

Anna Pirani

Senior Science-Policy Advisor

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[Google Scholar Citations](#)

Professional Experience

Senior Research Associate

Euro-Mediterranean Centre for Climate Change (CMCC)

2023-present

Research on international, European, national and local climate policies, in particular adaptation and climate risk assessment, considering multi-hazard risk, possible climate futures, stakeholder preparedness and governance. She is currently working on the assessment of climate risks at local to national scales for the Horizon Europe project “CLIMAtE risk and vulnerability Assessment framework and toolboX (CLIMAAX)”, and on European climate risk assessment, in particular the development of storylines on trans-boundary risks that require European-scale coordination and management for the EEA “European Climate Risk Assessment (EUCRA)”. Support and analysis 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, migration, mitigation ambition and net zero targets. Coordinating Lead Author of the MedECC Special Report on coastal risks.

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.
Editor, CLIVAR Exchanges.

**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.

**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

**Coordinating Lead Author
MedECC Special Report on Coastal Risks in the Mediterranean
2021-2023**

- Co-leading Chapter 1 on the the context, background and key dimensions, and the risk framework, of this assessment.

**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-present

- Representation of the IPCC, a key OCE partner.
- Climate literacy and teaching resources tailored to regional contexts.

Advisory Board Member

United Nations University, Institute for Natural Resources in Africa

2023-2024

Languages

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

Publications

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, 2024: A perspective on the next generation of Earth system model scenarios: towards representative emission pathways (REPs). *Geophysical Model Development*, *under review*.

Pirani, A., Fuglestedt, J. S., Byers, E., O'Neill, B., Riahi, K., Lee, J.-Y., Marotzke, J., Rose, S., Schaeffer, R., and C. Tebaldi, 2024. 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>.

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.

Forster, P. M., Smith, C. J., Walsh, T., Lamb, W. F., Lamboll, R., Hauser, M., Ribes, A., Rosen, D., Gillett, N., Palmer, M. D., Rogelj, J., von Schuckmann, K., Seneviratne, S. I., Trewin, B., Zhang, X., Allen, M., Andrew, R., Birt, A., Borger, A., Boyer, T., Broersma, J. A., Cheng, L., Dentener, F., Friedlingstein, P., Gutiérrez, J. M., Gütschow, J., Hall, B., Ishii, M., Jenkins, S., Lan, X., Lee, J.-Y., Morice, C., Kadow, C., Kennedy, J., Killick, R., Minx, J. C., Naik, V., Peters, G. P., Pirani, A., Pongratz, J., Schleussner, C.-F., Szopa, S., Thorne, P., Rohde, R., Rojas Corradi, M., Schumacher, D., Vose, R., Zickfeld, K., Masson-Delmotte, V., and Zhai, P.: Indicators of Global Climate Change 2022: annual update of large-scale indicators of the state of the climate system and human influence, *Earth Syst. Sci. Data*, 15, 2295–2327, <https://doi.org/10.5194/essd-15-2295-2023>, 2023.

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

Huard, D., Pirani, A., Chen, R., Gutiérrez, J. M., Juckes, M., Krey, V., Spinuso, A., and M. Stockhouse, 2022: 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

Iturbide M., Fernández, J., Gutiérrez, J. M., Pirani, A., Huard, D., et al. 2022. Implementation of FAIR principles in the IPCC: the WGI AR6 Atlas repository. *Sci Data* 9, 629, <https://doi.org/10.1038/s41597-022-01739-y>

Pirani, A., Alegria, A., Al Khourdajie, A., Gunawan, W., Gutiérrez, J. M., Holsman, K., Huard, D., Juckes, M., Kawamiya, M., Klutse, N., Krey, V., Matthews, R., Pascoe, C., van der Shrier, G., Spinuso, A., Stockhouse, M., Xing, X., 2022. The implementation of FAIR data principles in the IPCC AR6 assessment process. <https://doi.org/10.5281/zenodo.6504469>

Pirani, A., Matthews, R., Sitz, L., 2022: AR6 Working Group I FAIR Supplementary Material (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.6451137>

Liverman, D., von Hedemann, Nying'uro, N. P., Rummukainen, M., Stendahl, K., Gay-Antaki, M. Craig, M., Aguilar, L., Bynoe, P., Call, F., Connors, S., David, L., Ferrone, A., Hayward, B., Jayawardena, S., Mai Touray, L., Parikh, J., Pathak, M., Perez, R., Pirani, A., Prakash, A., Textor, C., Tibig, L., Tignor, M., Tu?aç, Ç., Vera, C., Wagle, R., 2022. Survey of gender bias in the IPCC. *Nature*, Vol 602, 30-32, doi.org/10.1038/d41586-022-00208-1

IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, In press, doi:10.1017/9781009157896.

IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 3?32, doi:10.1017/9781009157896.001.

Arias, P.A., *et al.*, 2021: Technical Summary. In Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 33, doi:10.1017/9781009157896.002.

Morelli, A., Johansen, T.G., Pidcock, R. Harold, J., Pirani, A., Gomis, M., Lorenzoni, I., Haughey, E., Coventry, K., 2021. Co-designing engaging and accessible data visualisations: a case study of the IPCC reports. *Climatic Change* 168, 26. doi.org/10.1007/s10584-021-03171-4

Pidcock, R., Heath, K., Messling, L., Wang, S., Pirani, A., Connors, S., Corner, A., Shaw, C., and Gomis, M., 2021. Evaluating effective public engagement: local stories from a global network of IPCC scientists. *Climatic Change* 168, 21. doi.org/10.1007/s10584-021-03230-w

Stockhouse, M., Juckes, M., Chen, R., Moufouma Okia, W., Pirani, A., Waterfield, T., Xing, X. and Edmunds, R., 2019. Data Distribution Centre Support for the IPCC Sixth Assessment. *Data Science Journal*, 18(1), p.20. DOI: <http://doi.org/10.5334/dsj-2019-020>

Stockhouse, M., Al Khourdajie, A., Alegria, A., Chen, R., Huard, D., Juckes, M., Pascoe, C., Pirani, A., Matthews, R., Poloczanska, E., Vicuna, S., Xing, X., Yelekçi, Ö., 2020. IPCC Sixth Assessment approaches towards FAIR data and an enhanced data reuse. *ESS Open Archive*. doi: 10.1002/essoar.10504799.1

IPCC, 2019: Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate, H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegria, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.). Cambridge University Press, pp. 3-35. <https://doi.org/10.1017/9781009157964.001>.

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

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.

Cassou, C., Y. Kushnir, E. Hawkins, A. Pirani, F. Kucharski, I.-S. Kang and N. Caltabiano, 2017: Decadal climate variability and predictability: Challenges and opportunities, *BAMS*, doi:10.1175/BAMS-D-16-0286.1.

Tompkins, A. M., et al., 2017: 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.

Griffies, S. M., et al, 2016: 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>.

Danabasoglu, G. et al., 2016: 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.

M. E. Shongwe, A. Pirani and S. Bekele, 2014: Addressing Climate-Related Challenges and Information Needs in Africa: Africa Climate Conference 2013; Arusha, Tanzania, 15-18 October 2013. *Eos Trans. AGU*, 95(22), DOI:10.1002/2014EO220006.

Danabasoglu, G. et al., 2013: 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.

The Steering Committee of the Africa Climate Conference 2013, 2013-present (living document): Africa Climate Science Frontiers: Addressing Priority Research Gaps to Inform Adaptation Decision-Making in Africa. *Frontiers in African Climate Science Research and Applications*. <http://africa-climate.org/frontiers-paper/>

Clement, A., B. Kirtman and A. Pirani, 2011: Climate Literacy as a Foundation for Progress in Predicting and Adapting to the Climate of the Coming Decades, BAMS, 92, 633--635.

A. Pirani and C. Jones, 2010: 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., 2010: 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.

D. Legler and A. Pirani, 2009: WCRP Drought Interest Group (DIG) Coordinates Drought Research for Better Prediction of Regional Drought, CLIVAR Exchanges, 51, 4-3.

Griffies, S. M., et al., 2009: Sampling Physical Ocean Fields in WCRP CMIP5 Simulations, WCRP Informal Report No. 3/2009, ICPO Publication Series No.137.

Griffies, S. M. et al., 2009: Coordinated Ocean-ice Reference Experiments (COREs). Ocean Modelling, 26, 1--46.

B. Kirtman and A. Pirani, 2009: The State of the Art of Seasonal Prediction Outcomes and Recommendations from the First World Climate Research Program (WCRP) Workshop on Seasonal Prediction, BAMS, DOI: 10.1175/2008BAMS2707.1

B. Kirtman and A. Pirani, 2008: WCRP Position Paper on Seasonal Prediction, WCRP Informal Report No. 3/2008, ICPO Publication No. 127.

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