



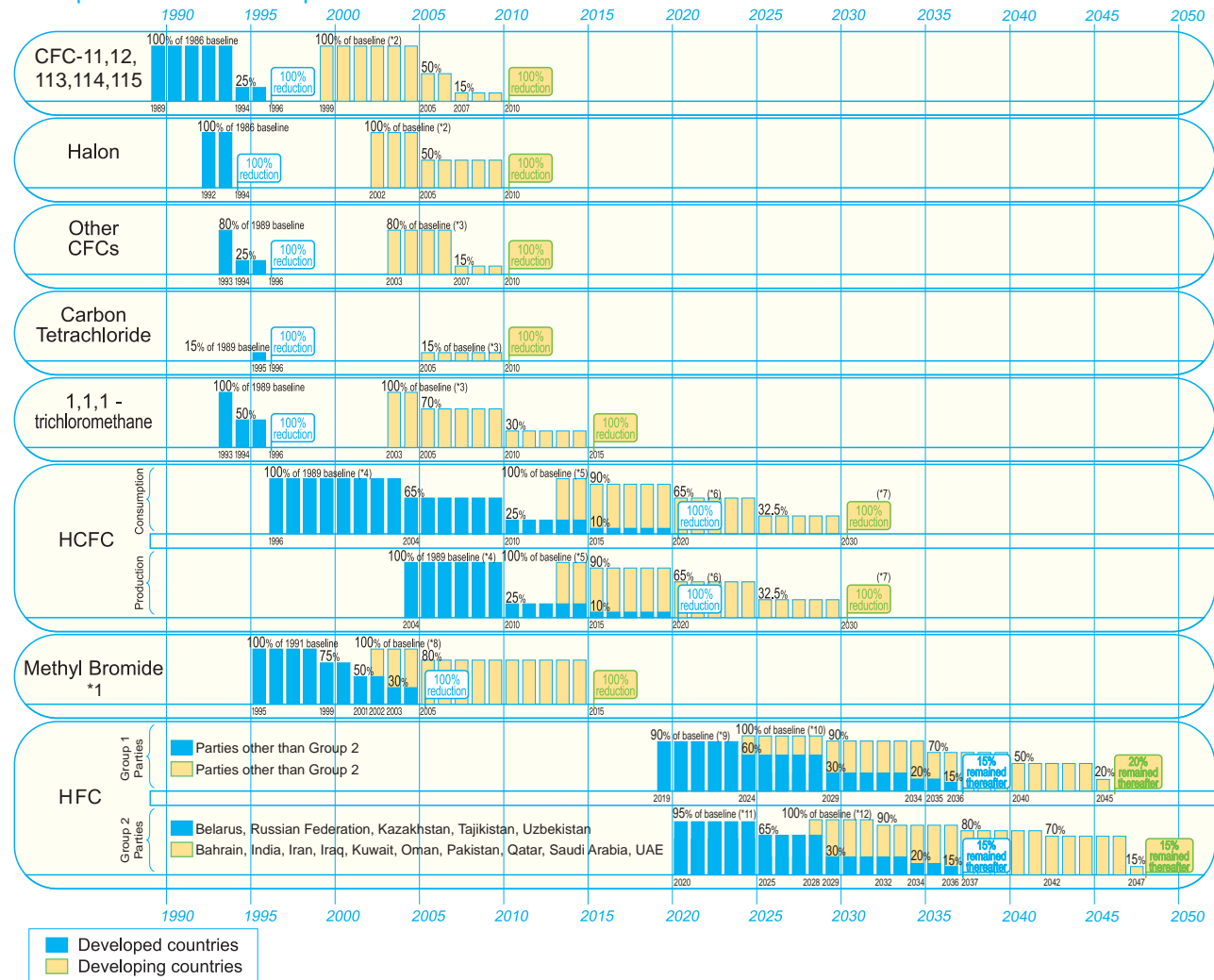
# Global Efforts & Japan's Commitment

In order to protect the ozone layer, the global community has agreed to phase out ozone-depleting substances under the Vienna Convention for the Protection of the Ozone Layer (1985) and the Montreal Protocol on Substances that Deplete the Ozone Layer (1987).

Furthermore, in Oct. 2016, at the 28th Meeting of the Parties (MOP 28) to the Montreal Protocol, the Parties adopted the amendment (called the Kigali Amendment) to phase down HFCs in order to reduce the use of high global warming potential HFCs.

With 197 countries working together, both developed and developing countries, the Montreal Protocol is a global environmental treaty of universal ratification.

## ODS phase-out and HFC phase-down schedule under Montreal Protocol

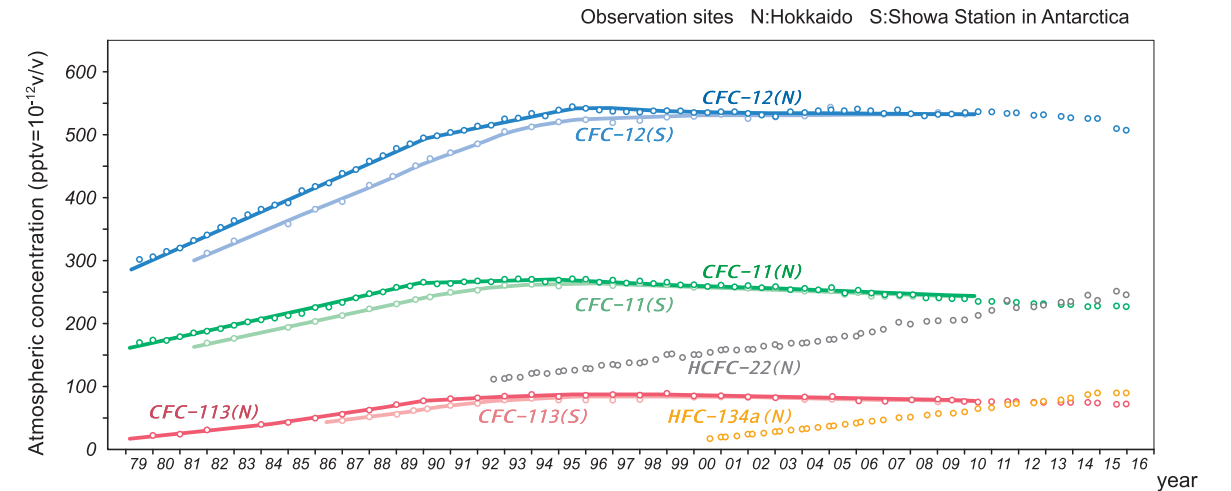


\*1) Methyl bromide used for quarantine and pre-shipment is exempted from control.  
 \*2) Baseline = the average of production and consumption from 1995 to 1997 or 0.3 kg per capita, whichever is lower.  
 \*3) Baseline = the average of production and consumption from 1998 to 2000 or 0.2 kg per capita, whichever is lower.  
 \*4) Consumption baseline = HCFC consumption in 1989 + CFC consumption in 1989 x 2.8 %  
 Production baseline = the average of HCFC production and consumption in 1989 + the average of CFC production and consumption of 1989 x 2.8 %  
 \*5) Baseline = the average of production or consumption of 2009 and 2010.  
 \*6) Production and consumption only for servicing of existing refrigeration and air-conditioning equipment are allowed until 2030, provided that such production and consumption do not exceed 0.5 % of the baseline.  
 \*7) Production and consumption only for servicing of existing refrigeration and air-conditioning equipment are allowed until 2040, provided that such production and consumption do not exceed 2.5 % of the baseline.  
 \*8) Baseline for methyl bromide = the average of production and consumption from 1995 to 1998.  
 \*9) Baseline = the average of HFC production and consumption from 2011 to 2013 + the baseline of HCFC production and consumption x 15% (CO<sub>2</sub> eq.)  
 \*10) Baseline = the average of HFC production and consumption from 2020 to 2022 + the baseline of HCFC production and consumption x 65% (CO<sub>2</sub> eq.)  
 \*11) Baseline = the average of HFC production and consumption from 2011 to 2013 + the baseline of HCFC production and consumption x 25% (CO<sub>2</sub> eq.)  
 \*12) Baseline = the average of HFC production and consumption from 2024 to 2026 + the baseline of HCFC production and consumption x 65% (CO<sub>2</sub> eq.)

\*\*Each Party may produce the controlled substances for basic domestic needs in developing countries beyond the controlled level and essential or critical uses such as laboratory and analytical uses are exempted from control. For the HFC phase down, a high ambient temperature exemption shall be available to Parties with high ambient temperature conditions.

## Visible effect of the Montreal Protocol

The actual data of the concentration of ozone depleting substances in the air show that the Montreal Protocol has been effective in curbing the increase of CFCs in the air.



Changes in the atmospheric concentration of ODS (CFCs and HCFC-22) and HFC-134a

Source: The University of Tokyo and MOE

## International cooperation

Japan has been committed not only to achieving its own obligations under the Montreal Protocol but also to assisting other countries, particularly those in Asia and the Pacific region, based on its experience in policy enforcement and technical development.

The Ministry of the Environment of Japan has been working through the Regional Network Meetings of Asia and the Pacific, and through the Multilateral Fund for the Implementation of the Montreal Protocol, including the HPMP refrigeration servicing sector of China and HPMP foam manufacturing sector of Mongolia.



The Asia and the Pacific Joint Network Meeting. Suva, Fiji. June 2016.



The verification site visit for the technology conversion project of XPS foam manufacturing companies in Mongolia. September 2016.



The Coordination Meeting on the preparation of stage II of the HPMP for China. Beijing, China. January 2016.