

## *Curriculum Vitae*

### **SUELY MARIA MACHADO CARVALHO, PhD**

Over 35 -year experience in climate and ozone layer protection, assisting developing countries to protect the environment, fostering capacity building and implementation of effective and accountable programmes. Former director of the United Nations Development Programme (UNDP) in New York and the São Paulo State Environment Protection Agency, Brazil. Professor at federal and state universities in Brazil and currently a senior expert to several national and international organizations. Senior Expert for the Technology and Economic Assessment Panel, TEAP since 2016.

**Nationality: Brazilian; Gender: Female**

### **Education**

Bachelor's Degree in Physics, Pontifícia Universidade Católica, São Paulo , BRAZIL  
Master of Science (MS) and Doctor's (PhD) degrees from Purdue University, USA  
Post-doctorate at the National Superconducting Cyclotron Laboratory, NSCL, USA Department of Energy (DOE), Michigan, USA

### **Climate and Ozone Related Experience**

Senior Expert (voluntary basis, 2016-2023) of the Technology and Economics Assessment Panel, UNEP TEAP, on the following working groups and Task Forces:

- Task Force on Cost and Availability of Low Global Warming Potential Technologies that Maintain/Enhance Energy Efficiency, Decision XXX/5. **Member**
- Energy Efficiency Task Force on Issues Related to Energy Efficiency while Phasing down Hydrofluorocarbons (**co-chair**)
- Working Group on the Climate Benefits and Costs of Reducing Hydrofluorocarbons under the Dubai Pathway, Decision EX.III/1. **Member**
- **Co-Chair**, 2021-2023 MLF Replenishment Task Force.
- **Co-Chair**, 2024-2026 MLF Replenishment Task Force.

International Expert Panel for Energy Efficiency Testing Air Conditioners High Temperature Environment, funded by the United States State Department and Department of Energy (DOE) and partner with the Oak Ridge National Laboratory, Tennessee, USA (2015-2016) (**co-chair**).

International Technical Panel "Ozone Operations Resource Group," OORG, The World Bank (senior expert member). The Panel advises the World Bank in environmental policies related to international agreements and low-carbon technology transfer to countries where the Bank operates (2016-now, as **senior expert member**).

**Senior adviser** at Institute Climate and Society (Brazil) working in partnership with the Lawrence Berkeley Laboratory, CLASP (Collaborative Labelling and Appliance Standards Program) in Standards, Labelling and energy impact analysis of cooling appliances in Brazil, in close collaboration with Minister of Energy and the Institute for Governance and Sustainable Development, IGSD.

**Expert member, Technical Advisory Committee, TAC**, of the Kigali Cooling Efficiency Programme, KCEP, now called Clean Cooling Collaborative (2016-now). The Clean Cooling Collaborative is a philanthropic initiative of Climate Works Foundation that is working to create a future with efficient, climate-friendly cooling for all.

**Professor and senior researcher** at IPEN, Energy Research Institute at the Ministry of Science and Technology, Brazil, for 22 years.

Articles/papers published are available upon request.

## Awards

1996. "The Stratospheric Ozone Protection Award" in recognition of outstanding contributions to the protection of the ozone layer of the earth, the United States Environmental Protection Agency (EPA).

2007. "Global Ozone Award". United Nations Environment Programme, UNEP. Award to selected experts globally, celebrating 20 years of the Montreal Protocol, Montreal, Canada.

2012. "Multilateral Fund Award". For leadership and support to over 100 developing countries to implement successfully the Montreal Protocol.

2012. "Ozone Secretariat 25 Years Award". Award for 25 years of "contribution, dedication and work to protect the global ozone layer."

2017. "Ozone Secretariat 30 Years Award". Award for 30 years of contribution to protect the global ozone layer and climate, as member of TEAP.

## United Nations and Other Related Jobs

**UNDP Director**, (UNDP-New York) for 17 years. Montreal Protocol Trust fund manager and director of the UNDP Montreal Protocol and Chemicals Unit in New York for 12 years. Responsible for the UNDP MP and Chemicals global programme totaling over US \$ 650 million from the MLF, the GEF and other partner bilateral and multilateral organizations and programmes. The Trust Fund of the Montreal Protocol (MP-Trust Fund) allowed the transfer of ozone-depleting-free technologies to over 100 developing countries in industrial sectors, such as medicinal aerosol, pesticides, insulating and other foams, fire protection, refrigeration and air conditioning, solvents and other products of great socio-economic importance.

As **UNDP-Global Environment Facility**, UNDP-GEF's **Principal Technical Advisor (PTA) on Chemicals and Waste**, worked in close cooperation with the *Climate Change* focal area of the GEF, engaged in market transformation activities to foster low-carbon/ energy efficiency technologies to replace obsolete ODS based equipment in developing countries, bringing partner finance institutions in multimillion dollar interventions across sectors in partner developing countries, and mobilizing finance.

Retired in December 2013.

**Director of Development and Technology Transfer** at the Environmental State Agency/ CETESB, Secretariat of State of São Paulo, Brazil (1995-1997). As director, was responsible for laboratory air, water and waste analyses and International Standards Organization (ISO)-certification program, environmental policies related to international agreements, bilateral agreements in the areas of chemical pollution, waste destruction technologies and resource mobilization.

Created the first São Paulo State Climate Change and Ozone Layer Protection programs.

**Head of Air Quality Control Division** at the Federal Secretary of Environment, Brasilia, Brazil (1987-1988) Air Quality Standards, Vehicles Emission Control and Ozone Layer Protection programs were among several under the responsibility of this Division.