Parliamentary Assembly
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COUNCIL OF EUROPE
CONSEIL DE L'EUROPE

Recommendation 1390 (1998)[1]

Fine-particle emissions and human health

Parliamentary Assembly

1. Fine-particle emissions produce air pollution which is dangerous to health. This pollution is responsible for cardiovascular and respiratory illnesses and causes the deaths of children and adults. It is probable that each year in Europe hundreds of thousands of hospital admissions and tens of thousands, or even hundreds of thousands, of deaths are caused by fine particles. These severe health effects make it necessary to reduce fine-particle emissions.

2. Energy produced by the burning of coal, oil, natural gas, wood and biomasses as well as internal combustion motors are the main sources of fine-particle emissions. Energy use, production and transportation methods and technologies must be improved to limit fineparticle emissions.

3. Fine particles penetrate directly into the lungs and contaminate them. However, the mechanism by which they cause illness is not yet known. More scientific research is needed to explain their effects and to find out which fine particles are the most dangerous.

4. The Assembly therefore recommends that the Committee of Ministers :

a. review its work programme in the health field with a view to including relevant aspects of fine particles and public health;

b. call on member countries, the European Union, the World Health Organisation and the United Nations Economic Commission for Europe to :

1. accept the latest research results and hence consider that fine particles (particles smaller than 2.5 thousandths of a millimetre or PM2.5) constitute a major cause of ill health;
2. expand the measurement and monitoring of fine particles in order to obtain necessary information about the level of fine-particle pollution;
3. promote research on the emission, formation, content and distribution of fine particles in the atmosphere;
4. promote studies of the relationship between individual exposure to doses of fine particles and ill health;
5. increase research on the short- and long-term health effects caused by exposure to fine particles with a view to gaining knowledge about the mechanisms involved and the relative harmfulness of different types of fine particles;
6. apply the "As-Low-As-Reasonably-Achievable" (ALARA) principle when reducing fineparticle pollution;
7. support research and development of clean-coal technology and other technologies for energy production which help to reduce fine-particle emissions;
8. promote the switch to less-polluting energy sources and to energy sources causing no fineparticle emissions;

1. See Doc. 8167, report of the Committee on Science and Technology, rapporteur: Mr Tiuri. Text adopted by the Standing Committee, acting on behalf of the Assembly, on 4 November 1998.

9. promote the use of cars with catalytic converters and city buses using gas as fuel;

10. support research and development into, and the use of, electric cars and other vehicles which will reduce fine-particle emissions.