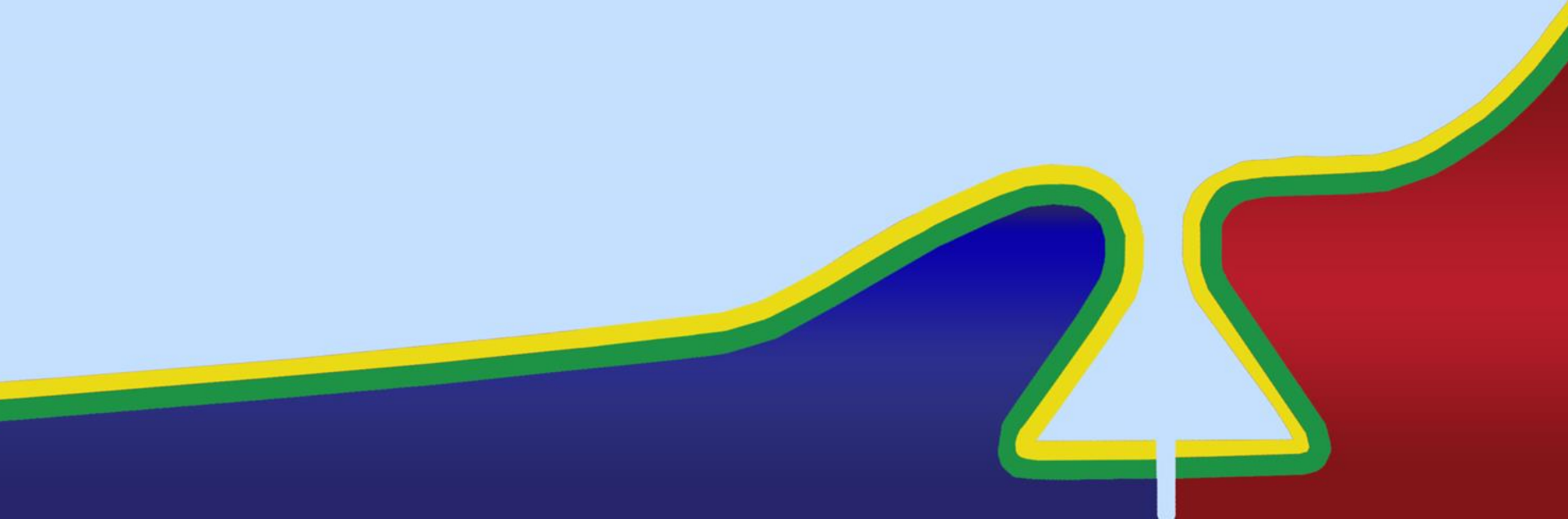




Use and Relevance of Climate Information to Agriculture



Agriculture

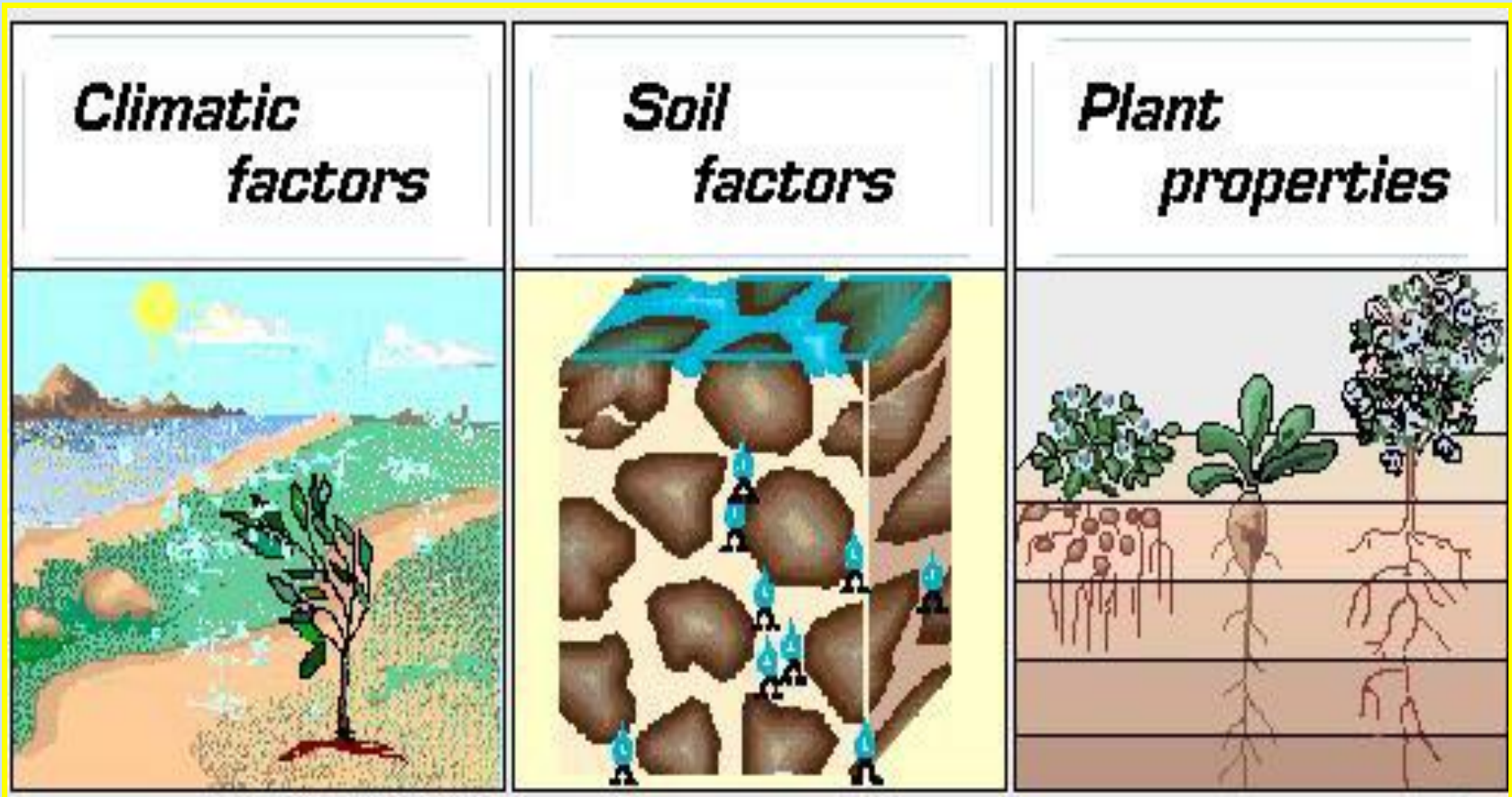
the most weather-dependent sector

The Philippines is primarily an agricultural country. Agriculture sector employed 11.06 million persons and this comprised 27 percent of the national employment.

Information on weather and climate condition could make the sector more productive and disaster-resilient.



Factors that affect plant growth



Climatic Factors

- Temperature
- Solar radiation
- Wind
- Relative Humidity
- Rainfall

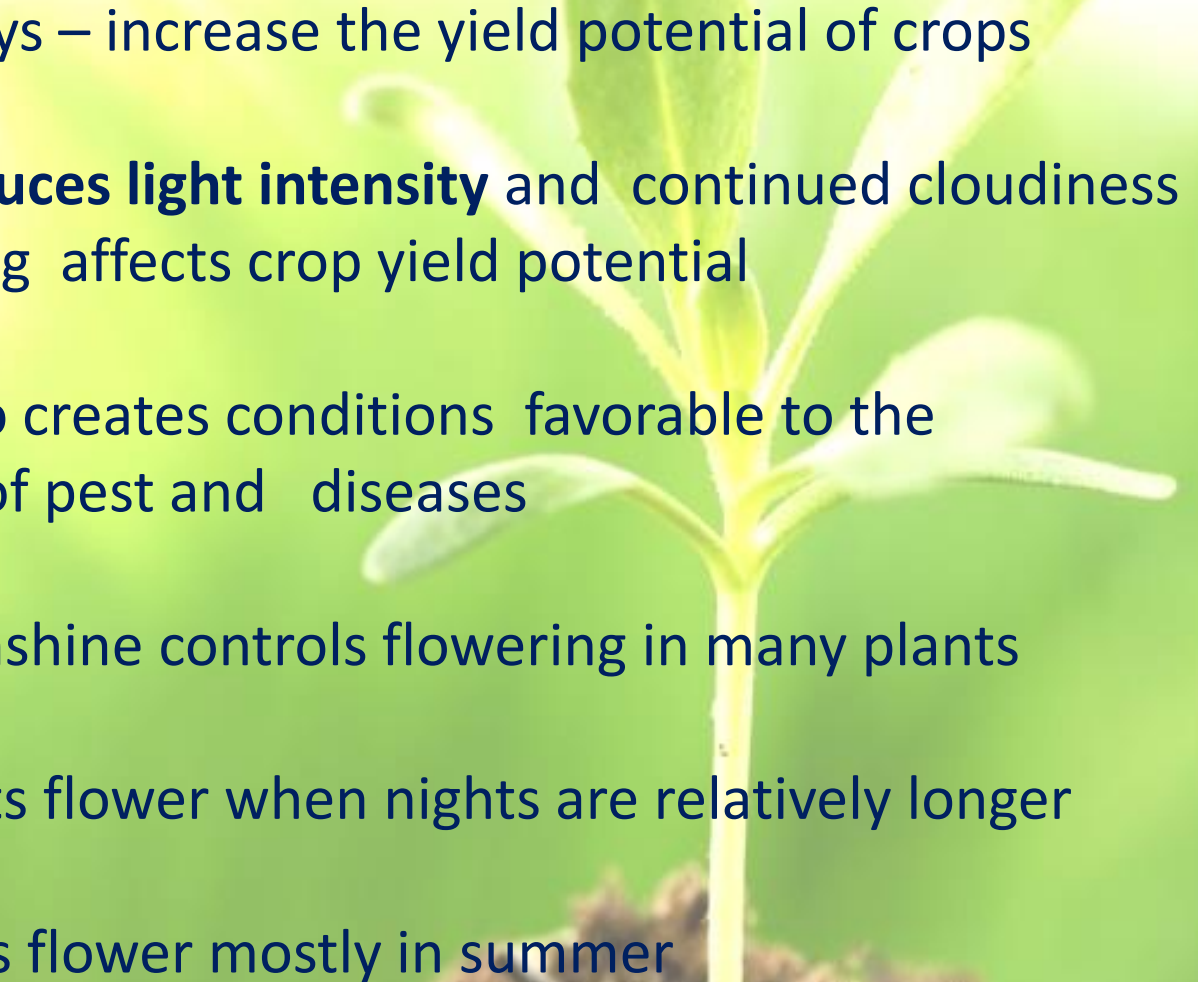


Temperature

- Regulates most plant processes – germination, flowering, photosynthesis, transpiration, respiration, etc.
- Each crop has its own optimum, maximum and minimum temperature conditions



Sunshine

- More sunny days – increase the yield potential of crops
 - **Cloudiness reduces light intensity** and continued cloudiness during flowering affects crop yield potential
 - **Cloudiness** also creates conditions favorable to the multiplication of pest and diseases
 - Duration of sunshine controls flowering in many plants
 - Short-day plants flower when nights are relatively longer
 - Long-day plants flower mostly in summer
- 

Relative Humidity



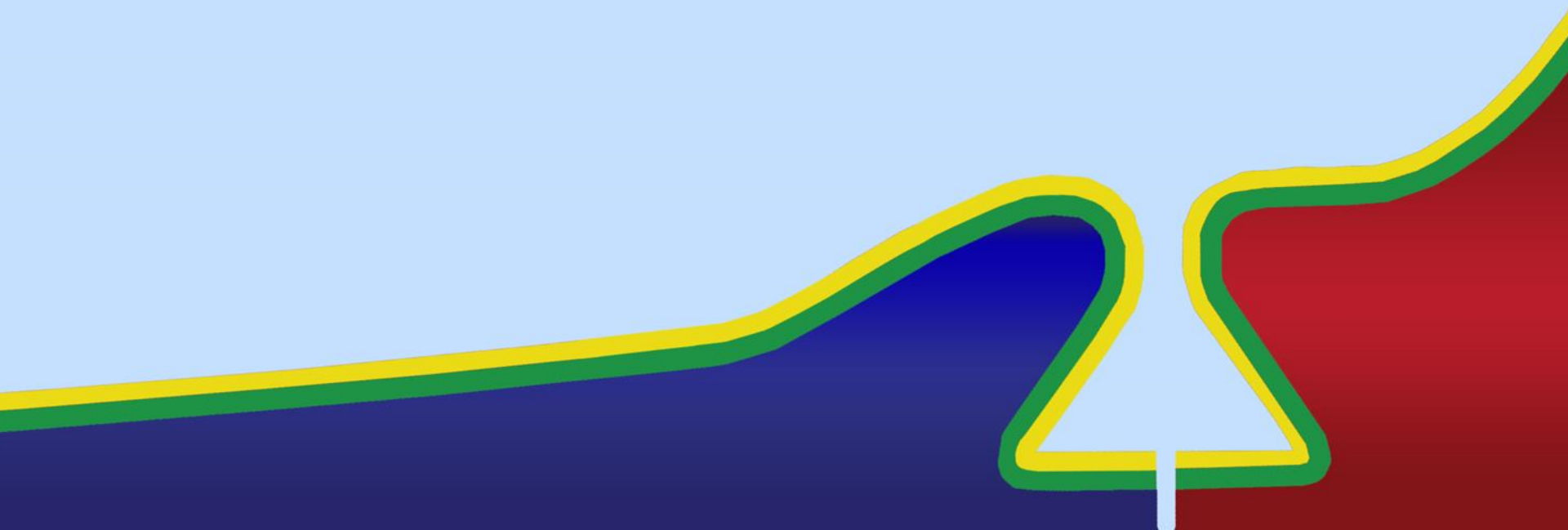
- most plants prefer a relative humidity range of 40 to 80%
- High air humidity increases growth of shoots and leaves at the expense of yield of crops

Wind

- **Gentle wind (2-5 kph) is beneficial to plant growth**
- **Continued strong wind (20-100 kph) reduces photosynthesis and enhance the spread of bacterial leaf diseases in rice**
- **Strong wind at pollination time induces sterility**
- **Strong wind cause mechanical damage to crops such as breaking and lodging**

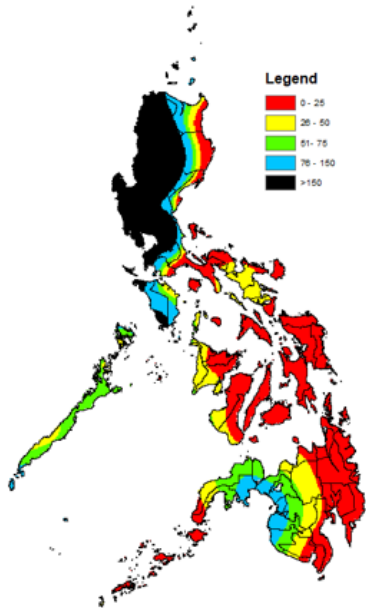


Use and Relevance of PAGASA's Climate Information and Services (CIS) to Agriculture

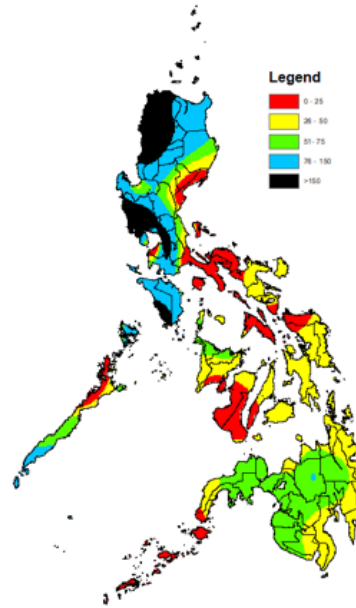


PAGASA 10-day regional agri-weather Information

Actual Rainfall Distribution (mm)
August 11 - 20, 2018
Dekad 23



Ten-day Regional Rainfall Forecast (mm)
August 21 - 31, 2018
Dekad 24



Farm Advisories

- Describes agro meteorological situation and prognosis
- Recommends farm activities, e.g. nutrient management, fertilizer application

Farm Level Information

10 Day Weather Outlook per Municipality

- Regular farm weather forecast on
 - Agro-climatic information (rainfall, relative humidity, temperature and other weather data)
 - Analysis on how it will affect farmers

- Information on monitoring of pests and diseases

10-DAY WEATHER OUTLOOK FOR FARM OPERATIONS

Project Areas	6 Sep								CLASSIFICATION	AMOUNT OF RAIN TO EXPECT
	Ave. Temperature (°C)			Rainfall(mm/day)	Total Cloud Cover	Rel. Humidity (%)	Wind			
	Min	Max	Mean	Description	Description	Mean	Mean Speed (mps)	Mean Direction		
Tayum (Abra)	23	29	26	LIGHT RAINS	CLOUDY	86	2	S	NO RAIN	NO RAIN IS EXPECTED WITHIN THE DAY
Bucay (Abra)	22	28	25	LIGHT RAINS	CLOUDY	88	2	S		
Pilar (Abra)	23	30	27	LIGHT RAINS	CLOUDY	86	2	SSE	LIGHT RAINS	LESS THAN 2.5mm RAIN Observed in 1 hour and expected to continue in the next 2 hours OR LESS THAN 60mm of RAIN WITHIN 24 hours
Tineg (Abra)	20	28	24	LIGHT RAINS	CLOUDY	90	2	SW		
Langiden (Abra)	24	30	27	LIGHT RAINS	CLOUDY	83	3	SSE	MODERATE RAINS	2.5 - 7.5 mm RAIN Observed in 1 hour and expected to continue in the next 2 hours OR 60mm - 180mm of RAIN WITHIN 24 hours
Daguoman (Abra)	19	26	22	LIGHT RAINS	CLOUDY	94	1	SW		
Malibcong (Abra)	19	27	23	LIGHT RAINS	CLOUDY	93	1	SW	HEAVY RAINS	GREATER THAN 7.5mm of RAIN Observed in 1 hour and expected to continue in the next 2 hours OR GREATER THAN 180mm of RAIN WITHIN 24 hours
Peñarubia (Abra)	22	29	26	LIGHT RAINS	CLOUDY	87	2	S		
Villaviciosa (Abra)	22	29	26	LIGHT RAINS	CLOUDY	87	2	SSE		
Dolores (Abra)	22	28	25	LIGHT RAINS	CLOUDY	87	2	S		
Bangued (Abra)	23	30	26	LIGHT RAINS	CLOUDY	85	2	SSE		
San Quintin (Abra)	24	30	27	LIGHT RAINS	CLOUDY	84	2	SSE		
Pidigan (Abra)	24	30	27	LIGHT RAINS	CLOUDY	85	2	SSE		
San Juan (Abra)	22	28	25	LIGHT RAINS	CLOUDY	87	2	SSW		
Tabo (Abra)	19	29	24	LIGHT RAINS	CLOUDY	91	2	SSW		
Manabo (Abra)	22	29	25	LIGHT RAINS	CLOUDY	89	2	S		
Lacub (Abra)	19	28	24	LIGHT RAINS	CLOUDY	92	2	SW		
San Isidro (Abra)	23	29	26	LIGHT RAINS	CLOUDY	86	2	SSE		
Boliney (Abra)	19	28	23	LIGHT RAINS	CLOUDY	92	1	SSW		
Danglas (Abra)	23	29	26	LIGHT RAINS	CLOUDY	83	3	S		
La Paz (Abra)	23	29	26	LIGHT RAINS	CLOUDY	85	2	S		
Bucloc (Abra)	20	27	24	LIGHT RAINS	CLOUDY	91	1	SSW		
Lagayan (Abra)	22	29	25	LIGHT RAINS	CLOUDY	86	3	SSW		
Luba (Abra)	21	29	25	LIGHT RAINS	CLOUDY	89	2	S		
Langangilang (Abra)	21	28	25	LIGHT RAINS	CLOUDY	88	2	SSW		

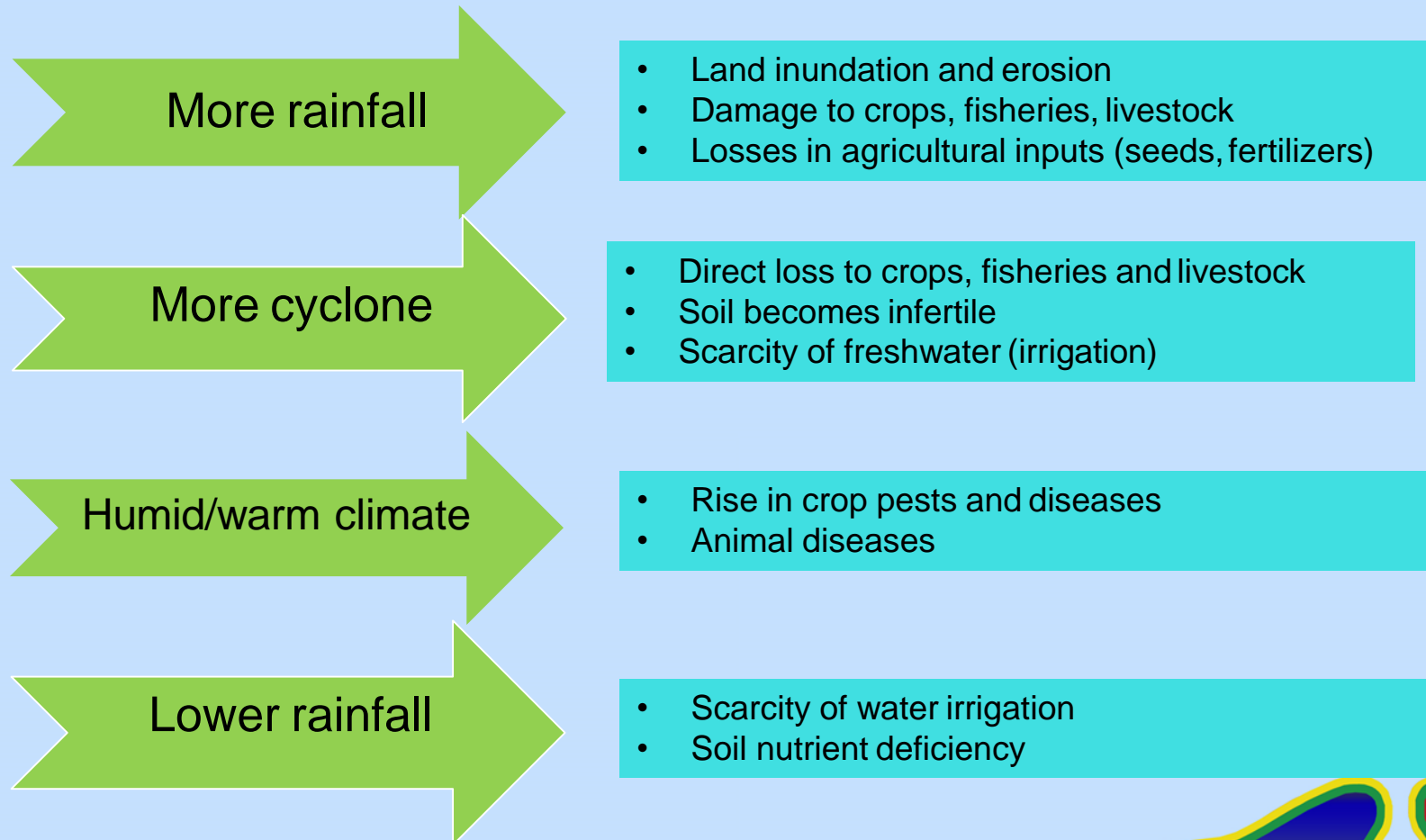
CLOUD COVER

SUNNY

Farm Level Information

Application of Weather Data in Disaster Risk Reduction Management

- Development of Local Flood Early Warning System



Monthly Outlook Forums

Agro-climate information bulletins that inform farmers' crop choices before the agricultural seasons start

Weather-related management advice on a monthly basis throughout the season

Monthly Rainfall Forecast

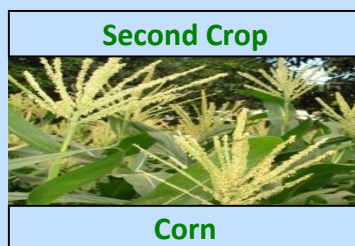
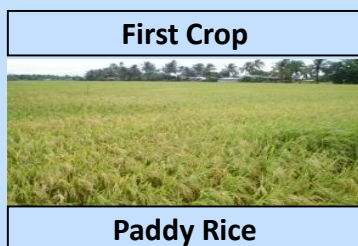


Monthly Outlook Forums

Agro-climate information bulletins that inform farmers' crop choices before the agricultural seasons start

Weather-related management advice on a monthly basis throughout the season

CROPPING PATTERN AND CALENDAR PLAN

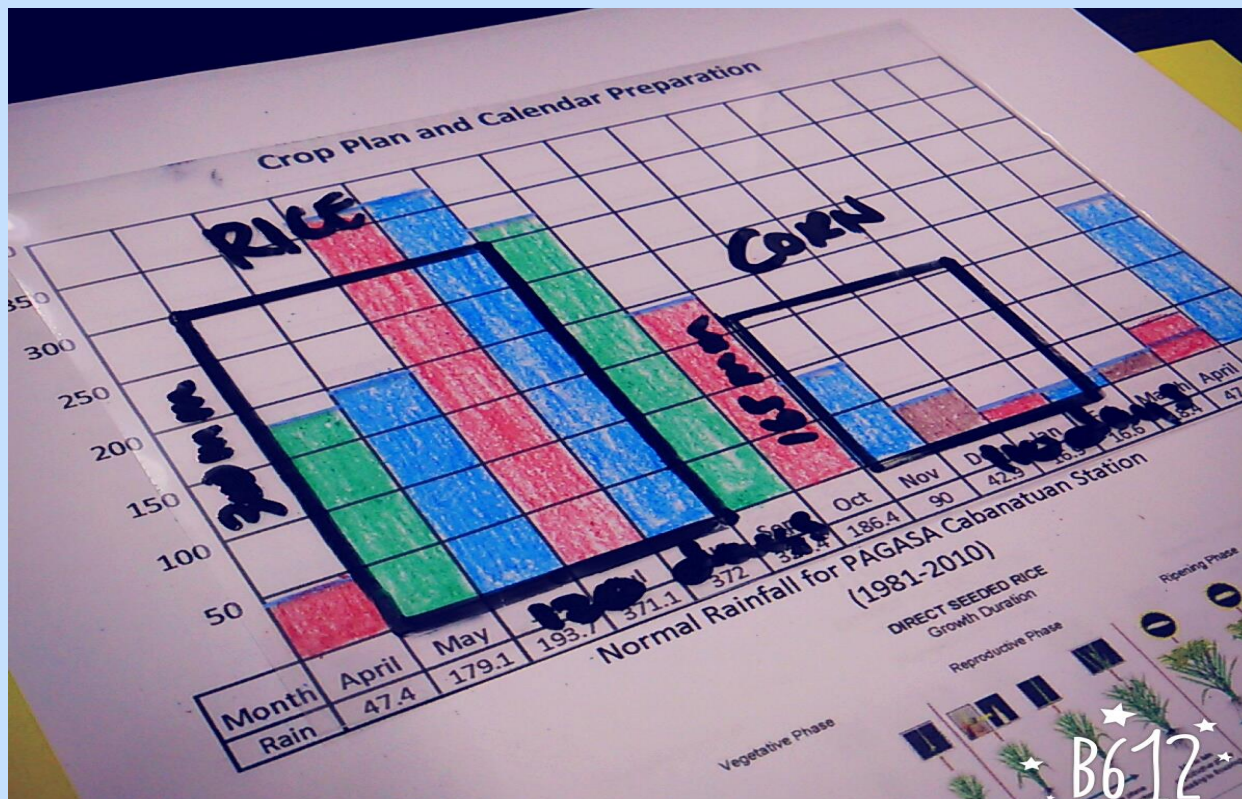


Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Crop - Corn / H		Vegetables, peanut			LS / PT		First Crop - Rice / H			LS / PT		Second

Climatological Normals Information

- Crop and Water Requirement analysis

CROPPING PATTERN AND CALENDAR PLAN



B612

Thank you.

The Lord God took the man and put him in the Garden of Eden **to work for it and take care of it.** (Gen. 2:15)

