



COOLING FOR ALL NEEDS ASSESSMENT





AN ISSUE

To date, discussions and solutions focus on projections for equipment sales, GDP and population without considering the full diversity of cooling needs that are necessary to provide access to sustainable cooling for all.





AN OPPORTUNITY

The **Cooling for All Needs Assessment** is a tool recommended for governments, development institutions, and NGOs to measure the full spectrum of cooling needs and the policy, technology, and finance measures to address those needs.

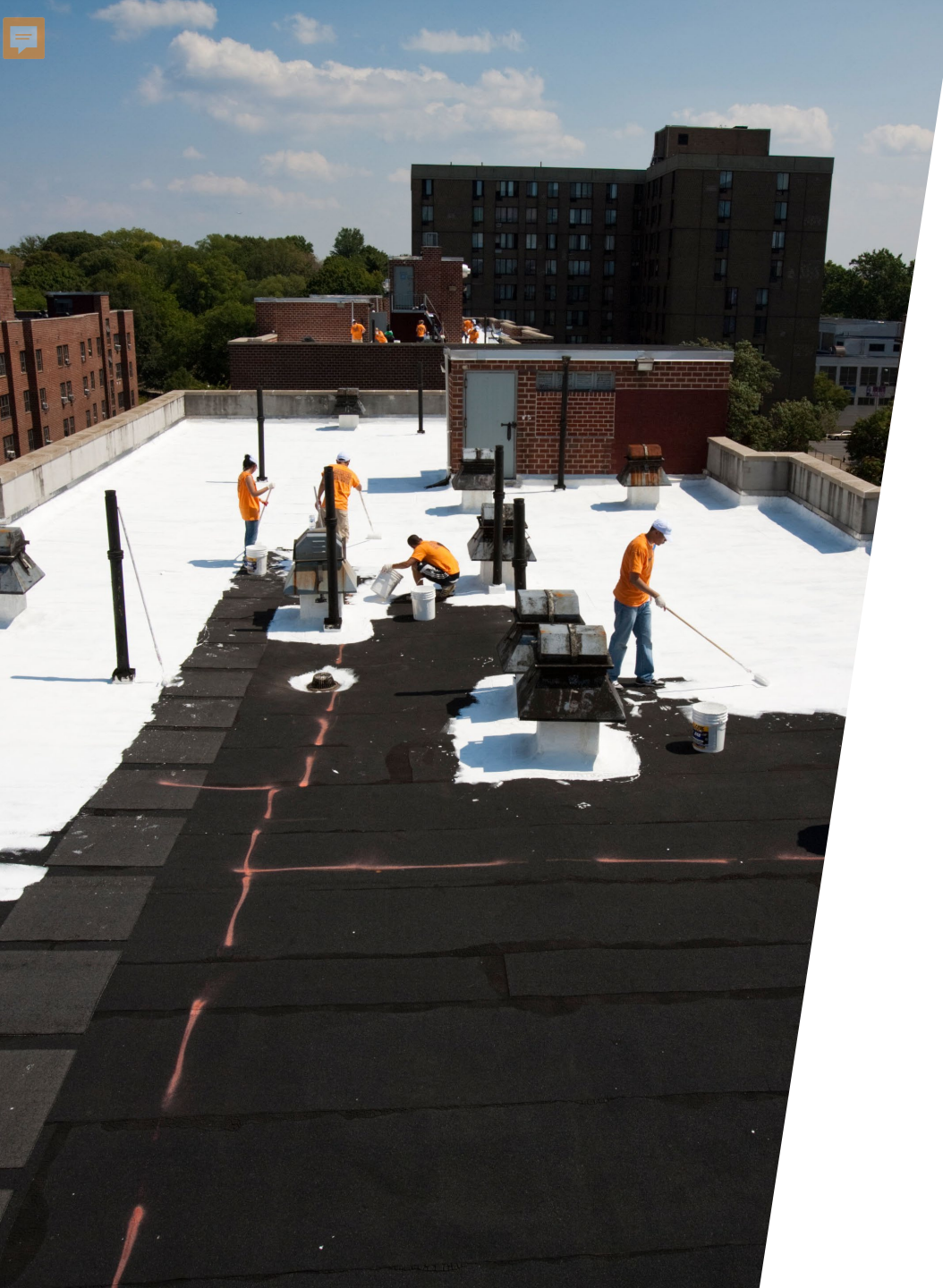




PRINCIPLES

In order for a country, city or community to ensure that the cooling needs of their population are met, they must first understand what those needs are.





PRINCIPLES

Through assessment across all cooling needs, demand can be understood systemically and measured fully. A roadmap to delivering access to sustainable cooling for all can then be developed.





PRINCIPLES

Such assessment is crucial to the planning and investment required to minimize demand, aggregate services, and harness new and renewable technologies, whether through a national cooling plan or an equivalent set of measures.

A DEEPER DIVE ACROSS 3 AREAS OF NEED

- Human comfort and safety
- Food, nutrition security and agriculture
- Health services



INDICATORS ON HOW TO TRACK PROGRESS

- Using SDGs to benchmarks progress



A TOOL TO:

- Establish a baseline for access to cooling
- Measure the full scope of cooling demand
- Aggregate policy, technology and finance options



ASSESSING COOLING NEEDS

Human Comfort
and Safety



Food, Nutrition Security
and Agriculture



Health Services



ACCESS TO COOLING NEEDS: HUMAN COMFORT AND SAFETY



To what extent does the population have access to the space and mobility cooling that is adequate to maintain safety and productivity, at home, in education and in the work environment and while moving between each?

INDICATORS

SDG 7.1.1 Access to reliable, sustainable energy supply

SDG 1.1.1 Population below the international poverty line

Proportion of the population potentially at risk of heat stress, including through UHIE

SDG 8.8.1 Morbidity and mortality related to heat stress

SDG 11.7.1 Proportion of the urban population with access to public green spaces

SDG 11.5.2 Proportion losses attributable to heat stress-related disasters

Proportion of learners taught in buildings where temperatures impede cognitive function and number of days per year

Population working inside at risk of heat stress in the workplace

Work days lost each year due to heat stress



ACCESS TO COOLING NEEDS: FOOD, NUTRITION SAFETY AND AGRICULTURE



Are agricultural and fisheries incomes sufficient to keep workers out of absolute and relative poverty?

INDICATORS

SDG 1.1.1 Population below the international poverty line

SDG 1.2.1 Proportion of the population living below the national poverty line

SDG 1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

SDG 2.3.2 Average income of small-scale food producers

SDG 2.C.1 Extent of food price anomalies

SDGs 9.1.1 & 9.C.1 Connectivity to markets (*local, short, medium and long distance*) farmers currently have – in terms of information flow (*farm-to-fork and fork-to-farm*) and physical access. Price differential achieved for the same product at different markets



ACCESS TO COOLING NEEDS: FOOD, NUTRITION SAFETY AND AGRICULTURE



To what extent does the population have access to the food they need to achieve a healthy (and socially acceptable) diet?

INDICATORS

SDG 2.1.1 Prevalence of undernourishment

SDG 2.1.2 Prevalence of moderate or severe food insecurity

SDG 2.2.1 Prevalence of stunting among children <5

SDG 2.2.2 Prevalence of malnutrition among children <5

Proportion of the population that achieves a healthy, nutritionally sufficient diet

SDG 2.3.1 Volume of production per labor unit by farming enterprise sizes

SDG 12.3.1 Volume and proportion of food loss and waste at each stage along the cold chain

SDG 7.1.1 Proportion of the population with access to reliable, sustainable energy supply

Morbidity and mortality rates related to food poisoning

Proportion of the population with access to refrigeration for domestic use



ACCESS TO COOLING NEEDS: HEALTH SERVICES



Are national vaccine programs reaching their target population?

INDICATORS

SDG 3.B.1

Proportion of the target population covered by all vaccines included in the national program

SDGs 3.3.2 & 3.3.4

Prevalence of vaccine preventable diseases

Mortality from vaccine preventable diseases



ACCESS TO COOLING NEEDS: HEALTH SERVICES



Is there sufficient unbroken cold-chain to ensure provision of medicines and healthcare products?

INDICATORS

Proportion (and total number) of vaccines, medicines and medical products lost each year due to cold chain failures and associated economic costs

Number, volume, and geographic distribution of cold storage facilities for health

SDG 3.B.3 Proportion of health facilities with a core set of relevant essential medicines available and affordable on a sustainable basis

Number and location of communities not served by cold storage facilities for health

Community level of risk due to natural disasters based on the number of deaths, missing persons and affected persons attributed to disasters per 100,000 of the population



ACCESS TO COOLING NEEDS: HEALTH SERVICES



Are health infrastructure buildings equipped with the cooling they need to deliver adequate health services?

INDICATORS

Number of health infrastructure buildings in the community, region, or country

Current demand and utilization of cooling services for effective and safe use of equipment, or safe and comfortable air temperature control for patients

Levels of morbidity and mortality associated with power loss at health facilities



RESOURCES

- Chilling Prospects report series
- The Cooling for All Needs Assessment Methodology Working Paper
- The Cooling for All Needs Assessment Scorecard

CONTACT THE COOLING FOR ALL SECRETARIAT AT SEforALL FOR:

- Assistance finding partners or technical support
- Questions or comments in implementing the assessment

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