



## **HCFC TRAINING AND SAFETY**

*THE GAMBIAN EXPERIENCE*

# The past Experience - Gambia

**BEFORE**



**CFCs**

**Training on  
Non – CFCs  
(HFCs and HCs)**

**AFTER**



# CFCs Achievements

- Successfully phased-out CFCs by 31st December 2009
- Replaced CFCs with Substances with low ODP
- Retrofitted Foam Manufacturing Factory running on R11
- Distributed tools & equipment as incentive to technicians, Gambia Technical Training Institute and End- Users
- Formation of Associations of Refrigeration Technicians and distributed tools and equipment
- Creation of ODS Bank

# Challenges faced

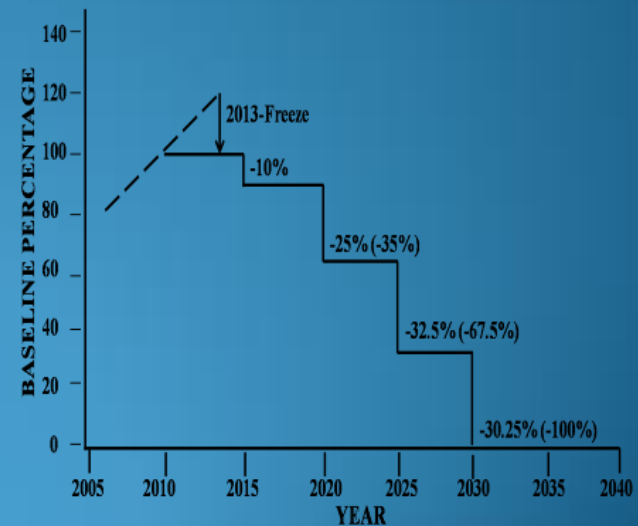
- Mislabeling of refrigerant cylinders
- Importation of impure / mixed refrigerants
- Illegal trade in refrigerants
- Inadequate funding to carry out required trainings
- Limited supply of refrigerant analyzers

# HPMP and Phase-out schedule

- Launched on June 11<sup>th</sup> 2012
- Planned incentive for End-Users underway (UNIDO)
- Awareness creation & stakeholder training is ongoing

## TIMELINE

- Baseline : average of 2009 and 2010 production and consumption
- Freeze : 2013
- 10 % reduction of baseline in 2015
- 35 % reduction of baseline in 2020
- 67.5 % reduction of baseline in 2025
- 100% phase-out in 2030



# Common types of HCFCs available in The Gambia

- HCFC-22, HCFC-141b, and HCFC<sub>142b</sub>.
- HCFC 22 are mainly used in Domestic Air Conditioners and cold rooms of fishing Industry
- HCFC-141b and HCFC<sub>142b</sub> are mainly used in commercial refrigeration systems

# CONSIDERATIONS FOR HCFCs

HCFC phase-out considerations when planning for replacement or retrofit of HCFC equipment includes:

- Difficulties in servicing and maintaining existing HCFC equipment in the long term;
- The declining availability of HCFC refrigerants;
- Adequate lifecycle timeframes for new equipment (i.e. return on investment);
- Determining the remaining lifecycle of old equipment; and
- Understanding alternative equipment, refrigerant options and compatibility of refrigerants and equipment.

# BARRIERS FOR HCFC ALTERNATIVES/ NATURAL REFRIGERANTS

- Market information about the alternatives
- Technical know how on safety guidelines
- Lack of training on the use of natural refrigerants
- Incentives to End-Users to adopt HCFC alternatives
- High ambient temperatures
- Training



# WAYFORWARD

- Awareness and capacity building of technicians on emerging and available alternate refrigerant based technologies
- Need for more centers of excellence (vocational training)
- HCFC alternatives available & affordable for Article 5 countries
- Create incentives to attract end-users towards natural refrigerants
- Organize trainings workshops for stakeholders in R/A C sectors on Natural refrigerants
- Create networks with manufacturers of Natural refrigerants to Pilot their products in The Gambia
- Organize a Sub-regional Workshop on Natural Refrigerants in The Gambia



Thank you very much for your attention