

TASK 5: Climate of Jordan

The purpose of this exercise is to elucidate the regional variations and to try to explain them. You may find it useful to refer to the earlier map of Jordan (Fig.A1)

1: Look at the mean data (2005) for the following cities/towns and plot them onto the base map (Fig.A10)

	Mean Rainfall	Mean Max Temp
	(mm)	°C
Baqura	344.9	29.3
Irbid	447.6	23.5
Amman	228.1	23.6
Mafraq	123.7	24.3
al-Safawi	50.8	26.7
al-Tafila	112.3	23.4
Aqaba	2.6	30.6

Fig.A9: Climatic data for selected towns

2: How does the rainfall vary from west to east and from north to south? Why might this be so? (Note that Baqura is down in the Jordan rift valley; al-Tafila is in the highlands).

Keywords: Latitude; rain shadow; distance from the sea.

3: How does the mean temperature vary from west to east and from north to south? Why might this be so?

Keywords: Latitude; rain shadow; distance from the sea.

4: (Optional): The data will also vary seasonally and you may be surprised at the severity of the Jordanian winters. To answer any questions that you may have about this take a look at the website for the Jordan Meteorological Department (www.met.jometeo.gov.jo) and click on "Climate Data". Select the same towns/cities to find a range of data throughout the year and over a period of years. For detailed study you should plot the data for a selected period onto graphs. Do you observe any seasonal trends?

Keywords: Sub-tropical 'High'; angles of incidence; radiation nights.

5: Look at the set of photographs (Fig.A11) taken near to six of the seven locations listed in the table of climatic data above. Try to match them with their approximate locations. (Answers in Appendix 3)

6: What elements of each landscape made you select each location?

7: Write a summary description of the "Climate of Jordan".

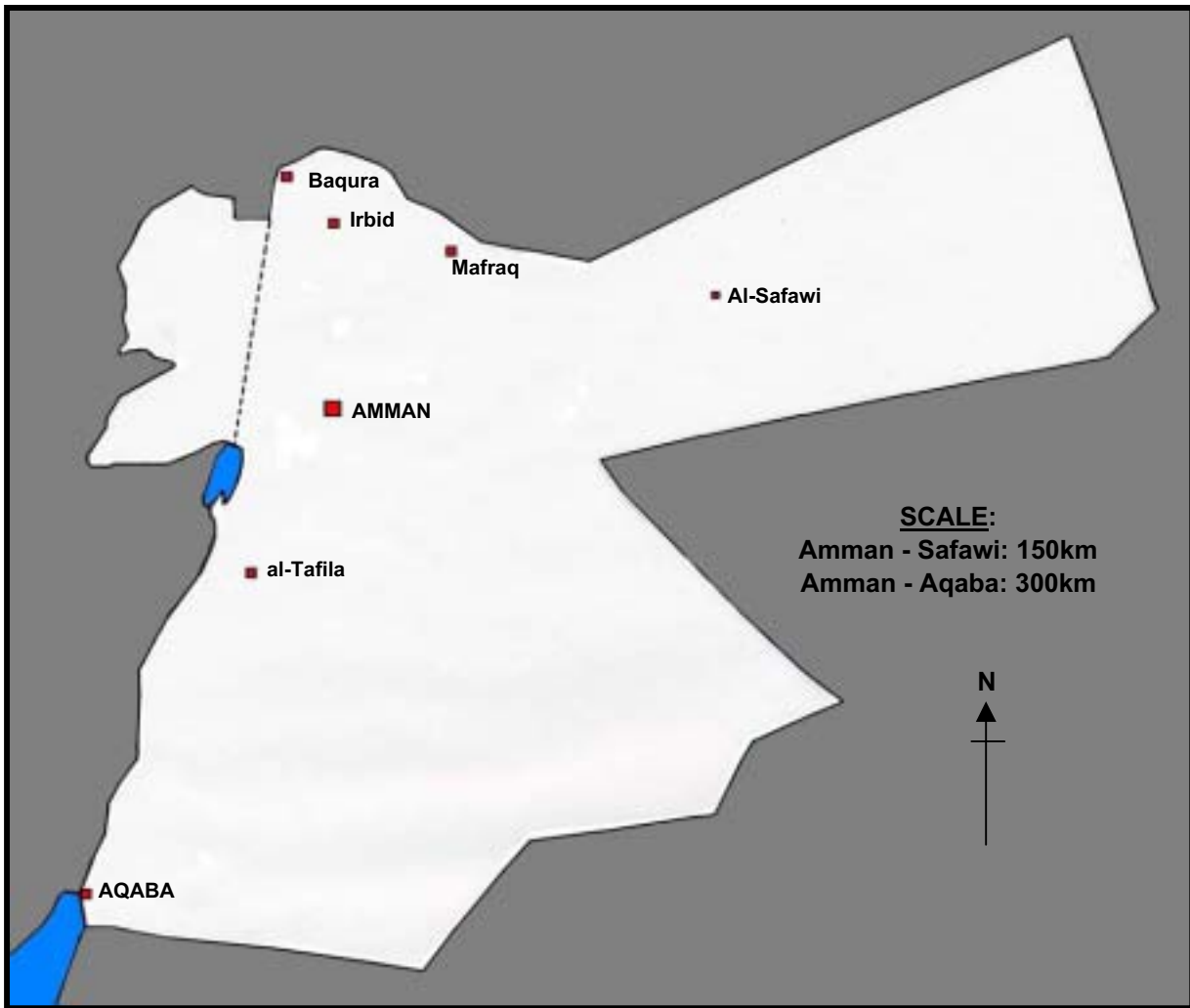


Fig.A10: Jordan - Base map for climate data

Fig. A11: Climate of Jordan

Try to match these landscapes with their approximate location



Photo: A



Photo: B

Fig. A11: Climate of Jordan (Continued)



Photo: C



Photo: D

Fig. A11: Climate of Jordan (Continued)



Photo: E



Photo: F

APPENDIX 3:

CLIMATE OF JORDAN

Location of the photographs in Figure A11

Photo. A: North Rift Valley close to Baqura

Being so low down this area is not only in the rain shadow of mountains of the West Bank but in a location where the air has descended so far that it has warmed up and holding what little moisture it has. Any agriculture here has to be in poly-tunnels to raise the humidity, hold moisture and minimise evaporation loss.

Photo. B: Aqaba

As for the area around Baqura except that we are now much further south and therefore closer to the effects of the sub-tropical high pressure. Air descends from the upper atmosphere, warms and retains moisture. Summer temperatures can be very high here. Being adjacent to the Gulf of Aqaba (Red Sea) the humidity is also high. This is not an agricultural area being given over to trade and industry.

Photo. C: Wadi Dana, close to al-Tafila

This is highland (1200m) experiencing a range of climates from plateau level to below sea level. The climate at this site is marginal to both desert and Mediterranean type and lacking in extensive agriculture. Olives predominate and mostly on small plots.

Photo. D: Tal Hassan in the desert of the Badia not far from Al-Safawi

This is rough, stony, basalt desert well east of the highlands and the plateau around Amman and therefore suffering water shortage owing to its rain shadow position and the porosity of the basalts and the underlying limestones. This area also experiences extremes of climate with high aridity in the summer months and cold and snow in winter. Nomadic grazing dominates but with some fruit growing, cereals, melons and tomatoes along the Syrian border.

Photo. E: The highland area N.E. of Amman (vicinity of Irbid)

Being quite high up and in a more Mediterranean type of climate this area is well populated and with a lot of good agricultural land; mostly for vegetables, olives and vines. The King Talal reservoir lies in one of the deep valleys providing water for irrigation.

Photo. F: The plateau area east of Amman

Similar to Photo E but on the plateau and so close to Amman as to demand intensive agriculture, including poly-tunnels because of the extreme winters. The limestone soils produce a rich *terra rossa* soil.