

Policy framework in the Refrigeration and Air-conditioning servicing sector and Progress in the Asia-Pacific region

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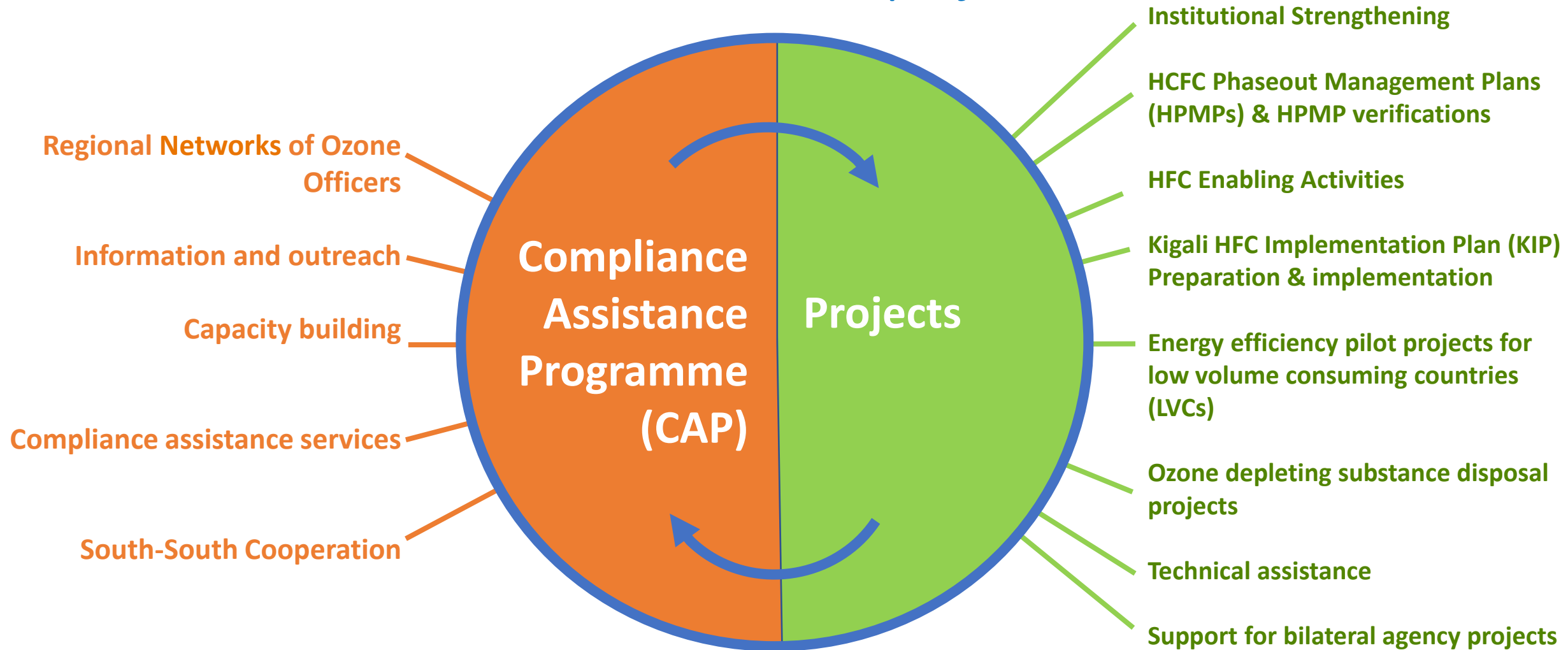
Details of **HCFC** phase-out schedule

Allowed HCFC consumption	Deadlines for HCFC reductions
Baseline (100%)	Average HCFC consumption per year in 2009 & 2010
Freeze (100% of baseline)	By 1 January 2013
10% reduction step (90% of baseline)	By 1 January 2015
35% reduction step (65% of baseline)	By 1 January 2020
67.5% reduction step (32.5% of baseline)	By 1 January 2025
Phase-out: 100% reduction (0% of base)	By 1 January 2030
Servicing tail allowance for existing equipment	Total consumption in this 10-year period must not exceed 10 x 2.5% of baseline

Details of **HFC** phase-down schedules

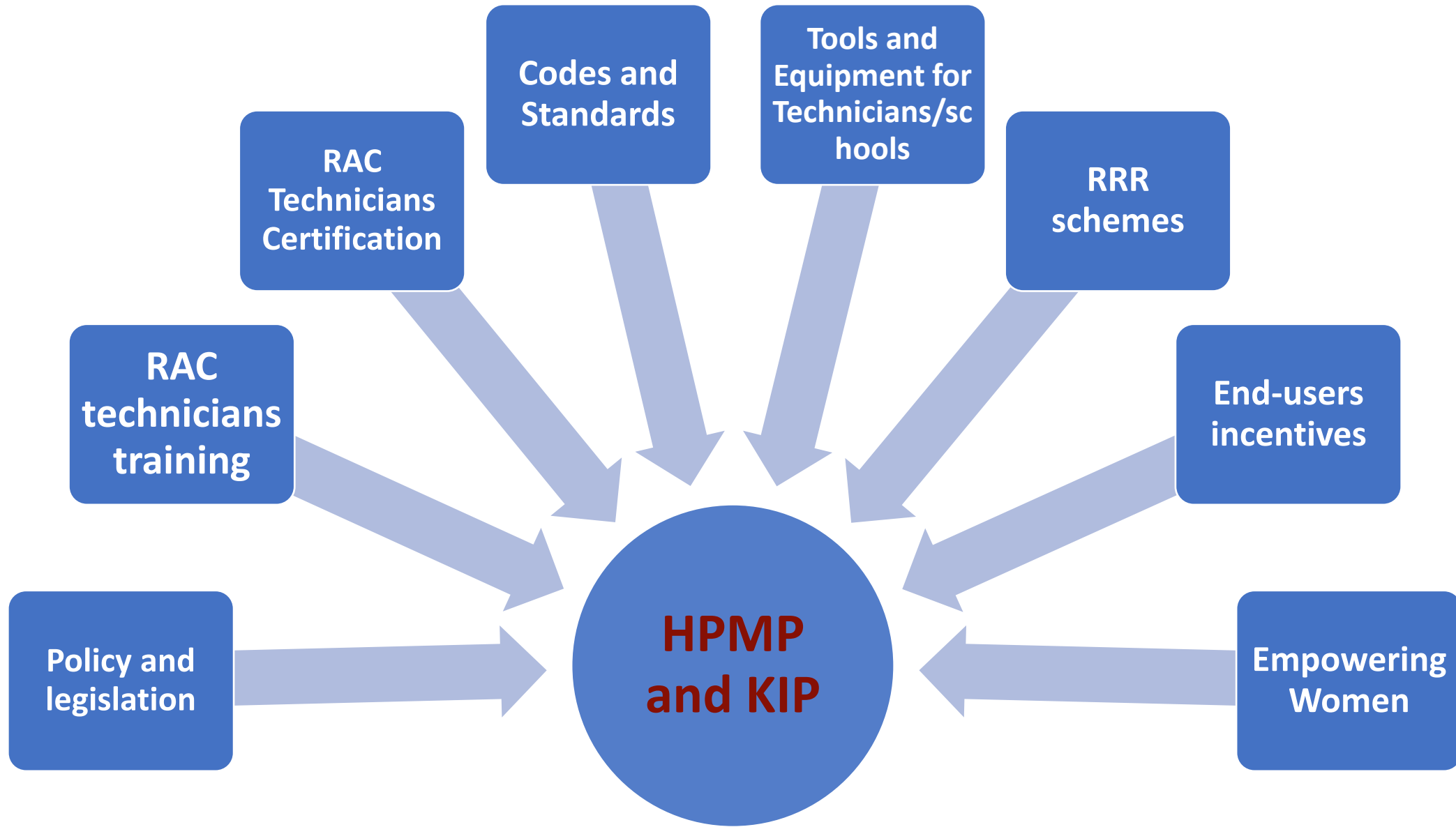
HFC consumption level	Article 5 Group 1	Article 5 Group 2
Baseline (100%) - Average HFC consumption per year	in 2020-2022 + 65% of HCFC baseline	in 2024-2026 + 65% of HCFC baseline
Freeze (100% of baseline)	2024	2028
10% reduction (90% of base)	2029	2032
20% reduction (80% of base)	(not applicable)	2037
30% reduction (70% of base)	2035	2042
50% reduction (50% of base)	2040	(not applicable)
80% reduction (20% of base)	2045	(not applicable)
85% reduction (15% of base)	(not applicable)	2047

UNEP Law Division OzonAction services and projects

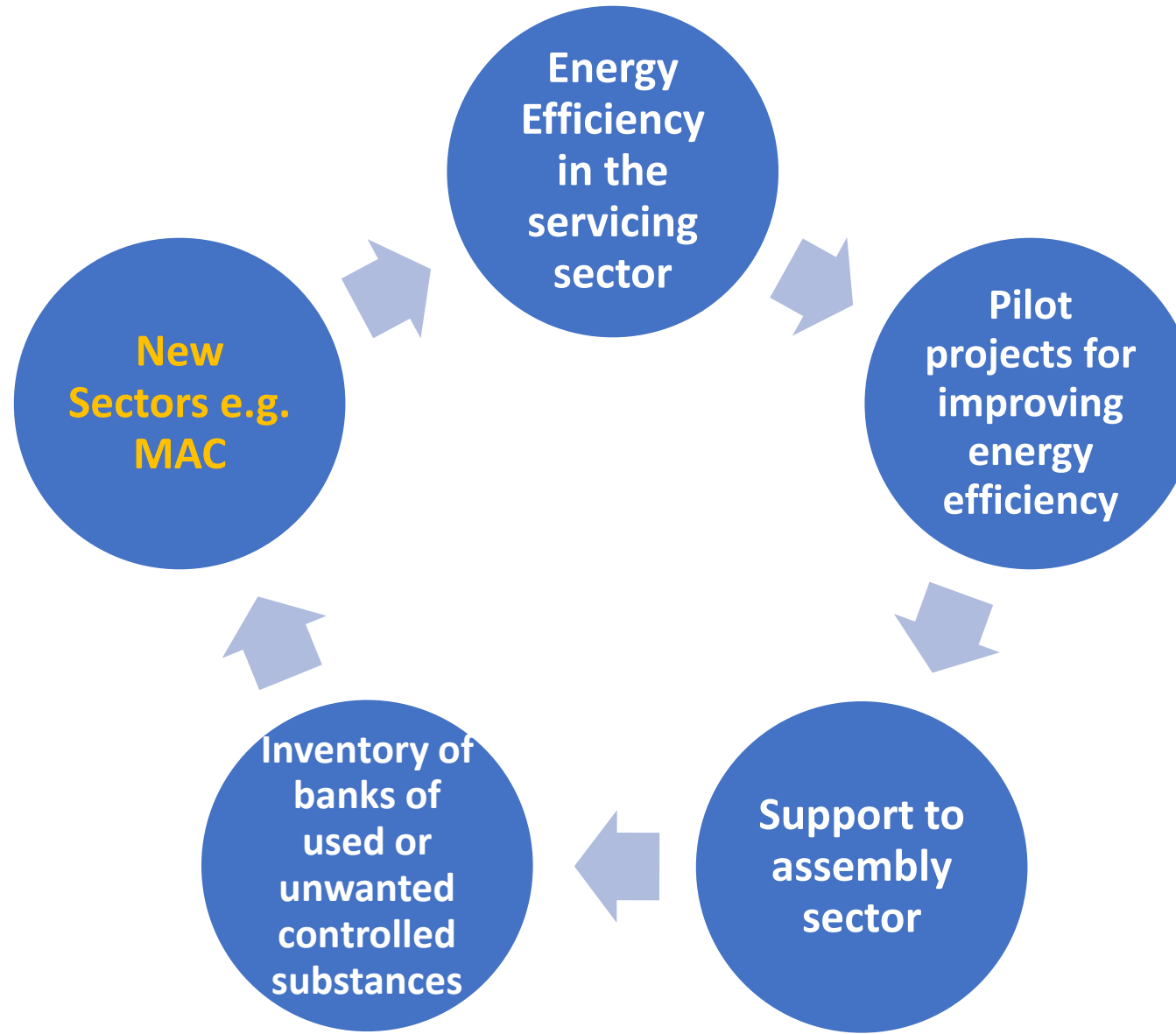


Two interlinked & mutually supporting halves

Activities which are covered in UNEP's HPMPs and KIPs



New type of activities in the Servicing Sector



Asia and the Pacific Region

OzonAction assists all 147 developing countries ("Article 5 countries") through its Regional Networks of National Ozone Officers.

Asia and the Pacific Region consists of three networks assisting a total of 38 Article 5 countries:

South Asia

- Afghanistan, Bangladesh, Bhutan, China, India, Iran (Islamic Republic of), Democratic Republic of Korea, Maldives, Mongolia, Nepal, Pakistan, Republic of Korea, Sri Lanka

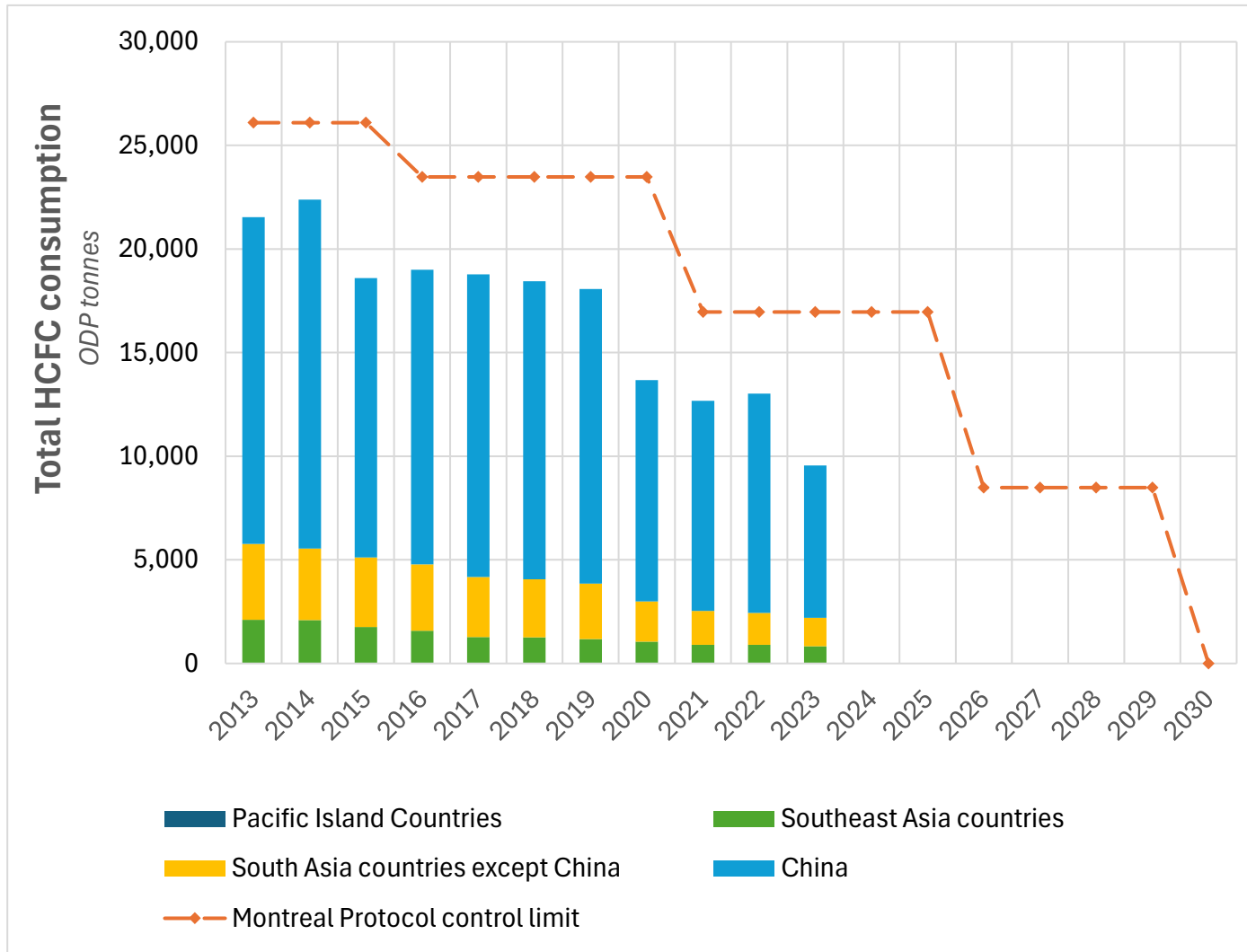
Southeast Asia

- Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam

Pacific Island Countries

- Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu

HCFC consumption phase-out in the Asia Pacific Region



- Until 2030, the remaining HCFC consumption will be mainly in the Refrigeration and Air-conditioning servicing sector for most countries.
- Between 2030-2040, small amount of HCFC (*sum of its consumption from 1 January 2030 to 1 January 2040, divided by ten, does not exceed 2.5% of the baseline consumption*) will be allowed for specific applications:
 - a. The servicing of refrigeration and air conditioning equipment existing on 1 January 2030;
 - b. The servicing of fire suppression and fire protection equipment existing on 1 January 2030
 - c. Solvent applications in rocket engine manufacturing; and
 - d. Topical medical aerosol applications for the specialized treatment of burns.

Policies in the Refrigeration and Air-conditioning sector

HCFC Phase-out Management Plan (HPMP)

full phase-out by 2030

- Gradual banning of the import of RAC equipment that uses HCFC-22 refrigerant (from 2020, 2023, etc.)
- Banning the import of HCFC-141b (pure or in pre-blended polyol) used for foam production
- Banning the manufacturing of RAC equipment that uses HCFCs. *For example:*

Malaysia: Ban on the importation of HCFC based ACs with less than 2.5 hp from 1 Jan 2016 and all types of RAC appliances from Jan 2020

The Philippines: Banned the importation of HCFC-22 for use in the RAC manufacturing sector since 1 January 2020, and planning to ban the manufacturing, import and installation of HCFC-123 based chiller by 1 Jan 2026.

Thailand: Banned the manufacturing of HCFC based ACs with less than 50,000 BTU/hr since July 2017 and importation of HCFC based AC with less than 50,000 BTU/hr since March 2018.

Kigali HFC Phase-down Implementation Plan (KIP)

freeze at the baseline level and 10% reduction by 2029 ...

- The countries are extending the policy measures for HFCs based on their GWP or application types. *For example:*
- Banning the import of R-410A-based air-conditioners by 2027
 - Banning the import of HFC-134abased domestic refrigerators by 2024
 - To ban, by 1 Jan 2029, the manufacturing and import of:
 - stand-alone commercial refrigeration and domestic refrigeration equipment based on HFCs
 - MAC systems using R-407C
 - Residential air-conditioning units and heat pumps below 60,000 BTU/hour using R-410A and R-417A

China's HCFC Phase-out Management Plan (Stage II)

Refrigeration and air-conditioning servicing sector plan and enabling programme

- UNEP is the lead implementing agency of China's HCFC Phase-out Management Plan - Refrigeration and air-conditioning servicing sector plan and enabling programme. Under stage II of the HPMP, 7 tranches have been approved by the Executive Committee of the Multilateral Fund, and projects are under implementation.
- China's effective enforcement of the ODS import and export management system not only helps the country to meet its Montreal Protocol obligations, but also, contributes to the successful implementation and enforcement of the HCFC quota and licensing system in the regional countries.
- China is one of the vital users of the voluntary informal Prior Informed Consent (iPIC) mechanism initiated by UNEP and has been working with trading countries to confirm specific ODS import and export information to effectively prevent the potential illegal trade of ODS.
- China also leads the region through South-South Cooperation, for example, by organizing Good Servicing Practices training for servicing technicians from the Asia-Pacific regional countries.

China's HCFC Phase-out Management Plan (Stage II)

Refrigeration and air-conditioning servicing sector plan and enabling programme

Refrigeration Servicing sector			Enabling component		
Policies, Standards, Qualification certification	Training of servicing technicians	Outreach and Pilot cities	Capacity building of ecology and environmental bureaus (EEBs)	ODS Import & Export management	Outreach and awareness-raising activities
<ul style="list-style-type: none"> Standards development in RAC sector Standards development in ICR sector Studies to strengthen the policy framework and the MIS (Management Information System) platform to improve the management of ODS in the servicing sector Certification of RAC Servicing Technicians Certification for companies: upgraded certification system 	<ul style="list-style-type: none"> Training through vocational training system Technician training through manufactures' after-sales system International training Training materials development 	<ul style="list-style-type: none"> Ozone2Climate Technology Roadshow and Industry Roundtable Selected pilot provinces/cities carry out series of activities including survey of the local industry, pilot ODS recycling, promotion of servicing technician certificate system, outreach of alternative technologies, etc. <ul style="list-style-type: none"> 1st Batch – Shandong, Henan, and Shenzhen 2nd Batch – Tianjin and Zhejiang 3rd Batch – Another six (6) pilot cities planned (Tranche 7) 	<ul style="list-style-type: none"> Training and Daily Technical Support for ODS Supervision and Management to Local EEBs National training workshops and seminars Capacity building of selected local EEBs Coordination meetings Study tour / international meetings 	<ul style="list-style-type: none"> ODS import and export online approval system Establishment of the law enforcement cooperation center (platform) for combating illegal trade of ODS Applicability study of the laws to punish illegal trade cases Study on ODS import and export policies and regulations Strengthening the law enforcement capacity building of China Customs to combat ODS illegal trade (phase III) 	<ul style="list-style-type: none"> Celebration of World Ozone Day (September 16) Design and production of outreach materials Operation servicing of the ozone website

Thank you!



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