

# Anna Pirani

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## Professional Experience

### Senior Research Associate

#### Euro-Mediterranean Centre for Climate Change (CMCC Foundation)

##### 2023-present

Research on climate risk assessment, considering multi-hazard risk, possible climate futures, stakeholder preparedness and governance. The assessment of climate risks at local, regional, national and European scales, including the development of assessment frameworks, the use of climate scenarios and storylines, including to understand and assess cascading and transboundary risks. Strengthening the science basis and the interface with international policy across all aspects of climate change, including future risks, adaptation and mitigation in the context of the implementation of the Paris Agreement and achieving climate resilience and sustainable development. Scientific and technical support of climate policy development and negotiations for the Italian Ministry for the environment and energy security (MASE) at UNFCCC, G20, G7 on topics that include climate change, impacts and risk, adaptation, migration, mitigation ambition and net zero emissions targets. EU lead negotiator on UNFCCC Research and Systematic Observations.

### IPCC Focal Point for Italy (alternate)

#### CMCC on behalf of Ministry Environment and Energy Security (MASE)

##### 2023-present

Representation of Italy at the IPCC, connecting the national scientific and policymaking communities to the IPCC, participates in IPCC plenary sessions and meetings, represents the IPCC in Italy and carries out communication and dissemination activities regarding IPCC activities.

### Head Working Group I Technical Support Unit

#### Intergovernmental Panel on Climate Change (IPCC)

##### 2016-2023

Executive editor of the 2018 IPCC Special Report on Global Warming of 1.5°C and the AR6 Working Group I 2021 Climate Report. Head of the Working Group I Technical Support Unit. Leadership and inclusive management of a team co-located in France and China of operations, science, data, communications, graphics, IT, with external contractors. Strategic and scientific assessment oversight, including design and successful running of the “groundbreaking” first ever virtual IPCC approval session. Strategic communications, visual design, and outreach tailored to international, regional and national stakeholders, experts and the public. Data provision, including the first ever IPCC Interactive Atlas - a data exploration tool accessed by over half a million users around the world to-date.

### Deputy Executive Director

#### International CLIVAR Project

##### 2014-2016

Coordination of CLIVAR activities on ocean model development, decadal climate variability and predictability, climate dynamics. Assisting the Executive Director to ensure the successful implementation of the CLIVAR project. Oversight of the International CLIVAR Monsoons Project Office (ICMPO) in Pune, India.

**Science Officer, USA**  
**International CLIVAR Project**  
**2007-2014**

Coordination of CLIVAR activities on global climate modeling, seasonal to interannual prediction, ocean model development, African climate research and climate change detection and indices.

**Post-doctoral Research Scientist**  
**Météo-France, France**  
**2004-2006**

Development of a new air-sea turbulent flux parameterisation as part of the MERSEA European Integrated Project for ocean forecasting, and its implementation into an ocean general circulation model and adopted by the Météo-France CNRM climate model.

## Education

**Ph.D. Physical Oceanography**  
**National Oceanography Centre, UK**  
**2000-2004**

Thesis on ocean dynamics and El Niño.

**M.Sc. Oceanography**  
**National Oceanography Centre, UK**  
**1998-1999**

**B.Sc. Environmental Sciences**  
**University of East Anglia, UK**  
**1995-1998**

## Community Service

**Co-Coordinator MedECC Scientific Steering Committee**  
**2024 - present**

- Leadership and oversight of MedECC assessment, in particular the scoping and preparation of the 2nd Mediterranean Assessment Report, commencing in 2024.

**Rapporteur EU Horizon Europe**  
**2022-2023**

- Reporting on climate change, adaptation and mitigation knowledge gaps for future strategy development for EU funding priorities.

**Expert Reviewer (incl. European Commission, CINEA, PRACE, TWAS, NERC)**  
**2012-present**

- EU strategic research agenda
- Super-computing and climate change
- International development, gender equity

**Strategic Board Member**  
**Office for Climate Education**  
**2018-2023**

- Representation of the IPCC, climate literacy and teaching resources tailored to regional contexts.

### **Advisory Board Member**

**United Nations University, Institute for Natural Resources in Africa**

**2023-2024**

### **External Expert Advisory Board Member**

**TipESM Horizon Europe Action**

**2024-2027**

## **Languages**

Bilingual in English-Italian, proficient in French, intermediate in Spanish.

## **Publications**

Forster, P. M, Smith, C., Walsh, W., Lamb, W., Lamboll, R., Hall, B., Hauser, M., Ribes, A., Rosen, D., Gillett, N., Palmer, M. D., Rogelj, J., von Schuckmann, K., Trewin, B., Allen, M., Andrew, R., Betts, R., Boyer, T., Buontempo, C., Burgess, S., Cagnazzo, C., Cheng, L., Friedlingstein, P., Gettelman, A., Gütschow, J., Ishii, M., Jenkins, S., Lan, X., Morice, C., Mühle, J., Kadow, C., Kennedy, J., Killick, R., Krummel, P. B., Minx, J. C., Myhre, G., Naik, V., Peters, G. P., Pirani, A., Pongratz, J., Schleussner, C.-F., Seneviratne, S. I., Szopa, S., Thorne, P., Kovilakam, M. V. M., Majamäki, E., Jalkanen, J.-P., van Marle, M., Hoesly, R. M., Rohde, R., Schumacher, D., van der Werf, G., Vose, R., Zickfeld, K., Zhang, X., Masson-Delmotte, V., and P. Zhai: Indicators of Global Climate Change 2023: annual update of key indicators of the state of the climate system and human influence. *Earth Syst. Sci. Data*, 16, 2625–2658, <https://doi.org/10.5194/essd-16-2625-2024>, 2024.

Meinshausen, M., Schleussner, C.-F., Beyer, K., Bodeker, G., Boucher, O., Canadell, J. G., Daniel, J. S., Diongue-Niang, A., Driouech, F., Fischer, E., Forster, P., Grose, M., Hansen, G., Hausfather, Z., Ilyina, T., Kikstra, J. S., Kimutai, J., King, A., Lee, J. -Y., Lennard, C., Lisner, T., Nauels, A., Peters, G. P., Pirani, A., Plattner, G. -K., Pörtner, H., Rogelj, J., Rojas, M., Roy, J., Samset, B. H., Sanderson, B. M., Séférian, R., Seneviratne, S., Smith, C. J., Szopa, S., Thomas, A., Urge-Vorsatz, D., Velders, G. J. M., Yokohata, T., Ziehn, T., and Z. Nicholls: A perspective on the next generation of Earth system model scenarios: towards representative emission pathways (REPs). *Geosci. Model Dev.*, 17, 4533–4559, <https://doi.org/10.5194/gmd-17-4533-2024>, 2024.

European Commission, Directorate-General for Research and Innovation, Bednar-Friedl, B., Berndes, G. et al., The next frontier for climate change science – Insights from the authors of the IPCC 6th assessment report on knowledge gaps and priorities for research, [Pirani, A., Drabicka, K., Mousson, M., Ruiz Ramos, M., Markowitsch, R., (eds.)]. Publications Office of the European Union, <https://data.europa.eu/doi/10.2777/34601>, 2024

EEA, 2024, European Climate Risk Assessment, European Environment Agency Report No 1/2024, (<https://www.eea.europa.eu/publications/european-climate-risk-assessment>).

MedECC, 2024: Summary for Policymakers. In: Climate and Environmental Coastal Risks in the Mediterranean. [Djoundourian, S., Lionello, P., Llasat, M.C., Guiot, J., Cramer, W., Driouech, F., Gattacceca, J.C., Marini, K. (eds.)]. MedECC Reports. MedECC Secretariat, Marseille, France, doi: 10.5281/zenodo.10722133, 2024.

Pirani, A., Sánchez-Arcilla, A., Ali, E., Iglesias, A.: Context and framing. In: Climate and Environmental Coastal Risks in the Mediterranean. [Djoundourian, S., Lionello, P., Llasat, M.C., Guiot, J., Cramer, W., Driouech, F., Gattacceca, J.C., Marini, K. (eds.)]. MedECC Reports. MedECC Secretariat, Marseille, France, 2024.

Pirani, A., Fuglestedt, J. S., Byers, E., O'Neill, B., Riahi, K., Lee, J.-Y., Marotzke, J., Rose, S., Schaeffer, R., and C. Tebaldi. Scenarios in IPCC assessments: Lessons from AR6 and opportunities for AR7. *NPJ Climate Action*, 3, 1(2024), <https://doi.org/10.1038/s44168-023-00082-1>, 2024.

IPCC, 2023: Workshop Report of the Intergovernmental Panel on Climate Change Workshop on the Use of Scenarios in the Sixth Assessment Report and Subsequent Assessments [Masson-Delmotte, V., H.-O. Pörtner, D.C. Roberts, P.R. Shukla, J. Skea, P. Zhai, W. Cheung, J. Fuglestedt, A. Garg, B. O'Neill, J. Pereira, J. Portugal Pereira, K. Riahi, A. Sörensson, C. Tebaldi, E. Totin, D. van Vuuren, Z. Zommers, A. Al Khourdajie, S.L. Connors, R. Fradera, C. Ludden, D. McCollum, K. Mintenbeck, M. Pathak, A. Pirani, E.S. Poloczanska, S. Some and M. Tignor (eds.)]. Working Group III Technical Support Unit, Imperial College London, United Kingdom, 67 pp, 2023.

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Forster, P., Pirani, A., Rosen, D., Rogelj, J., and J. Cook: COP26 was a success for climate science, we need to build from this. *Environmental Research: Climate*. <https://doi.org/10.1088/2752-5295/acc67f>, 2022.

Huard, D., Pirani, A., Chen, R., Gutiérrez, J. M., Jukes, M., Krey, V., Spinuso, A., and M. Stockhause: The IPCC Data and Intellectual Property: TG-Data Recommendations, Supporting Material, Intergovernmental Panel on Climate Change Task Group on Data Support for Climate Change Assessments (TG-Data). 8 pp, doi: 10.5281/zenodo.7197274, 2022.

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IPCC, 2018: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.). Cambridge: Cambridge University Press. doi:10.1017/9781009157940, 2018.

IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)). Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3-24, doi:10.1017/9781009157940.001, 2018.

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Tompkins, A. M., et al.: The Climate-system Historical Forecast Project: providing open access to seasonal forecast ensembles from centers around the globe, *BAMS*, doi: 10.1175/BAMS-D-16-0209.1, 2017.

Griffies, S. M., et al.: Experimental and diagnostic protocol for the physical component of the CMIP6 Ocean Model Intercomparison Project (OMIP), *Geosci. Model Dev.*, 9, 3231–3296, <https://doi.org/10.5194/gmd-9-3231-2016>, 2016.

Danabasoglu, G. et al.: North Atlantic Simulations in Coordinated Ocean-ice Reference Experiments phase II (CORE-II). Part II: Variability. *Ocean Modelling*, 97, 65–90, doi:10.1016/j.ocemod.2015.11.007., 2016.

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Danabasoglu, G. et al.: North Atlantic Simulations in Coordinated Ocean-ice Reference Experiments phase II (CORE-II). Part I: Mean States, *Ocean Modelling*, 3, 76-107, doi:10.1016/j.ocemod.2013.10.005, 2013.

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A. Pirani and C. Jones: Report of the WCRP Workshop on Regional Climate: Facilitating the Production of Climate Information and its Use in Impact and Adaptation Work, WCRP Informal Report No. 9, 2010.

Griffies, S. M., et al.: Problems and Prospects in Large-Scale Ocean Circulation Models, Proceedings of the OceanObs-09 Conference: Sustained Ocean Observations and Information for Society, Venice, Italy, 21-25 September 2009, Volume 2, Eds. J. Hall and D.E. Harrison and D. Stammer, ESA Publication WPP-306, 2010.

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