

# **DROUGHT MITIGATION STRATEGY OF FARMER IN SOUTH OF WEST JAVA**

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**BACKGROUND**

West Java Province also occupies the third position for the number of poor people after the Provinces of East Java and Central Java.



Not only poverty, the magnitude of West Java's contribution to the agricultural sector also does not guarantee the food needs of the regions in West Java can be fulfilled independently.



Based on the characteristics of the region  
The area of dry land in southern part of West Java Province reaches 55.98 percent of the total dry land in West Java especially in Sukabumi dan Tasikmalaya district



Based on the above problems, general objective of this study was to optimize the use of dry land in Sukabumi and Tasikmalaya districts and formulate policies in an effort to improve the welfare of the community.

# OBJECTIVE

1. Analyzed the level of poverty of dry land farmers in Sukabumi and Tasikmalaya Districts currently

2. Analyzed strategy of farmer to mitigate from drought in these area, Sukabumi and Tasikmalaya District

# RESEARCH METHODOLOGY

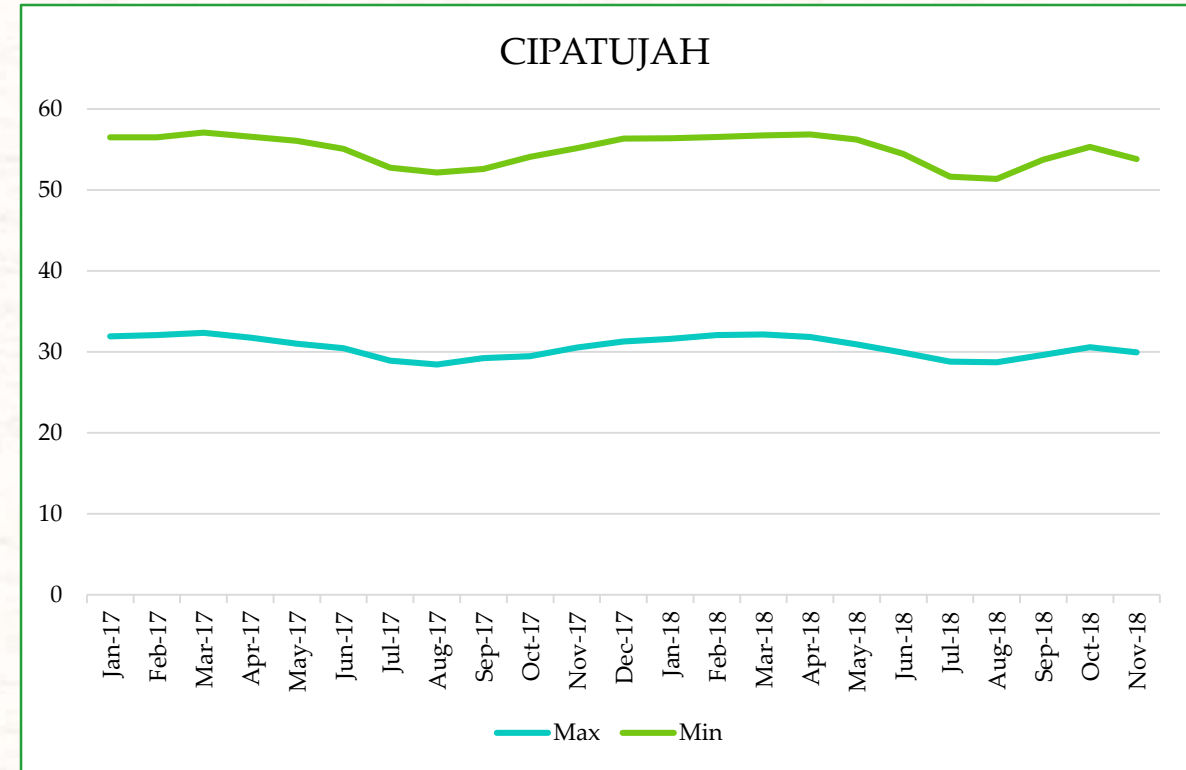
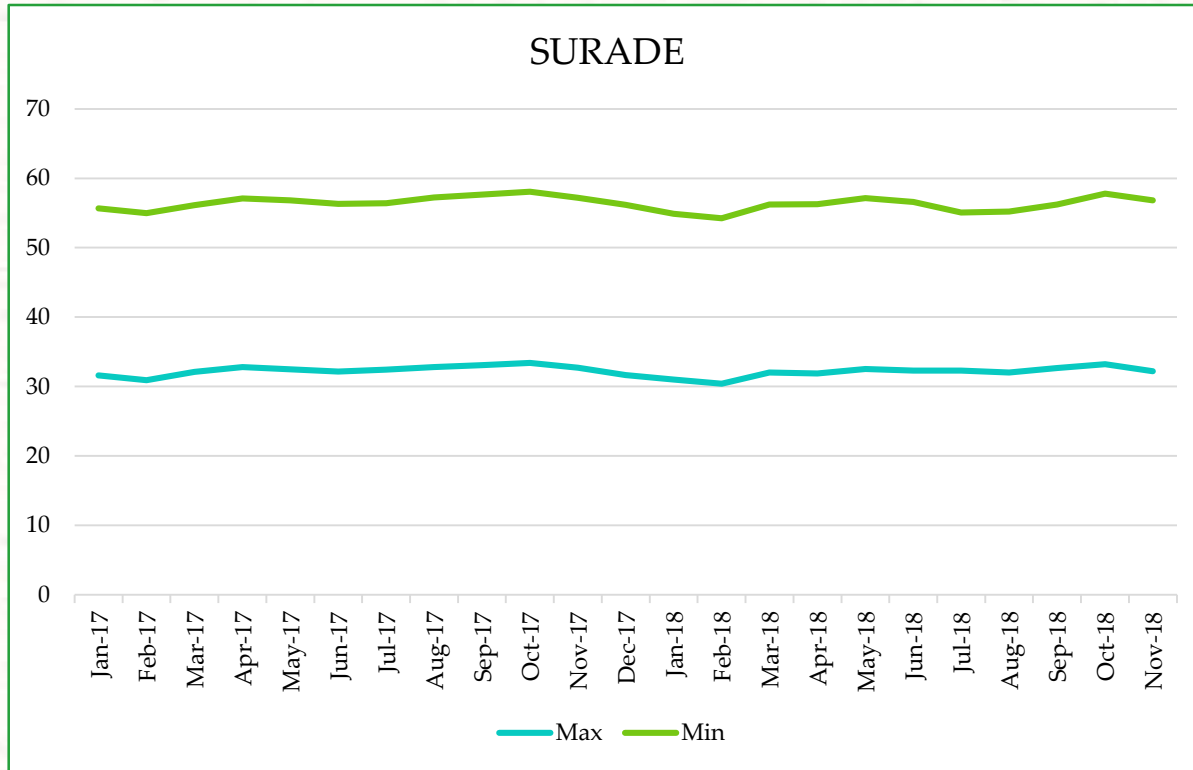
## Sampling Site

- Surade Sub District, Sukabumi District
- Cipatujah Sub District, Tasikmalaya District

## Type and Source Data

- Primary Data
- Secondary Data

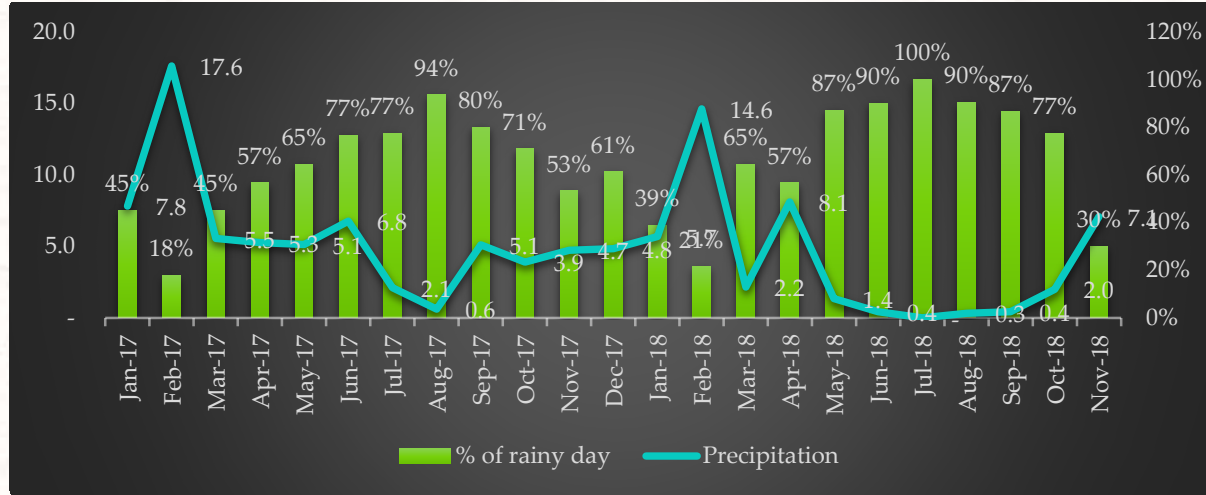
# Variability of Temperature of Surade and Cipatujah Januari 2017 - November 2018



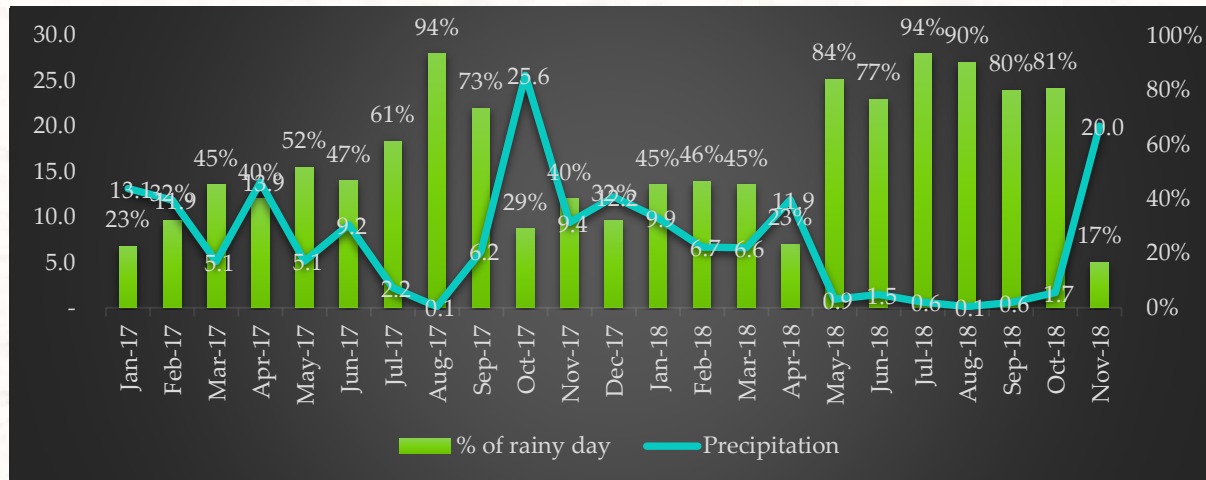
Temperature in Surade, average of maximum temperature in this area is  $32.21^{\circ}\text{C}$  and minimum temperature  $24.15^{\circ}\text{C}$ . In Cipatujah. The difference between maximum and minimum temperature is about  $6^{\circ}\text{C}$ .

# Days of Rainy and Precipitation in Surade from January 2017 to November 2018

## Surade



## Cipatujah



Precipitation and rainy season in Surade and Cipatujah, both of them is very fluctuative, especially for rainy days. Rainy days, in both areas, are increasing from 2017 to 2018.

# Farm Problem in Surade and Cipatujah

- Farmer in these areas stated that their farmer is impacted by drought. Almost 90 percent in these areas stated about this.
- The availability of water for agriculture, according to farmers in Surade, around 33.33 percent is impacted, but for Cipatujah is around 4 percent.

	Surade	Cipatujah
Land infertility	0%	15.38%
Dought	89,47%	84.62%
Availability of water for agriculture	33,33%	4.00%
Additional cost to get water	22,22%	20.00%



# **POVERTY LEVEL IN SURADE AND CIPATUJAH**

## Poverty Level in Surade

According to Statistics Indonesia, poverty line in Sukabumi Regency is Rp. 284,063 per capita per month.

	Total (rupiah)
Average of expenditure per capita per month	506,077
Largest expenditure per capita per month	860,000
Smallest expenditure per capita per month	264,267

	Total	%
Poor	2	10.53%
Non Poor	17	89.47%
Total	19	100%

## Poverty Level in Cipatujah

According to Statistics Indonesia, poverty line in Tasikmalaya Regency is Rp. 284,462 per capita per month.

	Total (rupiah)
Average of expenditure per capita per month	548,154
Largest expenditure per capita per month	1,563,889
Smallest expenditure per capita per month	261,667

	Total	%
Poor	3	11.54%
Non Poor	23	88.46%
Total	19	100%

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- People in both sub-districts planted rice in planting season 1 and planting season 2, but in the planting season 3 most of the land was given up due to limited water.
- Actually, the farmers want the third season to be used to plant crops other than rice. Farmers are reluctant to plant because if they plant, water availability is limited, so this will provide considerable risk to their business.

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- Strategy to reduce the impact of drought is to provide information about alternative crops that can be planted, as well as information on how to plant good crops.
- Some selected commodities, namely watermelon, melon, mustard greens and kale.

## Farm analysis from Kale, Mustard Greens, Watermelon and Melon per Hectare

- Melon is the highest expenditure in cultivation per hectare, it is Rp 60 million, then watermelon around Rp 34 million. Then, kale and mustard greens, each is Rp 17 million and 9 million.
- Harvest periods is around 4 months. Income of melon is the highest than others, meanwhile the less is mustard greens.
- Base on this table, return cost ratio (RCR) of melon is the highest than others.

	Kale	Mustard Greens	Watermelon	Melon
<b>Cost (Rp)</b>	17,153,500	9,526,000	34,277,100	60,627,000
<b>Revenue</b>				
<b>Quantity</b>	1,773	2,400	25,000	40,000
	bundle	kg	kg	kg
<b>Price per unit (Rp)</b>	15,000	5,000	2,300	2,500
	26,595,000	12,000,000	57,500,000	100,000,000
<b>Income (Rp)</b>				
	9,441,500	2,474,000	23,222,900	76,200,000
<b>RCR</b>	1.55	1.26	1.68	4.20
<b>BCR</b>	0.55	0.26	0.68	3.20

# CONCLUSION

- About 10.53 percent in Surade, Sukabumi Regency and 11.54 percent in Cipatujah, Tasikmalaya Regency are classified as poor based on the poverty line according to BPS.
- The cropping pattern strategy is expected to increase farmers' income in the form of rice-rice-horticulture (CGRT). Usually in the third season farmers in these areas did not cultivate any crops in their land, to increase farmers' income, in the third season farmers are advised to plant horticulture crops, such as watermelon, melon, mustard greens and kale. Farmers who have modal, they can plant melon or water melon, but for farmers with limited modal, they can cultivate kale and mustard greens.

# SUGGESTION

- Farmers need the role of extension agents to be able to adopt the technology offered and educate farmers to plant other crops other than rice, that is, plants that are more profitable than rice, such as watermelon, melon, mustard greens and kale to mitigation of drought in South of West Java.

# ACKNOWLEDGEMENT

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# PHOTO



**thank you**