

Sangam S.K.M College-Nadi

Year 12

Geography

Worksheet 2 - Solution

A.Short Answer Questions

- 1. State one reason why developed countries like Japan act so quickly after an earthquake or a tsunami.**

Countries like Japan, are more advanced in terms of technology, expertise, finance and resources, thus are able to rehabilitate at a much quicker phase.

- 2. Give one precaution that could be taken to cope with high rainfall in cities and explain why this would be helpful.**

- Building embankments or stop banks up to stop the river from overflowing.
- Dredging the river (ie deepening the river channel).
- Prevents closure of business and essential services and governments expense in re-building.

- 3. State the major cause of tsunami.**

- Tsunamis are generated by submarine earthquakes.
- It can also be started by volcanic eruptions on the ocean floor.

- 4. Outline 2 socio- economic effects of earthquake.**

- Loss of life and injury.
- Destruction of bridges, motorways and roads.
- Job losses as a result of closure of business.
- Disruption of water and power supplies as well as sewerage may lead to an outbreak of disease.
- Damage to property and farmlands.
- Social disruption leading to temporary closure of schools.
- Strengthening of community spirits

- 5. Describe two ways in which flooding affects land use.**

Negative

- causes erosion and mass movement on slopes eg. Landslides, rilling, slumps, etc
- erodes river banks and stop banks.
- storm surges cause an increase in soil salinity (ie. Increases the salt levels in the soil) which is a problem for farm-lands.

Positive

- builds up landforms such as floodplains, deltas, levees, alluvial fans, etc
- increases the fertility of the soil through the deposition of alluvium

- 6. Describe two economic impacts of tropical cyclone.**

- Reduction in export earnings
- Destruction of buildings
- Damage to infrastructure such as roads, power & water supplies, bridges, airports, etc
- Reduction in tourist arrivals.
- Decline in economic growth which may lead to job loss.

7. Briefly discuss why international co-operation is necessary in dealing with natural hazards.

For countries like Fiji, international co-operation is necessary to deal with natural hazards, as we lack financial capabilities and also resources and expertise. Through grant and aid we are able to rebuild our infrastructures and economy.

B. DEFINITIONS

1. **Focus** - The point in the crust where earthquakes originate.
2. **Gale** - a very strong wind.
3. **Monsoon** - a seasonal prevailing wind in the region of South and SE Asia, blowing from the south-west between May and September and bringing rain (the *wet monsoon*), or from the north-east between October and April (the *dry monsoon*).
4. **Magma** - hot fluid or semi-fluid material below or within the earth's crust .
5. **Heat wave** - a prolonged period of abnormally hot weather.
6. **Tsunami** - are a series of huge freak waves which can travel great distances.
7. **Sand storm** - a prolonged period of abnormally hot weather.
8. **Coriolis force**- is the deflection of wind to the right in the northern hemisphere and to the left in the southern hemisphere.
9. **Cultural hazard**- Are people made an event which causes danger for people and their property.
10. **Maar** – a broad, shallow crater, typically filled by a lake formed by volcanic eruption with little lava.
11. **Avalanche** - is a rapid flow of snow down a sloping surface.
12. **Jet stream**- is fast flowing, narrow air currents found in the atmosphere of some planets, including Earth.
13. **Epicenter** -the point on the earth’s surface where the shock wave is first felt.
14. **Lapilli**- droplets of molten or semi-molten lava ejected from a **volcanic eruption**.
15. **Blizzard** – a severe snow storm with high winds.

C. ESSAY WRITING

With reference to a specific hazard that occurred in either Fiji or Monsoon Asia, discuss two human activities that can worsen the effects of the hazard and two measures to reduce the effects.

Flooding

Floods are natural event however human activities have increased the risk of flooding in low-lying areas; such activities include:

- ✓ Establishment of settlement near river systems and fertile lowland.
- ✓ Building of roads, mining activities, logging and improper farming practices along slopes and near river systems.
- ✓ All these activities result in the removal of trees and forests which in turn will lead to an increase in run-off and sedimentation. Run-off becomes greater and faster than it would have been when forests were there. As a result, rivers will flood much faster.

The impacts of floods can be reduced by:

1. Modifying the flood event by:
 - Constructing dams
 - Building stop banks
 - Planting trees in front of stop banks to slow down flood waters.
2. Modifying people's vulnerability to flood loss by :
 - Retaining forest in a river catchment
 - Re-forestation – this is the planting of trees in areas which are deforested.
3. Modifying the effects of flood by:
 - Insurance
 - Community assistance
 - Government assistance
 - Preparedness
 - Flood forecasting