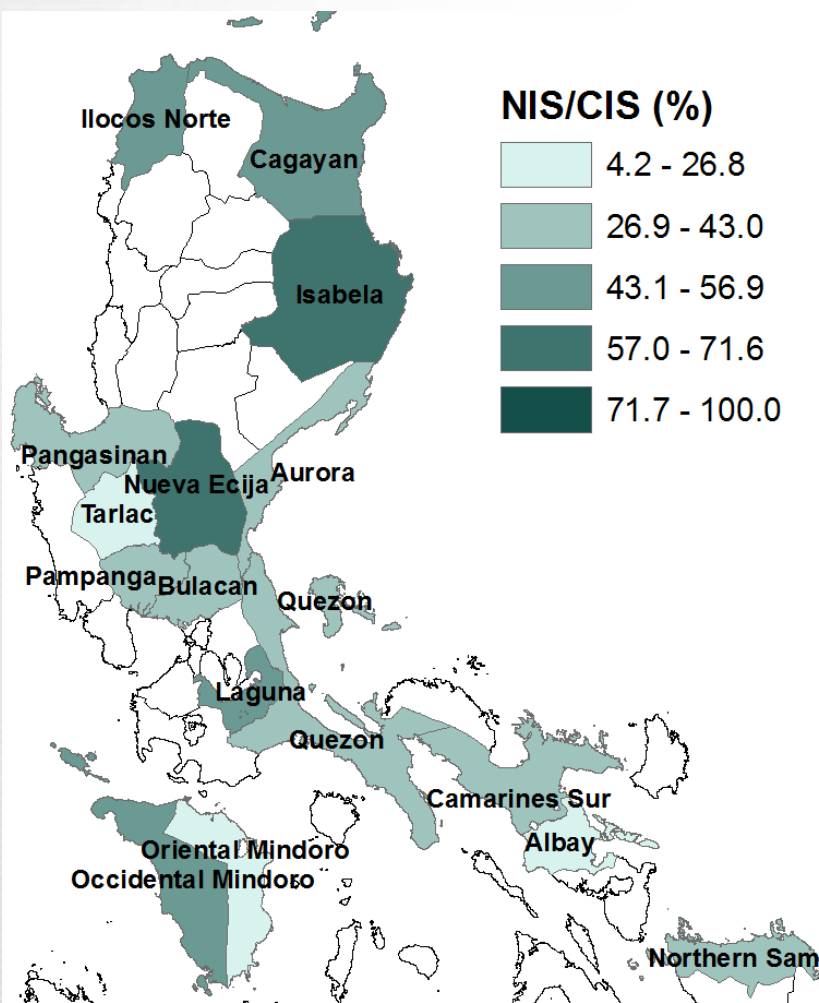
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Non-irrigated

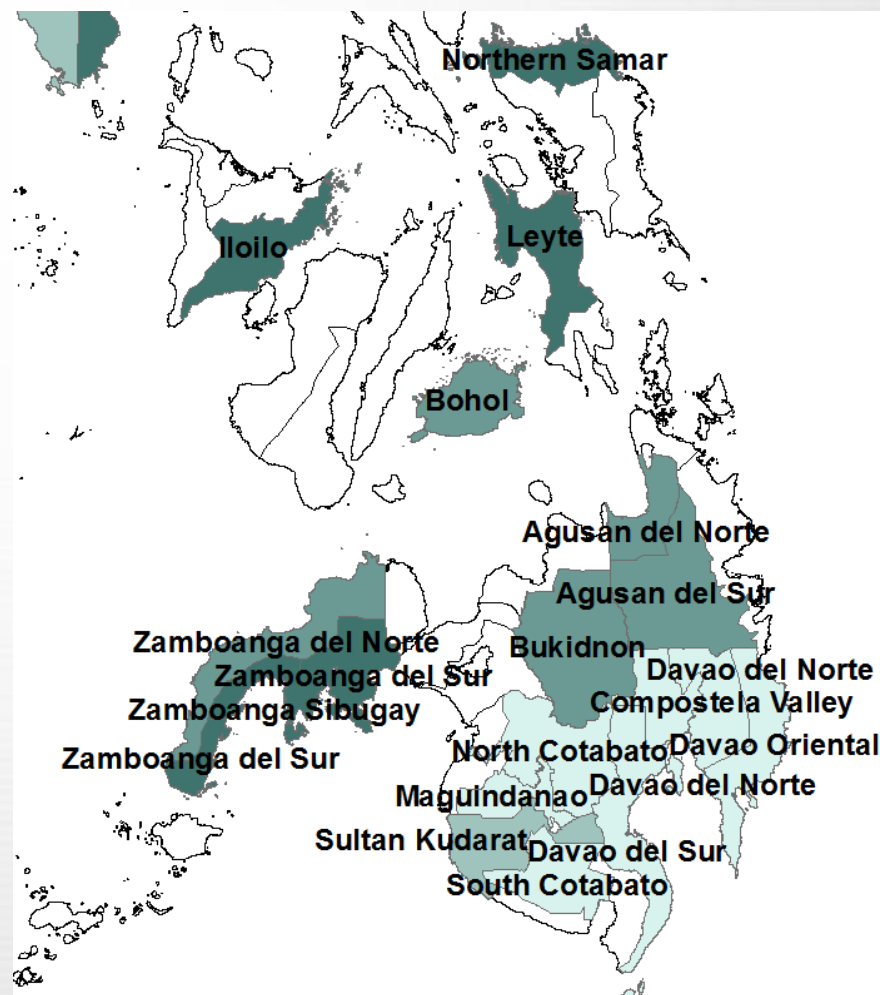
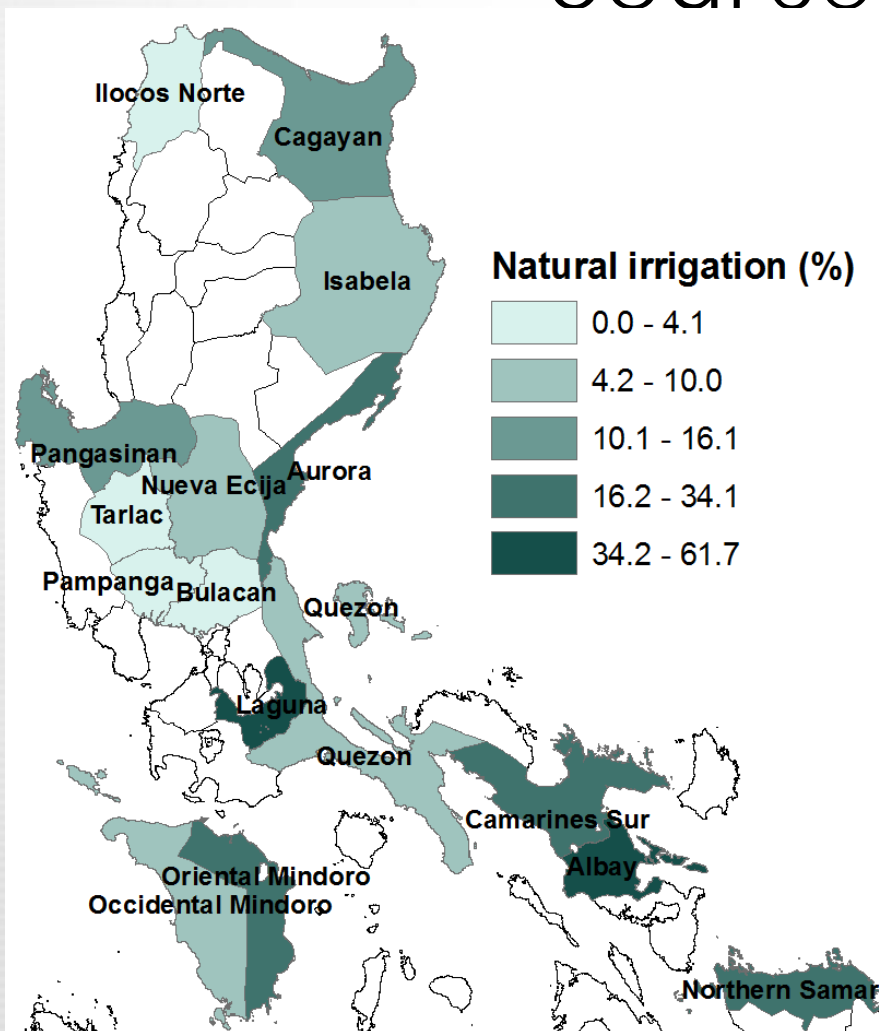


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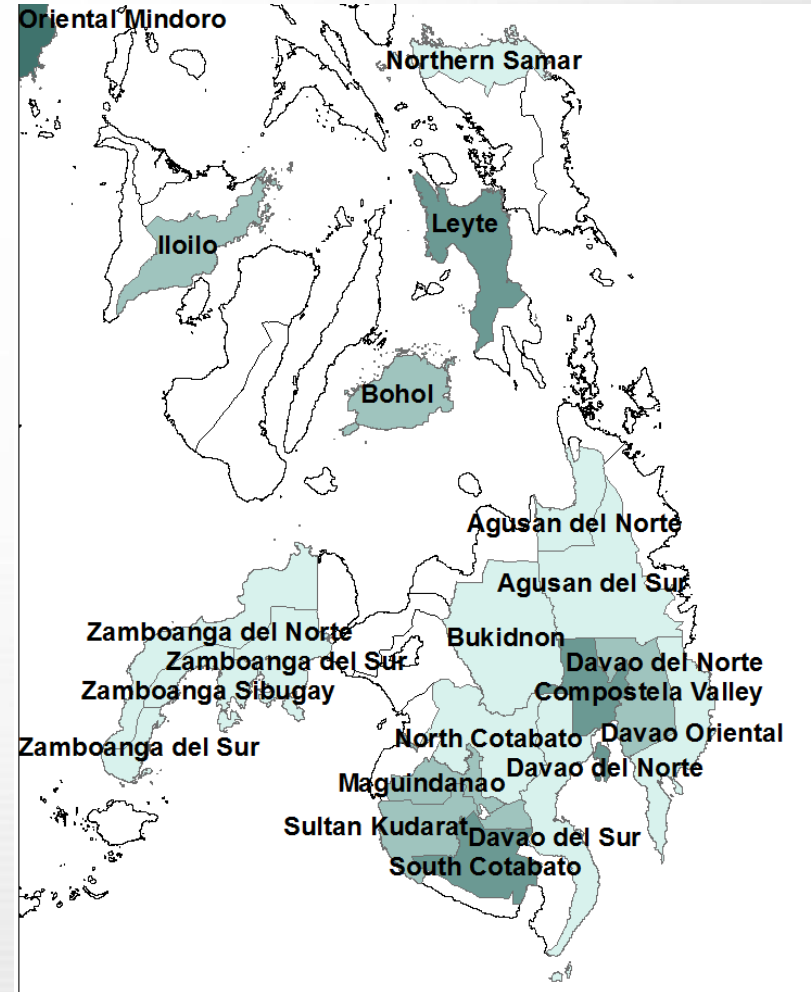
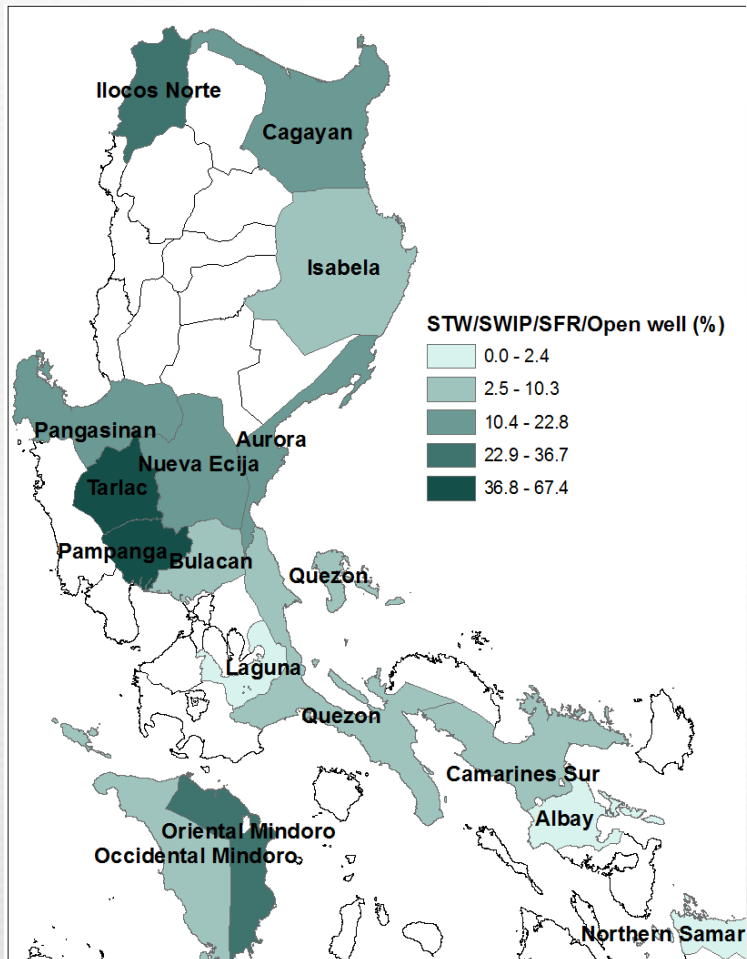
# Source of Water



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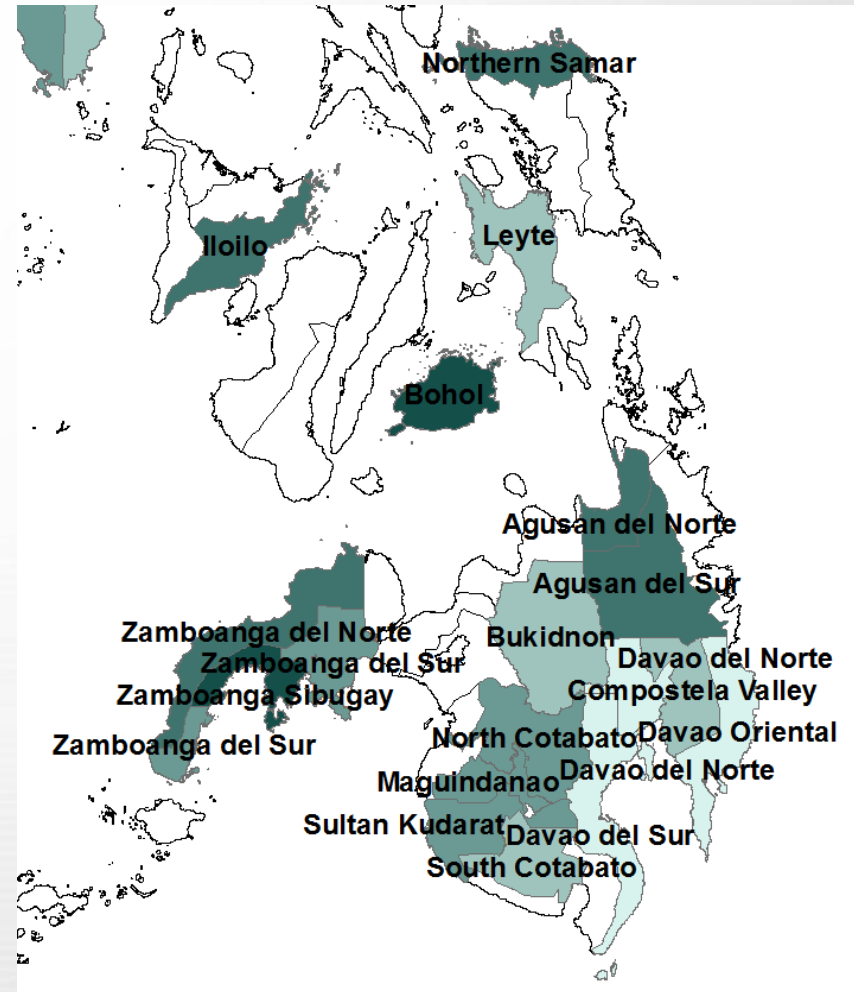
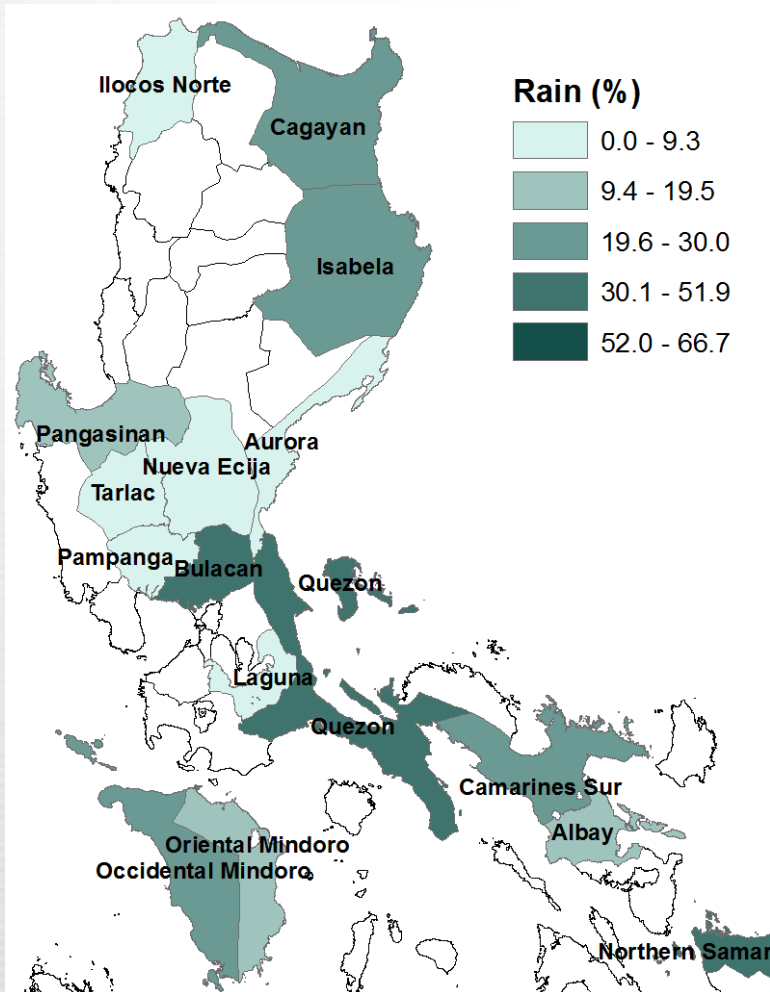


# Source of Water





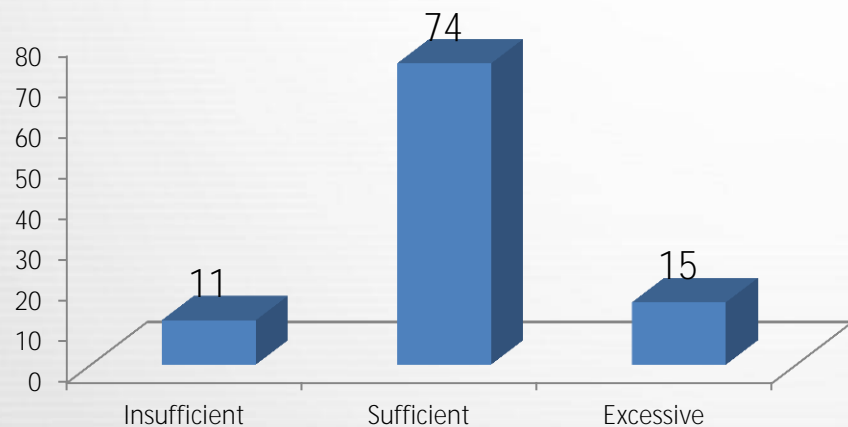
# Source of Water





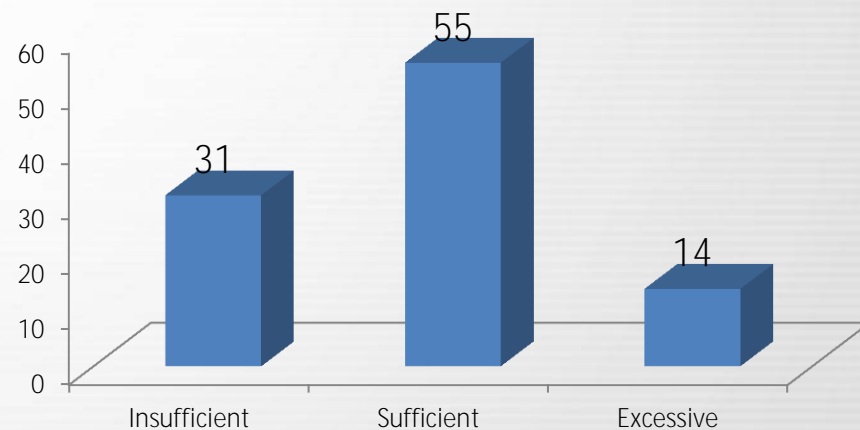
# Water Availability

Irrigated



n = 1727

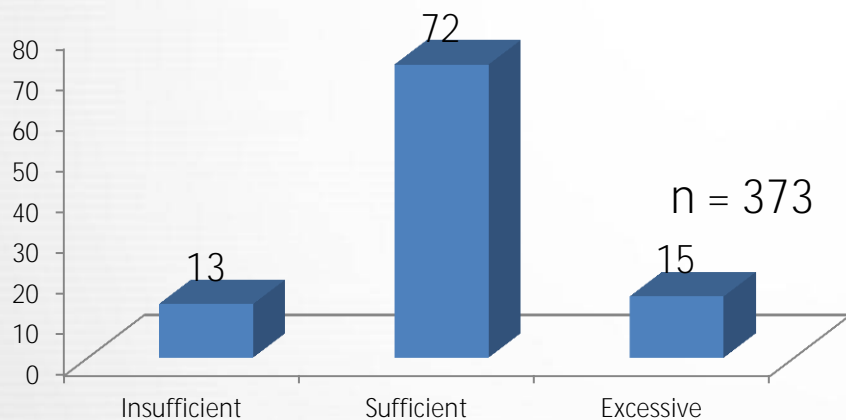
Non-irrigated



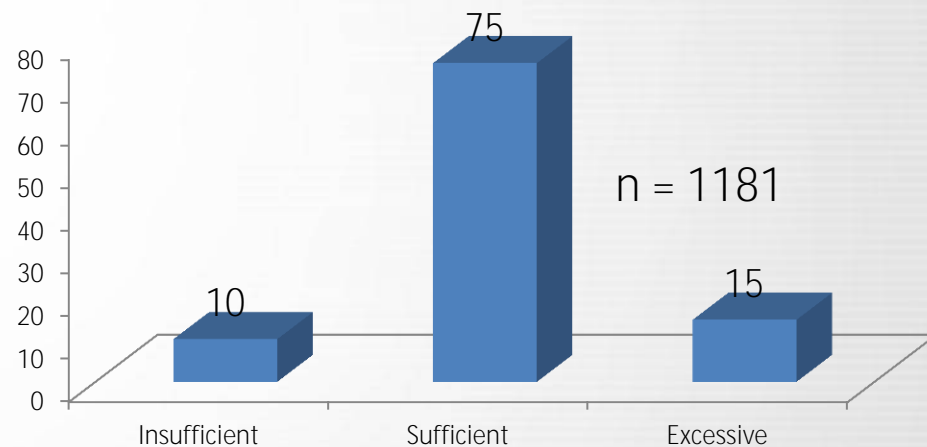
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## Water Availability

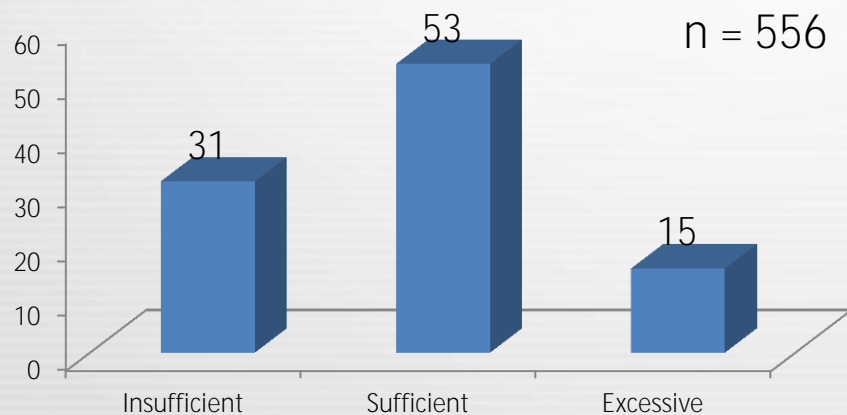
Natural irrigation



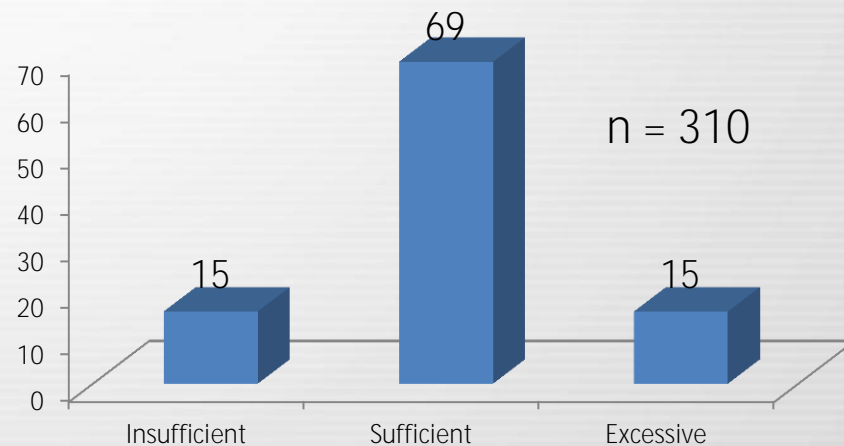
NIS/CIS



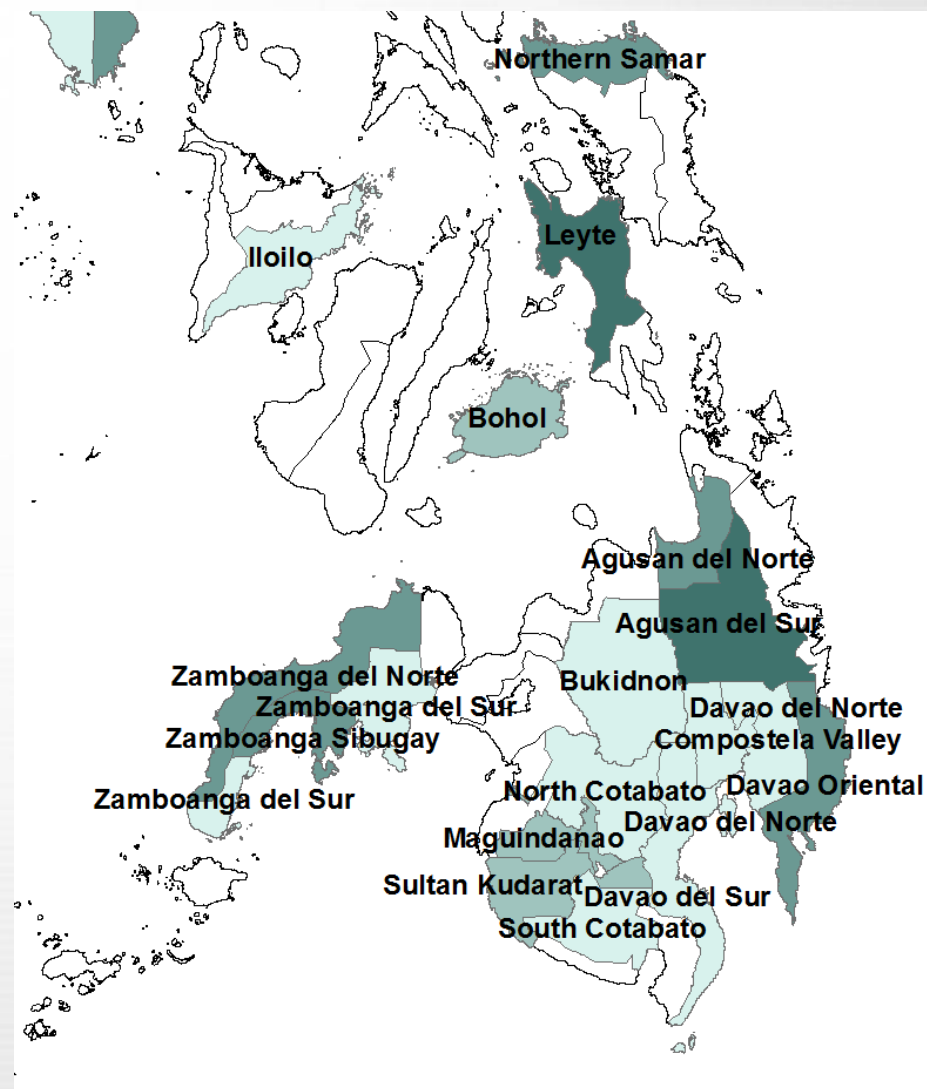
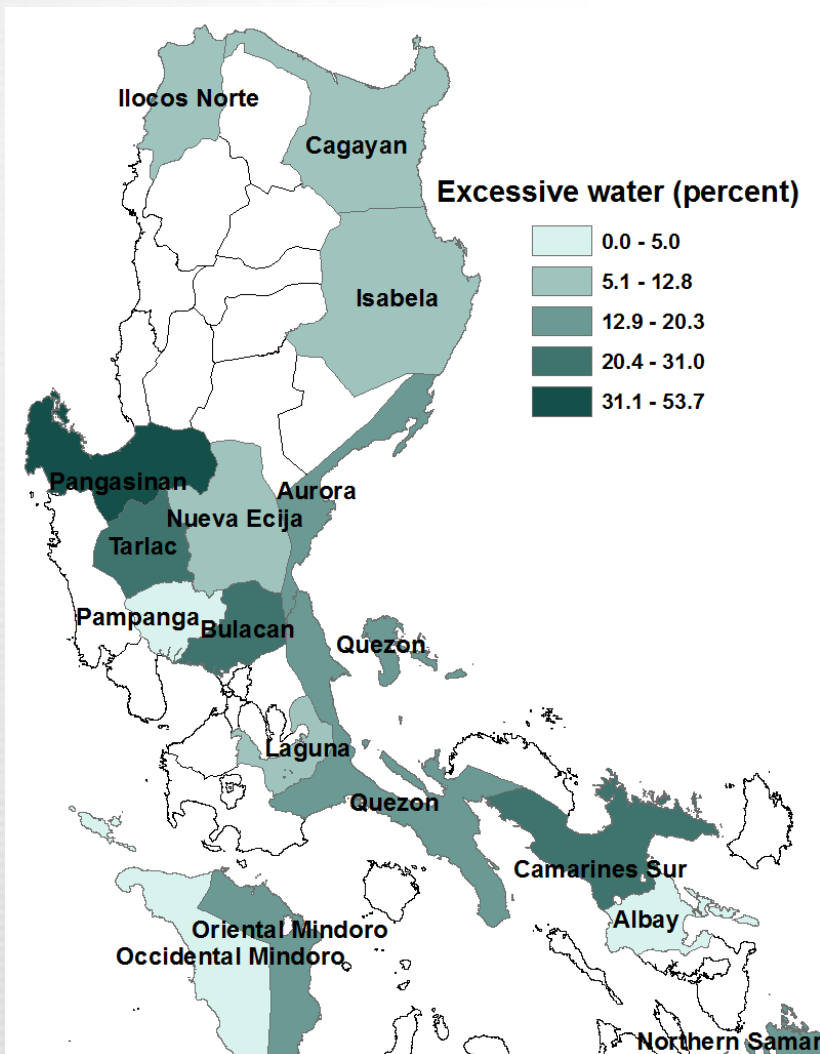
Rain



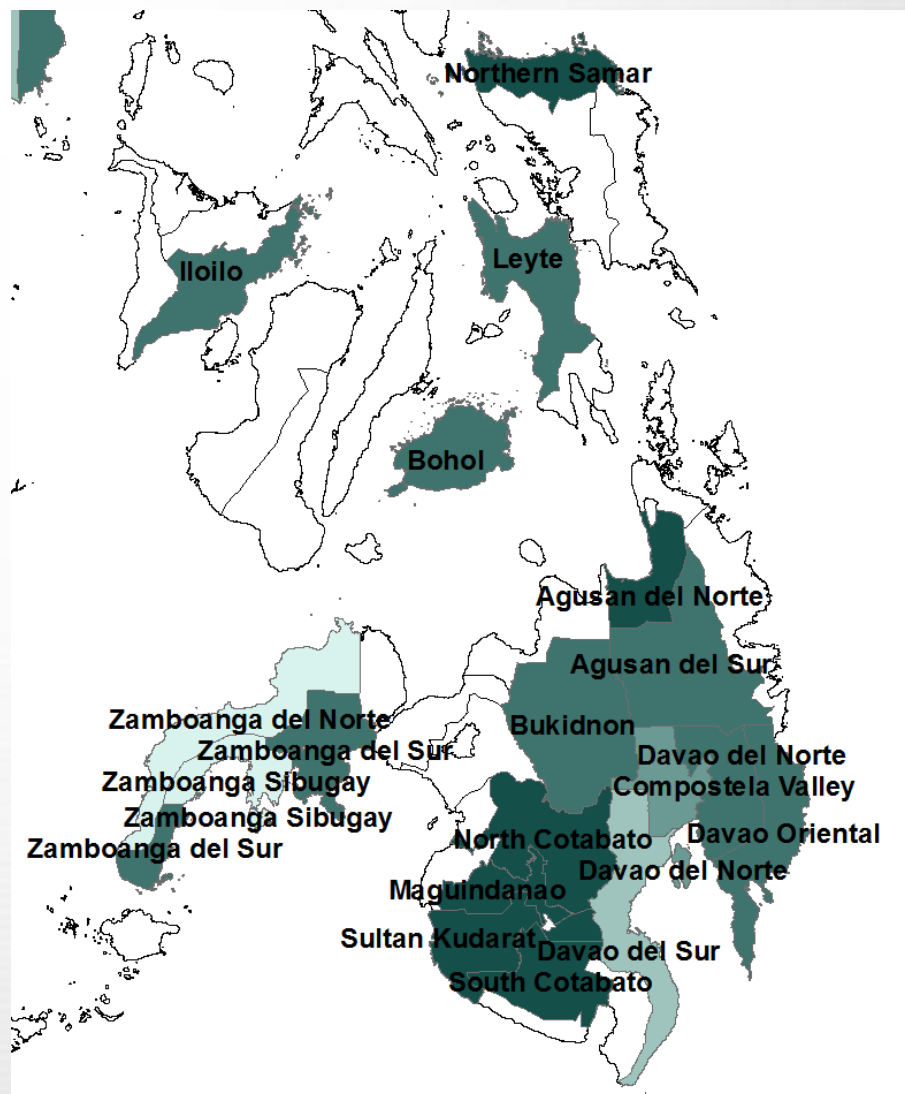
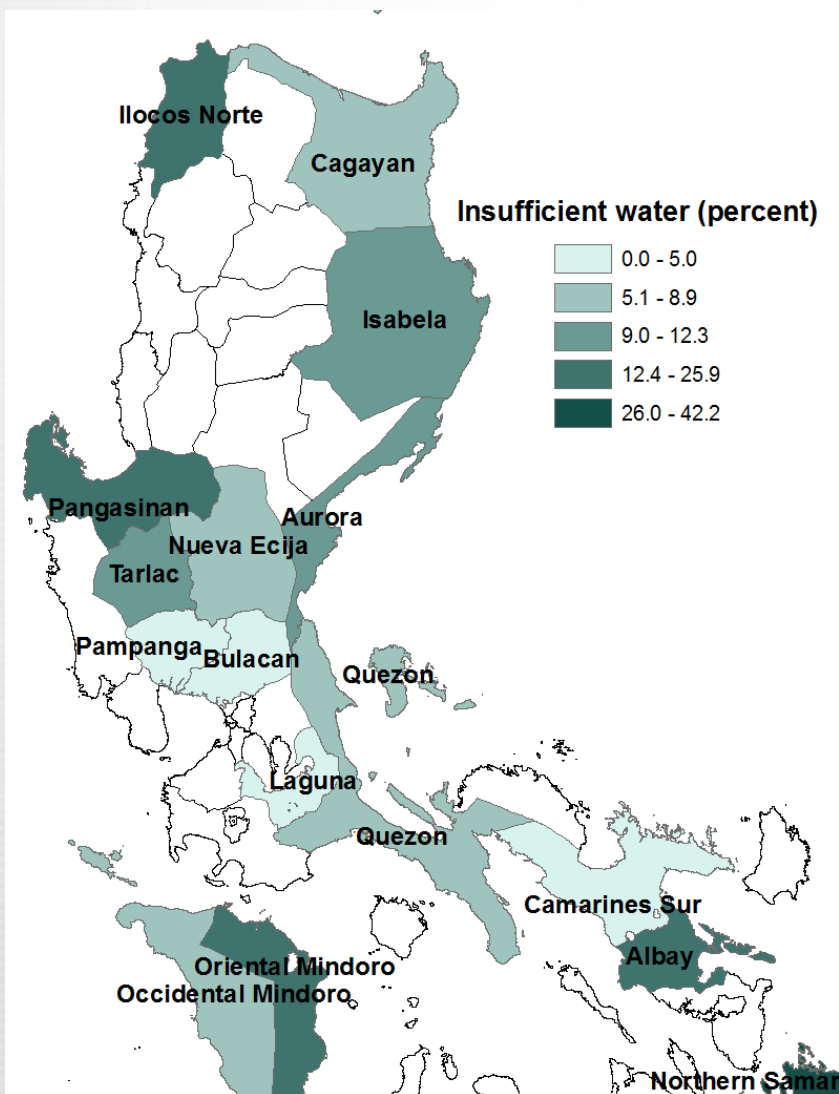
STW/SWIP/SFR/Open well



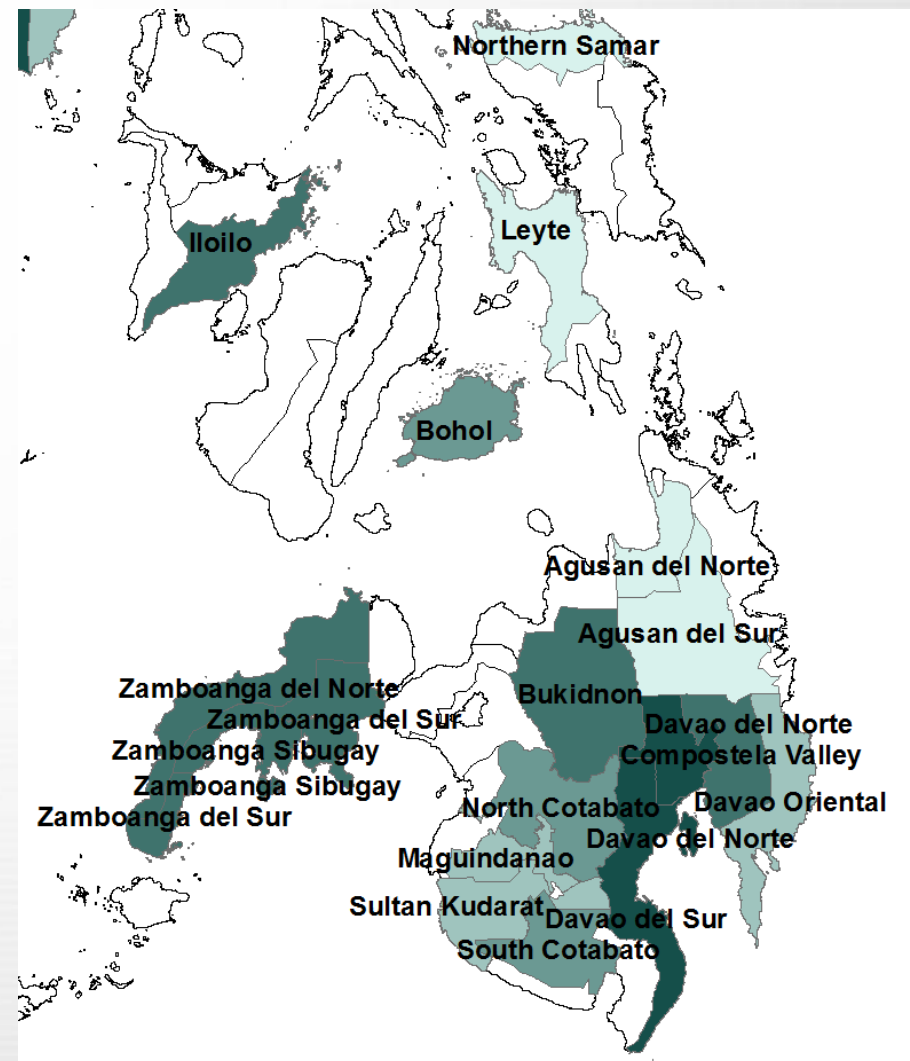
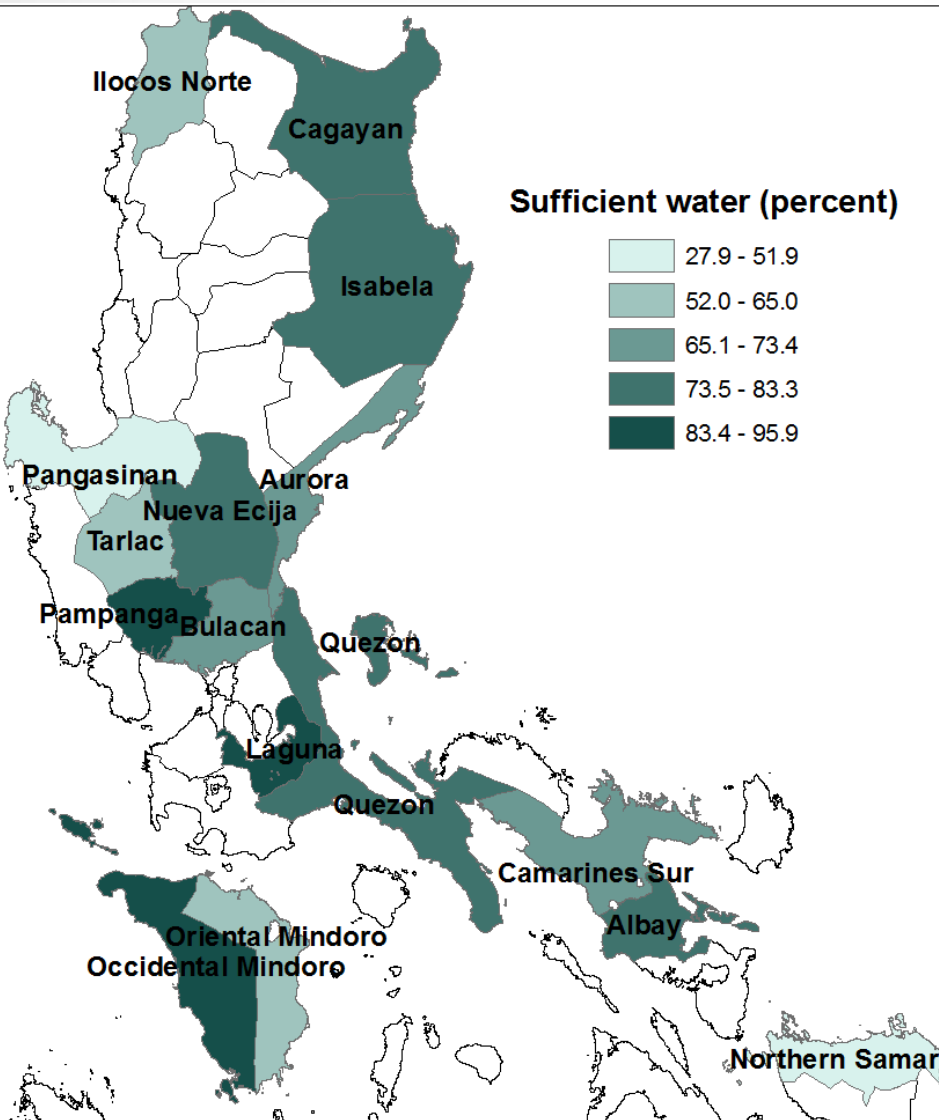
# Water Availability



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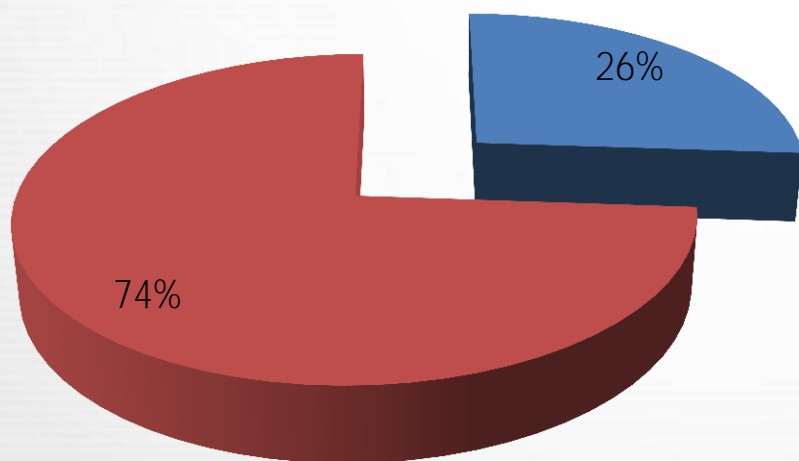


# Water Availability



# Used pump in the last five years

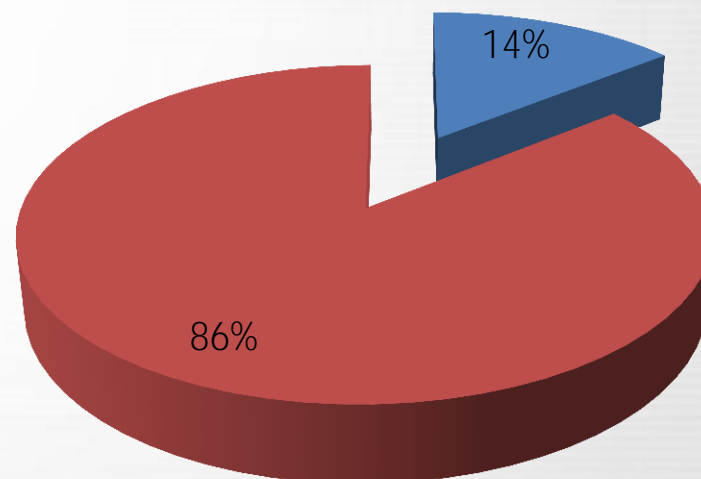
Irrigated



■ Supplement ■ Otherwise

n = 1733

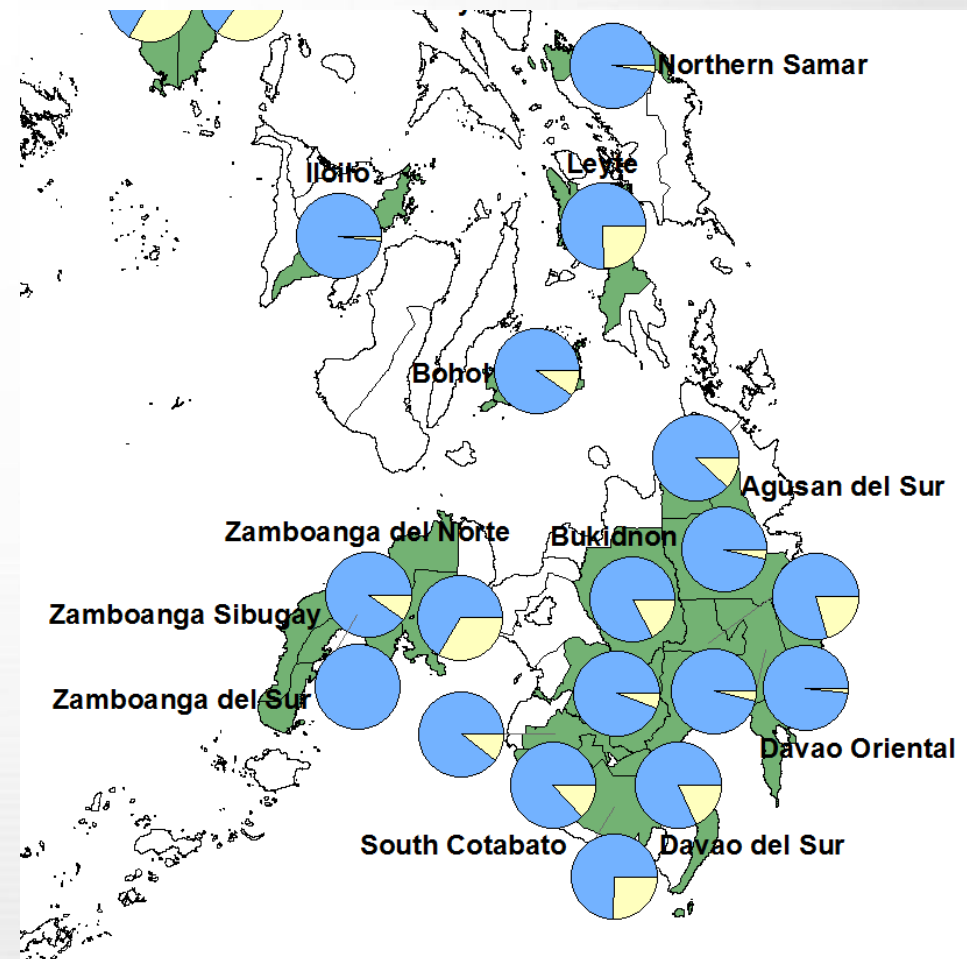
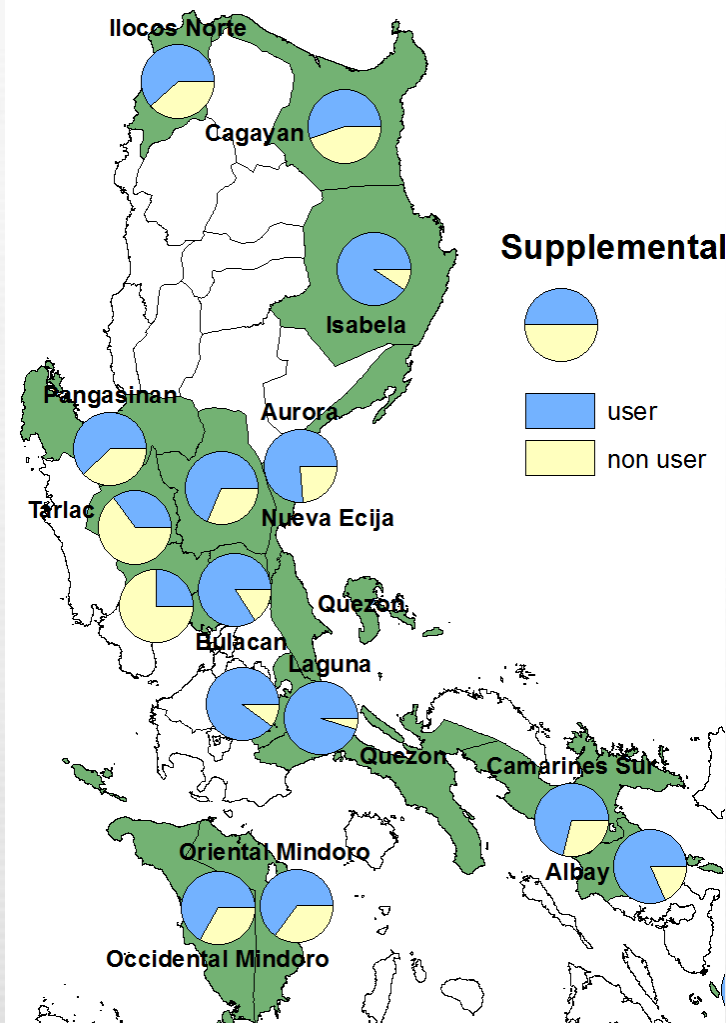
Non-irrigated



■ Supplement ■ Otherwise

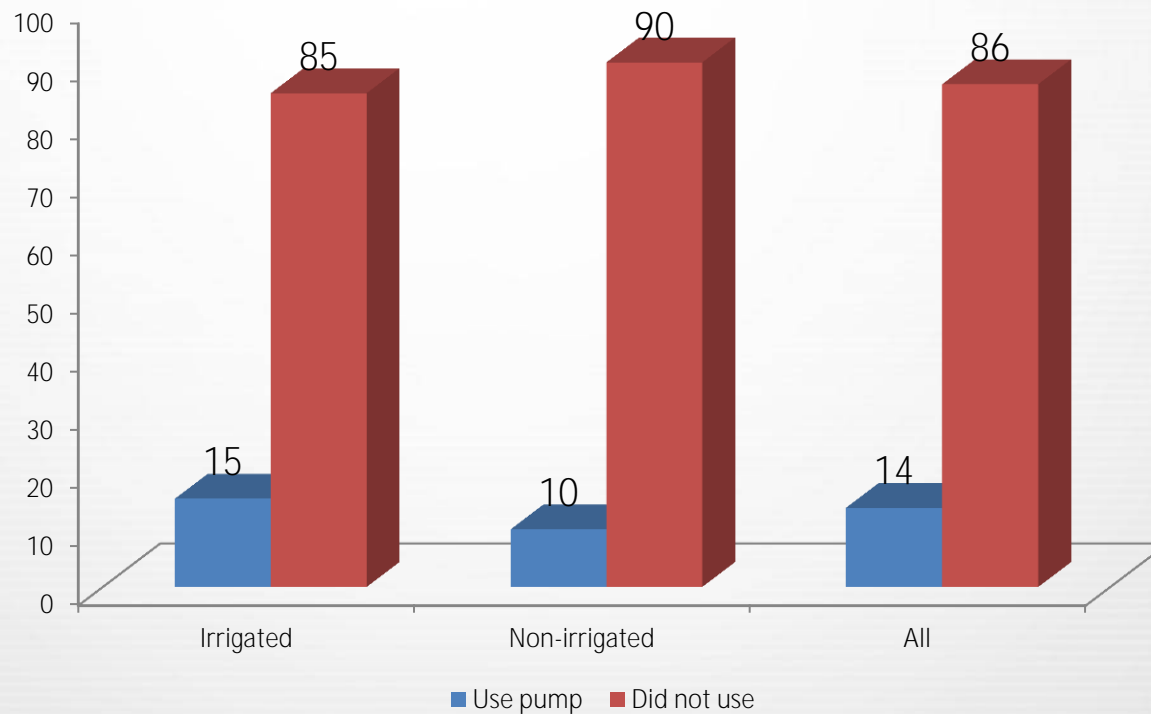
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# Use pump Irrigation



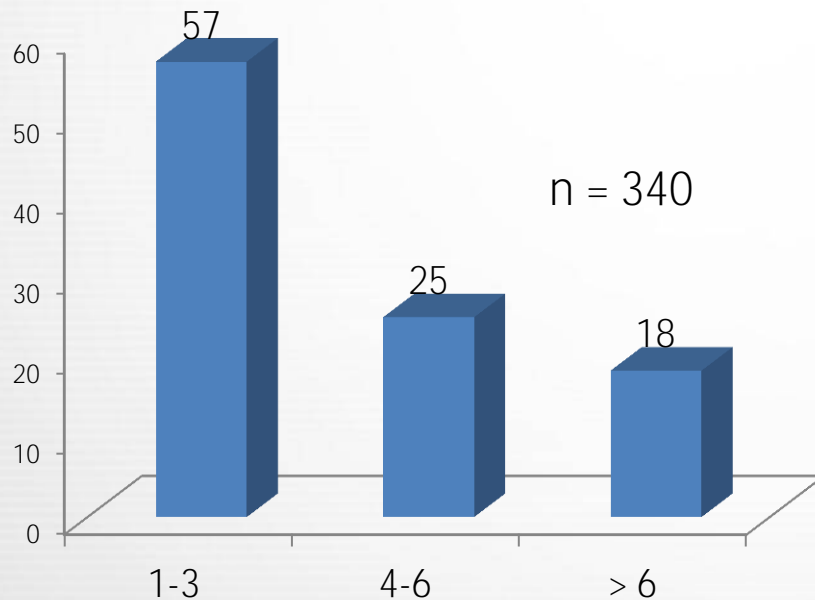


# Used Pump Irrigation, 2011 WS



n = 2399

# Used Pump Irrigation, 2011 WS



- No. of times used pump

Fuel	Li/ha	Cost (PhP)
Diesel	32.72	1,486.48
Gasoline	20.06	1,223.53

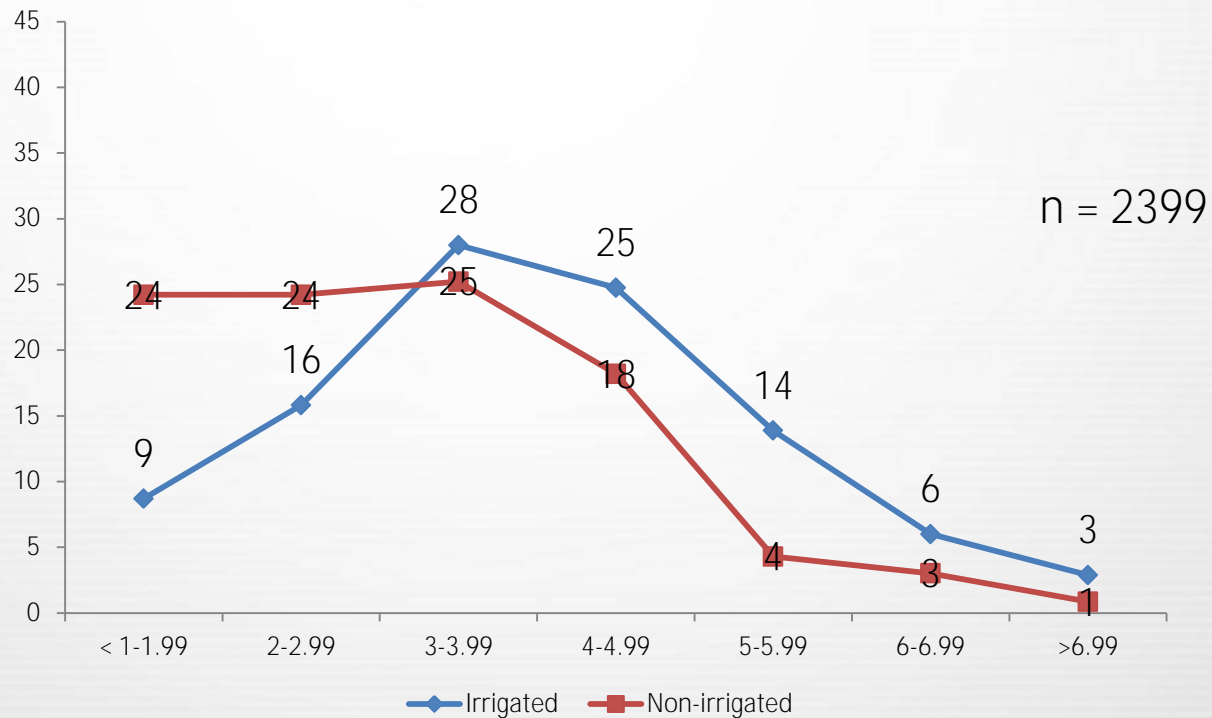
- Fuel use details

# Water and Yield

Ecosystem	Yield (t/ha)
Irrigated	3.94
Non-irrigated	3.08
All	3.69

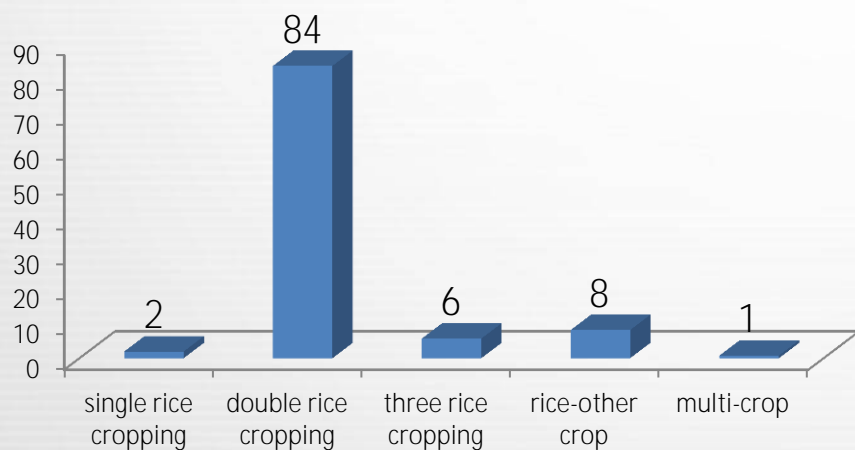
Source of water	Yield (t/ha)
NIS/CIS	4.13
STW/SWIP/SFR/Open well	3.65
Natural irrigation	3.34
Rain	3.01

# Water and Yield



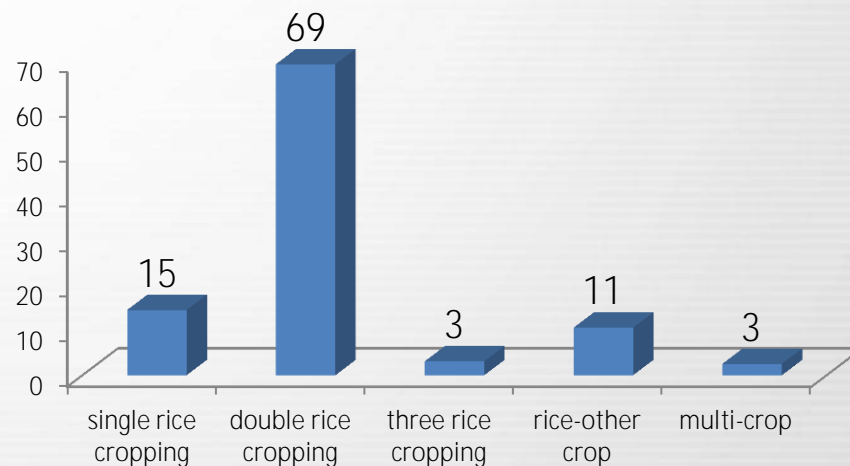
# Ecosystem and Cropping System

Irrigated



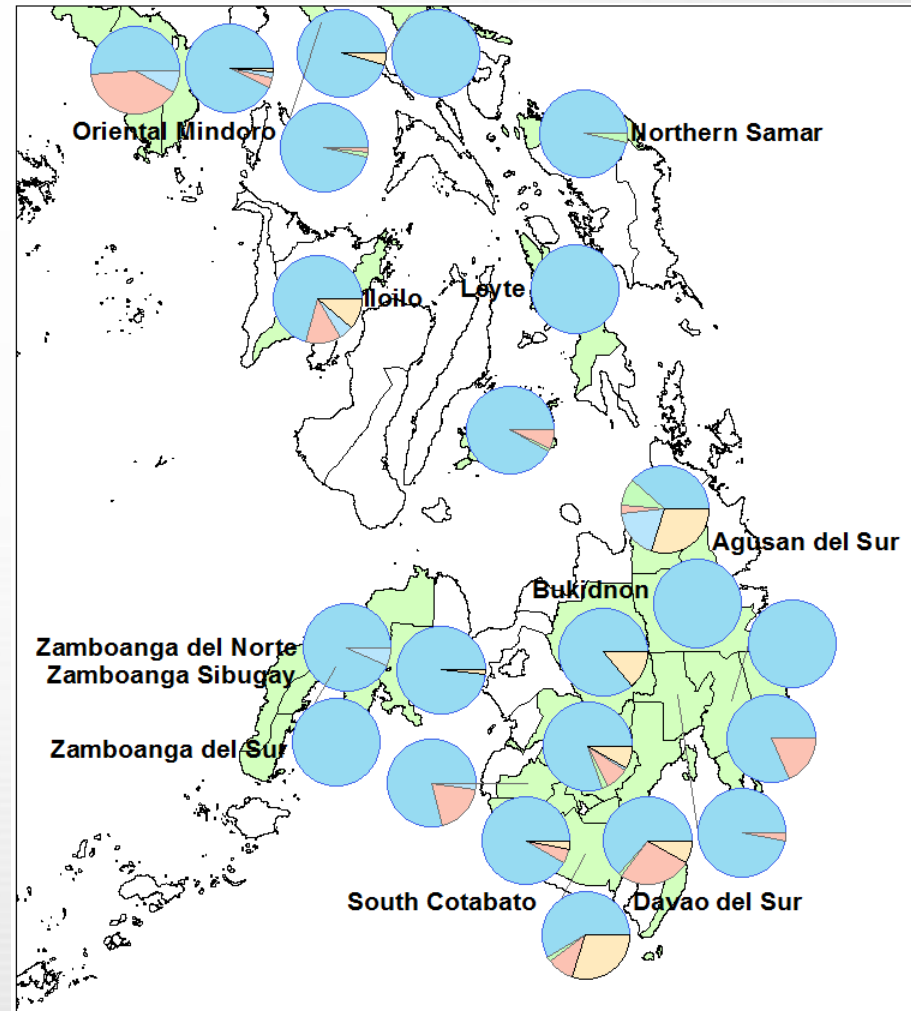
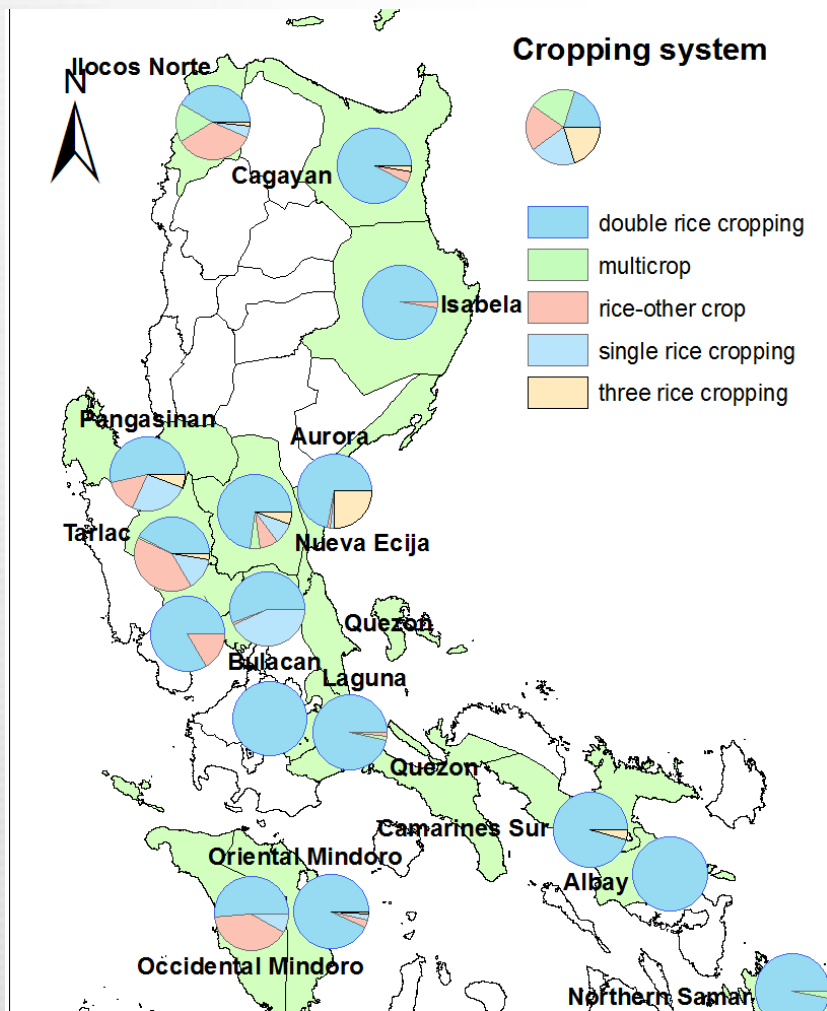
n = 1727

Non-irrigated



n = 709

# Cropping System



# Things to Ponder

- Irrigated and non-irrigated ecosystem have heterogeneous sources of water
- Are we using the full potential of the irrigation systems
- Water is not only global but continue to be a household issue
- Is it time to develop a DSS for water management or cropping system based on water availability