

Dr. Gaby S. Langendijk

Climate Service Center Germany (GERICS) | E: gaby.langendijk@hereon.de

Full name: Gaby Sophie Langendijk
Date of birth: 02 October 1990
Nationality: The Netherlands
Gender: Female

PROFESSIONAL EXPERIENCE

Post-doctoral scientist II Climate Service Center Germany (GERICS), Helmholtz-Zentrum Hereon

Oct. 2021 - current, Hamburg Germany

- Research interests: urban climate change, regional climate modelling, climate adaptation & services, extremes & risks.

PhD II Climate Service Center Germany (GERICS), Helmholtz-Zentrum Hereon

Dec. 2017 - Sept. 2021, Hamburg Germany

- High resolution regional-to-local climate modelling for urban applications.

Scientific officer II World Climate Research Programme (WCRP), UN-WMO

Apr. 2015 - Aug. 2017, Geneva Switzerland

- Consultant at Joint Planning Staff (2015 - 2017)
- Intern at Joint Planning Staff (4 months 2015)

EDUCATION

PhD candidate: Dr.rer.nat II Leuphana University Lüneburg

2018 - 2022

Overall grade: *"Magna cum laude"*

Thesis submitted: Sept. 2021

Grade: *"Magna cum laude"*

Defense: July 2022

Grade: *"Summa cum laude"*

- Title: *"Towards Improved Climate Change Information for Urban Areas, following a regional-to-local climate modeling and data analysis approach for the Berlin region"* (Conducted in collaboration with GERICS)

MSC Climate Studies II Wageningen University and Research Centre (WUR)

2013 - 2015

- Specialisation: Earth System Science

MSC Research Stay II Eidgenössische Technische Hochschule Zürich (ETH)

2014 - 2015

- Master thesis research (incl. 3 months faculty stay at ETH)

BSC Earth Science II University of Amsterdam (UvA)

2009 - 2012

- Honours module: Energy & Climate

PROJECTS & COMMITTEES

Co-PI II WCRP CORDEX Flagship Pilot Study “URBan environments and Regional Climate Change” (URB-RCC)

2021 - current

WP Co-lead II Horizon Europe Impetus4Change (I4C) Project

2022 - current

Writer II 10 New Insights in Climate Science 2022 (WCRP, Future Earth, Earth League)

2021 - 2022

Member II WCRP LHA “My Climate Risk” Scientific Steering Group member

2020 - current

Member II Future Earth Governing Council

2021 - current

Member II Young Earth System Scientists (YESS) community

Executive committee member (2015-2020)

Council member (2015 - current)

Member II Early Career Researchers Network of Networks (ECR NoN)

Council and Future Earth working group

Founding member

PEER-REVIEWED PUBLICATIONS

15. Martin, M., Boakye, E., Boyd, E., Broadgate, W., Bustamante, M., Canadell, J., ...**Langendijk, G.S.**,... Zhao, Z. (2022). Ten new insights in climate science 2022. *Global Sustainability*, 5, E20.

14. Jain, S., Mindlin, J., Koren, G., Gulizia, C., Steadman, C., **Langendijk, G. S.**, ... & Rabanal, V. (2022). Are We at Risk of Losing the Current Generation of Climate Researchers to Data Science?. *AGU Advances*, 3(4), e2022AV000676.

13. **Langendijk, G. S.**, Rechid, D., & Jacob, D. (2022). Improved models, improved information? Exploring how climate change impacts pollen, influenza, and mold in Berlin and its surroundings. *Urban Climate*, 43, 101159.

12. Dike, V. N., Lin, Z., Fei, K., **Langendijk, G. S.**, & Nath, D. (2022). Evaluation and multimodel projection of seasonal precipitation extremes over central Asia based on CMIP6 simulations. *International Journal of Climatology*.

11. Giorgi, F., Coppola, E., Jacob, D., Teichmann, C., Abba Omar, S., Ashfaq, M., ...**Langendijk, G.**, .. & Weber, T. (2021). The CORDEX-CORE EXP-I initiative: Description and highlight results from the initial analysis. *Bulletin of the American Meteorological Society*, 1-52.

10. **Langendijk, G. S.**, Rechid, D., Sieck, K., & Jacob, D. (2021). Added value of convection-permitting simulations for understanding future urban humidity extremes: Case studies for Berlin. *Weather and Climate Extremes*, 100367.

9. Teichmann, C., Jacob, D., Remedio, A. R., Remke, T., Buntemeyer, L., Hoffmann, P., ... **Langendijk, G.S.**, ... & Im, E. S. (2020). Assessing mean climate change signals in the global CORDEX-CORE ensemble. *Climate Dynamics*, 1-24.
8. **Langendijk, G.S.**, Rechid, D. and Jacob, D. (2019) Urban Areas and Urban-Rural Contrasts under Climate Change: What Does the EURO-CORDEX Ensemble Tell Us?— Investigating Near Surface Humidity in Berlin and Its Surroundings. *Atmosphere*. 10, 730.
7. **Langendijk, G.S.**, Aubry-Wake, C., Osman, M., Gulizia, C., Attig-Bahar, F., Behrens, E., Bertoncini, A., Hart, N., Indasi, V.S., Innocenti, S., van der Linden, E.C., Mammun, N., Rasouli, K., Reed, K.A., Ridder, N., Rivera, J., Ruscica, R., Ukazu, B.U., Walawender, J.P., Walker, D.P., Woodhams, B.J. and Yilmaz, Y.A., 2019. (2019) “Three Ways Forward to Improve Regional Information for Extreme Events: An Early Career Perspective.” *Frontiers in Environmental Science*. 7:6.
6. Gulizia, C., **Langendijk, G.**, Huang-Lachmann, J.T. de Amorim Borges, P., Flach, R., Githaiga, C., Rahimi, M. (2019) “Towards a more integrated role for early career researchers in the IPCC process” *Climatic Change*.
5. Jørgensen, P. S., Evoh, C. J., Gerhardinger, L. C., Hughes, A. C., **Langendijk, G. S.**, Moersberger, H., Jay Pocklington, J., Mukherjee, N. (2019) “Building urgent intergenerational bridges: assessing early career researcher integration in global sustainability initiatives” *Current Opinion in Environmental Sustainability*, 39, 153-159.
4. Swart N., Busecke J., **Langendijk G.**, Reed K., Kang S., Behrens E., Frassoni A., Baker N., Durgadoo J., Dike V., Nath D. (2018) “Reflections on the CLIVAR Early Career Scientists Symposium 2016.” *Nature Partner Journal Climate and Atmospheric Science*. 1:6.
3. Baklanov, A., Grimmond, C. Sue B., Carlson, D. Terblanche, D., Tang, X. Bouchet, V. Lee, B., **Langendijk, G.**, Kumar Kolli, R., Hovsepyan, A. (2017) "From urban meteorology, climate and environment research to integrated city services." *Urban Climate*. 23, pg. 330-341
2. Rauser, F., Alqadi, M., Arowolo, S., Baker, N., Bedard, J., Behrens, E., Dogulu, N., Domingues, L.G., Frassoni, A., Keller, J. and Kirkpatrick, S., **Langendijk G.**, Mirsafa M., Salauddin, M., Naumann A.K., Osman, M., Reed, K., Rothmuller, M., Schemann, V., Singh, A., Tummon, F., Dike, V., Villafuerte M.Q., Walawender J.P., Zaroug, M. (2017) "Earth System Science Frontiers-an ECS perspective." *Bulletin of the American Meteorological Society*. 98(6), 1120-1127.
1. Brändle, J. M., **Langendijk, G.**, Peter, S., Brunner, S. H., & Huber, R. (2015) "Sensitivity analysis of a land-use change model with and without agents to assess land abandonment and long-term re-forestation in a Swiss mountain region." *Land*. 4.2, pg. 475-512.

SCIENCE-POLICY REPORTS

Engels, Anita; Jochem Marotzke; Eduardo Gonçalves Gresse; Andres López-Rivera; Anna Pagnone; Jan Wilkens (eds.); 2023. Hamburg Climate Futures Outlook 2023. The plausibility of a 1.5°C limit to global warming - Social drivers and physical processes. Cluster of Excellence Climate, Climate Change, and Society (CLICCS). Hamburg, Germany.

Future Earth, The Earth League, WCRP (2022). 10 New Insights in Climate Science 2022. Stockholm

Hoffmann, P., Reveco, C., Bell, L., Bouwer, L., El Zohbi J., Ferner, K., Groth, M., Köhnke, F., Kotova, L., Krüger, A., **Langendijk, G.**, Reinbold, A., Schmidt, L., Schubert-Frisius, M., Sengupta, S., Wuebbelman, T., Equipping urban decision-makers with evidence-based information to safeguard against climate change impacts. 2022. E-book at Open Access Government.

NON PEER-REVIEWED PUBLICATIONS

Langendijk G., Halenka., T. (2021) Towards better understanding the urban environment and its interactions with regional climate change - A new WCRP CORDEX Flagship Pilot Study. Urban Climate News of International Association for Urban Climate (IAUC), June 2021(80): <http://www.urban-climate.org/wp-content/uploads/newsletter/IAUC080.pdf>

Guillén B., T. **Langendijk, G.S.**, Celliers, L., Sonntag, S., Martin, A. (2021) Science for Climate Services and Action - Reflections on the COP26, Open Access Government

Attig Bahar, F., **Langendijk, G.**, (2021) An early career perspective on the science-policy interface in the decade of climate action following COP26, International Science Council Blogs

Langendijk, G.S., Osman, M. (2020) Hurricane COVID-19: What can COVID-19 tell us about tackling climate change? European Geosciences Union (EGU) Climate: Past, Present and Future (CL) Division Blog. <https://blogs.egu.eu/divisions/cl/2020/04/16/corona-2/>

Carlson, D., Eyring, V., van der Wel, N., **Langendijk, G.** (2017) “WCRP’s Coupled Model Intercomparison Project: a remarkable contribution to climate science.” EGU News & press

Lake I., Kang S., Tangang F., Gutowski W., Lee B., Kjellström E., **Langendijk G.** (2017). The International Conference on Regional Climate - CORDEX 2016. APN Science Bulletin, 7(1).

REVIEW ACTIVITIES

Review Editor II Editorial Board of the Frontiers in Climate Journal, specialty section Predictions and Projections

Peer reviewer II Nature Climate Change • Elsevier Urban Climate Journal • Climatic Change • AMS Weather, Climate, and Society • Earth’s Future (amongst others).

Expert reviewer II IPCC AR6 WGI & WGII, FOD & SOD (2019 - 2021)

INVITED PRESENTATIONS, LECTURES & PANEL DISCUSSIONS

Guest lecture II “Modelling climate change in cities - in the context of RCMs” Leuphana University Lüneburg, StadtKlima in Wandel course (2020 & 2021)

Panelist II Future Earth SRI 2021 - Early Career Champion on theme: “resilience” Future Earth Sustainability Research and Innovation conference (2021)

Guest lecture II “Climate services in Cities” Leuphana University Lüneburg, Climate Adaptation course (2020), guest lecture

Invited presentation II “Urban futures under climate change”
AGU Fall Meeting (2019)

Invited presentation II “An early career perspective on WCRP science”
WCRP 40th Anniversary symposium (2019)

Panelist II “WCRP Implementation Plan and CORDEX Future”
International Conference on Regional Climate CORDEX (2019)

Panelist II “Future of the IPCC”
IPCC 30th Celebration Ceremony at UNESCO, Paris (2018)

Invited presentation II “Partnering with the IPCC - early career scientists”
IPCC side event at COP24 (2018)

OUTREACH

Interview II Hamburg News
“Hamburgs Weg zur smarten und klimaresilienten Stadt”
Jul. 2022

Research featured in German news II Langendijk et al., 2019
- “Studie: Klimawandel macht Städte heißer und trockener” (RND, 2021)
- “Besonders in den Städten wird es immer heißer” (Welt, 2021)
- “Mehr Hitze in Städten befürchtet“ (Fränkischer Tag, 2021)

OTHER SKILLS

Languages:

Dutch	• Native
English	• Fluent
German	• Good
French	• Moderate
Spanish	• Moderate

Computer:

- Python
- Matlab
- ArcGIS
- MS office (*Word, Excel, PowerPoint*)
- Adobe (*Illustrator, PremierePro*)

FURTHER EXPERIENCE IN INTERNATIONAL SCIENCE COMMUNITY

Conference participant II UNFCCC COP21, COP23, COP24, COP26, COP27
2015, 2017, 2018, 2021, 2022

Meeting participant II Future Earth Assembly meeting
2022

Development member II WCRP regional information for society home (RifS)
2020 - 2021

Co-convenor II EGU2021: “Covid-19 pandemic: health, urban systems and geosciences”
2021

Meeting participant II WCRP JSC-41(a&b) virtual meetings
2020

Meeting participant II Future Earth Summit
2020

Elected Member II Future Earth Post-Summit Committee
June 2020 - Sept 2021

Meeting participant II EURO-CORDEX annual assembly
2018, 2019, 2020, 2021, 2022

Organisation committee & moderator II WCRP-AGU-YESS-YHS-APECS ECR Workshop
2019

Organisation committee II International Conference on Regional Climate - CORDEX
2019

ECR representative II Future Earth Advisory Committee meeting
2019

Abstract reviewer II European Climate Conference on Adaptation
2019

Meeting participant II JPI Climate Scoping Forum meeting
2018

Scientific and organising committee member II YESS-YHS ECR workshop on Regional Information for Extreme Events
2018

Co-WCRP liaison II WCRP regional scoping group
2016-2017

Group member II UN World Meteorological Organisation Urban cross-cutting group
2015-2017

Co-WCRP liaison II WCRP Kick-Off meeting Grand Challenge on Carbon
2016-2017

Workshop participant II Future Earth ECR Workshop
2016

Participant II CLIVAR OSC & Early Career Scientists Symposium

2016

ECR representative II Future Earth Core Projects and SC/EC meeting
2016

Organising committee & participant II Intern. Conference on Regional Climate-CORDEX
2016

REFERENCES

Available on request