Education - All countries have high enrolment rates except Sub-Saharan Africa. In 2010 rates reached 90%. Globally 123 million youths are illiterate and 61% are women.

e.g. Chad - by 2012; 2.6 million books distributed, 400 classrooms built, 20k taught, 12k teachers trained. However teaching quality is low, AIDS has disrupted education.

Health - Child Mortality; majority of Asia and North Africa reached goal, Oceania and Central Asia not reached, overall drop of 47%. HIV/AIDS; North Africa no progress, increase in HIV testing 17% to 41%, AID/UNICEF support, contraception.

3.1 Atmosphere and change.

Climate Change -

Natural Causes -

Input change, sunspot activity; give off large amounts of radiation. Earth's orbit, eccentricity, obliquity, precession; the more tilt the more extreme seasons, lower tilt grows ice sheets. Dust. inverse correlation released due to volcanic activity; reflect and diffract (global warming increase).

Human Causes -

Emission of G.H. gases. Electricity and heat (25%), China and India open up 3 coal stations/week. Industry (5%), gives off CO2. Agriculture (14%), cattle ranching and mechanisation. Transportation (14.5%), cars running on petrol. Land use change, burning fuel wood (deforestation so less biomass for CO2 absorption).

Consequences -

Extreme weather, less frequent heat waves, affects animal and agricultural populations, 20% reiseal increase, 7% windspeed increase.

Rising sea levels - ice caps/glaciers on land melting, thermal expansion of Var ruction of habitat e.g. coral 25% marine life, flooding; loss of habitat; salinisation; increased e condition, if Greenland melts 8m sea level rise. Π

Water scarcity - kills of vegetation and threatens biod versity, increase in CO2 and soil erosion, desertification e.g. Sahel; global fooccersis, was spread malnutrition. Marine Conditions - coral bleaching 30% mortality, distort on 6 abitats (optimum = 5-25m, 18-34C). Ocean Acidification - du 6-5.4. gases i.e. CO2, VERC oxides, pH is falling from 8.2-6.9, CO2 reacts with calcium card nutricard erodes, calcification so is a rate at which the reef grows, massive changes in the food abain food chain.

3.2 Soil and change.

Causes of soil degradation -

lack of water, lack of vegetation, no binding, overpopulation, wind (blows away topsoil), overcultivation (loosing chemical nutrients), monoculture (depletes nutrients quickly), water (erosion of topsoil).

Consequences of soil degradation - CASE STUDY - Loess Plateau -

Causes -

fluvial erosion, infiltration takes 95% of water, tree cutting, planting and ploughing leads to loose soil (aeolian and fluvial erosion), then cattle ranching.

Consequences -

eroded land, water carries top soil into Yellow River, no transpiration so reduced rainfall, no vegetation, floods, 1 billion tonnes of sediment washed away, erratic river changes (floods), unable to extract water, dust storms exacerbate greenhouse effect (trapped in a cycle of poverty and ecological degradation).

Management -

Initially - small dams built to harvest rainfall, tree planting initiated to stabilise soil, farmers paid for their labour, policy changes for grazing.

10 years later - established vegetation (50 different species), incomes have increased by a factor of 4, hydrological balance restored (soil rehabilitated).