

Name: _____

Date: _____

Environmental Dynamics II Final Assessment Primary Source Data

Below is a set of climate data from the Okavango delta region over the last 15 years.

- Create a graph for all of the variables in Figure 1
- Comment on the overall trends you observe for all three of the variables in Figure 1.

Figure 1: Rainfall, Temperature and Flood Volumes in an Area of the Okavango Delta 1988 – 2001

Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Average Rainfall Mm/year	450	445	455	420	420	425	415	412	410	412	420	422	412	409	408
Average Temperature Celsius	28	27	28	29	30	29	31	32	31	32	33	33	32	34	35
Average Volume of Flood Water arriving at the Delta in April km ³	780	750	785	600	575	300	175	200	225	200	400	600	500	475	300

Scientists have been doing a survey of plant and animal species numbers in this general area of the delta over the last 15 years. Below is a table containing some of their findings. You may choose to represent the data in different ways to help you visualize it.

- In Figure 2, examine the plant species present, their characteristics, and their preferred soil type.
- Then look at how the populations have changed between the years of 1987 and 2001.
- In your notes, answer the question, "What does this information tell you about your ecosystem?" Be sure to explain yourself clearly.

Figure 2: Plants in an Area of the Okavango Delta Region

Plant	Characteristics	Preferred Soil Type	Populations Numbers 1987	Population Numbers 2001
Grasses such as spike grass, <i>Sporobolus spicatus</i> .	Creeping perennial grass with low, lawn-like growth. Leaves have sharp needle like tips.	Sand	Restricted to islands	Spreading into the floodplain and woodlands
<i>Acacia tortilis</i>	Tree present on the Islands and in the savanna of the delta. Requires plentiful rainfall	Clay	10-15 per acre	1-2 per acre
<i>Comretum celastroides</i>	Shrub present in the floodplain. It forms thickets in the woodlands.	Sand	10-15 per acre	15-20 per acre