

permafrost. As a result, overlying ecosystems could be significantly altered and the integrity of man-made structures and facilities reduced, thereby influencing existing human settlements and development opportunities.

3. RESPONSE STRATEGIES

The consideration of climate change response strategies presents formidable difficulties for policymakers. The information available to make sound policy analyses is inadequate because of:

- (a) uncertainty with respect to how effective specific response options or groups of options would be in actually averting potential climate change;
- (b) uncertainty with respect to the costs, effects on economic growth, and other economic and social implications of specific response options or groups of options.

The IPCC recommends a programme for the development and implementation of global, comprehensive and phased action for the resolution of the global warming problem under a flexible and progressive approach.

- * A major dilemma of the issue of climate change due to increasing emission of greenhouse gases in the atmosphere is that actions may be required well before many of the specific issues that are and will be raised can be analyzed more thoroughly by further research.
- * The CFCs are being phased out to protect the stratospheric ozone layer. This action will also effectively slow down the rate of increase of radiative forcing of greenhouse gases in the atmosphere. Every effort

should be made to find replacements that have little or no greenhouse warming potential or ozone depletion potential rather than the HCFCs and HFCs that are now being considered.

- * The single largest anthropogenic source of radiative forcing is energy production and use. The energy sector accounts for an estimated 46% (with an uncertainty range of 38-54%) of the enhanced radiative forcing resulting from human activities.

- * It is noted that emissions due to fossil fuel combustion amounts to about 70-90% of the total anthropogenic emissions of CO₂ into the atmosphere, whereas the remaining 10-30% is due to human use of terrestrial ecosystems. A major decrease of the rate of deforestation as well as an increase in afforestation would contribute significantly to slowing the rate of CO₂ concentrations increase in the atmosphere; but it would be well below that required to stop it. This underlines that when forestry measures have been introduced, other measures to limit or reduce greenhouse emissions should not be neglected.

3.1 Roles of industrialized and developing countries

- * Industrialized and developing countries have a common but varied responsibility in dealing with the problem of climate change and its adverse effects. The former should take the lead in two ways:
 - i) A major part of emissions affecting the atmosphere at present originates in industrialized countries where the scope for change is greatest. Industrialized countries should adopt domestic measures to