AMI COP31 Ministerial Statement: Limiting Overshoot to Avert Irreversible Damage from Cryosphere Loss

Since its founding at COP27, the Ambition on Melting ice (AMI) High-level Group on Sea-level Rise and Mountain Water Resources has raised the risks and widespread damage caused by cryosphere loss, not just in polar and mountain regions but touching every country on Earth; and urged rapid course-correction towards a safer 1.5°C trajectory.

That trajectory is for now impossible due to our collective failure to act, as we seem poised to enter some period of overshoot of the lower Paris Agreement 1.5ºC limit.

The 1.5ºC limit however remains just as relevant, if not more so. Indeed, we note that the recent *Overshoot and the Cryosphere Report* by UNEP and ICCI assessed 1ºC, corresponding to about 380ppm CO_2 concentrations in the atmosphere, as a far safer level for human communities and ecosystems when global impacts from cryosphere loss are taken into account.

Any degree of overshoot should be utterly unacceptable due to multiple feedbacks from polar and mountain regions that will have extreme and irreversible economic, social and environmental consequences not just on these regions, but across the planet. Each tenth of a degree additional global warming significantly increases the risk of triggering dangerous tipping points caused by melting ice.

Our task now is to keep this overshoot as low and as brief as possible. Several scientific assessments, including the 2026 UNEP Emissions Gap Report, confirm that limiting overshoot to 1.7-1.8ºC remains feasible, and with a return below 1.5ºC by the end of this century; but only with a swift and effective transition from fossil fuels, in concert with deep cuts in methane and (of enhanced benefit to cryosphere) black carbon; followed by sustainable carbon drawdown to decrease temperatures.

We call on all countries to take the above steps to avert cryosphere meltdown, considering they represent the best chance to avert, or at least slow high-impact processes such as sea-level rise, desertification, ocean current disturbance and ground collapse that carry high economic costs and, as seen in Nepal and China this year, tragic loss of human life.

We also call on countries to prepare more realistically for adaptation given these now-inevitable impacts through adequate financing and planning that take cryosphere loss fully into account, impacts that will expand greatly in scope with further delay in emissions reductions.

A planet with less or no cryosphere is a very different planet from that known by humanity throughout its existence. We call on the COP31 Presidency explicitly to recognize the irreversible impacts that will occur with each fraction of a degree of warming due to melting of the planet's ice stores; and place monitoring, understanding and preparing for cryosphere loss under overshoot, and minimizing its length and duration, at the heart of COP31 decision documents.