## 1.34 The Consumption of HCFC in Refrigeration and Air Conditioning Systems and Their Impact on Stakeholders and Business when Phased Out

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ABSTRACT

*The desire of Many countries in the world to save environment from the depletion of stratospheric ozone have resulted in restrictions to regulate the production and trade of ozone-depleting substances (Chlorofluorocarbons-CFCs and hydrochlorofluorocarbons-HCFCs) through an international treaty known as Montreal Protocol. 183 nations in total have ratified the Montreal Protocol on Substances that Deplete the Ozone Layer. Whereas the Montreal protocol primarily deals with the ozone layer protection, the Kyoto protocol which is an international treaty signed during the year 1997 in Kyoto, concerns about the Green House Gas & Global Warming. The Montreal Protocol required the abandoning of the use and production of Ozone depleting substances (ODS) in phased manner .However Refrigeration & Air-conditioning is still luxurious in many parts of the world. Modern life in Global Climate- Change countries cannot go ahead without Refrigeration & Air-conditioning. These countries use significant portion of ODS. As the phase out of CFCs and HCFCs proceeds, various HFCs have emerged or are emerging as the preferred refrigerant, but use of HFC refrigerants as per Kyoto protocol is to be evaluated properly. Hence a strategy to address the ODS and other environmental issues is highly required in these countries. This paper briefly reviews the quantity of HCFC as a road map to phase out the ODS in Kenya. The following objective formed the bases of the study; T o determine the quantity of HCFC consumption in refrigeration and air conditioning systems. To determine the sector which still uses large amount of (ODS) HCFC. The study was carried out using the following methodology; direct interviews, observation and questionnaires. HCFCs consumed in refrigerators and air conditions systems are: Hotels, restaurant & quest houses 282437 x 10 -6 ton, Hospitals, clinics, pharmacy 110726x10 -6 ,Food processing plant, Butcheries is 65570x10-6 , Buildings offices, schools 36654x10-6. It is recommended that institutions using R12 and R22 should replace them with R134a, The hospitals who are high consumers of R22, R12, should replace them, Entrepreneurs should replace R22, RI2, R404a, R600b .It is important for the general public and entrepreneurs to know the impact of HCFCs to Ozone Layer.*

*Key words: - CFC, HCFC, HFC, Refrigeration, Air conditioning, ODS, Global Warming, Green House Gas*