



# search title/ (Rainfall variation and its impact on agriculture in the city of Sabya)

student name / Muhammad Yahya Jawahi Ageela

Teacher / Faizah Ibrahim Bahry





Global Learning and Observations to Benefit the Environment

## School / Al-Mattan Intermediate and Secondary Girls School at Sabya

#### **Abstractt**

Ministry of Education

This study aims to Know the impact of rainfall variation on agriculture in the city of sabya and form here we began to suggest the following:

Research question and hypothesis:

-Does rainfall variation affect agriculture in the city of Sabya?
-Is there a relationship between lack of rain and lack of

agriculture in the city of Sabya?

Hypothesis:

Rainfall variation affects agriculture in the city of Sabya There is a relationship between lack of rain and lack of agriculture in the city of Sabya

**Procedures** 

I used the survey and observation method and prepared a questionnaire about the impact of rain interruptions on agriculture in the city of Sabya

Results:

There is a direct relationship between rainfall variation and agriculture. The lower the rainfall, the lower the agriculture. Conclusions:

There is an effect of rainfall variation on agriculture. Rain is considered one of the most important factors affecting agriculture

### **Research Question**

Does rainfall variation affect agriculture in the city of Sabya? Is there a relationship between rainfall interruption and agriculture in the city of Sabya?

#### Introduction

. The phenomenon of rain interruption and variation is one of the major problems that arid and semi-arid regions suffer from, because it has a negative impact on rain-fed agriculture. The city of Sabya suffers from this phenomenon. The study area includes most of the cultivated lands, and agriculture depends on rainwater and groundwater. This study aims to know the effect of interruption. Rainfall on agriculture in the city of Sabyan, and from here we began to suggest the following.

#### **Research Methods**

Materials and method:

Tools:

❖ GLOBE devices (GPS - pen - paper - Internet - computer - cloud chart - rain gauge) Globe Environmental website. The questionnaire ❖

Preparation of the study tool: The research questionnaire was constructed, and in its final form it consisted of (5) paragraphs. The questionnaire was distributed to a random sample

Steps: We used observation and the descriptive survey method.

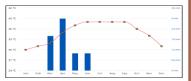
We used the GLOBE website · and devices to take data and determine the location. (Figure 1) The variation of rainfall in the region and a visualization of data for the location of Al-Mutta'b School (Figure 2).

Through observation, I noticed that agriculture increases during the rainy season in the city of Sabya, which is famous for growing seasonal crops. A number of photos were taken in two different seasons in terms of rainfall variation, and I noticed the difference between them as in (Figure 3-4).





Tools used and location (Fig. 1)



Rainfall variation in the region (2)



Pictures of plants in the rainy season (Figure 3)



A picture of a plant in the dry season (Figure 4)

#### Results

Then the researcher used the questionnaire Show results:

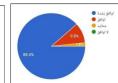
From the table and the statistical drawing, we note the percentage of the degree of approval in the questionnaire study tool Table No. (1)

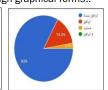
paragraphs descent SMA To

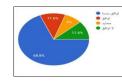
	paragraphs	descent				SMA	Total
1	Rain affects agriculture	Strongly Agree	Agree	Neutral	Disagree	80%	100%
		83.9%	10.7%	2.7%	2.7%		
		High	Weak	Weak	Weak		
2	Rain is an important factor for growing trees	88.4%	9.8%	1.8%	0%	80%	100%
	There is damage due to rain interruption	High	Weak	Weak	None		
3		83%	14.3%	2.7%	0%	80%	100%
		High	Weak	Weak	None		
4	Rain has a negative effect on	68.8%	11.6%	11.6%	8%	80%	100%
	the plant	High	Weak	Weak	Weak		
5	There is a relationship between rain and plant growth	81.3%	17%	1.8%	0%	80%	100%
		High	Weak	Weak	None		

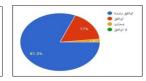
Discuss and explain the reasons/results related to the study questions and discuss them as shown through graphical forms..











The results during the statistical analysis highlighted some important matters: We found that the percentage of support in the opinion that rain affects agriculture was strongly estimated at 83.9%.

There is a strongly agreed percentage of respondents who answered that rain appears to be an important factor for planting trees, estimated at 88.4%. The percentage of support in the opinions that there are damages due to rain interruption was estimated at 83%.

The percentage of support in the opinion that rain has a negative effect on plants was estimated at 68.8%.

The percentage of support in opinions that there is a relationship between rain and plant growth was estimated at 81.3%.

### Discussion

There are many studies that have proven that there is a relationship between rainfall variation and lack of agriculture, and they were in agreement with our current study. but the

purpose of this study is to find appropriate solutions that help solve this problem in the city of Sabya, reducing the risk of lack of agriculture, and in light of what we have achieved in this Current research conclusions can be provided

The following recommendations:-Conduct more advanced studies and experiments on rainfall variation and its relationship to lack of agriculture and its harms.

-Establishing a center for scientific research and monitoring of environmental problems by the Ministry of Health and the Ministry of Environment.

#### **Conclusions**

There are many studies that have proven that there is a relationship between rainfall variation and lack of agriculture, and they were in agreement with our current study, but the purpose of this study is to find appropriate solutions that help solve this problem in the city of Sabya, reducing the risk of lack of agriculture, and in light of what we have achieved in this Current research conclusions can be provided

# **Bibliography**

Globe 2023 Virtual Expo
https://www.globe.gov/newsevents/meetings\_symposia/annualmeetings/23rd-annual-meeting
Dictionary of meanings
https://www.almaany.com/ar/dict/arar/%D9%85%D8%B7%D8%B1/
Egyptian magazine
https:https://egjec.journals.ekb.eg/article\_1
49006.html