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Founder
Climate Forecast Applications Network LLC (CFAN).

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An Icon of Excellence walking the Extra Mile for Climate Change

A resourceful leader, **Judith Curry** is the **Founder** of **Climate Forecast Applications Network LLC (CFAN).**

Her passion for climatology and climate change is driven by her gold-plated career in academia focused on climate-related research. Most recently at Georgia Tech, where she is Professor Emerita.

With decades of profound experience and being her instrumental self, Judith is keen on bringing forth a transformation in how we think about and respond to climate change. Her journey is inspiring yet challenging as she continues to open our eyes to reality about the planet, environment, and climate.

Laying the Foundation of CFAN

Encouraged by Georgia Tech's VentureLab program, CFAN was founded in 2006 to translate cutting-edge weather and climate research into forecast products that support the mitigation of weather and climate risks. Its initial opportunities and clients spawned the development of innovative extended-range forecasts of extreme weather events. These innovations leveraged ensemble forecast methods, machine learning, and artificial intelligence to provide more accurate probabilistic forecasts of extreme weather events at longer lead times.

Over the past decade, there has been a growing need for more realistic scenarios for regional climate change on decadal time scales than can be provided by climate models. Leveraging their strong expertise in climate dynamics, CFAN has developed a statistical/dynamical network-based approach for developing a range of regional climate scenarios that include both natural and human-caused climate variability and change.

Another key driver for CFAN has been the analysis and communication of forecast uncertainty and its use in decision-making.

Holistic Offerings

CFAN offers a comprehensive suite of weather forecast products for the energy sector under its OmniCast brand, which includes forecasts of temperature, solar and wind power, and severe convective weather.

CFAN's tropical cyclone forecasts under the TropiCast brand include the following innovations: a dynamic cone of track forecast uncertainty, CFAN's Rapid Intensification index, forecasts of Integrated Kinetic Energy and Cyclone Damage Potential, and calibrated high-resolution forecast fields of landfall winds. Under the AgriCast brand, it provides regional forecasts that support precision agriculture, providing probabilistic weather forecasts based on user-provided thresholds. Interactive web-based dashboards that help clients easily and quickly interpret forecast information.

The organization's competitive edge is associated with its advanced forecast calibration and ensemble interpretation techniques, forecast uncertainty characterization, and visual analytics and

cognitive computing techniques to support the effective use of the forecast information.

CFAN's climate services have more of a bespoke nature, responding to specific client requests for climate scenarios and impact assessments, advice on corporate climate risk management, reports, and educational materials, expert testimony and litigation support, and support for the development and evaluation of adaptation strategies.

Key Insights on the Climate Change Debate

In the present-day climate change debate, science and common sense policy deliberations have left the room. We are left with an oversimplified framing of the problem and its solution that was put in place in the 1990s to promote a particular political agenda.

This agenda is now advanced through unjustified apocalyptic rhetoric about climate change impacts. Continued catastrophizing has produced a political battle between two extremes: those who insist on the urgent elimination of fossil fuels; and a range of others that are castigated as deniers of climate science because they do not support the rapid elimination of fossil fuels until reliable replacement fuel sources are in place.

Additionally, Judith briefly states her firm stance on how if the increased focus on emissions is helping to tackle climate change.

"We have fundamentally mischaracterized the risk from climate change, by ignoring natural climate variability, conflating extreme weather events with fossil-fueled climate change, and discounting our ability to adapt to weather and climate extremes. A focus on urgent emissions reductions with inadequate energy reliability and security is increasing our vulnerability to weather and climate extremes."

Tackling Climate Change Efficiently

CFAN is helping to address climate change in a fundamentally more effective way. Tackling climate change effectively requires that the organization separates the slow incremental risk of fossil-fueled warming from the emergency risks associated with extreme weather and climate events. The urgency is to deal with the emergency risks, which have always occurred and will continue to occur. Yes, emissions should be reduced over the 21st century. However, even beyond the technical issues, greater realism is needed about the uncertainties and politics underpinning the pursuit of control of both emissions and the climate.

Judith's Book

Judith has recently written a book "Climate Uncertainty and Risk" (Anthem Press, in press). This book helps us rethink the climate change problem, the risks we are facing, and our response. It shows how both the climate change problem and its solution have been oversimplified. It explains how understanding uncertainty helps us to better assess the risks and how uncertainty and disagreement can be part of the decision-making process. It provides a road map for formulating pragmatic solutions that can improve our well-being in the 21st century.

A Take on Culture, Environment, and Climate Change

Different cultures have different views of how humans relate to their environment, and of our obligations to future generations. But most fundamentally, focusing on lofty environmental goals is a luxury that can only

be afforded by the affluent; underdeveloped countries are rightfully focused on survival, development, and reducing their vulnerability to extreme climate events.

Safeguarding the Future with Energy Infrastructure

Access to energy is critical for development and reducing poverty. The redirection of international development funds towards CO2 emissions reductions is hampering development in Africa and other underdeveloped countries. It is neither moral nor just to restrict these countries from developing their fossil fuel resources to support their development.

We need a vision for energy infrastructure for the 21st century that provides *abundant, secure, and clean energy* to the world's population. A mad rush to implement wind and solar power to meet artificial deadlines of climate urgency is not only infeasible, but we are wasting resources that could be expended on eliminating energy poverty now and supporting better solutions in the longer term. In effect, the urgency of emissions targets is causing us to lose sight of the overall objective of increasing human well-being.