

# **3055 BA SANGAM COLLEGE**

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# LESSON NOTES

## WORKSHEET 17

## YEAR 12: GEOGRAPHY

NAME:

Strand	2.1 Natural Hazards
Sub Strand	12.1.1.2
Content Learning	The types of Hazards
Outcome	

What flooding means?

Flood, flash flood, deluge, freshet, inundation refer to **the overflowing of normally dry areas**, often after heavy rains. Flood is usually applied to the overflow of a great body of water, as, for example, a river, although it may refer to any water that overflows an area: a flood along the river; a flood in a basement.

#### **Causes of Floods**

- Massive Rainfall. Drainage systems and the effective infrastructure design aid during heavy rains. ...
- Overflowing of the Rivers. ...
- Collapsed Dams. ...
- Snowmelt. ...
- Deforestation. ...
- Climate change. ...
- Emission of Greenhouse Gases. ...
- Other Factors.

#### The 3 Most Common Flood Types

- River floods occur when water levels run over river banks, as a result of heavy rain. ...
- Coastal floods occur around much larger bodies of water, usually when the tide gets very high. ...
- A flash flood is an excessive amount of rain in a short period of time (usually within 6 hours).
- What is effect of flooding?
- Floods have large social consequences for communities and individuals. As most people are well aware, the immediate impacts of flooding include loss of human life, damage to property, destruction of crops, loss of livestock, and deterioration of health conditions owing to waterborne diseases.
- Hydrological Sciences–Journal–des Sciences Hydrologiques, 52(5) October 2007
- Flooding in Fiji: findings from a 100-year historical series
- Abstract Correspondence from a long-established sugar mill provided the opportunity to construct the
- longest flood series for a river in Fiji-the Ba River in northwest Viti Levu-from 1892 to 2002. Flood
- waters reached the mill floor every four years on average. Contrary to common lore, this study could
- detect no increase in the frequency of major floods over the course of the 20th century, despite
- intensification of land use and siltation of the river channel over that time. Large, slow-moving tropical

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- cyclones situated northwest of the valley have generated large floods, but so too have tropical
- rainstorms. Major floods have occurred in months when the Southern Oscillation Index (SOI) was both
- negative and positive, suggesting that the SOI is a poor indicator of flood potential for the Ba River.
- Key words Fiji; flood frequency; SOI; temporal trends; tropical cyclones

#### INTRODUCTION

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- Flooding poses a serious threat to the Fiji Islands. In recent years, inundation of the
- towns of Ba and Nadi in western Viti Levu (Fig. 1) in January 1999 resulted in an
- estimated damage bill of F\$40 million (~US\$20 million) and the loss of six lives (Yeo,
- 2000). Flooding of mostly rural areas in northern Vanua Levu (Fig. 1) in April 2000 is
- estimated to have caused financial losses of F\$3 million (~US\$1.5 million), a figure
- that obscures substantial losses incurred at the household level (Yeo, 2001). Severe
- flooding associated with Tropical Cyclone Ami in January 2003 cost tens of millions
- of dollars and left 17 people dead near Labasa (Fig. 1) (NDMO, 2003; Terry et al.,
- 2004). Another 10 people drowned as a result of flooding in eastern Viti Levu in April
- 2004 (Fiji Government Online, 2004).

## Activity

With reference to Monsoon Asia, Discuss the Environmental effects of floos and ways to minimize the effects.