Pat-MedMUNC III
UNEP

The Effects Industrialized Nations Have on Air Pollution

The burning of fossil fuels and biomass is the most significant source of air pollutants today. Such pollutants include Sulfur Dioxide, Carbon monoxide, and certain nitrous oxides such as NO and NO2 (known collectively as NOx), SPM, volatile organic compounds and some heavy metals. It is also the major anthropogenic source of carbon dioxide, one of the important greenhouse gases. Between 1973 and 1998, total energy supply increased by 57 percent, the majority provided by oil, natural gas and coal with nuclear and hydropower and other renewable resources playing a minor role. The fuels used vary from region to region - for example, natural gas dominates in the Russian Federation, while coal provides 73% of the energy consumed in China. Biomass is an important source of energy in the developing world however is also the main source of air pollution in such countries.

Acid precipitation has been one of the most important environmental concerns over the past decades especially in Europe and North America and more recently in China aw well. Significant damage to forests in Europe became a high priority environmental issue around 1980, while thousands of lakes in Scandinavia lost fish populations due to acidification from the 1950s thru the 1980s. In some parts of Europe, the anthropogenic SO2 emissions, a main cause of acid precipitation, have been reduced by nearly 7o% from their maximum values; there have also been reductions of some 40 per cent in the United States. This has resulted in a significant recovery of the natural acid balance, especially in Europe. On the contrary, as a result of the growing use of coal and other high sulfur fuels, increasing SO2 emissions in the Asia and Pacific Region are a serious environmental threat.

Air pollutant emissions have declined or stabilized in most industrialized countries, largely as a result of abatement policies developed and implemented since the 1970s. Initially governments tried to apply direct control instruments but these were not always cost-effective. In the 1980s, policies were directed more towards cost-effective pollution abatement mechanisms that relied on a

compromise between the cost of environmental protection measures and economic growth. The Polluter Pays Principle has become a basic concept in environmental policy planning.

Recent Developments

Recent policy developments, at both national and regional levels, are based on economic and regulatory instruments, and technology improvement and transfer to enhance emission reductions. In the international arena, one of the most important political developments has been the Convention on Long- Range Tran boundary Air Pollution, adopted in 1979. Through a series of protocols establishing reduction objectives for the main air pollutants, this treaty has catalyzed European, Canadian and US governments to implement national emission abatement policies. The most recent protocol is the 1999 Protocol to Abate Acidification, Eutrophication and Ground-Level Ozone that sets up new reduction commitments for SO2, NOx, VOCs and ammonia.

Points to Consider

- What levels of pollution are present in your country?
- What steps is your country taking to reduce harmful emissions into the air?
- Is your country industrialized?
- What is your country's stance on taking air pollution preventative measures?
- Where do alternate fuel sources, often with less pollution capabilities fit into this topic? Is your country prepared to implement alternate methods or put funds into research for the future of these methods?