**Guided Notes: Industry and Climate Change**



Farming and industrial activities significantly contribute to \_\_\_\_\_\_\_\_\_\_\_\_ climate disruption by releasing greenhouse gases (GHGs) that alter atmospheric composition.

**Key Concepts:**

• Main greenhouse gases (GHGs):

 1. Carbon \_\_\_\_\_\_\_\_\_\_\_\_ (CO2)

 2. \_\_\_\_\_\_\_\_\_\_\_\_ (CH4)

 3. Nitrous \_\_\_\_\_\_\_\_\_\_\_\_ (N2O)

 4. Chlorofluorocarbons

 5. Fluorinated gases (F-gases)

• Major sources of GHG emissions in the U.S.:

 1. \_\_\_\_\_\_\_\_\_\_\_\_ sector: ~30% (mainly from burning gasoline and diesel)

 2. \_\_\_\_\_\_\_\_\_\_\_\_ generation: ~28% (mainly from burning fossil fuels)

 3. \_\_\_\_\_\_\_\_\_\_\_\_: ~22% direct emissions, ~30% including indirect emissions

• Agricultural sources of GHGs:

 1. \_\_\_\_\_\_\_\_\_\_\_\_ animals (e.g., cows): produce methane

 2. Livestock \_\_\_\_\_\_\_\_\_\_\_\_: produces methane and nitrous oxide

 3. \_\_\_\_\_\_\_\_\_\_\_\_ cultivation: produces methane

 4. Soil management: releases \_\_\_\_\_\_\_\_\_\_\_\_ oxide

• Land-use changes:

 - \_\_\_\_\_\_\_\_\_\_\_\_ releases stored carbon as CO2

 - Clearing land with heavy equipment burns fossil fuels

 - Rainforests are important \_\_\_\_\_\_\_\_\_\_\_\_ sinks

**Real World Examples:**

1. Hamburger production: Involves methane from cows, electricity for storage, and fuel for transportation.

2. South American rainforests: Being cleared for agriculture, releasing stored carbon and reducing carbon absorption capacity.

**Word Bank:**

anthropogenic

dioxide

methane

oxide

transportation

electricity

industry

ruminant

manure

rice

nitrous

deforestation

carbon