

- (iii) the temperature from the ground to the mesosphere, utilizing both ground-based and satellite systems;
- (iv) wavelength-resolved solar flux reaching, and thermal radiation leaving, the Earth's atmosphere, utilizing satellite measurements;
- (v) wavelength-resolved solar flux reaching the Earth's surface in the ultra-violet range having biological effects (UV-B);
- (vi) aerosol properties and distribution from the ground to the mesosphere, utilizing ground-based, airborne and satellite systems;
- (vii) climatically important variables by the maintenance of programmes of high-quality meteorological surface measurements;
- (viii) trace species, temperatures, solar flux and aerosols utilizing improved methods for analysing global data.

3. The Parties to the Convention shall co-operate, taking into account the particular needs of the developing countries, in promoting the appropriate scientific and technical training required to participate in the research and systematic observations outlined in this annex. Particular emphasis should be given to the intercalibration of observational instrumentation and methods with a view to generating comparable or standardized scientific data sets.

4. The following chemical substances of natural and anthropogenic origin, not listed in order of priority, are thought to have the potential to modify the chemical and physical properties of the ozone layer.

(a) Carbon substances

(i) Carbon monoxide (CO)

Carbon monoxide has significant natural and anthropogenic sources, and is thought to play a major direct role in tropospheric photochemistry, and an indirect role in stratospheric photochemistry.

(ii) Carbon dioxide (CO₂)

Carbon dioxide has significant natural and anthropogenic sources, and affects stratospheric ozone by influencing the thermal structure of the atmosphere.

(iii) Methane (CH₄)

Methane has both natural and anthropogenic sources, and affects both tropospheric and stratospheric ozone.

(iv) Non-methane hydrocarbon species

Non-methane hydrocarbon species, which consist of a large number of chemical substances, have both natural and anthropogenic sources, and