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**26th Conference of the United Nations Framework Convention
on Climate Change
(COP 26)
Glasgow (United Kingdom)
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Dear delegates,

Refrigeration preserves food and health, and is essential to human life.

However, the quality of the cold chain can vary from country to country tremendously; in some countries it is almost entirely absent.

This has consequences for food security, for the preservation of health products such as vaccines, and for the health of the population: poor nutrition, disease and death.

The IIR attempted to estimate food losses due to a lack of refrigeration in a note published in 2020: out of 3630 Mt produced, 47% should benefit from refrigeration, but only less than half of this really is refrigerated.

These losses (13% of the food produced) could theoretically feed 950 million people per year, 1/3 of the future needs due to population growth and undernourishment. Extending the cold chain would also help the environment: food losses generate CO₂ and other greenhouse gas emissions and use additional soil and water.

We compared the impact of CO₂ eq emissions from food losses to CO₂ eq emissions of a cold chain at the level of developed countries worldwide. Such an extended cold chain would generate only half the emissions due to food perishing, so overall the cold chain is an environmental gain!

Of course, with the technological improvements on energy and refrigerants already available, the results could have been much better.

For food security, public health and climate change reasons, the implementation of a sustainable cold chain should be a priority for each country and should be included in Nationally Determined Contributions. The IIR is already involved in various projects in developing countries with United Nations agencies and programmes and some developed countries.

The IIR is available to assist you.

Thank you.