**CHINA**

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| **AIR POLLUTION** |
| What? Describe the cause(s):-government gave people north of the river free coal to burn in the winter-weather and emissions from coal heating | So What? Describe the effect(s):-People die about 5.5 years sooner in northern China-lowers life expectancy due to heart and lung problems-closed highways, forced the cancellations of airline flights and outdoor activities-sent people to the hospital-government ordered factories and construction sites to close and 10 anti-pollution policies-industries replaced outdated technologies and published pollution data |
| **WATER POLLUTION** |
| What? Describe the cause(s):-thousands of tons of raw sewage in a river in one day-thirty years of fast industrial growth-fertilizer run-offs, heavy metals, untreated sewage-polluted sediment and the soil can leech into water-growing demand for water-coal production | So What? Describe the effect(s):-quality has deteriorated significantly-fifth of the Yangtze was unusable-Government started war on pollution in 2014-could jeopardize future economic development-freshwater supplies are less than a third of world average-nearly two thirds of underground water and a third of surface water unusable for humans-expensive to improve water quality |

**INDIA**

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| **AIR POLLUTION** |
| What? Describe the cause(s):-visibility so bad-airborne particles and toxic chemicals-crop burning to clear fields (cheapest option)-ancient farming technique and residues of urban (city) living-Government has failed to control pollution sources-particles from diesel exhaust, natural dust, wildfires-farms burning crop stubble (rice crop to prepare the fields to plant wheat and return nutrients to the soil)-smoke from burning outside the city mixing inside the city (construction, vehicles, and fires the poor use to cook and keep warm)-unusually slow air currents-north India = basin traps pollution-Government officials don’t want to enforce pollution laws because they’re afraid of losing votes.-burning wood or coal in traditional stoves – cheap-People have to make demands for change.--Prime Minister encourages citizens to stop waste and conserve-Rural to urban migration (increased urban population = more cars, city cooking and warming fires)-population growth and increased energy consumption | So What? Describe the effect(s):-most polluted city on Earth (Delhi)-canceled flights-cars crash and pileups – trains delayed/canceled-breathing the air = 50 cigarettes/day-20% surge in patients at hospitals-polluted-related illnesses-public health emergency-can’t see far ahead of you-9 million premature deaths-heart attacks, strokes, breathing difficulties, cancer-air quality is 48 times the guidelines-reverse migration from cities back to rural areas for cleaner air-protests-air clears as areas become wealthier (U.S., Japan)-people spend more time indoors – more coal and wood fires-strong effect on the poorest people-launched a new national air quality monitoring index |
| **WATER POLLUTION** |
| What? Describe the cause(s):-increased levels of sewage-increased population-city and industrial waste -vehicles burning diesel fuel | So What? Describe the effect(s):-275 rivers polluted (more than half)-Government wants to clean up the Ganges. |

**FLOODING IN INDIA AND CHINA**

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| What? Describe the cause(s):-heavy rainfall-mudslides-hail-rainy season-higher water levels on the Yangtze-heavy rains from monsoons (India only)-large construction on flood plains and coastal areas-storm-water drains and waterways clogged with plastic garbage-old drainage systems | So What? Describe the effect(s):-power plants and hydroelectric dams cut power-delayed grain shipments on barges-damaged farms on the Yangtze River-high economic costs ($4 billion)-high death toll-damages crops-raised prices of exported coal and corn-dead fish for fish farmers-destroyed schools (slows children’s education)-stopped public transportation-flights diverted (heavy rains)-delayed rescue work-hospitals evacuated-Government action (flood shelter mapping)-People helping other people |

**So What? Chart Checklist**

Cause and Effect boxes

 Detailed, complete, accurate

 (10 points each) \_\_\_\_\_ points

 **TOTAL: \_\_\_\_\_\_\_/ 100**

**Sources:**

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