



Bureau of Energy Efficiency



सत्यमेव जयते
Government of India
Ministry of Power



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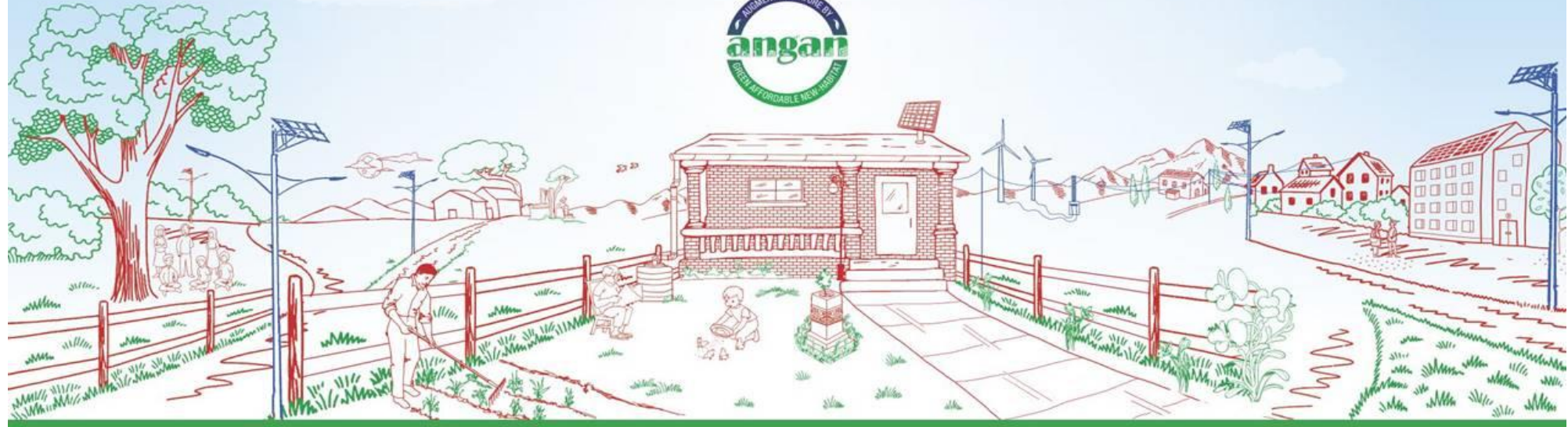
ANGAN

Augmenting Nature by Green Affordable New-habitat

A Courtyard for Revolutionary Change in Building Energy Efficiency

An International Conference on Building Energy Efficiency

9th-11th September, 2019 | Hotel The LaLiT, New Delhi





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THIS PRESENTATION WAS SHARED BY

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Deputy Cluster Coordinator, IGEN/GIZ

FOR THE SESSION:

“State-of-the-art Cooling Systems, including District Cooling System”

DURING ANGAN 2019

Knowledge Partner

teri | THE ENERGY AND
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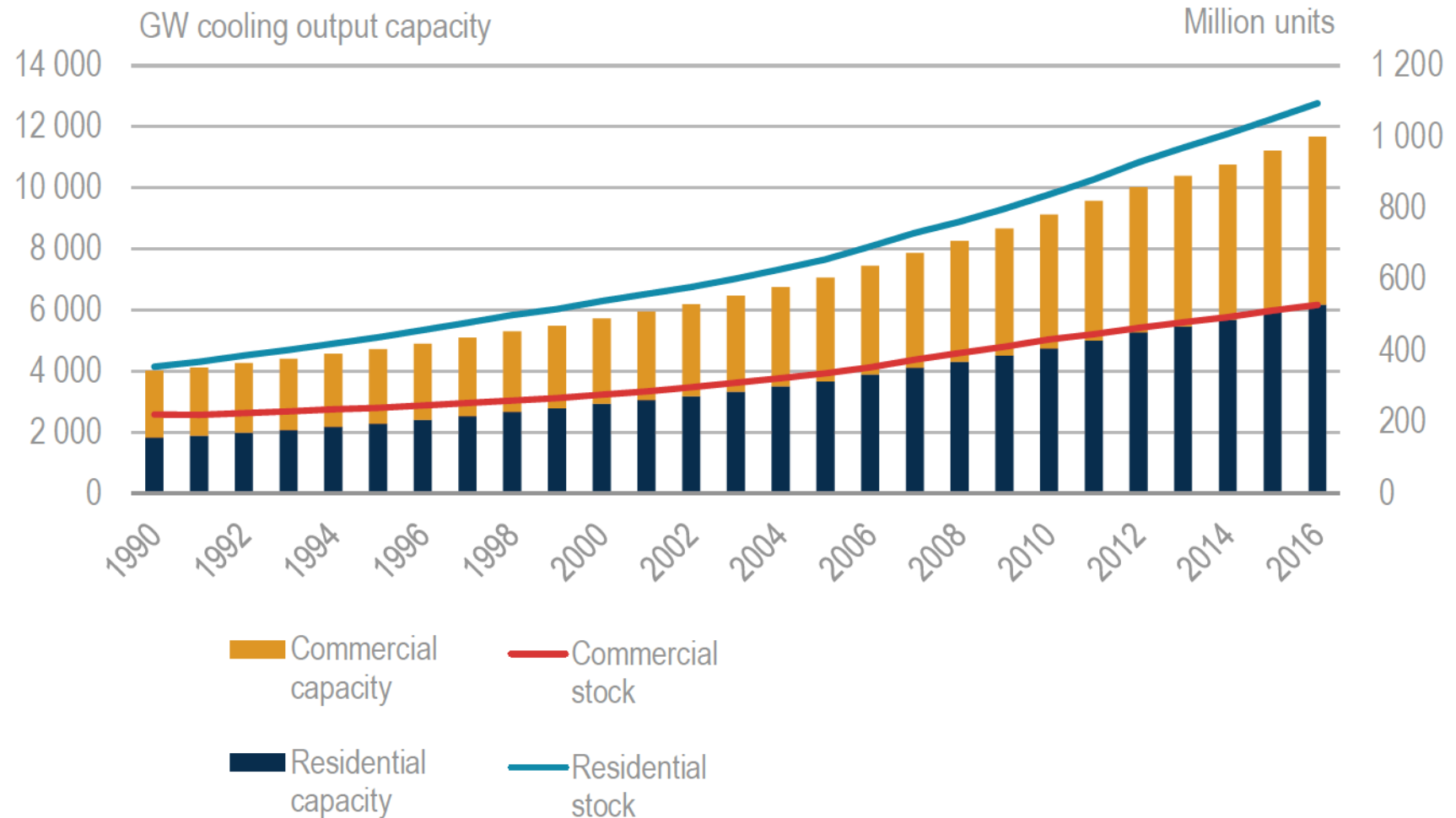
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India Cooling Action Plan



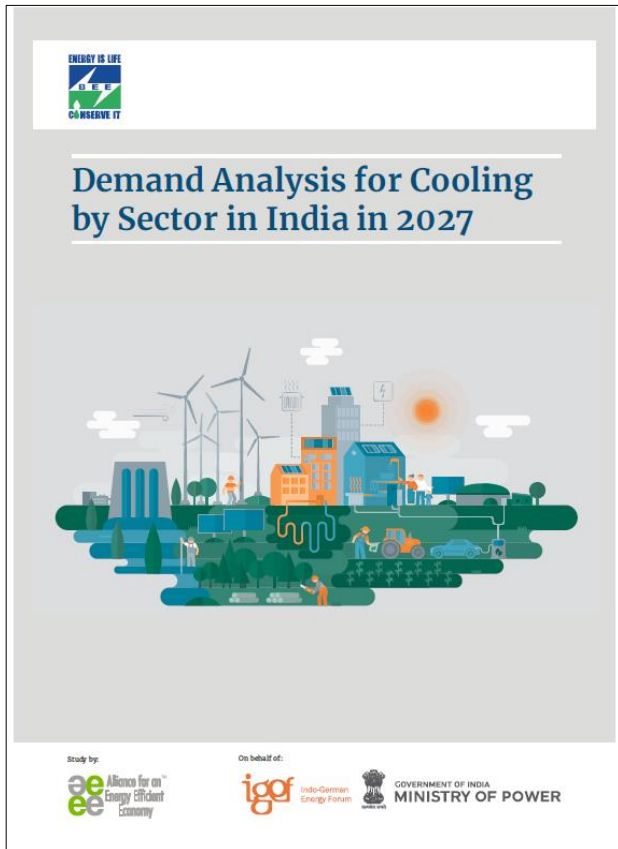


Worldwide stock and capacity of ACs by sector





AEEE-IGEF Study - Key findings



1

Cooling energy demand of India to double until 2027

2

25 GW of new coal capacity can be avoided by energy efficiency in cooling

3

57% of all Indian energy demand for cooling comes from buildings

4

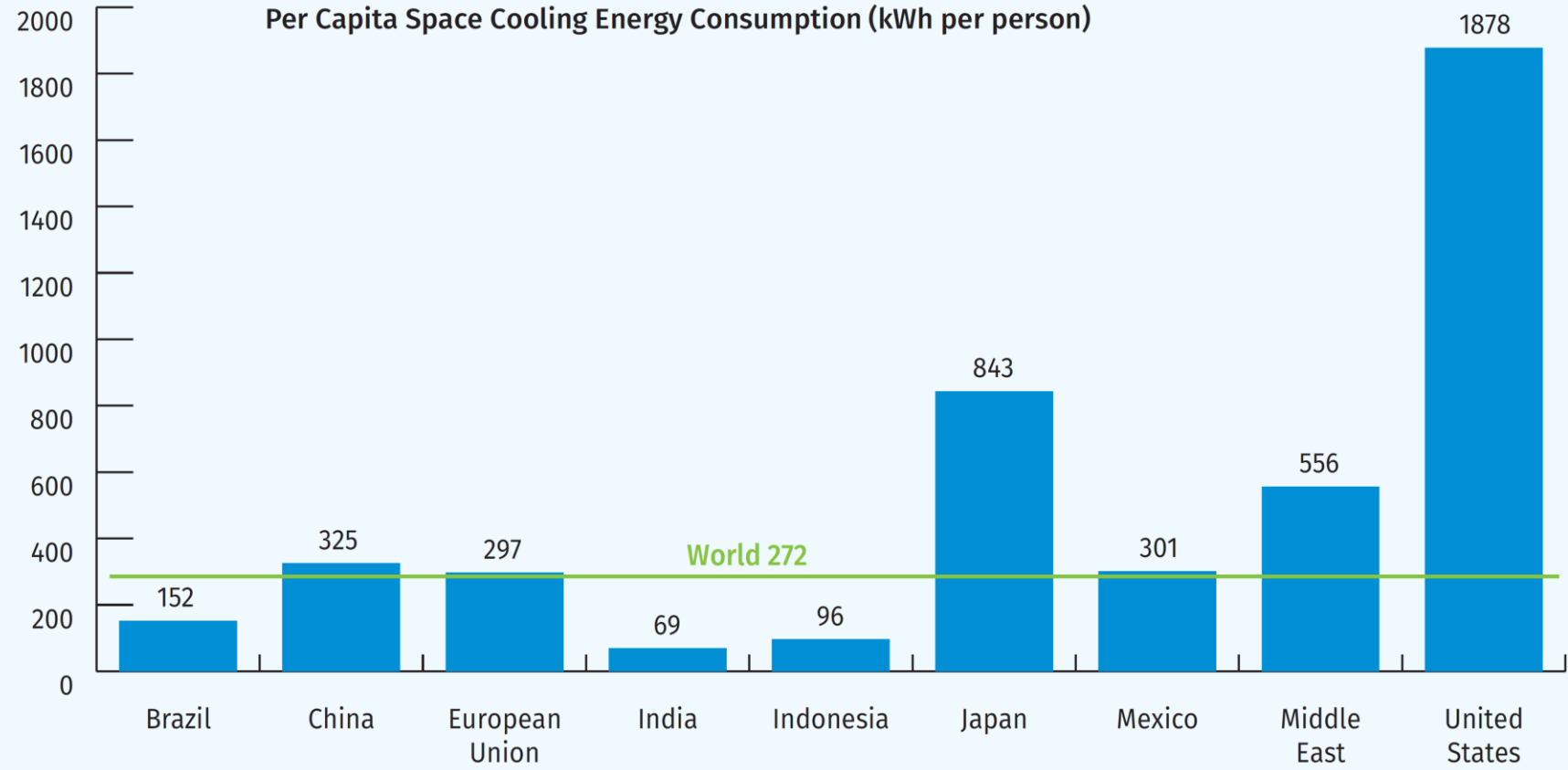
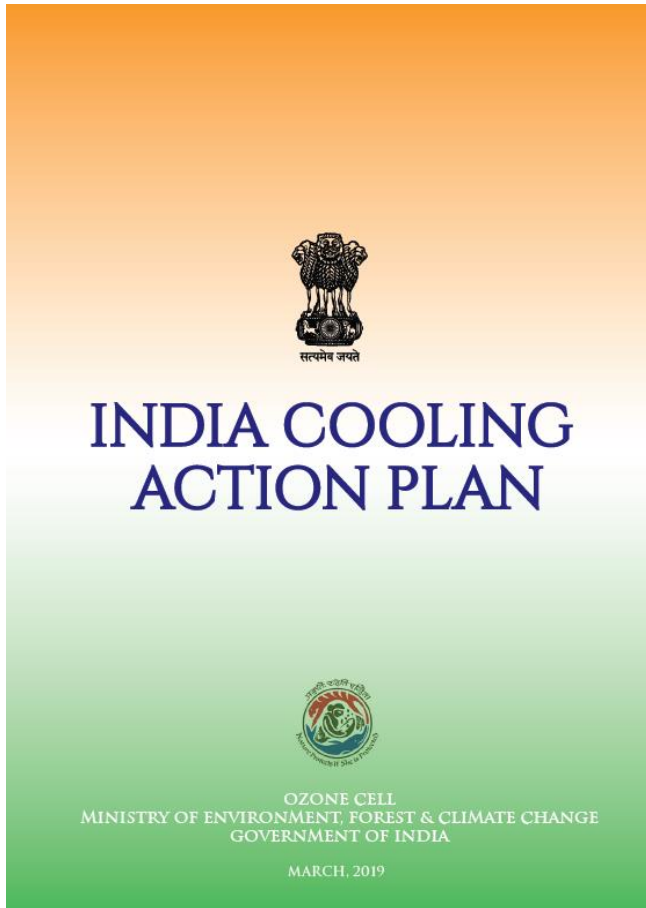
Energy demand from fans and air coolers is higher than from ACs

5

Significant energy and emission savings through improvement in servicing practices of cooling devices and refrigerants

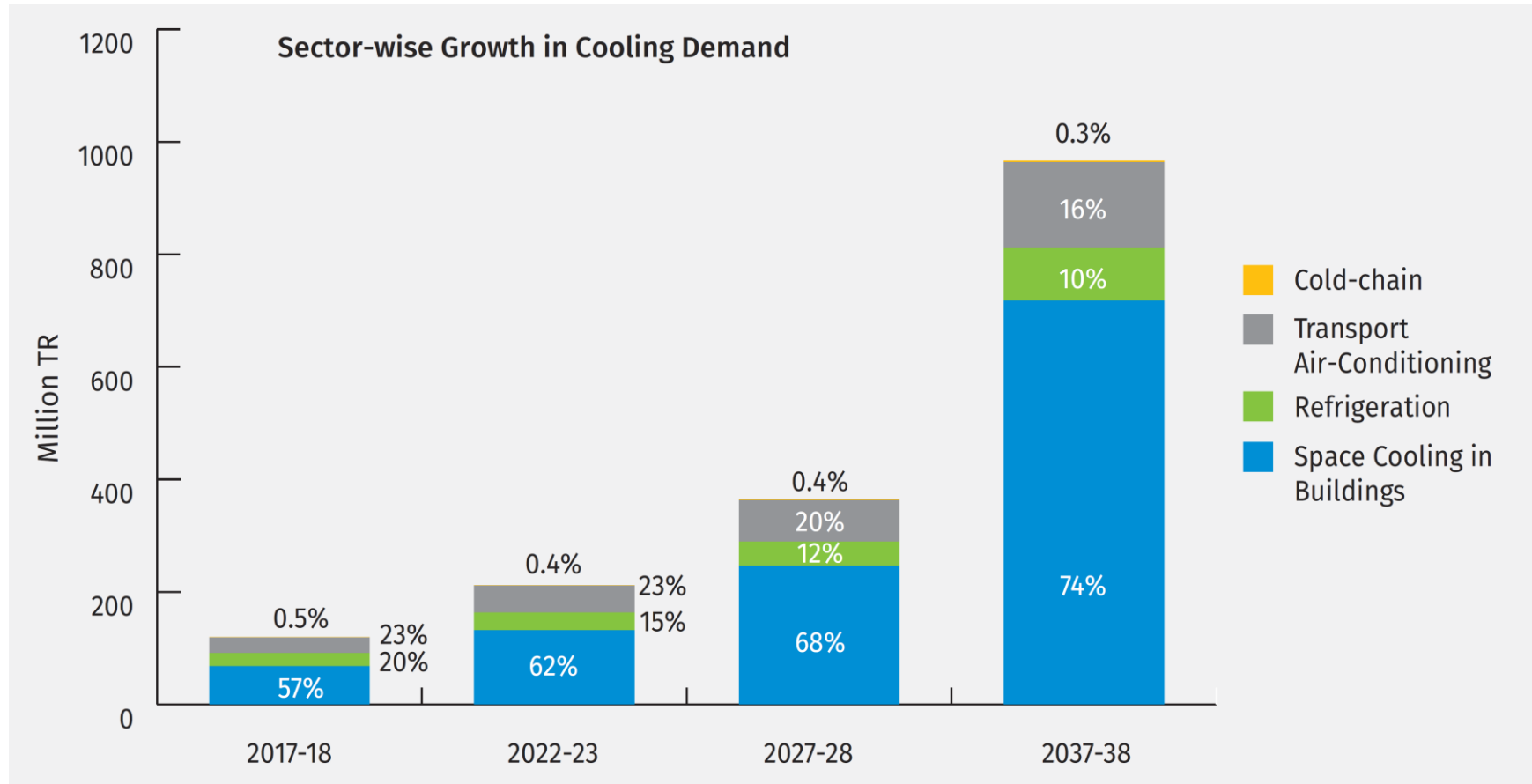
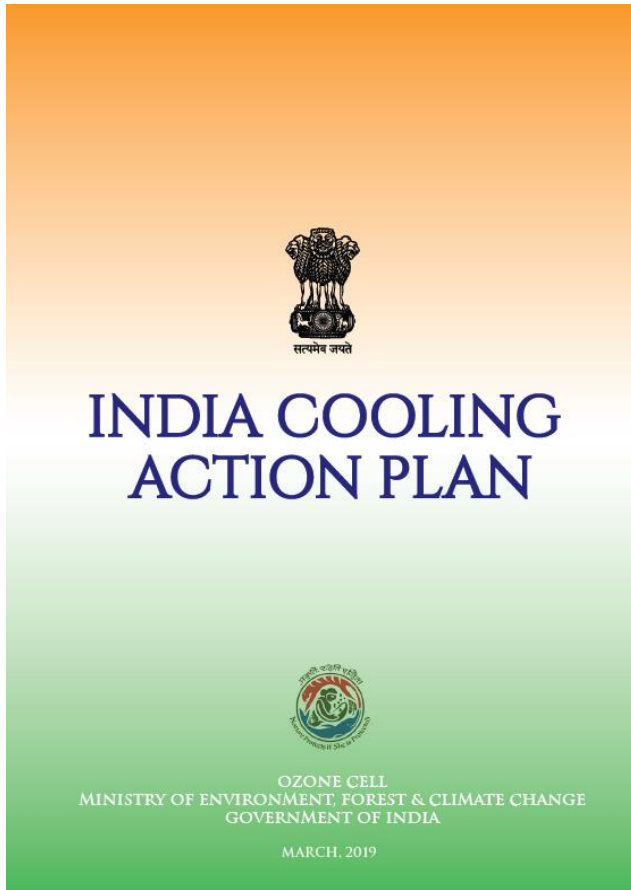


Per Capita Space Cooling Energy Consumption



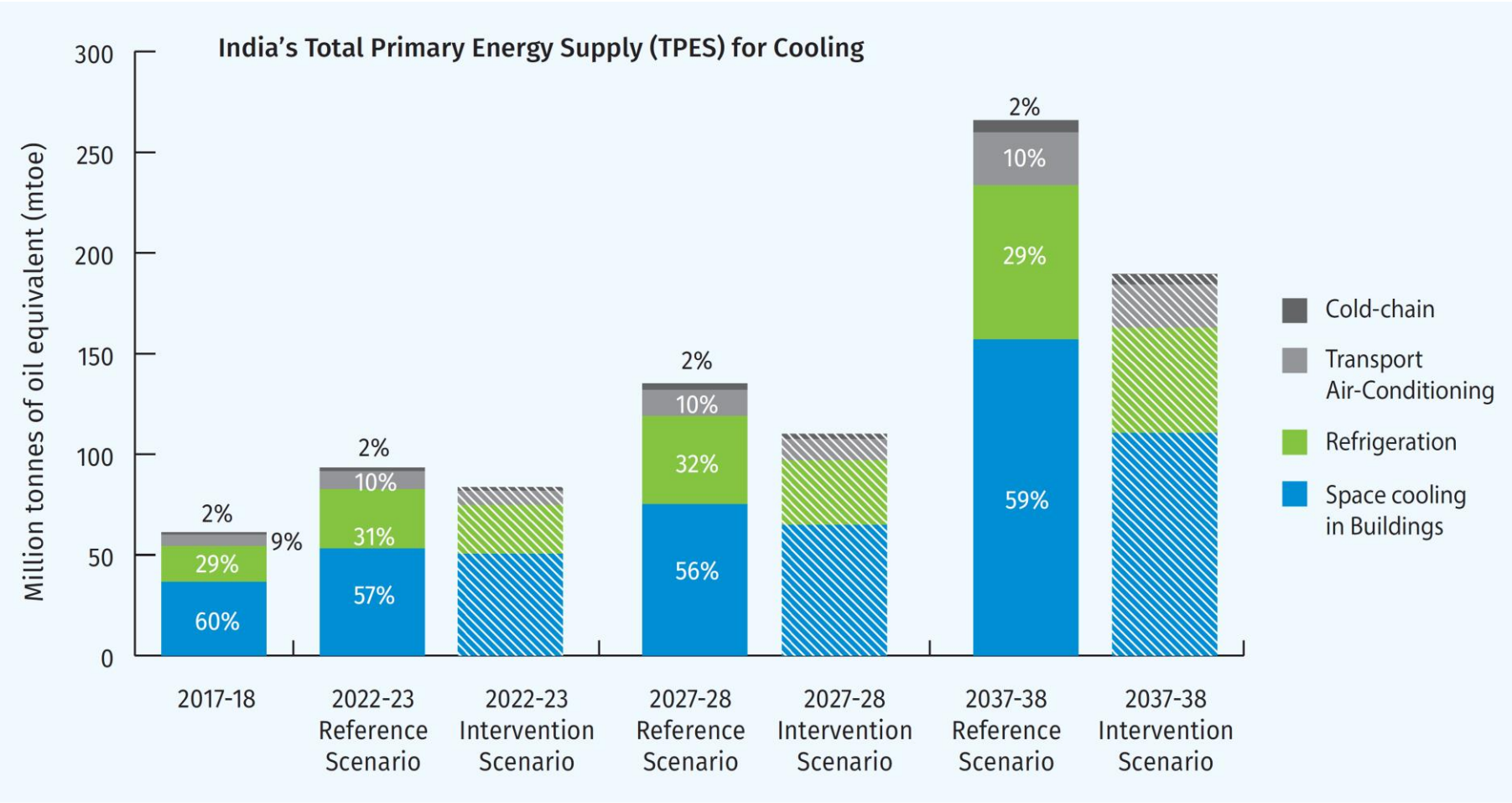


Sector-wise Growth in Cooling Demand



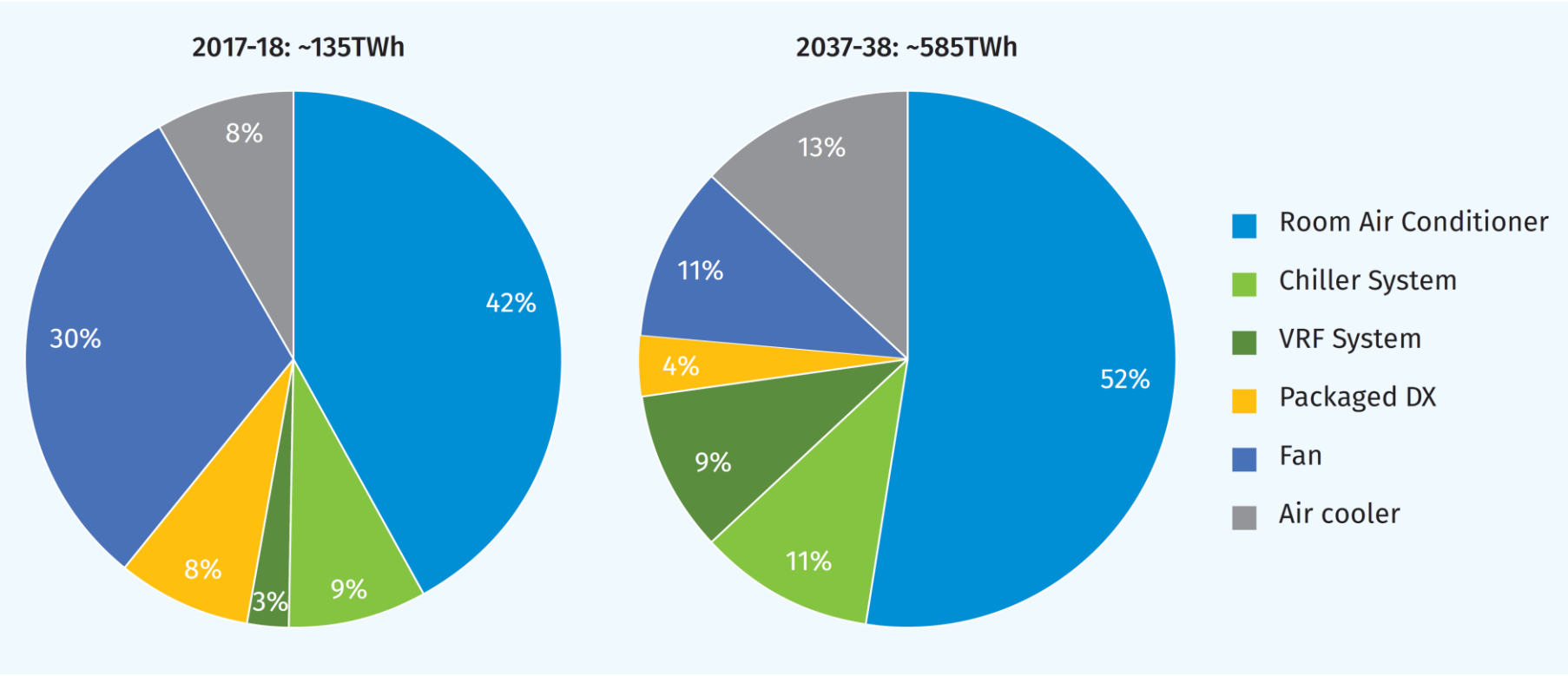


India's Total Primary Energy Supply for Cooling



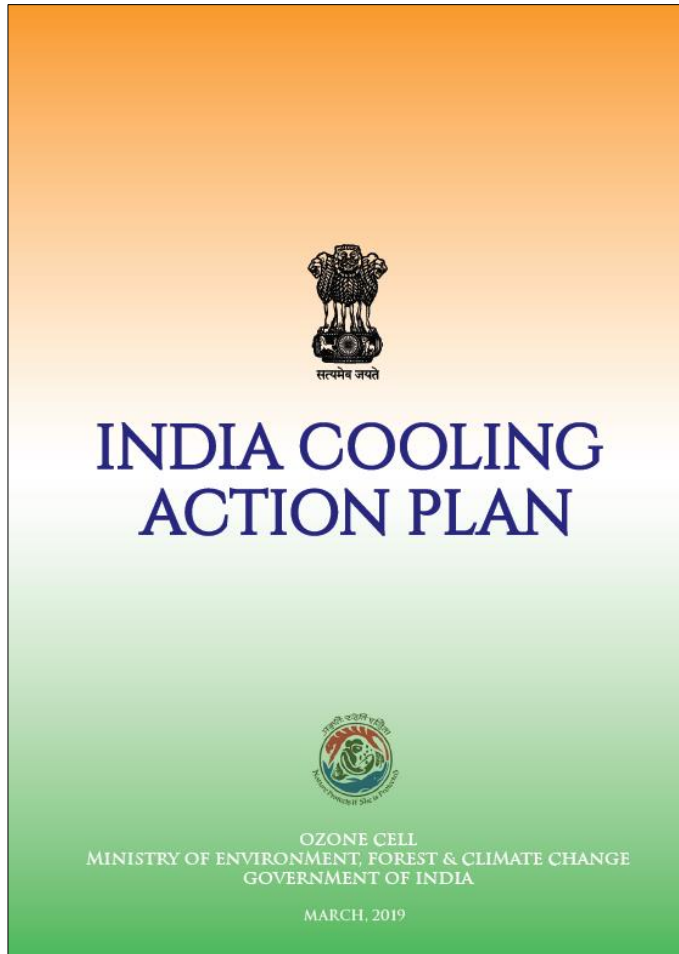


Space Cooling Energy Consumption by Equipment





ICAP Targets

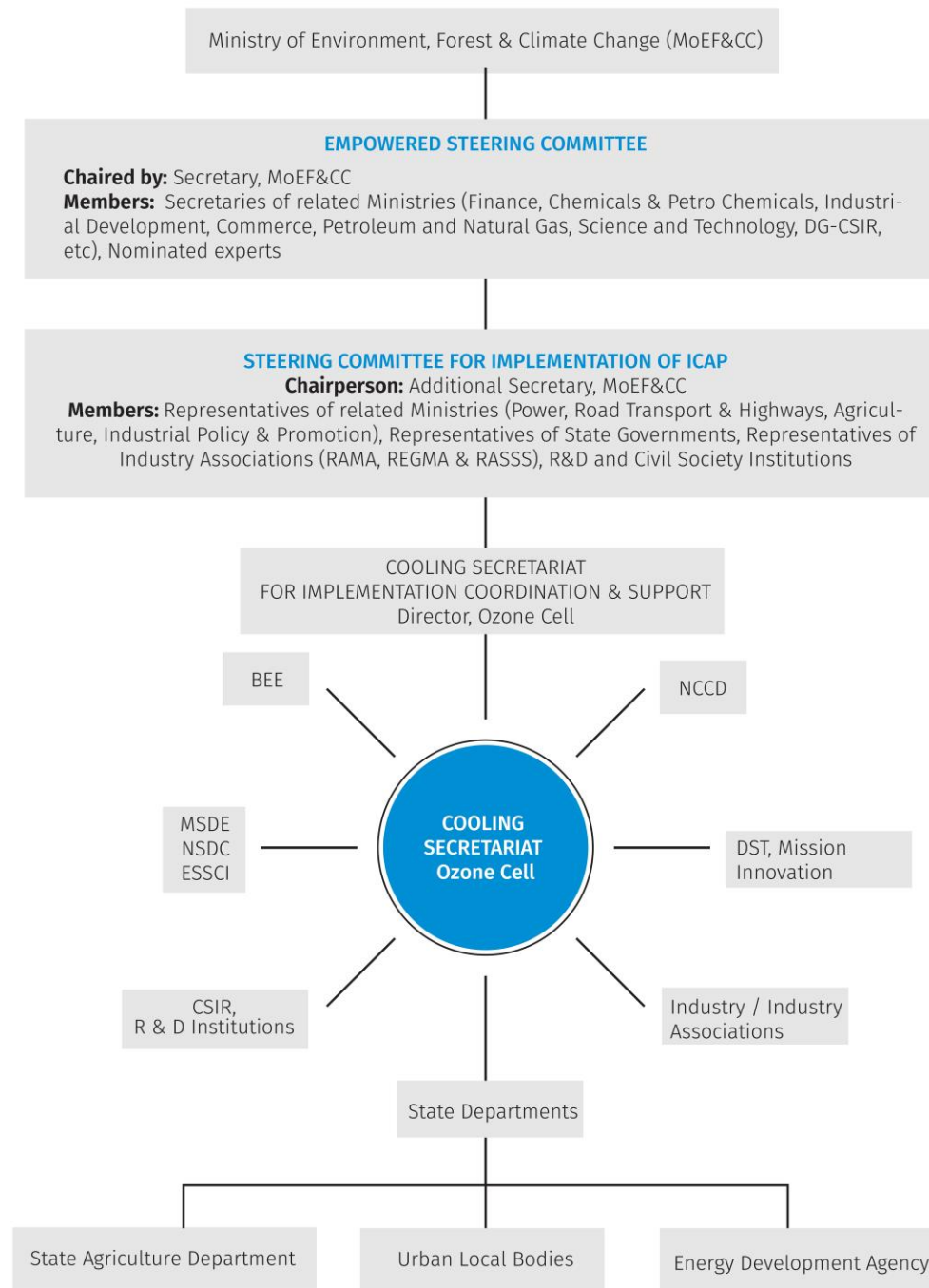


1. Recognition of “cooling and related areas” as a thrust area of research under national science and technology programme to support development of technological solutions and encourage innovation challenges.
2. Reduction of cooling demand across sectors by 20% to 25 % by year 2037-38
3. Reduction of refrigerant demand by 25% to 30% by year 2037-38
4. Reduction of cooling energy requirements by 25% to 40% by year 2037-38
5. Training and certification of 100,000 servicing sector technicians by year 2022-23, synergizing with Skill India Mission



Indicative inter-linkages of Cooling with various Government Programmes & Initiatives

GLOBAL PRIORITIES	Climate Change Sustainable Development Goals							
Departments & Entities	Ozone Cell	BEE EESL State Designated Agencies (SDA)	CPWD NBCC State PWD Development Authorities	National Centre for Cold-chain Development NCCD)	State Transport Departments State Road Transport Undertakings	Department of Heavy Industry	Electronics Sector Skills Council of India	Ministry of Science and Technology (DST) TIFAC
		S&L ECBC CAFE norms BEEP ESEAP	PMAY-Housing for All Smart Cities Mission Government E- Marketplace	Doubling Farmers# Income (DFI) Gramin Agricultural Markets (GrAMs)	AMRUT - Public Transportation Metro Rail Projects CAFE norms	FAME India	Pradhan Mantri Kaushal Vikas Yojana Government E-Market-place	Mission Innovation



Implementation Framework

Thank You!

