

## **Clotilde Rossi di Schio**

Sustainable Energy for All (SEforALL)

Virtual Asia Clean Energy Forum – 15 June 2020



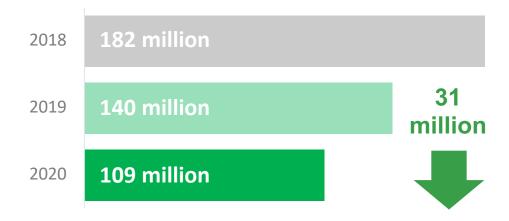


# TRENDS IN COOLING ACCESS | POPULATION AT HIGHEST RISK

## **RURAL POOR: APPROXIMATELY 109 MILLION IN ASIA**



- Likely to be subsistence farmers without access to an intact cold chain
- May lack access to electricity and properly stored vaccines



- Lack of access to energy
- Share of rural population living in poverty



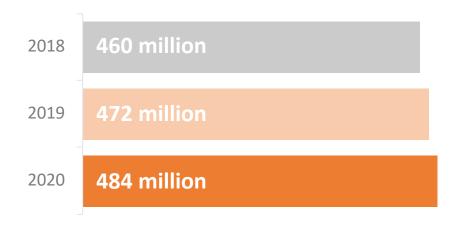
- Significant increase in rural energy access that can provide energy for fans or refrigerators
- Positive trend in most Asian countries, with major improvements in India, Myanmar, Indonesia, Philippines

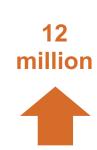
# TRENDS IN COOLING ACCESS | POPULATION AT HIGHEST RISK

## **URBAN POOR: APPROXIMATELY 484 MILLION IN ASIA**



- May have some access to electricity, but live in housing of poor quality
- May have a refrigerator, but food often spoils due to intermittent power





- Lack of access to energy
- Share of urban population living in slums



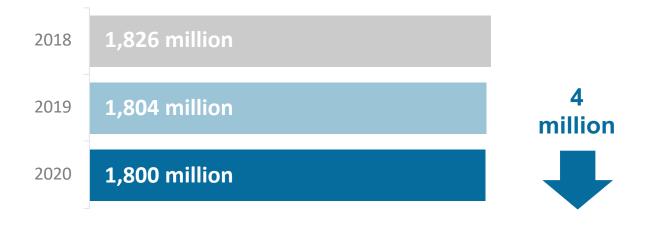
- Continued urbanization and fast-growing cities in Asia
- Alarming trend in countries where more than 50% of urban population is at risk (Bangladesh, Cambodia, Yemen)

# TRENDS IN COOLING ACCESS | POPULATION AT MEDIUM RISK

## LOWER-MIDDLE INCOME: APPROXIMATELY 1.8 BILLION IN ASIA



• May purchase an affordable thus likely inefficient air conditioner or refrigerator that raises energy consumption and GHG emissions



 Proportion of population living on less than USD 10.01 per day outside of rural or urban poverty



Risk of purchasing less-sustainable cooling devices associated with income growth and lower prices for entry-level units

# TRENDS IN COOLING ACCESS | IMPACT OF COVID 19 AND PRODUCTIVITY



#### **MEDICAL COLD CHAINS**

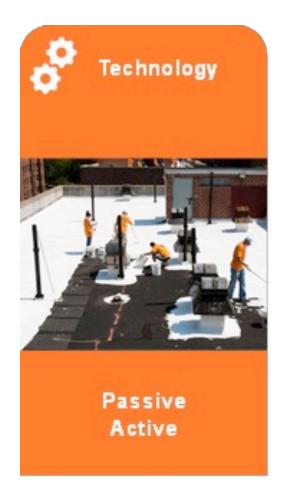
- Medical cold chains are at the basis for storing safely temperature sensitive vaccines
- **Five countries in Asia** (India, Pakistan, Indonesia, Philippines, Vietnam), of which three are at critical risk due to lack of access to cooling, account for **30 percent of unvaccinated children**
- As the world develop vaccines to prevent future pandemics, access to cold chains remains essential



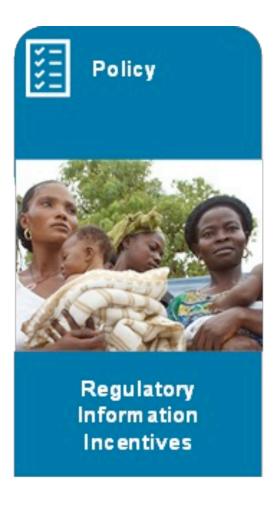
#### PRODUCTIVITY LOSSES

- USD 630 billion of annual economic loss due to heat stress in Asia
- Due to climate change, developing economies are experiencing increasing heat stress, and the long-term impact that lack of access to cooling has on economic growth
- Of the top ten countries for jobs lost to heat stress by 2030 and associated GDP cost eight are
  in Asia (India, China, Pakistan, Indonesia, Bangladesh, Vietnam, Thailand, Philippines), for a
  total of 59 million full-time jobs lost. India alone accounts for 34 million job losses.

# ACCESS TO COOLING | FROM COOLING NEEDS ASSESSMENT TO SOLUTIONS









## **CHILLING PROSPECTS 2020**







#CoolingforAll



## **CHILLING PROSPECTS:**

PROVIDING SUSTAINABLE COOLING FOR ALL







# NEW RELEASE OF CHILLING PROSPECTS 2020 REPORT ON JULY 16, 2020

### Information and resources available at:

https://www.seforall.org/cooling-for-all

# Reports available at:

https://www.seforall.org/data-and-evidence/chilling-prospects-series

# **THANK YOU!**



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