

Statistics - Geography Form 3 Notes

- [Compound/Cumulative/Divided Bar Graph](#)
- [Piechart/Divided Circles/Circle Charts](#)
- [Proportional Circles](#)

[Compound/Cumulative/Divided Bar Graph](#)

Major cash crops exported in Kenya in tonnes

CROP	1990	1991	1992	1993	1994
COFFEE	4500	5000	5200	6000	5900
TEA	1300	1100	2500	2100	2200
MAIZE	800	900	500	400	400
WHEAT	600	500	600	700	500

Steps

CROP	1990	CT	1991	CT	1992	CT	1993	CT	1994
COFFEE	4500	4500	5000	5000	5200	5200	6000	6000	5900
TEA	1300	5800	1100	6100	2500	7700	2100	8100	2200
MAIZE	800	6600	900	7000	500	8200	400	8500	400
WHEAT	600	7200	500	7500	600	8800	700	9200	500
TOTAL	7200		7500		8800		9200		9000

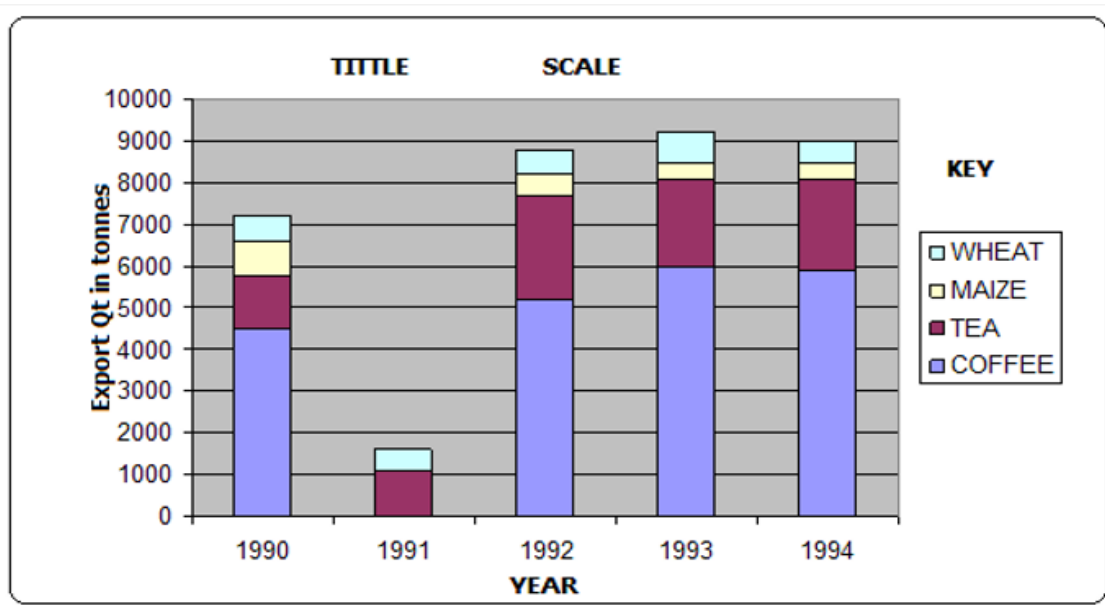
1. Set cumulative totals for the data each year
2. Draw vertical axis(Y) to represent dependent variable
3. Draw horizontal axis(x) to represent independent variable
4. Label both axis using suitable scale
5. Plot the cumulative values for each year
6. Use values for components to subdivide the cumulative bar
7. The subdivisions are placed in descending order with the longest at the bottom(coffee)
8. Shade each component differently
9. Put title and key

Advantages

1. It's easy to construct
2. It has good visual impression
3. There is easy comparison for the same component in different bars because of uniform shading
4. Easy to interpret because bars are shaded differently
5. Total value of the bar can be identified easily

Disadvantages

1. It doesn't show the trend of components (change over time).
2. Can't be used to show many components as there is limited space upwards
3. Tedious as there is a lot of calculation work involved.
4. Not easy to trace individual contribution made by members of the same bar
5. Poor choice of vertical scale causes exaggeration of bars length leading to wrong conclusions



Analysis

- Coffee was the leading export earner in the five years.
- Tea was the second leading export earner.
- Wheat had the lowest export quantity.
- 1993 recorded the highest export quantity.
- 1990 recorded the lowest export quantity.

Piechart/Divided Circles/Circle Charts

- A circle which has been subdivided into degrees used to represent statistical data where component values have been converted in degrees.

Major countries producing commercial vehicles in the world in 000s

USA	FRANCE	JAPAN	UK	GERMANY	RUSSIA
1800	240	2050	400	240	750

Steps

- Convert components into degrees
 - USA $\frac{1800}{5480} \times 360 = 118.2^\circ$
 - FRANCE $\frac{240}{5480} \times 360 = 15.8^\circ$
 - JAPAN $\frac{2050}{5480} \times 360 = 134.7^\circ$
 - UK $\frac{400}{5480} \times 360 = 26.3^\circ$
 - GERMANY $\frac{240}{5480} \times 360 = 15.8^\circ$
 - RUSSIA $\frac{750}{5480} \times 360 = 49.3^\circ$
- Draw a circle of convenient size using a pair of compasses.
- From the centre of the circle mark out each calculated angle using a protractor.
- Shade the sectors differently and provide the key for various shadings.

Advantages

1. Gives a good/clear visual impression
2. Easy to draw.
3. Can be used to present varying types of data e.g. minerals, population, etc.