2013 Mass Movement

(1) Precipitation and gradient can affect mass movement a number of ways. Gradient refers to the angle of the slope. The steeper the gradient the faster the mass movement will be. This is because the steeper the slope the more gravity will pull at the material. On a gentle gradient it is less likely for mass movement to occur and when it does occur it happens very slowly.

In areas with heavy rainfall like on the equator, mass movement is more likely to occur. If the water content is very high in the soil there is a greater chance of mass movement happening as the soil is heavier and will move due to both its gravity and weight. The water can also act as a lubricant making the regolith easier to slide down the slope.

(2) An example of a slow mass movement that I have studied is soil creep. Soil creep occurs on the Drumlins in Monaghan as the slopes are gentle. Soil creep is when the soil moves at a speed less than 1cm per year. It can affect the soil a number of ways. Firstly, soil with gather in a number of steps called terracettes. Telegraph poles, fences and even tree trunks will be tilted or curved in the direction of the slope. Soil can also pile up behind walls causing them to bulge and collapse