

# LIFE CYCLE MANAGEMENT OF REFRIGERANTS TO BOOST EFFORTS UNDER THE KIGALI AMENDMENT AND THE PARIS AGREEMENT

## Why refrigerants matter ?

Refrigerants mainly comprising HFCs, HCFCs and CFCs, are used in various sectors across the cold chain including refrigerators and air-conditioning (AC).

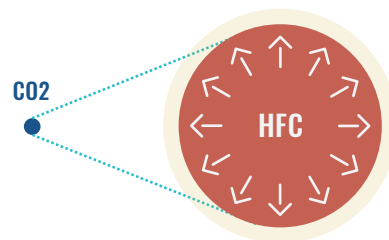


### HFCs have an enormous effect on climate change.

Global Warming Potential (GWP) of HFC is hundreds to thousands of times higher than that of CO<sub>2</sub>. ※1

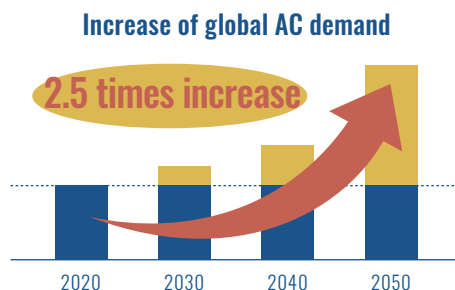
《CO<sub>2</sub>》  
**1**  
 GWP

《HFC》  
**100~1000s and up**  
 GWP



### Demand for cooling is expected to increase tremendously all over the globe.

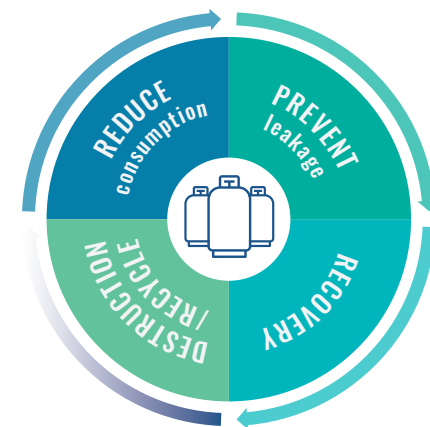
2.5 times more cooling demand in 2050 has been projected. This demand is expected to increase, particularly in developing countries. ※2



**1 Gt CO<sub>2</sub> eq./year emissions is projected at the global level around 2050. ※3**  
**By working together towards reducing HFCs emissions from cooling equipment, we could do more to combat climate change.**

## THE "LIFE CYCLE MANAGEMENT OF REFRIGERANTS" APPROACH

to cut more GHGs beyond the Kigali Amendment to the Montreal Protocol



### 1 REDUCE consumption

- Phasing down the production and consumption of HFCs.
- Managing the production and import/export of refrigerants.
- Promoting refrigerants transformation to low-GWP/natural refrigerants etc.

### 2 PREVENT leakage

- Preventing refrigerant leakage from equipment in use.
- Mandating leakage check-up/logging/reporting.
- Capacity building on appropriate technique/technology for servicing etc.

### 3 RECOVERY

- Mandating the recovery of refrigerants from equipment at disposal stage.
- Capacity building on appropriate technique/technology for recovery.
- Institutionalizing beneficiary payment system for recovery and destruction/recycle etc.

### 4 DESTRUCTION / RECYCLE

- Destroying or recycling recovered refrigerants.
- Disseminating appropriate technique/technology for destruction/recycle etc.

Initiative on Fluorocarbons Life Cycle Management (IFL), launched by Japan in 2019, aims to facilitate concrete actions, innovations and collaborations among governments, private sectors and international organizations for our mutual benefit and support to strengthen the life-cycle management of fluorocarbons by leveraging strengthened activities and frameworks and establishing partnerships. For more info, please visit our website;

[https://www.env.go.jp/en/earth/ozone/fluorocarbon\\_initiative/index.html](https://www.env.go.jp/en/earth/ozone/fluorocarbon_initiative/index.html)

