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Atlas Supplementary Material

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Note: The Interactive Atlas is available at <http://interactive-atlas.ipcc.ch>.

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Atlas.SM.1 Tables of Global (CMIP) and Regional (CORDEX) Models Used in the Atlas Chapter

The following tables present the global and regional models and the specific variables used in the Atlas chapter (and in the Interactive Atlas) from the ensembles of CMIP5, CMIP6 and CORDEX historical and scenario simulations. Detailed information and salient features of these models are described in IPCC AR5 Appendix 9.A (for CMIP5), and Annexes AII.2 (Table AII.5) and AII.1 (Tables AII.1 to AII.4) for CMIP6 and CORDEX, respectively.

Table Atlas.SM.1 | The CMIP5 models used in the Atlas for each of the historical and RCP scenario experiments. Salient features of these models are described in IPCC AR5 Appendix 9.A (model names are taken from Table 9.A.1). The first two columns indicate the model and the particular run used. Columns 4–7 indicate the availability of the different variables used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax. A blank space indicates lack of data, usually because that scenario run was not available. P, T and X correspond to the *atmosphere* realm and daily frequency. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Model	Run	Hist	RCP2.6	RCP4.5	RCP8.5
1	ACCESS1-0	r1i1p1	PTX		PTX	PTX
2	ACCESS1-3	r1i1p1	PTX		PTX	PTX
3	bcc-csm1-1	r1i1p1	PTX	PTX	PTX	PTX
4	bcc-csm1-1-m	r1i1p1	PTX	PTX	PTX	PTX
5	BNU-ESM	r1i1p1	PTX	PTX	PTX	PTX
6	CanESM2	r1i1p1	PTX	PTX	PTX	PTX
7	CCSM4	r1i1p1	PTX	PTX	PTX	PTX
8	CESM1-BGC	r1i1p1	PTX		PTX	PTX
9	CMCC-CM	r1i1p1	PTX		PTX	PTX
10	CMCC-CMS	r1i1p1	PTX		PTX	PTX
11	CNRM-CM5	r1i1p1	PTX	PTX	PTX	PTX
12	CSIRO-Mk3-6-0	r1i1p1	PTX	PTX	PTX	PTX
13	EC-EARTH	r12i1p1	PTX	PTX	PTX	PTX
14	GFDL-CM3	r1i1p1	PTX	PTX		PTX
15	GFDL-ESM2G	r1i1p1	PTX	PTX	PTX	PTX
16	GFDL-ESM2M	r1i1p1	PTX	PTX	PTX	PTX
17	HadGEM2-CC	r1i1p1	PTX		PTX	PTX
18	HadGEM2-ES	r1i1p1	PTX	PTX	PTX	PTX
19	inmcm4	r1i1p1	PTX		PTX	PTX
20	IPSL-CM5A-LR	r1i1p1	PTX	PTX	PTX	PTX
21	IPSL-CM5A-MR	r1i1p1	PTX	PTX	PTX	PTX
22	IPSL-CM5B-LR	r1i1p1	PTX		PTX	PTX
23	MIROC-ESM	r1i1p1	PTX	PTX	PTX	PTX
24	MIROC-ESM-CHEM	r1i1p1	PTX	PTX	PTX	PTX
25	MIROC5	r1i1p1	PTX	PTX	PTX	PTX
26	MPI-ESM-LR	r1i1p1	PTX	PTX	PTX	PTX
27	MPI-ESM-MR	r1i1p1	PTX	PTX	PTX	PTX
28	MRI-CGCM3	r1i1p1	PTX	PTX	PTX	PTX
29	NorESM1-M	r1i1p1	PTX	PTX	PTX	PTX

Table Atlas.SM.2 | The CMIP6 models used in the Atlas for each of the historical and SSP scenario experiments, and for the PMIP experiment. Salient features of these models are described in Table AII.5. The first two columns indicate the model and the particular run used. Columns 3–7 indicate the availability of the different variables from historical and scenario experiments used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind), S: snow (prsn); I: sea-ice area fraction (siconc); O: sea-surface temperature (tos); H: pH (ph). A blank space indicates lack of data, usually because that scenario run was not available. P, T, X, W and S correspond to the *atmosphere* realm; I, O and H correspond to the *ocean* realm. Daily frequency has been used for P, T and X (to compute the derived indices, see Atlas.2.3), whereas monthly frequency is used for the others. The last column indicates the availability of data (precipitation and temperature) from the particular periods of the PMIP experiment used in the Interactive Atlas: piControl (c), mid-Pliocene-eoi400 (p), mid-Holocene (h), lig127k (i), lgm (g); see Cross-Chapter Box 2.1 for details. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021). Note: Run ri1p1f1 for CESM2 in PMIP.

#	Model	Run	Hist	SSP1.26	SSP2.45	SSP3.7	SSP5.85	PMIP
1	ACCESS-CM2	r1i1p1f1	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	
2	ACCESS-ESM1-5	r1i1p1f1	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	ci
3	AWI-CM-1-1-MR	r1i1p1f1	TXSWO	TXSWO	TXSWO	TXSWO	TXSWO	
4	BCC-CSM2-MR	r1i1p1f1	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	
5	CAMS-CSM1-0	r2i1p1f1	PTWIO	PTWIO	PTWIO	PTWIO	PTWIO	
6	CanESM5	r1i1p1f1	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	
7	CESM2	r4i1p1f1	PTS IH	PTS IH	PTS IH	PTS IH	PTS IH	cphi
8	CESM2-WACCM	r1i1p1f1	PTWIOH	PTWIOH	PTWIOH	PTWIOH	PTWIOH	
9	CMCC-CM2-SR5	r1i1p1f1	PTSWIO	PTSWIO	PTSWIO	PTSWIO	PTSWIO	
10	CNRM-CM6-1	r1i1p1f2	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	ci
11	CNRM-CM6-1-HR	r1i1p1f2	PTXSWIO	PTXSWIO	TSWIO	TSWIO	PTXSWIO	
12	CNRM-ESM2-1	r1i1p1f2	PTXSWIOH	PTXSWOH	PTXSWIOH	PTXSWOH	PTXSWOH	
13	EC-Earth3	r1i1p1f1	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	
14	EC-Earth3-Veg	r1i1p1f1	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	
15	EC-Earth3-Veg-LR	r1i1p1f1	PTXSWIO		PTXSWIO	PTXSWIO		chi
16	FGOALS-g3	r1i1p1f1	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	chi
17	GFDL-CM4	r1i1p1f1	PTXSWIO		PTXSWIO		PTXSWIO	
18	GFDL-ESM4	r1i1p1f1	PTXSWO	PTXSO	PTXSWO	PTXSO	PTXSWO	
19	HadGEM3-GC31-LL	r1i1p1f3	PTXSWIO	PTXSWIO	PTXSWIO		PTXSWIO	cphi
20	IITM-ESM	r1i1p1f1	PTO	PTO	PTO	PTO	PTO	
21	INM-CM4-8	r1i1p1f1	PTXSW	PTXSW	PTXSW	PTXSW	PTXSW	chig
22	INM-CM5-0	r1i1p1f1	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	PTXSWIO	
23	IPSL-CM6A-LR	r1i1p1f1	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	cphi
24	KACE-1-0-G	r2i1p1f1	PTXSW	PTXSW	PTXSW	PTXSW	PTXSW	
25	KIOST-ESM	r1i1p1f1	PTXWIO	PTXWIO	PTXWIO		PTXWIO	
26	MIROC-ES2L	r1i1p1f2	PTXSWIH	PTXSWIH	PTXSWIH	PTXSWIH	PTXSWIH	chig
27	MIROC6	r1i1p1f1	PTXSWI	PTXSWI	PTXSWI	PTXSWI	PTXSWI	
28	MPI-ESM1-2-HR	r1i1p1f1	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	
29	MPI-ESM1-2-LR	r1i1p1f1	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	chg
30	MRI-ESM2-0	r1i1p1f1	PTXSWI	PTXSWI	PTXSWI	PTXSWI	PTXSWI	ch
31	NESM3	r1i1p1f1	PTXSO	PTXSO	PTXSO		PTXSO	chi
32	NorESM2-LM	r1i1p1f1	PTSWIOH	PTSWIOH	PTSWIOH	PTSWIOH	PTSWIOH	chi
33	NorESM2-MM	r1i1p1f1	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	
34	TaiESM1	r1i1p1f1	PTXSW				PTXSW	
35	UKESM1-0-LL	r1i1p1f2	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	PTXSWIOH	
36	AWI-ESM-1-1-LR	r1i1p1f1						cig
37	FGOALS-f3-L	r1i1p1f1						chi
38	GISS-E2-1-G	r1i1p1f1						cphi
39	NorESM1-F	r1i1p1f1						cphi



Table Atlas.SM.3 | Regional simulations from the CORDEX South America (SAM) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table AII.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	SAM-22	HadGEM2-ES_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
2	SAM-22	MPI-ESM-LR_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
3	SAM-22	NorESM1-M_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
4	SAM-22	HadGEM2-ES_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
5	SAM-22	MPI-ESM-MR_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
6	SAM-22	NorESM1-M_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
7	SAM-44	HadGEM2-ES_r1i1p1	RegCM4-3_v4	PTXW		PTXW	PTXW
8	SAM-44	MPI-ESM-LR_r1i1p1	REMO2009_v1	PTXW	PTXW	PTXW	PTXW
9	SAM-44	CSIRO-Mk3-6-0_r1i1p1	RCA4_v3	PTXW		PTXW	PTXW
10	SAM-44	CanESM2_r1i1p1	RCA4_v3	PTXW		PTXW	PTXW
11	SAM-44	EC-EARTH_r12i1p1	RCA4_v3	PTXW	PTXW	PTXW	PTXW
12	SAM-44	IPSL-CM5A-MR_r1i1p1	RCA4_v3	PTXW		PTXW	PTXW
13	SAM-44	MIROC5_r1i1p1	RCA4_v3	PTXW	PTXW	PTXW	PTXW
14	SAM-44	HadGEM2-ES_r1i1p1	RCA4_v3	PTXW	PTXW	PTXW	PTXW
15	SAM-44	MPI-ESM-LR_r1i1p1	RCA4_v3	PTXW	PTXW	PTXW	PTXW
16	SAM-44	NorESM1-M_r1i1p1	RCA4_v3	PTXW	PTXW	PTXW	PTXW
17	SAM-44	GFDL-ESM2M_r1i1p1	RCA4_v3	PTXW		PTXW	PTXW
18	SAM-44	CanESM2_r1i1p1	WRF3411_v2	PTXW		PTXW	PTXW

Table Atlas.SM.4 | Regional simulations from the CORDEX Central America (CAM) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table AII.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Historical	RCP2.6	RCP4.5	RCP8.5
1	CAM-22	HadGEM2-ES_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
2	CAM-22	MPI-ESM-LR_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
3	CAM-22	NorESM1-M_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
4	CAM-22	HadGEM2-ES_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
5	CAM-22	MPI-ESM-MR_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
6	CAM-22	GFDL-ESM2M_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
7	CAM-22	GFDL-ESM2M_r1i1p1	CRCM5_v1	PTXW			PTXW
8	CAM-44	HadGEM2-ES_r1i1p1	RegCM4-3_v4	PTXW			PTXW
9	CAM-44	MPI-ESM-MR_r1i1p1	RegCM4-3_v4	PTXW			PTXW
10	CAM-44	CanESM2_r1i1p1	RCA4_v1	PTXW			PTXW
11	CAM-44	CNRM-CM5_r1i1p1	RCA4_v1	PTXW			PTXW
12	CAM-44	CSIRO-Mk3-6-0_r1i1p1	RCA4_v1	PTXW			PTXW
13	CAM-44	EC-EARTH_r12i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
14	CAM-44	IPSL-CM5A-MR_r1i1p1	RCA4_v1	PTXW			PTXW

#	Domain	GCM_run	RCM	Historical	RCP2.6	RCP4.5	RCP8.5
15	CAM-44	MIROC5_r1i1p1	RCA4_v1	PTXW	PTXW		PTXW
16	CAM-44	HadGEM2-ES_r1i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
17	CAM-44	MPI-ESM-LR_r1i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
18	CAM-44	NorESM1-M_r1i1p1	RCA4_v1	PTXW	PTXW		PTXW
19	CAM-44	GFDL-ESM2M_r1i1p1	RCA4_v1	PTXW			PTXW
20	CAM-22	CNRM-CM5_r1i1p1	CRCM5_v1	PTXW			PTXW
21	CAM-22	CanESM2_r1i1p1	CRCM5_v1	PTXW			PTXW

Table Atlas.SM.5 | Regional simulations from the CORDEX North America (NAM) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table AII.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	NAM-22	HadGEM2-ES_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
2	NAM-22	MPI-ESM-LR_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
3	NAM-22	NorESM1-M_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
4	NAM-22	CanESM2_r1i1p1	CRCM5_v1	PTXW		PTXW	PTXW
5	NAM-22	CNRM-CM5_r1i1p1	CRCM5_v1	PTXW		PTXW	PTXW
6	NAM-22	MPI-ESM-LR_r1i1p1	CRCM5_v1	PTXW		PTXW	PTXW
7	NAM-22	GFDL-ESM2M_r1i1p1	CRCM5_v1	PTXW		PTXW	PTXW
8	NAM-44	EC-EARTH_r3i1p1	HIRHAM5_v1	PTXW		PTXW	PTXW
9	NAM-44	CanESM2_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
10	NAM-44	EC-EARTH_r12i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
11	NAM-22	CanESM2_r1i1p1	CanRCM4_r2	PTXW		PTXW	PTXW
12	NAM-22	MPI-ESM-MR_r1i1p1	CRCM5_v1	PTXW			PTXW
13	NAM-22	ESM2M_r1i1p1	RegCM4_v4-4-rc8	PTXW			PTXW
14	NAM-22	HadGEM2-ES_r1i1p1	RegCM4_v4-4-rc8	PTXW			PTXW
15	NAM-22	MPI-ESM-LR_r1i1p1	RegCM4_v4-4-rc8	PTXW			PTXW
16	NAM-22	GFDL-ESM2M_r1i1p1	WRF_v3-5-1	PTXW			PTXW
17	NAM-22	HadGEM2-ES_r1i1p1	WRF_v3-5-1	PTXW			PTXW
18	NAM-22	MPI-ESM-LR_r1i1p1	WRF_v3-5-1	PTXW			PTXW
19	NAM-22	MPI-ESM-LR_r1i1p1	CRCM5_v1	PTXW		PTXW	PTXW
20	NAM-22	CanESM2_r1i1p1	CRCM5_v1	PTXW		PTXW	PTXW

Table Atlas.SM.6 | Regional simulations from the CORDEX Africa (AFR) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table All.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	AFR-22	HadGEM2-ES_r1i1p1	CCLM5-0-15_v1	PTXW	PTXW		PTXW
2	AFR-22	MPI-ESM-LR_r1i1p1	CCLM5-0-15_v1	PTXW	PTXW		PTXW
3	AFR-22	NorESM1-M_r1i1p1	CCLM5-0-15_v1	PTXW	PTXW		PTXW
4	AFR-22	HadGEM2-ES_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
5	AFR-22	MPI-ESM-LR_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
6	AFR-22	NorESM1-M_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
7	AFR-22	HadGEM2-ES_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
8	AFR-22	MPI-ESM-MR_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
9	AFR-22	NorESM1-M_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
10	AFR-44	CNRM-CM5_r1i1p1	CCLM4-8-17_v1	PTXW		PTXW	PTXW
11	AFR-44	EC-EARTH_r12i1p1	CCLM4-8-17_v1	PTXW		PTXW	PTXW
12	AFR-44	HadGEM2-ES_r1i1p1	CCLM4-8-17_v1	PTXW		PTXW	PTXW
13	AFR-44	MPI-ESM-LR_r1i1p1	CCLM4-8-17_v1	PTXW		PTXW	PTXW
14	AFR-44	EC-EARTH_r3i1p1	HIRHAM5_v2	PTXW		PTXW	PTXW
15	AFR-44	IPSL-CM5A-LR_r1i1p1	REMO2009_v1	PTXW	PTXW		PTXW
16	AFR-44	MIROC5_r1i1p1	REMO2009_v1	PTXW	PTXW		PTXW
17	AFR-44	HadGEM2-ES_r1i1p1	REMO2009_v1	PTXW	PTXW		PTXW
18	AFR-44	HadGEM2-ES_r1i1p1	RACMO22T_v2	PTXW	PTXW	PTXW	PTXW
19	AFR-44	EC-EARTH_r12i1p1	REMO2009_v1	PTXW	PTXW	PTXW	PTXW
20	AFR-44	MPI-ESM-LR_r1i1p1	REMO2009_v1	PTXW	PTXW	PTXW	PTXW
21	AFR-44	CanESM2_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
22	AFR-44	CNRM-CM5_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
23	AFR-44	CSIRO-Mk3-6-0_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
24	AFR-44	EC-EARTH_r12i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
25	AFR-44	IPSL-CM5A-MR_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
26	AFR-44	MIROC5_r1i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
27	AFR-44	HadGEM2-ES_r1i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
28	AFR-44	MPI-ESM-LR_r1i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
29	AFR-44	NorESM1-M_r1i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
30	AFR-44	GFDL-ESM2M_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
31	AFR-22	CanESM2_r1i1p1	CanRCM4_r2	PTXW		PTXW	PTXW
32	AFR-44	GFDL-ESM2G_r1i1p1	REMO2009_v1	PTXW	PTXW		
33	AFR-44	EC-EARTH_r12i1p1	RACMO22T_v1	PTXW	PTXW		
34	AFR-44	CanESM2_r1i1p1	CRCM5_v1	PTXW		PTXW	
35	AFR-44	MPI-ESM-LR_r1i1p1	CRCM5_v1	PTXW		PTXW	

Table Atlas.SM.7 | Regional simulations from the CORDEX Europe (EUR) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table All.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	EUR-11	EC-EARTH_r12i1p1	COSMO-crCLIM-v1-1_v1	PTXW			PTXW
2	EUR-11	HadGEM2-ES_r1i1p1	COSMO-crCLIM-v1-1_v1	PTXW			PTXW
3	EUR-11	MPI-ESM-LR_r1i1p1	COSMO-crCLIM-v1-1_v1	PTXW			PTXW
4	EUR-11	NorESM1-M_r1i1p1	COSMO-crCLIM-v1-1_v1	PTXW			PTXW
5	EUR-11	CNRM-CM5_r1i1p1	CCLM4-8-17_v1	PTXW		PTXW	PTXW
6	EUR-11	EC-EARTH_r12i1p1	CCLM4-8-17_v1	PTXW	PTXW	PTXW	PTXW
7	EUR-11	HadGEM2-ES_r1i1p1	CCLM4-8-17_v1	PTXW		PTXW	PTXW
8	EUR-11	MPI-ESM-LR_r1i1p1	CCLM4-8-17_v1	PTXW	PTXW	PTXW	PTXW
9	EUR-11	CNRM-CM5_r1i1p1	ALADIN63_v2	PTXW	PTXW	PTXW	PTXW
10	EUR-11	HadGEM2-ES_r1i1p1	ALADIN63_v1	PTXW			PTXW
11	EUR-11	MPI-ESM-LR_r1i1p1	ALADIN63_v1	PTXW			PTXW
12	EUR-11	NorESM1-M_r1i1p1	ALADIN63_v1	PTXW			PTXW
13	EUR-11	CNRM-CM5_r1i1p1	HIRHAM5_v2	PTXW			PTXW
14	EUR-11	EC-EARTH_r12i1p1	HIRHAM5_v1	PTXW			PTXW
15	EUR-11	EC-EARTH_r3i1p1	HIRHAM5_v2	PTXW	PTXW	PTXW	PTXW
16	EUR-11	HadGEM2-ES_r1i1p1	HIRHAM5_v2	PTXW		PTXW	PTXW
17	EUR-11	MPI-ESM-LR_r1i1p1	HIRHAM5_v1	PTXW			PTXW
18	EUR-11	IPSL-CM5A-MR_r1i1p1	HIRHAM5_v1	PTXW			PTXW
19	EUR-11	NorESM1-M_r1i1p1	HIRHAM5_v3	PTXW		PTXW	PTXW
20	EUR-11	IPSL-CM5A-MR_r1i1p1	REMO2015_v1	PTXW			PTXW
21	EUR-11	MPI-ESM-LR_r3i1p1	REMO2015_v1	PTXW			PTXW
22	EUR-11	NorESM1-M_r1i1p1	REMO2015_v1	PTXW	PTXW	PTXW	PTXW
23	EUR-11	CNRM-CM5_r1i1p1	REMO2015_v2	PTXW	PTXW		PTXW
24	EUR-11	HadGEM2-ES_r1i1p1	RegCM4-6_v1	PTXW	PTXW		PTXW
25	EUR-11	MPI-ESM-LR_r1i1p1	RegCM4-6_v1	PTXW	PTXW		PTXW
26	EUR-11	EC-EARTH_r12i1p1	RegCM4-6_v1	PTXW			PTXW
27	EUR-11	CNRM-CM5_r1i1p1	WRF381P_v2	PTXW			PTXW
28	EUR-11	IPSL-CM5A-MR_r1i1p1	WRF381P_v1	PTXW		PTXW	PTXW
29	EUR-11	HadGEM2-ES_r1i1p1	WRF381P_v1	PTXW			PTXW
30	EUR-11	NorESM1-M_r1i1p1	WRF381P_v1	PTXW			PTXW
31	EUR-11	EC-EARTH_r12i1p1	WRF381P_v1	PTXW			PTXW
32	EUR-11	CNRM-CM5_r1i1p1	RACMO22E_v2	PTXW	PTXW	PTXW	PTXW
33	EUR-11	EC-EARTH_r12i1p1	RACMO22E_v1	PTXW	PTXW	PTXW	PTXW
34	EUR-11	IPSL-CM5A-MR_r1i1p1	RACMO22E_v1	PTXW			PTXW
35	EUR-11	HadGEM2-ES_r1i1p1	RACMO22E_v2	PTXW	PTXW	PTXW	PTXW
36	EUR-11	MPI-ESM-LR_r1i1p1	RACMO22E_v1	PTXW	PTXW		PTXW
37	EUR-11	NorESM1-M_r1i1p1	RACMO22E_v1	PTXW	PTXW		PTXW
38	EUR-11	EC-EARTH_r12i1p1	HadREM3-GA7-05_v1	PTXW			PTXW
39	EUR-11	HadGEM2-ES_r1i1p1	HadREM3-GA7-05_v1	PTXW			PTXW
40	EUR-11	MPI-ESM-LR_r1i1p1	HadREM3-GA7-05_v1	PTXW			PTXW
41	EUR-11	NorESM1-M_r1i1p1	HadREM3-GA7-05_v1	PTXW			PTXW
42	EUR-11	MPI-ESM-LR_r1i1p1	REMO2009_v1	PTXW	PTXW	PTXW	PTXW

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
43	EUR-11	CNRM-CM5_r1i1p1	ALARO-0_v1	PTXW	PTXW	PTXW	PTXW
44	EUR-11	CNRM-CM5_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
45	EUR-11	EC-EARTH_r12i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
46	EUR-11	IPSL-CM5A-MR_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
47	EUR-11	HadGEM2-ES_r1i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
48	EUR-11	MPI-ESM-LR_r1i1p1	RCA4_v1a	PTXW	PTXW	PTXW	PTXW
49	EUR-11	MPI-ESM-LR_r2i1p1	RCA4_v1	PTXW			PTXW
50	EUR-11	NorESM1-M_r1i1p1	RCA4_v1	PTXW	PTXW		PTXW

Table Atlas.SM.8 | Regional simulations from the CORDEX South Asia (WAS) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table All.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmn and tasmx; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	WAS-22	EC-EARTH_r12i1p1	COSMO-crCLIM-v1-1_v1	PTXW			PTXW
2	WAS-22	MPI-ESM-LR_r1i1p1	COSMO-crCLIM-v1-1_v1	PTXW	PTXW		PTXW
3	WAS-22	NorESM1-M_r1i1p1	COSMO-crCLIM-v1-1_v1	PTXW	PTXW		PTXW
4	WAS-22	HadGEM2-ES_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
5	WAS-22	MPI-ESM-LR_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
6	WAS-22	NorESM1-M_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
7	WAS-22	MIROC5_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
8	WAS-22	MPI-ESM-MR_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
9	WAS-22	NorESM1-M_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
10	WAS-44	CanESM2_r1i1p1	RegCM4-4_v5	PTXW		PTXW	PTXW
11	WAS-44	CNRM-CM5_r1i1p1	RegCM4-4_v5	PTXW		PTXW	PTXW
12	WAS-44	CSIRO-Mk3-6-0_r1i1p1	RegCM4-4_v5	PTXW		PTXW	PTXW
13	WAS-44	IPSL-CM5A-LR_r1i1p1	RegCM4-4_v5	PTXW		PTXW	PTXW
14	WAS-44	MPI-ESM-MR_r1i1p1	RegCM4-4_v5	PTXW		PTXW	PTXW
15	WAS-44	GFDL-ESM2M_r1i1p1	RegCM4-4_v5	PTXW		PTXW	PTXW
16	WAS-44	MPI-ESM-LR_r1i1p1	REMO2009_v1	PTXW	PTXW	PTXW	PTXW
17	WAS-44	CanESM2_r1i1p1	RCA4_v2	PTXW		PTXW	PTXW
18	WAS-44	CNRM-CM5_r1i1p1	RCA4_v2	PTXW		PTXW	PTXW
19	WAS-44	CSIRO-Mk3-6-0_r1i1p1	RCA4_v2	PTXW		PTXW	PTXW
20	WAS-44	EC-EARTH_r12i1p1	RCA4_v2	PTXW	PTXW	PTXW	PTXW
21	WAS-44	IPSL-CM5A-MR_r1i1p1	RCA4_v2	PTXW		PTXW	PTXW
22	WAS-44	MIROC5_r1i1p1	RCA4_v2	PTXW	PTXW	PTXW	PTXW
23	WAS-44	HadGEM2-ES_r1i1p1	RCA4_v2	PTXW	PTXW	PTXW	PTXW
24	WAS-44	MPI-ESM-LR_r1i1p1	RCA4_v2	PTXW	PTXW	PTXW	PTXW
25	WAS-44	NorESM1-M_r1i1p1	RCA4_v2	PTXW	PTXW	PTXW	PTXW
26	WAS-44	GFDL-ESM2M_r1i1p1	RCA4_v2	PTXW		PTXW	PTXW

Table Atlas.SM.9 | Regional simulations from the CORDEX East Asia (EAS) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table All.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	EAS-22	HadGEM2-ES_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
2	EAS-22	MPI-ESM-LR_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
3	EAS-22	NorESM1-M_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
4	EAS-44	CNRM-CM5_r1i1p1	CCLM5-0-2_v1	PTXW		PTXW	PTXW
5	EAS-44	EC-EARTH_r12i1p1	CCLM5-0-2_v1	PTXW		PTXW	PTXW
6	EAS-44	HadGEM2-ES_r1i1p1	CCLM5-0-2_v1	PTXW		PTXW	PTXW
7	EAS-44	MPI-ESM-LR_r1i1p1	CCLM5-0-2_v1	PTXW		PTXW	PTXW
8	EAS-44	EC-EARTH_r3i1p1	HIRHAM5_v1	PTXW		PTXW	PTXW
9	EAS-22	HadGEM2-ES_r1i1p1	RegCM4-4_v0	PTXW	PTXW		PTXW
10	EAS-22	MPI-ESM-MR_r1i1p1	RegCM4-4_v0	PTXW	PTXW		PTXW
11	EAS-22	NorESM1-M_r1i1p1	RegCM4-4_v0	PTXW	PTXW		PTXW

Table Atlas.SM.10 | Regional simulations from the CORDEX Australasia (AUS) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table All.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	AUS-22	HadGEM2-ES_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
2	AUS-22	MPI-ESM-LR_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
3	AUS-22	NorESM1-M_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
4	AUS-22	HadGEM2-ES_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
5	AUS-22	MPI-ESM-MR_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
6	AUS-22	NorESM1-M_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
7	AUS-44	EC-EARTH_r12i1p1	CCLM4-8-17-CLM3-5_v1	PTXW		PTXW	PTXW
8	AUS-44	MPI-ESM-LR_r1i1p1	CCLM4-8-17-CLM3-5_v1	PTXW		PTXW	PTXW
9	AUS-22	HadGEM2-ES_r1i1p1	CCLM5-0-15_v1	PTXW	PTXW		PTXW
10	AUS-22	MPI-ESM-LR_r1i1p1	CCLM5-0-15_v1	PTXW	PTXW		PTXW
11	AUS-22	NorESM1-M_r1i1p1	CCLM5-0-15_v1	PTXW	PTXW		PTXW
12	AUS-44	CanESM2_r1i1p1	WRF360J_v1	PTXW		PTXW	PTXW
13	AUS-44	CanESM2_r1i1p1	WRF360K_v1	PTXW		PTXW	PTXW
14	AUS-44	ACCESS1-3_r1i1p1	WRF360J_v1	PTXW		PTXW	PTXW
15	AUS-44	ACCESS1-3_r1i1p1	WRF360K_v1	PTXW		PTXW	PTXW
16	AUS-44	ACCESS1-0_r1i1p1	WRF360J_v1	PTXW		PTXW	PTXW
17	AUS-44	ACCESS1-0_r1i1p1	WRF360K_v1	PTXW		PTXW	PTXW
18	AUS-44i	ACCESS1-0_r1i1p1	CCAM-2008_v1	PTXW		PTXW	PTXW
19	AUS-44i	CanESM2_r1i1p1	CCAM-2008_v1	PTXW		PTXW	PTXW
20	AUS-44i	MIROC5_r1i1p1	CCAM-2008_v1	PTXW		PTXW	PTXW
21	AUS-44i	NorESM1-M_r1i1p1	CCAM-2008_v1	PTXW		PTXW	PTXW
22	AUS-44i	GFDL-ESM2M_r1i1p1	CCAM-2008_v1	PTXW		PTXW	PTXW

Table Atlas.SM.11 | Regional simulations from the CORDEX Antarctic (ANT) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table All.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	ANT-44	EC-EARTH_r3i1p1	HIRHAM5_v1	PTXW		PTXW	PTXW
2	ANT-44	EC-EARTH_r1i1p1	RACMO21P_v1	PTXW		PTXW	PTXW
3	ANT-44	HadGEM2-ES_r1i1p1	RACMO21P_v2	PTXW	PTXW	PTXW	PTXW
4	ANT-44	ACCESS1-3_r1i1p1	MAR311_v1	PTXW			PTXW
5	ANT-44	NorESM1-M_r1i1p1	MAR311_v1	PTXW			PTXW

Table Atlas.SM.12 | Regional simulations from the CORDEX Arctic (ARC) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table All.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	ARC-44	EC-EARTH_r3i1p1	HIRHAM5_v1	PTXW		PTXW	PTXW
2	ARC-44	MPI-ESM-LR_r1i1p1	RRCM_v1	PTXW			PTXW
3	ARC-44	CanESM2_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
4	ARC-44	EC-EARTH_r12i1p1	RCA4-SN_v1	PTXW			PTXW
5	ARC-44	EC-EARTH_r12i1p1	RCA4_v1	PTXW	PTXW	PTXW	PTXW
6	ARC-44	MPI-ESM-LR_r1i1p1	RCA4-SN_v1	PTXW			PTXW
7	ARC-44	MPI-ESM-LR_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
8	ARC-44	NorESM1-M_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
9	ARC-22	CanESM2_r1i1p1	CanRCM4_r2	PTXW		PTXW	PTXW
10	ARC-44	CanESM2_r1i1p1	CRCM5_v1	PTXW			PTXW
11	ARC-44	MPI-ESM-MR_r1i1p1	CRCM5_v1	PTXW			PTXW

Table Atlas.SM.13 | Regional simulations from the CORDEX Mediterranean (MED) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table All.2 for salient features of these models) pairs used in the simulations. The models selected in this domain are the coupled atmosphere-ocean regional models providing scenario simulations. Columns 5–8 indicate the availability of the sea surface temperature (with monthly frequency) used in the Atlas. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	MED-44	IPSL-CM5A-MR_r1i1p1	LMD-LMDZ4NEMOMED8_v1	•		•	•
2	MED-44	IPSL-CM5A-MR_r1i1p1	LMD-LMDZ4NEMOMED8_v2	•			•
3	MED-44	CNRM-CM5_r1i1p1	LMD-LMDZ4NEMOMED8_v2	•			•
4	MED-44	MPI-ESM-MR_r1i1p1	LMD-LMDZ4NEMOMED8_v2	•			•
5	MED-22	MPI-ESM-LR_r1i1pi	GERICS-AWI-ROM	•		•	•
6	MED-44	MPI-ESM-LR_r1i1p1	GERICS-AWI-ROM	•			•
7	MED-11	EC-EARTH_r12i1p1	GUF-CCLM5-0-9-NEMOMED12-3-6_v1	•			•
8	MED-44	CNRM-CM5_r1i1p1	CNRM-RCSM4_v1	•	•	•	•
9	MED-44i	MPI-ESM-LR_r1i1p1	UBELGRADE-EBU	•			•
10	MED-11	CMCC-CM_r1i1p1	CMCC-CCLM4-21-NEMOMFS_v1	•		•	•

Table Atlas.SM.14 | Regional simulations from the CORDEX South-East Asia (SEA) domain (Figure Atlas.6) used in the Atlas for the historical and RCP scenario experiments. Column 2 indicates the domain and resolution. Columns 3–4 indicate the CMIP5 GCM (see Table Atlas.A.1) and RCM (see Table AII.2 for salient features of these models) pairs used in the simulations. Columns 5–8 indicate the availability of the different variables (with daily frequency) used in the Atlas. P: precipitation (pr); T: temperature (tas); X: tasmin and tasmax; W: wind (sfcWind); a blank space indicates lack of data. Further details (including the specific ESGF versions used) are given in the Atlas GitHub repository (Iturbide et al., 2021).

#	Domain	GCM_run	RCM	Hist	RCP2.6	RCP4.5	RCP8.5
1	SEA-22	HadGEM2-ES_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
2	SEA-22	MPI-ESM-LR_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
3	SEA-22	NorESM1-M_r1i1p1	REMO2015_v1	PTXW	PTXW		PTXW
4	SEA-22	EC-EARTH_r1i1p1	RegCM4-3_v4	PTXW		PTXW	PTXW
5	SEA-22	IPSL-CM5A-LR_r1i1p1	RegCM4-3_v4	PTXW		PTXW	PTXW
6	SEA-22	MPI-ESM-MR_r1i1p1	RegCM4-3_v4	PTXW		PTXW	PTXW
7	SEA-22	HadGEM2-ES_r1i1p1	RCA4_v1	PTXW		PTXW	PTXW
8	SEA-22	HadGEM2-ES_r1i1p1	RegCM4-3_v4	PTXW		PTXW	PTXW
9	SEA-22	HadGEM2-ES_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
10	SEA-22	MPI-ESM-MR_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW
11	SEA-22	NorESM1-M_r1i1p1	RegCM4-7_v0	PTXW	PTXW		PTXW

Atlas.SM.2 Figures of Regional (CORDEX) Model Evaluation

The following figures expand the illustrative evaluation results shown in Atlas 1.4.4 (Figure Atlas.7) for the CORDEX North America domain (NAM) to the other domains considered in the Atlas and the Interactive Atlas (see Figure Atlas.6 and Tables Atlas.SM.3 to Atlas.SM.14). Detailed information and salient features of these models are described in Tables All.2 to All.4.

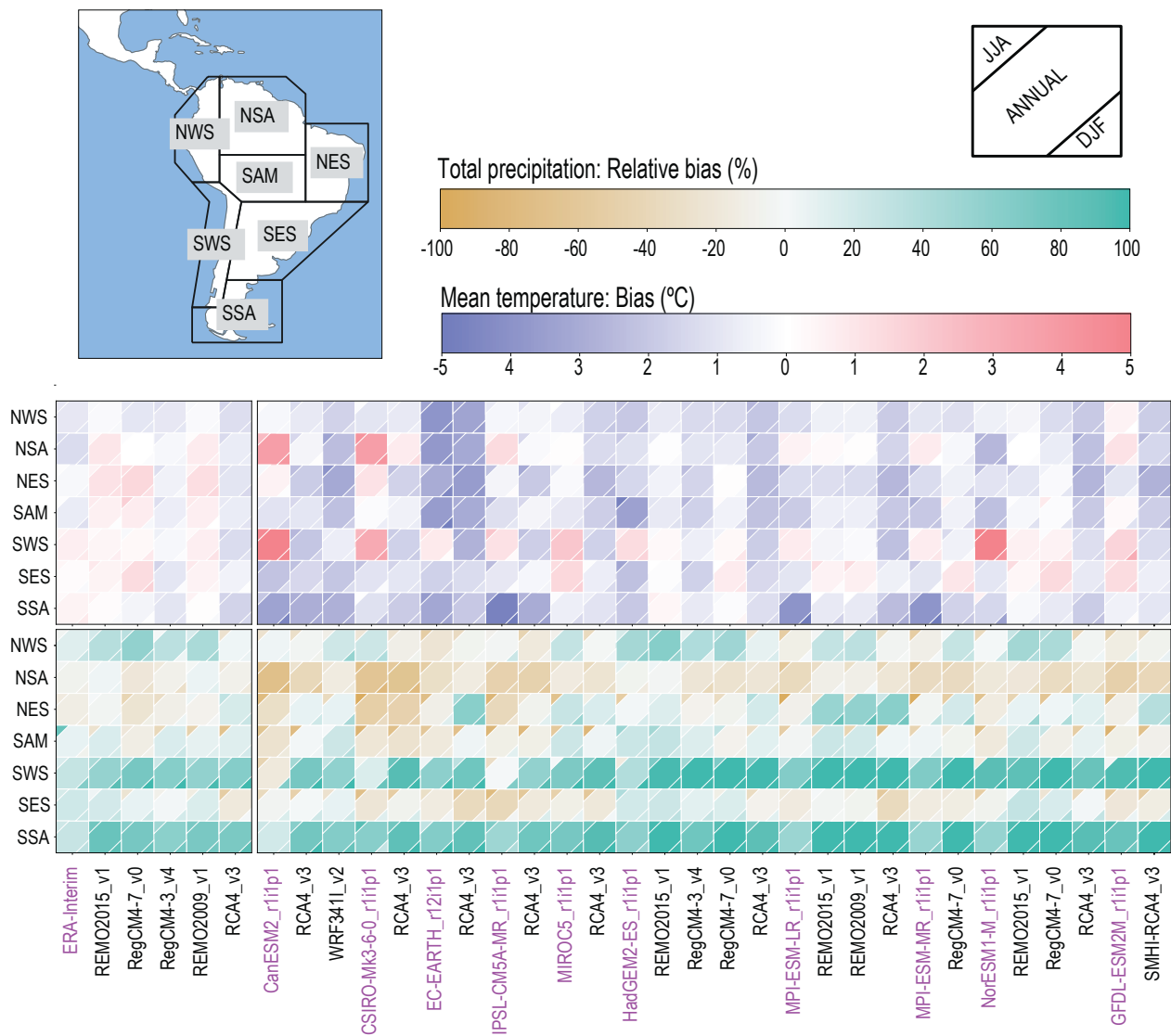


Figure Atlas.SM.1 | Evaluation of annual and seasonal air temperature and precipitation for the seven South America subregions NWS, NSA, SAM, NES, SWS, SES, and SSA (land only) for CORDEX-SAM (see Figure Atlas.6) RCM simulations driven by reanalysis or historical GCMs. Seasons are June-July-August (JJA) and December-January-February (DJF). Rows represent subregions and columns correspond to the models. Magenta text indicates the driving historical CMIP5 GCMs (including ERA-Interim in first set of slightly separated columns) and the black text to the right of the magenta text represents the driven RCMs. The colour matrices show the mean spatial biases; all biases have been computed for the period 1985–2005 relative to the observational reference (W5E5, see Section Atlas 1.4.2).

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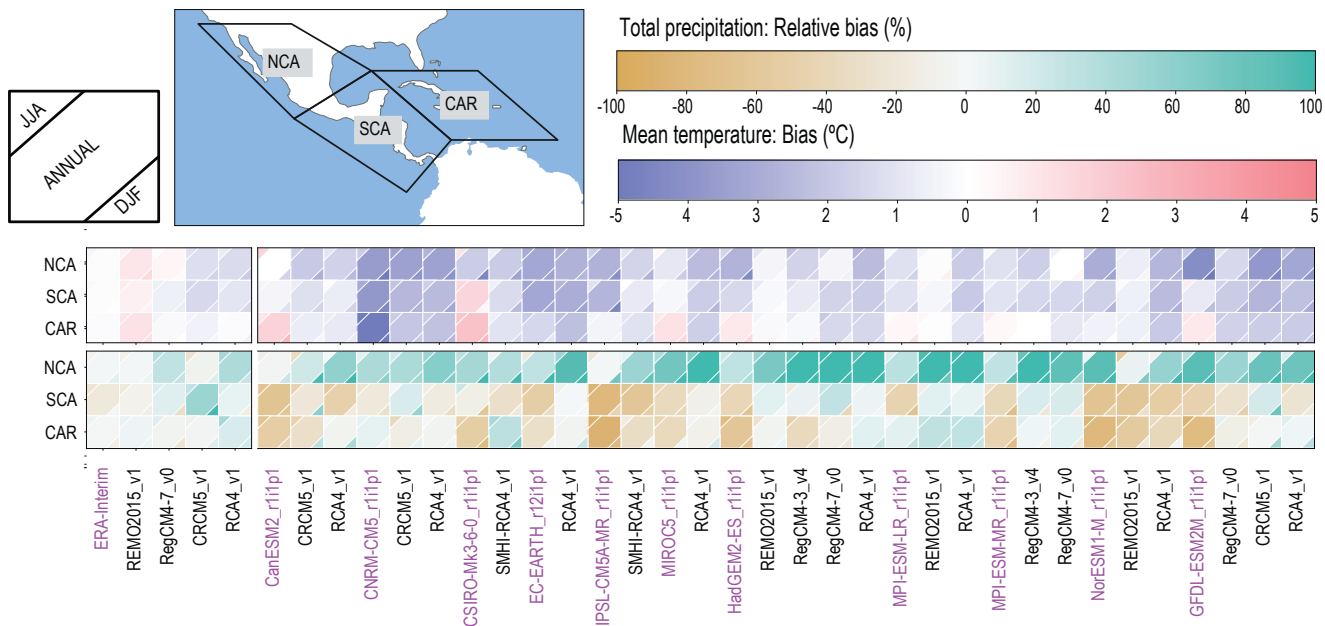


Figure Atlas.SM.2 | Evaluation of annual and seasonal air temperature and precipitation for the three Central America subregions NCA, SCA and CAR (land only) for CORDEX-CAM (see Figure Atlas.6) RCM simulations driven by reanalysis or historical GCMs. Seasons are June-July-August (JJA) and December-January-February (DJF). Rows represent subregions and columns correspond to the models. Magenta text indicates the driving historical CMIP5 GCMs (including ERA-Interim in first set of slightly separated columns) and the black text to the right of the magenta text represents the driven RCMs. The colour matrices show the mean spatial biases; all biases have been computed for the period 1985–2005 relative to the observational reference (W5E5, see Section Atlas 1.4.2).

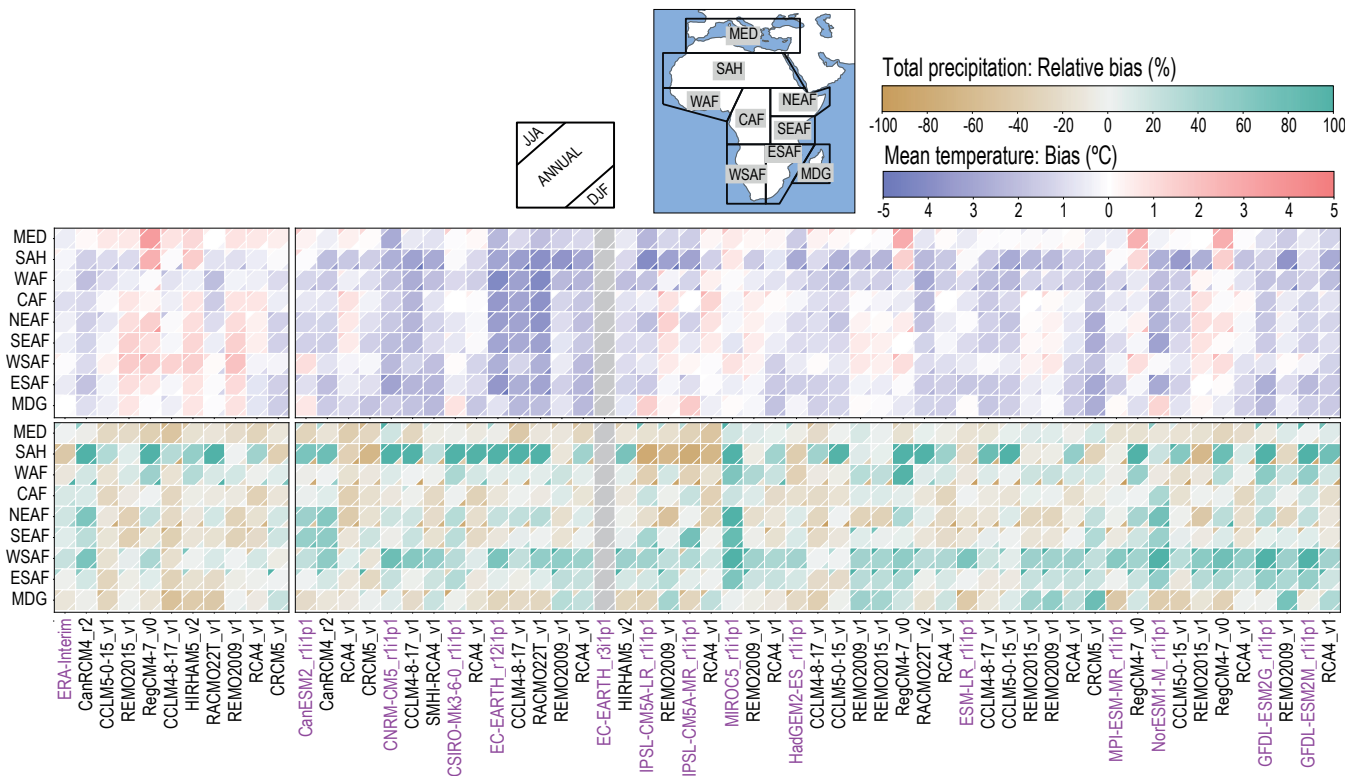


Figure Atlas.SM.3 | Evaluation of annual and seasonal air temperature and precipitation for the nine African subregions MED, SAH, WAF, CAF, NEAF, SEAF, WSAF, ESAF, and MDG (land only) for the CORDEX-AFR (see Figure Atlas.6) RCM simulations driven by reanalysis or historical GCMs. Seasons are June-July-August (JJA) and December-January-February (DJF). Rows represent subregions and columns correspond to the models. Magenta text indicates the driving historical CMIP5 GCMs (including ERA-Interim in first set of slightly separated columns) and the black text to the right of the magenta text represents the driven RCMs. The colour matrices show the mean spatial biases; all biases have been computed for the period 1985–2005 relative to the observational reference (W5E5, see Section Atlas 1.4.2).



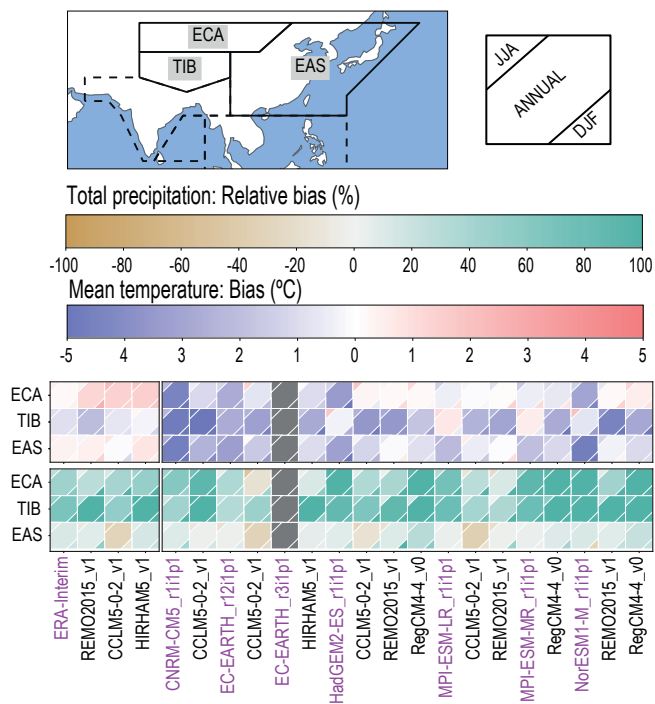


Figure Atlas.SM.6 | Evaluation of annual and seasonal air temperature and precipitation for the three Asian subregions ECA, TIB and EAS (land only) for CORDEX-EAS (see Figure Atlas.6) RCM simulations driven by reanalysis or historical GCMs. Seasons are June-July-August (JJA) and December-January-February (DJF). Rows represent subregions and columns correspond to the models. Magenta text indicates the driving historical CMIP5 GCMs (including ERA-Interim in first set of slightly separated columns) and the black text to the right of the magenta text represents the driven RCMs. The colour matrices show the mean spatial biases; all biases have been computed for the period 1985–2005 relative to the observational reference (W5E5, see Section Atlas 1.4.2).

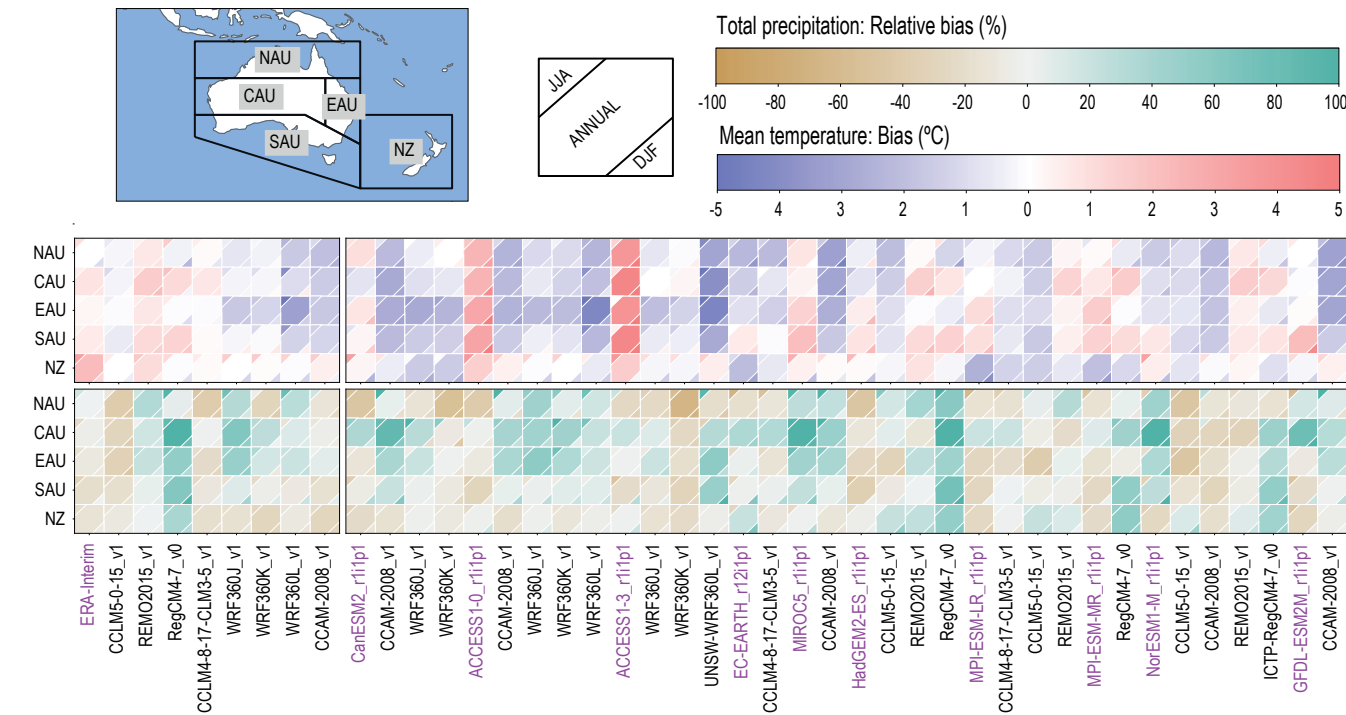


Figure Atlas.SM.7 | Evaluation of annual and seasonal air temperature and precipitation for the five Australasia subregions NAU, CAU, EAU, SAU, and NZ (land only) for CORDEX-AUS (see Figure Atlas.6) RCM simulations driven by reanalysis or historical GCMs. Seasons are June-July-August (JJA) and December-January-February (DJF). Rows represent subregions and columns correspond to the models. Magenta text indicates the driving historical CMIP5 GCMs (including ERA-Interim in first set of slightly separated columns) and the black text to the right of the magenta text represents the driven RCMs. The colour matrices show the mean spatial biases; all biases have been computed for the period 1985–2005 relative to the observational reference (W5E5, see Section Atlas 1.4.2).

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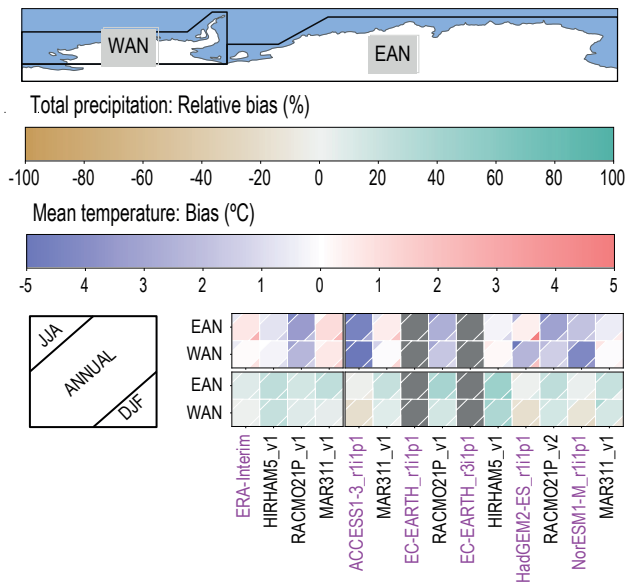


Figure Atlas.SM.8 | Evaluation of annual and seasonal air temperature and precipitation for the Antarctic regions EAN and WAN (land only) for CORDEX-ANT (see Figure Atlas.6) RCM simulations driven by reanalysis or historical GCMs. Seasons are June-July-August (JJA) and December-January-February (DJF). Rows represent subregions and columns correspond to the models. Magenta text indicates the driving historical CMIP5 GCMs (including ERA-Interim in first set of slightly separated columns) and the black text to the right of the magenta text represents the driven RCMs. The colour matrices show the mean spatial biases; all biases have been computed for the period 1985–2005 relative to the observational reference (W5E5, see Section Atlas 1.4.2).

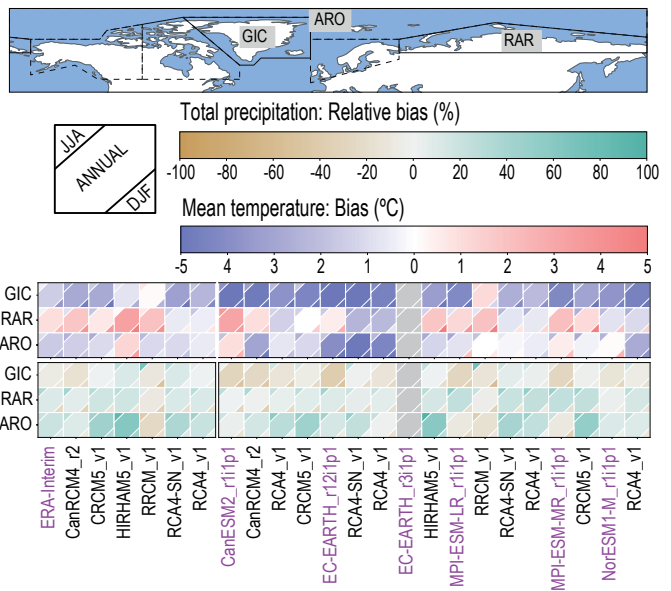


Figure Atlas.SM.9 | Evaluation of annual and seasonal air temperature and precipitation for the Arctic regions GIC, RAR, ARO for CORDEX-ARC (see Figure Atlas.6) RCM simulations driven by reanalysis or historical GCMs. Seasons are June-July-August (JJA) and December-January-February (DJF). Rows represent subregions and columns correspond to the models. Magenta text indicates the driving historical CMIP5 GCMs (including ERA-Interim in first set of slightly separated columns) and the black text to the right of the magenta text represents the driven RCMs. The colour matrices show the mean spatial biases; all biases have been computed for the period 1985–2005 relative to the observational reference (W5E5, see Section Atlas 1.4.2).

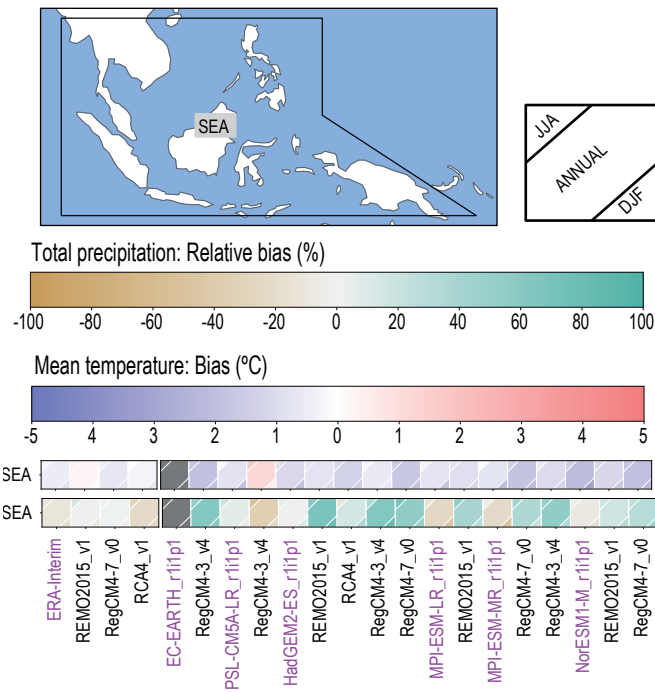


Figure Atlas.SM.10 | Evaluation of annual and seasonal air temperature and precipitation for the Asian subregion SEA (land only) for CORDEX-SEA (see Figure Atlas.6) RCM simulations driven by reanalysis or historical GCMs. Seasons are June-July-August (JJA) and December-January-February (DJF). Rows represent subregions and columns correspond to the models. Magenta text indicates the driving historical CMIP5 GCMs (including ERA-Interim in first set of slightly separated columns) and the black text to the right of the magenta text represents the driven RCMs. The colour matrices show the mean spatial biases; all biases have been computed for the period 1985–2005 relative to the observational reference (W5E5, see Section Atlas 1.4.2).

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Atlas.SM.3 Data Table

Table Atlas.SM.15 | Input datasets and code used in the chapter. Atlas GitHub refers to the WGI Atlas GitHub Repository (Iturbide et al. 2021).

Figure number	Dataset / Code name	Type	Filename / Specificities	License type	Dataset / Code citation	Dataset / Code URL	Related publications
Atlas.1	N/A	Input dataset					
	N/A	Code					
Atlas.2	Atlas GitHub	Input dataset	/refrence-regions/ IPCC-WGI-reference-regions-v4.geojson	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2020)
	Atlas GitHub	Code	/notebooks/reference-regions_R.ipynb	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2020)
Atlas.3	Atlas GitHub	Input dataset	/refrence-regions/	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2020)
	N/A	Code					
Atlas.4	Atlas GitHub	Input dataset	/refrence-regions/	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2020)
	N/A	Code					
Atlas.5	CRU-TS v4.04 HadSST.4	Input dataset		Open Government License: http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/		https://crudata.uea.ac.uk/cru/data/hrg/cru_ts_4.04/ https://www.metoffice.gov.uk/hadobs/hadsst4/	Harris et al. (2020) Kennedy et al. (2019)
	N/A	Code					
Atlas.6	N/A	Input dataset					
	N/A	Code					
Atlas.7	CORDEX	Input dataset	Table Atlas.SM.5		Table AII.2 in Annex II - Models		Table AII.2 in Annex II - Models
	N/A	Code					
Atlas.8	Interactive Atlas	Input dataset	Composite of different screenshots			http://interactive-atlas.ipcc.ch	
	N/A	Code					
Atlas.9	Interactive Atlas	Input dataset	Composite of different screenshots			http://interactive-atlas.ipcc.ch	
	N/A	Code					
Atlas.10	N/A	Input dataset					
	N/A	Code					
Atlas.11 (panels: a, c)	Berkeley Earth	Input dataset				http://berkeleyearth.org/data/ https://opendata.dwd.de/climate_environment/GPCC/html/fulldata_v6_doi_download.html	Rohde and Hausfather (2020) Osborn et al. (2021) Schneider et al. (2014)
	Atlas GitHub	Code	/reproducibility/observations/	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2021)

Figure number	Dataset / Code name	Type	Filename / Specificities	License type	Dataset / Code citation	Dataset / Code URL	Related publications
Atlas.11 (panels: b, e)	CRU-TS v4.04	Input dataset		Open Government License: http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/			Harris et al. (2020)
	Atlas GitHub	Code	/reproducibility/observations/	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2021)
Atlas.11d	CRUTEM5	Input dataset		Open Government License: http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/		https://www.metoffice.gov.uk/hadobs/crtem5/	Osborn et al. (2021)
	Atlas GitHub	Code	/reproducibility/observations/	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2021)
Atlas.11f	GPCC v2020	Input dataset		N/A			
	Atlas GitHub	Code	/reproducibility/observations/	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2021)
Atlas.12	CMIP6	Input dataset	Table Atlas.SM.2	CC-BY-SA 4.0	Table All.10 in Annex II - Models		Table All.5 in Annex II - Models
	N/A	Code					
Atlas.13 Atlas.16 Atlas.17 Atlas.21 Atlas.22 Atlas.24 Atlas.26 Atlas.28 Atlas.29	AR6-WGI Atlas dataset (aggregated by reference regions)	Input dataset	/datasets-aggregated-regionally/data; Tables Atlas.SM.1 (CMIP5), Atlas.SM.2 (CMIP6) and Atlas.SM.3-14 (CORDEX)	CC-BY 4.0	Iturbide et al. (2021)	https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2020); Tables All.2, All.5 in Annex II - Models
	Atlas GitHub	Code	/notebooks/regional-scatter-plots_R.ipynb	CC-BY 4.0	Iturbide et al. (2021)	https://github.com/IPCC-WG1/Atlas	Iturbide et al. (2020)
Atlas.14	Reproduced from a paper	Input dataset		CC-BY 4.0			Stephoe et al. (2018)
	N/A	Code					
Atlas.15	CMIP6	Input dataset	Table Atlas.SM.2	CC-BY-SA 4.0	Table All.10 in Annex II - Models		Table All.5 in Annex II - Models
	N/A	Code					
Atlas.18	RIHMI-WDC	Input dataset				https://doi.org/10.1088/1748-9326/6/4/045204	Bulygina et al. 2011
	Atlas GitHub	Code	/reproducibility/observations/observationsTrendsSnow.R			https://github.com/IPCC-WG1/Atlas/	Iturbide et al. 2021
Atlas.19	Reproduced from a paper	Input dataset					Tangang et al. (2020)
	N/A	Code					
Atlas.20 (panels: a–b)	ACORN-SAT	Input dataset Code		http://www.bom.gov.au/other/copyright.shtml		https://doi.org/10.25941/5d28a5d352de7	

Figure number	Dataset / Code name	Type	Filename / Specificities	License type	Dataset / Code citation	Dataset / Code URL	Related publications
Atlas.20 (panels c–d)	AGCD (Australian Gridded Climate Data)	Input Dataset Code		CC-BY 4.0		http://climate-cms.wikis.unsw.edu.au/AGCD	Evans et al. (2020)
Atlas.23 (panels: a, c)	E-OBS v21e	Input dataset		Data Policy for ECA&D and E-OBS: https://eca.knmi.nl/documents/ECAD_datapolicy.pdf			Cornes et al. (2018)
	Atlas GitHub	Code	/reproducibility/observations/observationsTrendsEurope.R	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas/	Iturbide et al. (2021)
Atlas.23b	CRU-TS v4.04	Input dataset		Data Policy for ECA&D and E-OBS: https://eca.knmi.nl/documents/ECAD_datapolicy.pdf			Harris et al. (2020)
	Berkeley Earth	Input dataset		Open Government License: http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/			Rohde and Hausfather (2020)
	ERA5	Input dataset		License to use Copernicus products: https://cds.climate.copernicus.eu/api/v2/terms/static/licence-to-use-copernicus-products.pdf			Hersbach et al. (2020)
	Atlas GitHub	Code	/reproducibility/observations/observationsSeriesEurope.R	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas/	Iturbide et al.(2021)
Atlas.23d	CRU-TS v4.04	Input dataset	Temporal series	Data Policy for ECA&D and E-OBS: https://eca.knmi.nl/documents/ECAD_datapolicy.pdf			Harris et al. (2020)
	GPCC v2020	Input dataset		Open Government License: http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/		https://opendata.dwd.de/climate_environment/GPCC/html/fulldata_v6_doi_download.html	Schneider et al. (2011)
	GPCP v2.3	Input dataset					Adler et al. (2018)
	Atlas GitHub	Code	/reproducibility/observations/observationsSeriesEurope.R	CC-BY 4.0		https://github.com/IPCC-WG1/Atlas/	Iturbide et al.(2021)
Atlas.25	Reproduced from a paper	Input dataset					Kunkel et al. (2016)
		Code					
Atlas.27	Reproduced from a paper	Input dataset					Bukovsky and Mearns (2020)
		Code					
Atlas.30	Data taken from papers N/A	Input dataset					Upper panels: Mouginot et al. (2019) and Fettweis et al. (2020). Lower panels: Rignot et al. (2019) and Mottram et al. (2021)
		Code					

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Atlas Supplementary Material

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