UNDP Climate Change Country Profiles

Dominican Republic

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General Climate

The Dominican Republic makes up the eastern two-thirds of the Caribbean Island of Hispaniola, located at a latitude of 18-20˚N. The Island experiences the year-round warm, humid conditions associated with the Tropics.

Seasonal mean temperatures range from 20-25˚C in the cooler months of December to February, to 25-27˚C in the warmer seasons JJA and SON. The wet season occurs through May to November, during which most regions receive 100-200mm per month.

Inter-annual variability in Caribbean climate is influenced strongly the El Niño Southern Oscillation (ENSO). El Niño episodes bring warmer and drier than average conditions between June and August and La Niña episodes bring colder and wetter conditions at this time. The Dominican Republic also lies in the heart of the Atlantic hurricane belt, where cyclones and hurricanes occur throughout August, September and October. Heavy rainfall associated with cyclones and hurricanes contributes significantly to wet season rainfall totals. The occurrence of hurricanes is strongly linked to ENSO, with more frequent hurricane activity associated with La Niña events, and less frequent events in El Niño years.

Recent Climate Trends

Temperature

- Mean annual temperature has increased by around 0.45˚C since 1960, at an average rate of 0.1˚C per decade. This warming is most rapid in the warmest seasons, JJA and SON.
- The frequency of hot days[1] and hot nights have increased significantly since 1960 in all seasons but DJF.
    - The average number of 'hot' days per year in the Dominican Republic has increased by 63 (an additional 17.4% of days[2]) between 1960 and 2003. The rate of increase is

[1] 'Hot' day or 'hot' night is defined by the temperature exceeded on 10% of days or nights in current climate of that region and season.

seen most strongly in JJA when the average number of hot JJA days has increased by 6.7 days per month (an additional 21.6% of JJA days) over this period.

- The average number of 'hot' nights per year increased by 48 (an additional 13.2% of nights) between 1960 and 2003. The rate of increase is seen most strongly in SON when the average number of hot SON nights has increased by 7.3 days per month (an additional 23.4% of SON nights) over this period.

- The frequency of cold days[3] and nights has decreased significantly since 1960, annually in almost all seasons.
  - The average number of 'cold 'days per year has decreased by 30 (8.3% of days) between 1960 and 2003. This rate of decrease is most rapid in summer (JJA) when the average number of cold summer days has decreased by 4.6 days per month (14.7% of summer days) over this period.
  - The average number of 'cold' nights per year has decreased by 31 (8.6% of days). This rate of decrease is most rapid in DJF when the average number of cold DJF nights has decreased by 3.2 nights per month (10.3% of DJF nights) over this period.

Precipitation

- Mean rainfall over the Dominican Republic has decreased by 5.0mm per month (4.5%) per decade since 1960. This decrease is mainly due to decreases in JJA and SON rainfall, of 7.5 and 5.4 mm per month (6.4% and 3.7%) per decade respectively.
- There in insufficient data available to determine trends in the daily rainfall extremes.

GCM Projections of Future Climate

Temperature

- The mean annual temperature is projected to increase by 0.5 to 2.3˚C by the 2060s, and 1.1 to 3.6 degrees by the 2090s. The range of projections by the 2090s under any one emissions scenario is around 1-1.5˚C.
- The projected rate of warming is most rapid in winter, DJF.

- All projections indicate substantial increases in the frequency of days and nights that are considered 'hot' in current climate.
  - Annually, projections indicate that 'hot' days will occur on 29-72% of days by the 2060s, and 32-98% of days by the 2090s. Days considered 'hot' by current climate standards for their season are projected to increase even more rapidly, occurring on 100% of days in the season in some projections.
  - Nights that are considered 'hot' for the annual climate of 1970-99 are projected to occur on 33-68% of nights by the 2060s and 39-98% of nights by the 2090s. Nights considered 'hot' by current climate standards for their season are projected to

[2] The increase in frequency over the 43-year period between 1960 and 2003 is estimated based on the decadal trend quoted in the summary table.

[3] 'Cold' days or 'cold' nights are defined as the temperature below which 10% of days or nights are recorded in current climate of that region or season.

increase even more rapidly, occurring on 100% of days in the season in some projections.

- All projections indicate decreases in the frequency of days and nights that are considered 'cold' in current climate. These events are expected to become exceedingly rare, not occurring at all in most projections.

Precipitation

- Projections of mean annual rainfall from different models in the ensemble are broadly consistent in indicating decreases in rainfall for the Dominican Republic, largely to due to decreases in wet season (JJA) rainfall. Projected changes in JJA rainfall vary from (-78 to +21%) by the 2090s. Annual changes range from -55 to +20%.

- The proportion of total rainfall that falls in heavy[4] events is projected to decrease by most models, with changes ranging from -29% to +8% by the 2090s.
- Maximum 1- and 5-day rainfalls tend to decrease in projections, particularly in JJA when the largest reductions in total rainfall are projected.

Additional Regional Climate Change Information

- Tropical cyclones are poorly captured by GCMs and thus potential changes in intensity and tracks of tropical cyclones in the future are very uncertain. Whilst evidence indicates that tropical cyclones are likely to become, on the whole, more intense under a warmer climate as a result of higher sea-surface temperatures, there is great uncertainty in changes in frequency, and changes to storm tracks and their interactions with other features of climate variability (such as the El Niño Southern Oscillation) which introduces uncertainty at the regional scale (Christensen *et al*., 2007).
- The uncertainty in potential changes in tropical cyclone contributes to uncertainties in future wet-season rainfall. Potential increases in summer rainfall associated with tropical cyclone activity, which may not be captured in the GCM projections, may counteract the projected decreases in rainfall in the region (Christensen *et al*., 2007).
- The Caribbean Islands are vulnerable to sea-level rise. Sea-level in this region is projected by climate models to rise by the following levels[5] by the 2090s, relative to 1980-1999 sea-level:
    - 0.13 to 0.43m under SRES B1
    - 0.16 to 0.53m under SRES A1B
    - 0.18 to 0.56m under SRES A2

- For further information see Christensen *et al.* (2007) IPCC Working Group I Report: '*The Physical Science Basis'*, Chapter 11 *(Regional Climate projections*): Sections 11.6 *(South and Central America*), and 11.9 (*Small Islands*).

[4] A 'Heavy' event is defined as a daily rainfall total which exceeds the threshold that is exceeded on 5% of rainy days in current the climate of that region and season.

[5] Taken from the IPCC Working group I (*The Physical Science Basis*): Chapter 10 (Global Climate Projections) (Meehl *et al*., 2007). Regional sea-level projections are estimated by applying regional adjustments (Fig 10.32, p813) to projected global mean sea-level rise from 14 AR4 models.

Data Summary

	Observed Mean 1970-99	Observed Trend 1960-2006		Projected changes by the 2030s			Projected changes by the 2060s			Projected changes by the 2090s		
				Min	*Median*	*Max*	*Min*	*Median*	*Max*	*Min*	*Median*	*Max*
Temperature												
	(˚C)	*(change in ˚C per decade)*		*Change in ˚C*			*Change in ˚C*			*Change in ˚C*		
			A2	0.7	**1.0**	1.2	1.3	**1.9**	2.3	2.4	**2.9**	3.6
Annual	25.1	0.10*	*A1B*	0.5	**1.0**	1.3	0.9	**1.8**	2.2	1.6	**2.6**	3.1
			B1	0.3	**0.8**	1.2	0.5	**1.3**	1.7	1.1	**1.6**	2.1
			A2	0.5	**1.0**	1.2	1.4	**1.8**	2.3	2.4	**3.0**	3.5
DJF	23.5	0.10	*A1B*	0.5	**1.0**	1.4	0.8	**1.8**	2.2	1.6	**2.5**	3.3
			B1	0.3	**0.9**	1.1	0.5	**1.3**	1.6	1.0	**1.6**	2.1
			A2	0.6	**1.0**	1.1	1.2	**1.8**	2.3	2.2	**2.9**	3.5
MAM	24.7	0.09	*A1B*	0.5	**1.0**	1.2	0.8	**1.8**	2.2	1.5	**2.2**	2.9
			B1	0.2	**0.8**	1.1	0.4	**1.3**	1.5	1.0	**1.5**	2.1
			A2	0.6	**1.0**	1.4	1.3	**1.9**	2.4	2.4	**2.9**	3.7
JJA	26.3	0.13*	*A1B*	0.5	**1.0**	1.3	1.0	**1.8**	2.3	1.6	**2.5**	3.1
			B1	0.2	**0.8**	1.3	0.5	**1.3**	1.7	1.0	**1.6**	2.2
			A2	0.7	**1.0**	1.2	1.4	**1.9**	2.4	2.5	**3.0**	3.7
SON	25.7	0.13*	*A1B*	0.6	**1.1**	1.4	1.1	**1.9**	2.2	1.8	**2.4**	3.3
			B1	0.5	**0.8**	1.3	0.7	**1.3**	1.9	1.2	**1.6**	2.3
Precipitation												
	(mm per month)	*(change in mm per decade)*		*Change in mm per month*			*Change in mm per month*			*Change in mm per month*		
			A2	-10	**-3**	7	-16	**-7**	6	-32	**-11**	2
Annual	111.4	-5.0*	*A1B*	-13	**-3**	6	-16	**-6**	5	-26	**-7**	8
			B1	-5	**0**	5	-11	**-1**	8	-14	**-6**	7
			A2	-7	**0**	3	-9	**-3**	12	-12	**-1**	7
DJF	72.0	-1.1	*A1B*	-6	**-1**	5	-7	**-1**	7	-7	**0**	11
			B1	-10	**0**	6	-7	**-2**	3	-5	**0**	3
			A2	-12	**-2**	7	-17	**-3**	7	-22	**-8**	-1
MAM	109.6	-5.5	*A1B*	-20	**-1**	12	-14	**-6**	6	-17	**-4**	0
			B1	-6	**-2**	20	-15	**-1**	10	-14	**-3**	13
			A2	-23	**-8**	8	-42	**-12**	3	-85	**-22**	-2
JJA	116.9	-7.5*	*A1B*	-30	**-8**	5	-43	**-16**	1	-55	**-23**	2
			B1	-31	**-6**	3	-45	**-5**	8	-50	**-15**	7
			A2	-22	**-2**	28	-23	**-6**	25	-40	**-12**	24
SON	146.9	-5.4	*A1B*	-16	**-3**	51	-25	**-5**	27	-35	**-7**	31
			B1	-9	**-1**	24	-16	**-5**	28	-19	**-8**	28
Precipitation (%)												
	(mm per month)	*(change in % per decade)*		*% Change*			*% Change*			*% Change*		
			A2	-36	**-4**	18	-43	**-9**	17	-55	**-21**	6
Annual	111.4	-4.5*	*A1B*	-36	**-6**	6	-47	**-9**	12	-44	**-13**	20
			B1	-28	**-1**	6	-42	**-3**	7	-35	**-7**	19
			A2	-22	**0**	11	-35	**-5**	22	-45	**-2**	17
DJF	72.0	-1.5	*A1B*	-33	**-2**	9	-40	**-5**	13	-32	**-1**	33
			B1	-24	**1**	25	-32	**-5**	11	-30	**0**	13
			A2	-32	**-6**	11	-50	**-12**	12	-53	**-22**	-3
MAM	109.6	-5.0	*A1B*	-40	**-5**	20	-43	**-15**	8	-44	**-15**	0
			B1	-34	**-7**	42	-43	**-5**	17	-36	**-8**	42
			A2	-42	**-9**	22	-70	**-20**	10	-78	**-36**	-7
JJA	116.9	-6.4*	*A1B*	-52	**-16**	4	-64	**-19**	5	-76	**-32**	7
			B1	-38	**-10**	9	-66	**-8**	10	-69	**-18**	21
			A2	-44	**-2**	35	-58	**-6**	31	-67	**-13**	30
SON	146.9	-3.7	*A1B*	-36	**-3**	30	-49	**-7**	29	-55	**-6**	40
			B1	-32	**0**	27	-49	**-5**	18	-60	**-8**	36

	Observed Mean 1970-99	Observed Trend 1960-2006		Projected changes by the 2030s			Projected changes by the 2060s			Projected changes by the 2090s		
				Min	Median	Max	Min	Median	Max	Min	Median	Max
	% Frequency	Change in frequency per decade					Future % frequency			Future % frequency		
Frequency of Hot Days (TX90p)												
			A2	****	****	****	35	**47**	72	55	**78**	98
Annual	12.5	4.04*	*A1B*	****	****	****	39	**50**	70	45	**68**	97
			B1	****	****	****	29	**41**	54	32	**48**	64
			A2	****	****	****	60	**73**	96	89	**98**	100
DJF	10.8	1.08	*A1B*	****	****	****	54	**79**	92	81	**94**	100
			B1	****	****	****	32	**61**	77	53	**73**	91
			A2	****	****	****	47	**77**	97	79	**96**	100
MAM	10.5	1.62*	*A1B*	****	****	****	42	**73**	97	67	**94**	100
			B1	****	****	****	28	**54**	92	42	**76**	99
			A2	****	****	****	67	**79**	94	89	**98**	100
JJA	13.5	5.03*	*A1B*	****	****	****	63	**80**	94	82	**96**	100
			B1	****	****	****	49	**65**	82	61	**82**	93
			A2	****	****	****	30	**72**	99	59	**93**	100
SON	11.9	3.41*	*A1B*	****	****	****	38	**74**	99	40	**91**	100
			B1	****	****	****	25	**62**	96	30	**72**	99
Frequency of Hot Nights (TN90p)												
			A2	****	****	****	44	**51**	68	60	**83**	98
Annual	11.7	3.06*	*A1B*	****	****	****	44	**53**	65	55	**73**	95
			B1	****	****	****	33	**41**	52	39	**51**	61
			A2	****	****	****	62	**70**	93	93	**98**	99
DJF	12.6	3.22*	*A1B*	****	****	****	57	**77**	90	86	**94**	100
			B1	****	****	****	33	**58**	71	55	**77**	89
			A2	****	****	****	55	**77**	95	91	**97**	100
MAM	11.9	2.23*	*A1B*	****	****	****	44	**75**	95	77	**95**	99
			B1	****	****	****	26	**53**	88	45	**78**	99
			A2	****	****	****	65	**85**	94	90	**99**	100
JJA	13.7	4.44*	*A1B*	****	****	****	67	**86**	92	89	**97**	99
			B1	****	****	****	49	**70**	82	58	**84**	94
			A2	****	****	****	68	**88**	98	95	**99**	100
SON	13.6	5.45*	*A1B*	****	****	****	72	**91**	99	85	**98**	100
			B1	****	****	****	44	**75**	95	64	**93**	98
Frequency of Cold Days (TX10p)												
			A2	****	****	****	0	**0**	2	0	**0**	0
Annual	7.6	-1.92*	*A1B*	****	****	****	0	**0**	1	0	**0**	1
			B1	****	****	****	0	**0**	2	0	**0**	2
			A2	****	****	****	0	**0**	2	0	**0**	0
DJF	8.4	-1.21	*A1B*	****	****	****	0	**0**	1	0	**0**	0
			B1	****	****	****	0	**0**	1	0	**0**	2
			A2	****	****	****	0	**0**	4	0	**0**	0
MAM	7.1	-1.88*	*A1B*	****	****	****	0	**0**	2	0	**0**	1
			B1	****	****	****	0	**1**	3	0	**0**	3
			A2	****	****	****	0	**0**	2	0	**0**	1
JJA	6.5	-3.42*	*A1B*	****	****	****	0	**0**	1	0	**0**	2
			B1	****	****	****	0	**0**	3	0	**0**	2
			A2	****	****	****	0	**0**	1	0	**0**	0
SON	8.8	-1.20*	*A1B*	****	****	****	0	**0**	1	0	**0**	1
			B1	****	****	****	0	**0**	3	0	**0**	1
Frequency of Cold Nights (TN10p)												
			A2	****	****	****	0	**0**	1	0	**0**	0
Annual	7.4	-2.00*	*A1B*	****	****	****	0	**0**	1	0	**0**	0
			B1	****	****	****	0	**0**	2	0	**0**	1
			A2	****	****	****	0	**0**	1	0	**0**	0
DJF	7.2	-2.40*	*A1B*	****	****	****	0	**0**	1	0	**0**	0
			B1	****	****	****	0	**0**	1	0	**0**	1
			A2	****	****	****	0	**0**	0	0	**0**	0
MAM	7.1	-2.15*	*A1B*	****	****	****	0	**0**	0	0	**0**	0
			B1	****	****	****	0	**0**	1	0	**0**	1
			A2	****	****	****	0	**0**	0	0	**0**	0
JJA	10.1	0.43	*A1B*	****	****	****	0	**0**	0	0	**0**	0
			B1	****	****	****	0	**0**	3	0	**0**	0
			A2	****	****	****	0	**0**	1	0	**0**	0
SON	7.4	-2.11*	*A1B*	****	****	****	0	**0**	1	0	**0**	0
			B1	****	****	****	0	**0**	1	0	**0**	1

	Observed Mean 1970-99	Observed Trend 1960-2006		Projected changes by the 2030s Min	Median	Max	Projected changes by the 2060s Min	Median	Max	Projected changes by the 2090s Min	Median	Max
% total rainfall falling in Heavy Events (R95pct)												
	%	*Change in % per decade*					*Change in %*			*Change in %*		
			A2	****	****	****	-20	**-1**	7	-29	**-2**	6
Annual	****	****	*A1B*	****	****	****	-20	**-1**	3	-24	**0**	8
			B1	****	****	****	-16	**0**	5	-16	**-2**	6
			A2	****	****	****	-15	**-3**	12	-17	**-4**	13
DJF	****	****	*A1B*	****	****	****	-14	**-1**	4	-14	**-2**	18
			B1	****	****	****	-11	**-1**	1	-12	**-1**	9
			A2	****	****	****	-23	**-5**	2	-26	**-8**	-1
MAM	****	****	*A1B*	****	****	****	-21	**-6**	1	-25	**-9**	1
			B1	****	****	****	-22	**-5**	5	-17	**-1**	7
			A2	****	****	****	-32	**-4**	7	-34	**-8**	0
JJA	****	****	*A1B*	****	****	****	-22	**-5**	1	-32	**-3**	10
			B1	****	****	****	-30	**0**	9	-25	**-5**	6
			A2	****	****	****	-26	**-1**	5	-31	**-1**	8
SON	****	****	*A1B*	****	****	****	-20	**0**	10	-24	**0**	9
			B1	****	****	****	-20	**0**	9	-26	**0**	5
Maximum 1-day rainfall (RX1day)												
	mm	*Change in mm per decade*					*Change in mm*			*Change in mm*		
			A2	****	****	****	-6	**0**	8	-8	**-1**	10
Annual	****	****	*A1B*	****	****	****	-4	**0**	5	-5	**0**	6
			B1	****	****	****	-5	**0**	8	-5	**0**	6
			A2	****	****	****	-3	**0**	3	-3	**0**	5
DJF	****	****	*A1B*	****	****	****	-4	**0**	1	-2	**0**	5
			B1	****	****	****	-3	**0**	1	-2	**0**	3
			A2	****	****	****	-3	**-1**	9	-6	**-1**	0
MAM	****	****	*A1B*	****	****	****	-3	**-1**	4	-3	**-1**	1
			B1	****	****	****	-3	**-1**	2	-3	**0**	8
			A2	****	****	****	-6	**-1**	1	-10	**-3**	1
JJA	****	****	*A1B*	****	****	****	-4	**-2**	0	-7	**-2**	2
			B1	****	****	****	-6	**0**	5	-7	**-2**	2
			A2	****	****	****	-4	**0**	8	-6	**0**	9
SON	****	****	*A1B*	****	****	****	-4	**0**	13	-5	**1**	6
			B1	****	****	****	-4	**0**	11	-3	**0**	2
Maximum 5-day Rainfall (RX5day)												
	mm	*Change in mm per decade*					*Change in mm*			*Change in mm*		
			A2	****	****	****	-15	**-5**	27	-17	**-5**	28
Annual	****	****	*A1B*	****	****	****	-11	**-1**	8	-12	**-1**	8
			B1	****	****	****	-15	**0**	23	-11	**-2**	13
			A2	****	****	****	-7	**0**	5	-8	**-3**	9
DJF	****	****	*A1B*	****	****	****	-8	**-1**	4	-8	**-1**	8
			B1	****	****	****	-8	**-1**	1	-6	**0**	9
			A2	****	****	****	-7	**-2**	23	-12	**-4**	2
MAM	****	****	*A1B*	****	****	****	-6	**-2**	8	-9	**-4**	3
			B1	****	****	****	-6	**-2**	8	-7	**0**	20
			A2	****	****	****	-10	**-5**	2	-38	**-7**	3
JJA	****	****	*A1B*	****	****	****	-19	**-8**	1	-25	**-4**	1
			B1	****	****	****	-24	**-1**	11	-23	**-5**	4
			A2	****	****	****	-13	**-4**	21	-15	**-4**	20
SON	****	****	*A1B*	****	****	****	-10	**0**	17	-11	**-3**	12
			B1	****	****	****	-14	**-1**	23	-11	**-1**	5

* indicates trend is statistically significant at 95% confidence

**** indicates data are not available

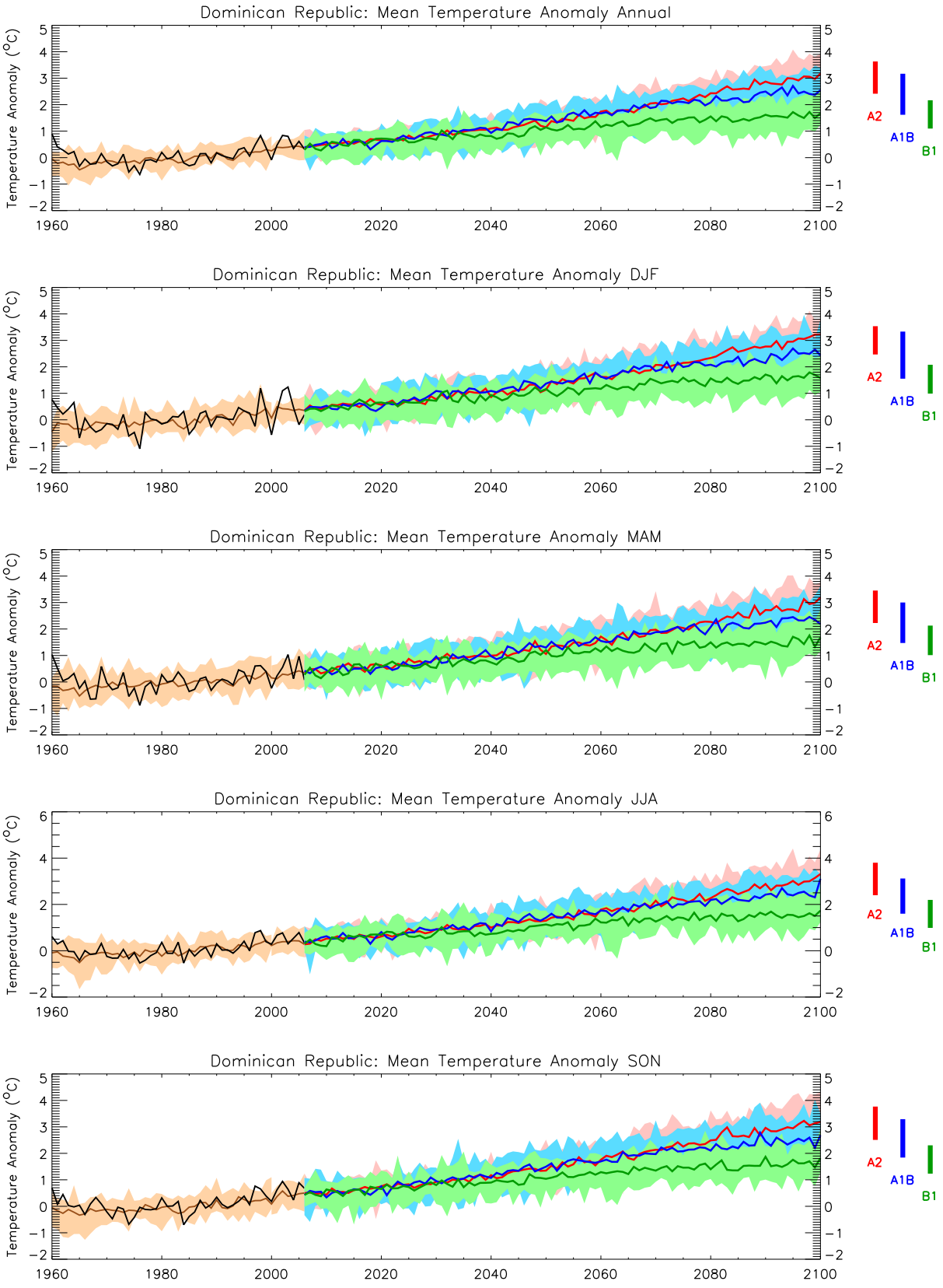

Figure 1: Trends in annual and seasonal mean temperature for the recent past and projected future. All values shown are anomalies, relative to the 1970-1999 mean climate. Black curves show the mean of observed data from 1960 to 2006, Brown curves show the median (solid line) and range (shading) of model simulations of recent climate across an ensemble of 15 models. Coloured lines from 2006 onwards show the median (solid line) and range (shading) of the ensemble projections of climate under three emissions scenarios. Coloured bars on the right-hand side of the projections summarise the range of mean 2090-2100 climates simulated by the 15 models for each emissions scenario.

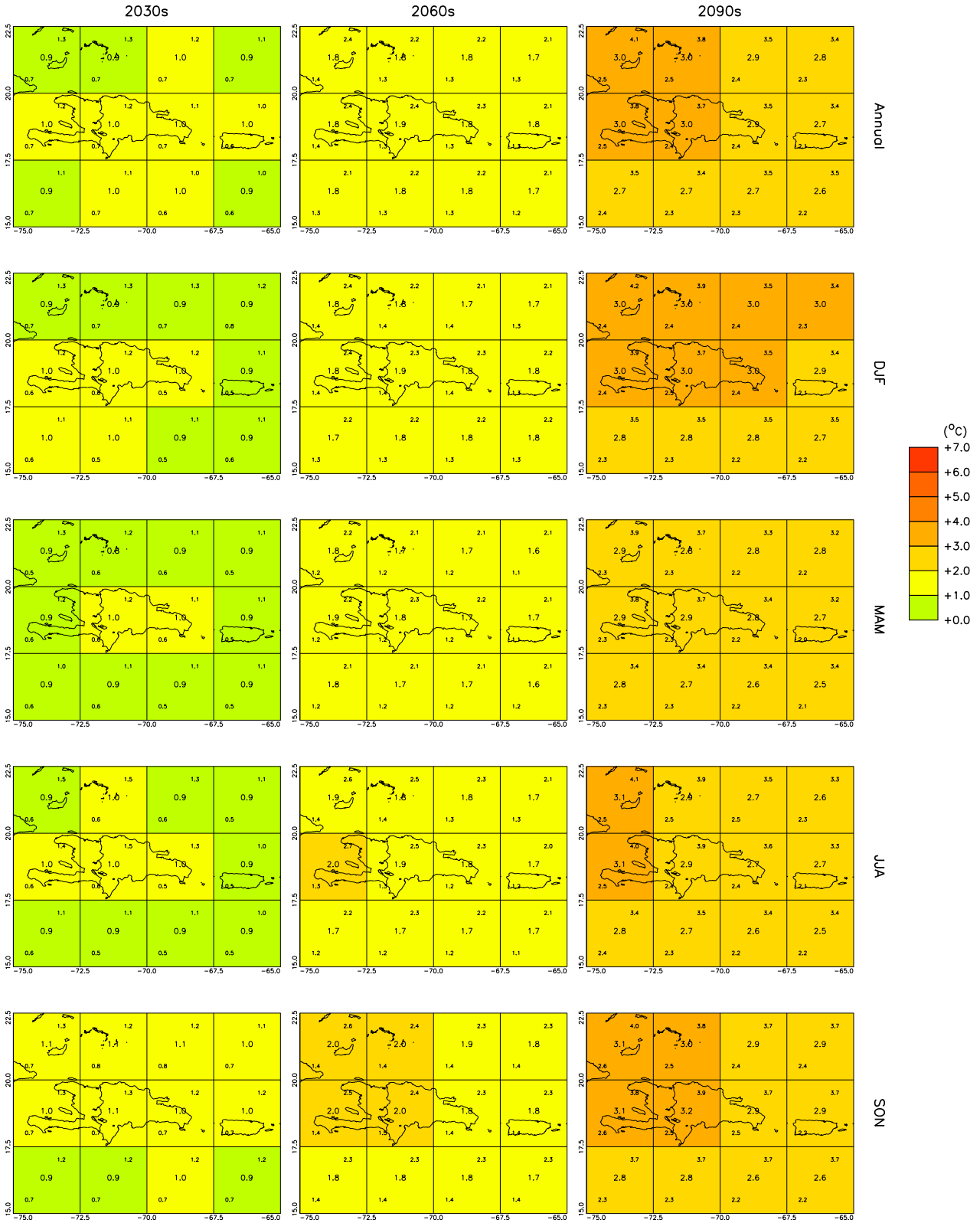

Figure 2: Spatial patterns of projected change in mean annual and seasonal temperature for 10-year periods in the future under the SRES A2 scenario. All values are anomalies relative to the mean climate of 1970-1999. In each grid box, the central value gives the ensemble median and the values in the upper and lower corners give the ensemble maximum and minimum.

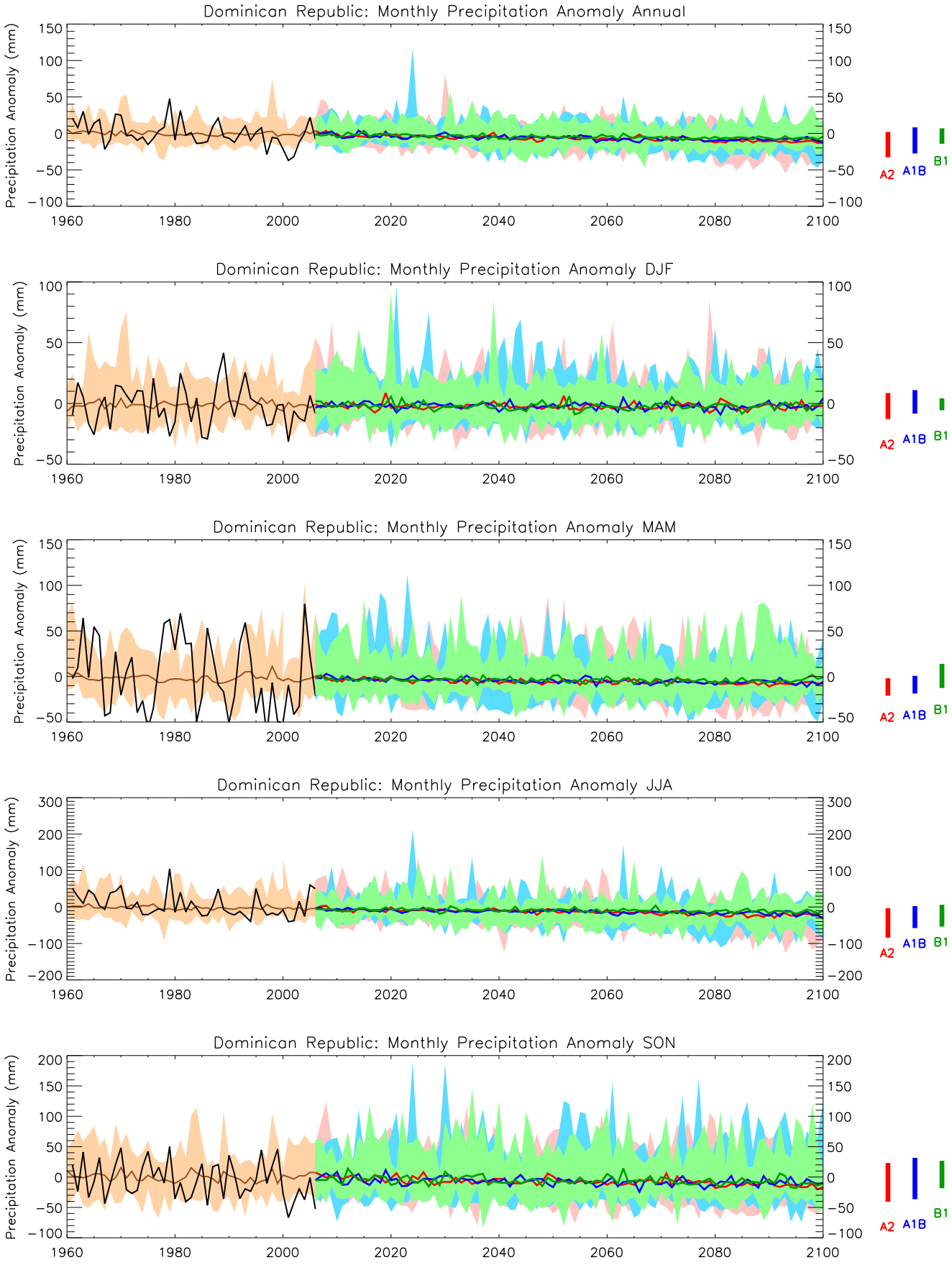

Figure 3: Trends in monthly precipitation for the recent past and projected future. All values shown are anomalies, relative to the 1970-1999 mean climate. See Figure 1 for details.

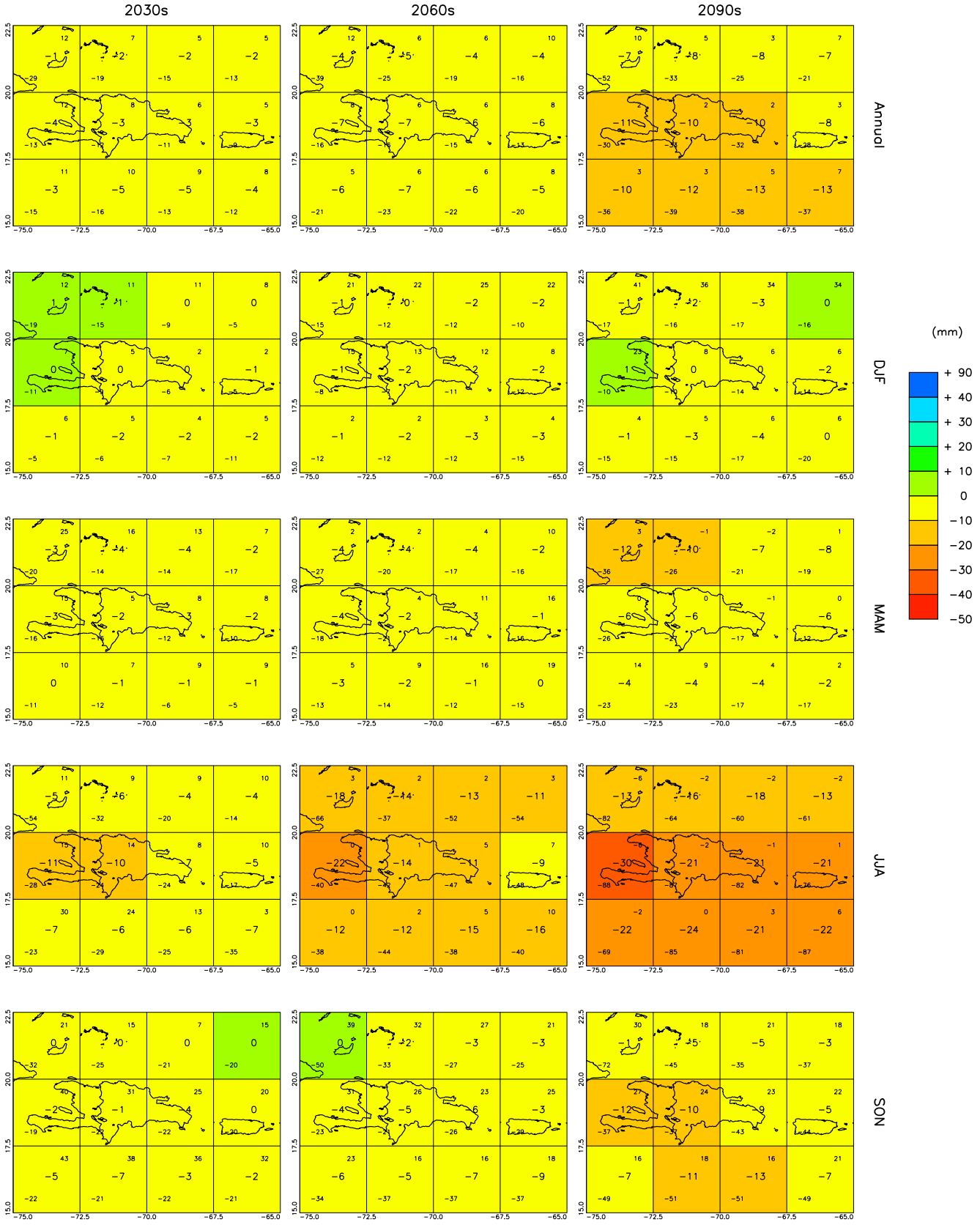

Figure 4: Spatial patterns of projected change in monthly precipitation for 10-year periods in the future under the SRES A2 scenario. All values are anomalies relative to the mean climate of 1970-1999.See Figure 2 for details.

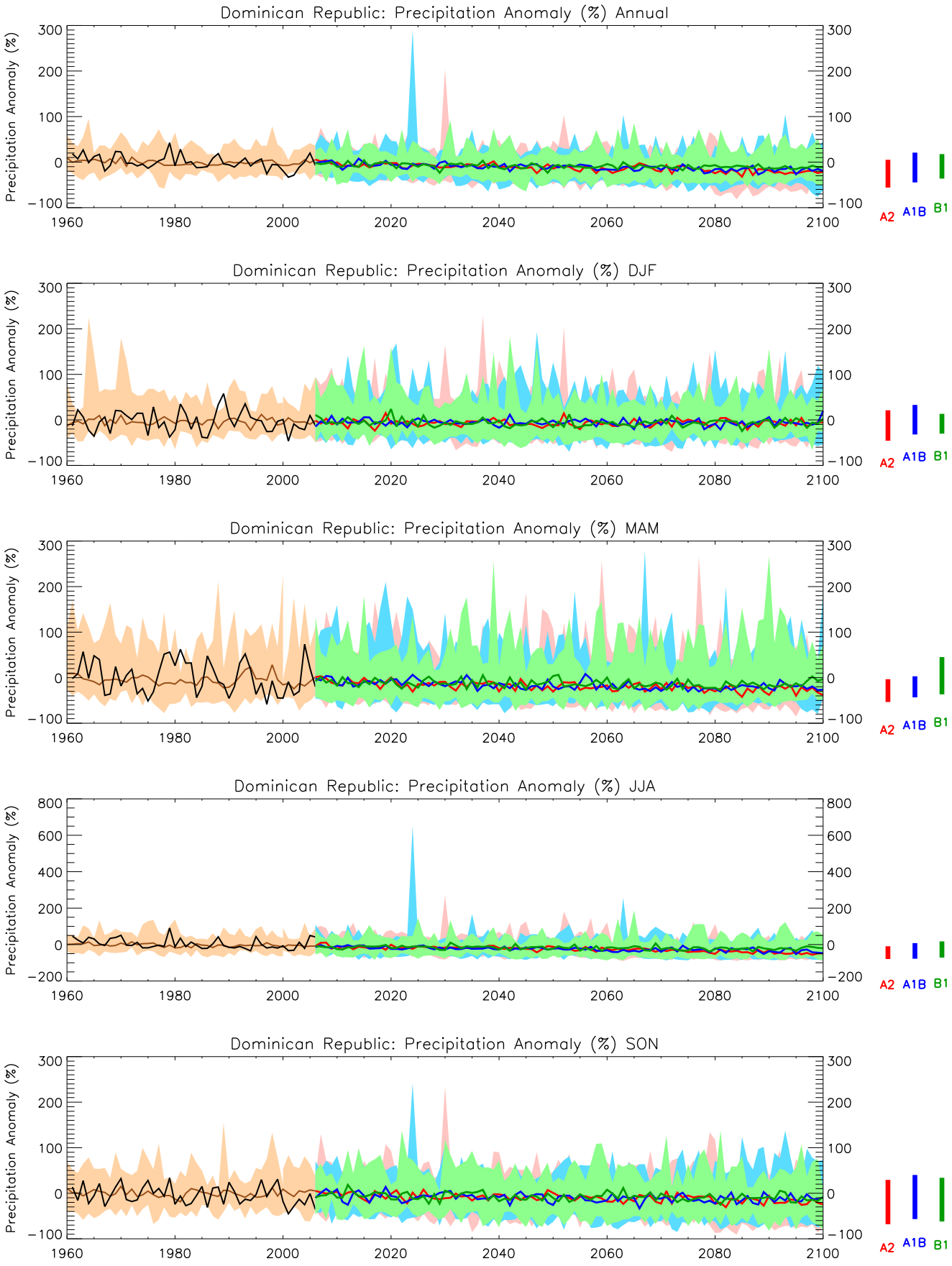

Figure 5: Trends in monthly precipitation for the recent past and projected future. All values shown are percentage anomalies, relative to the 1970-1999 mean climate. See Figure 1 for details.

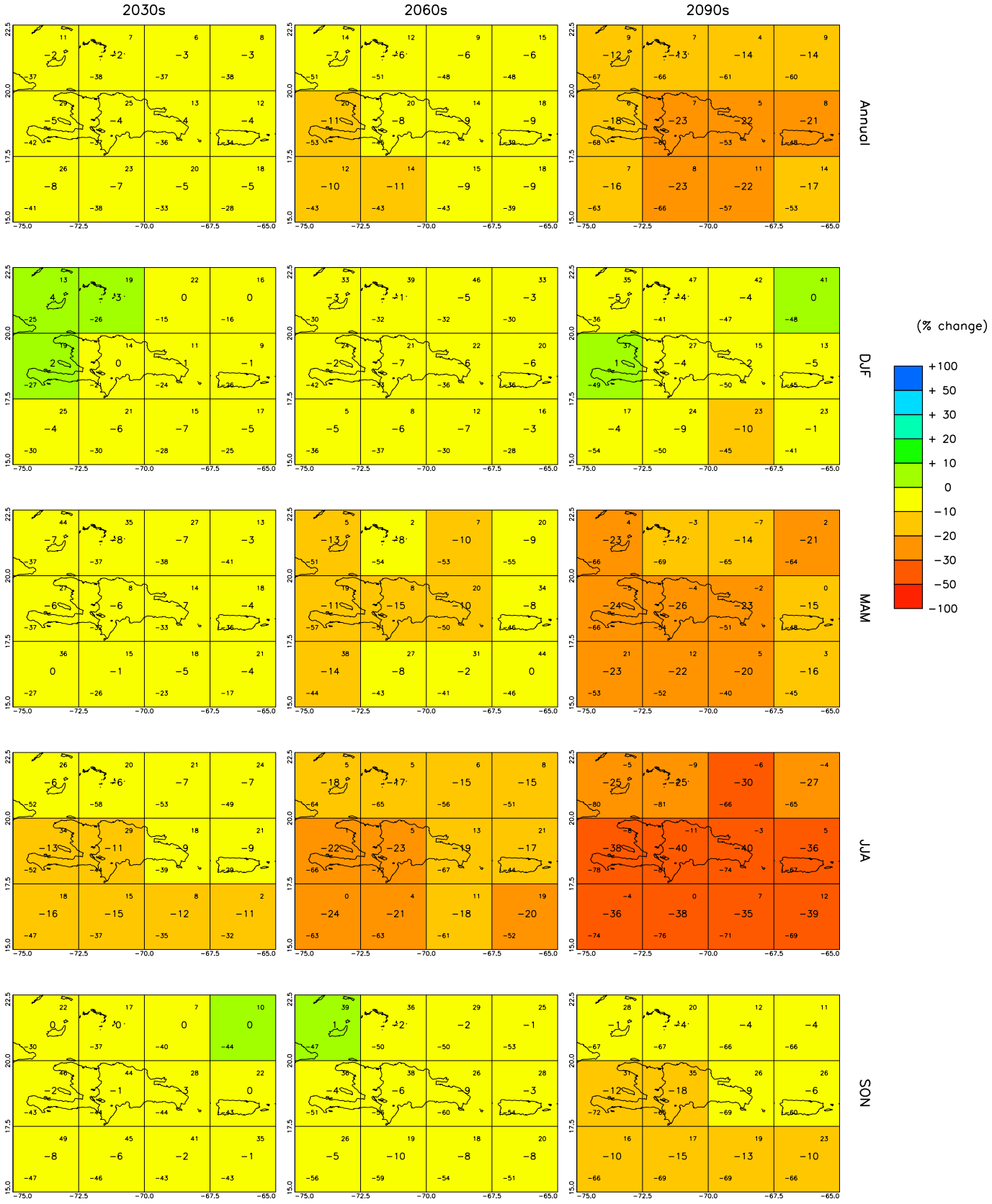

Figure 6: Spatial patterns of projected change in monthly precipitation for 10-year periods in the future under the SRES A2 scenario. All values are percentage anomalies relative to the mean climate of 1970-1999.See Figure 2 for details.

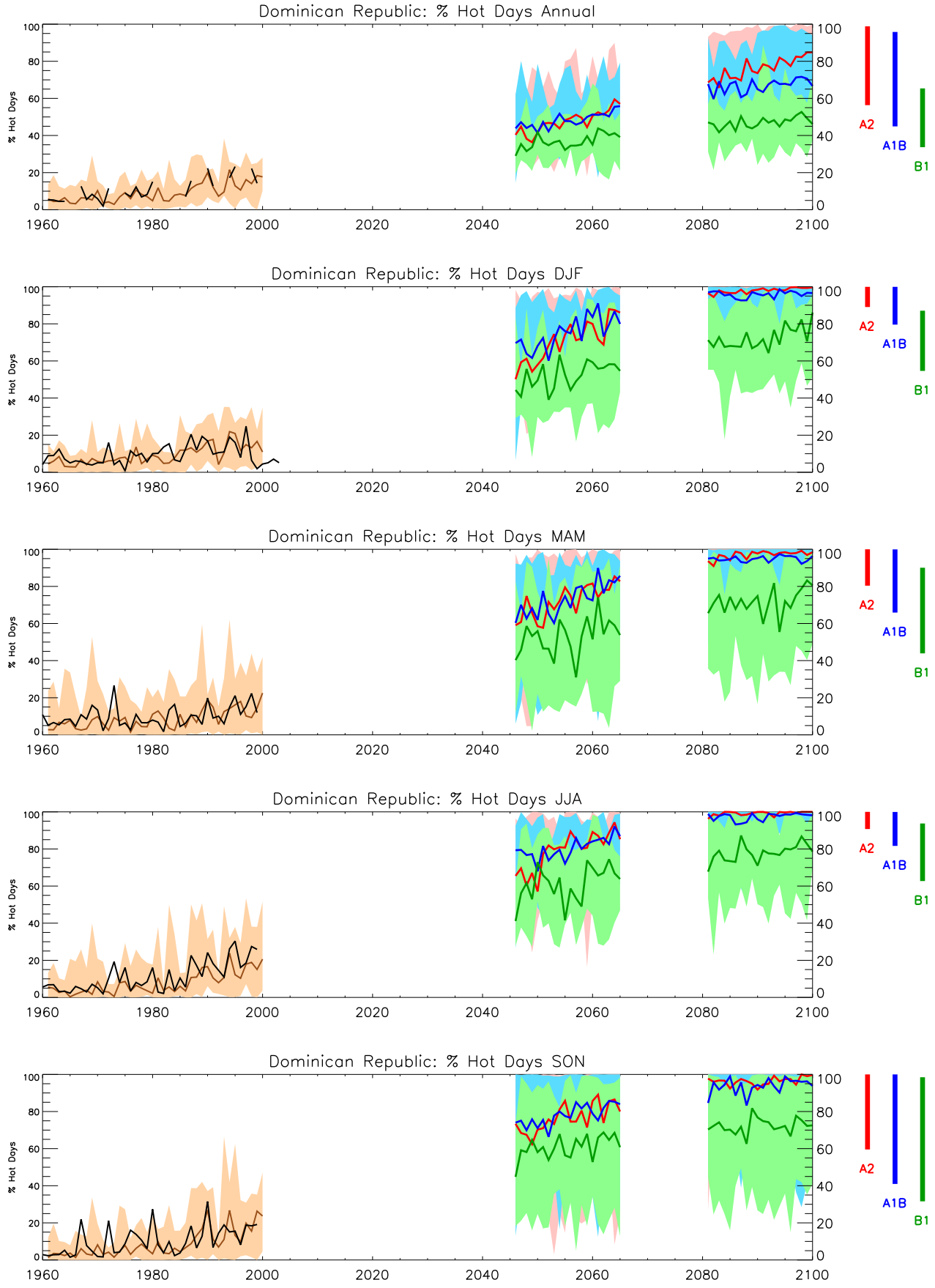

Figure 7: Trends in Hot-day frequency for the recent past and projected future. See Figure 1 for details.

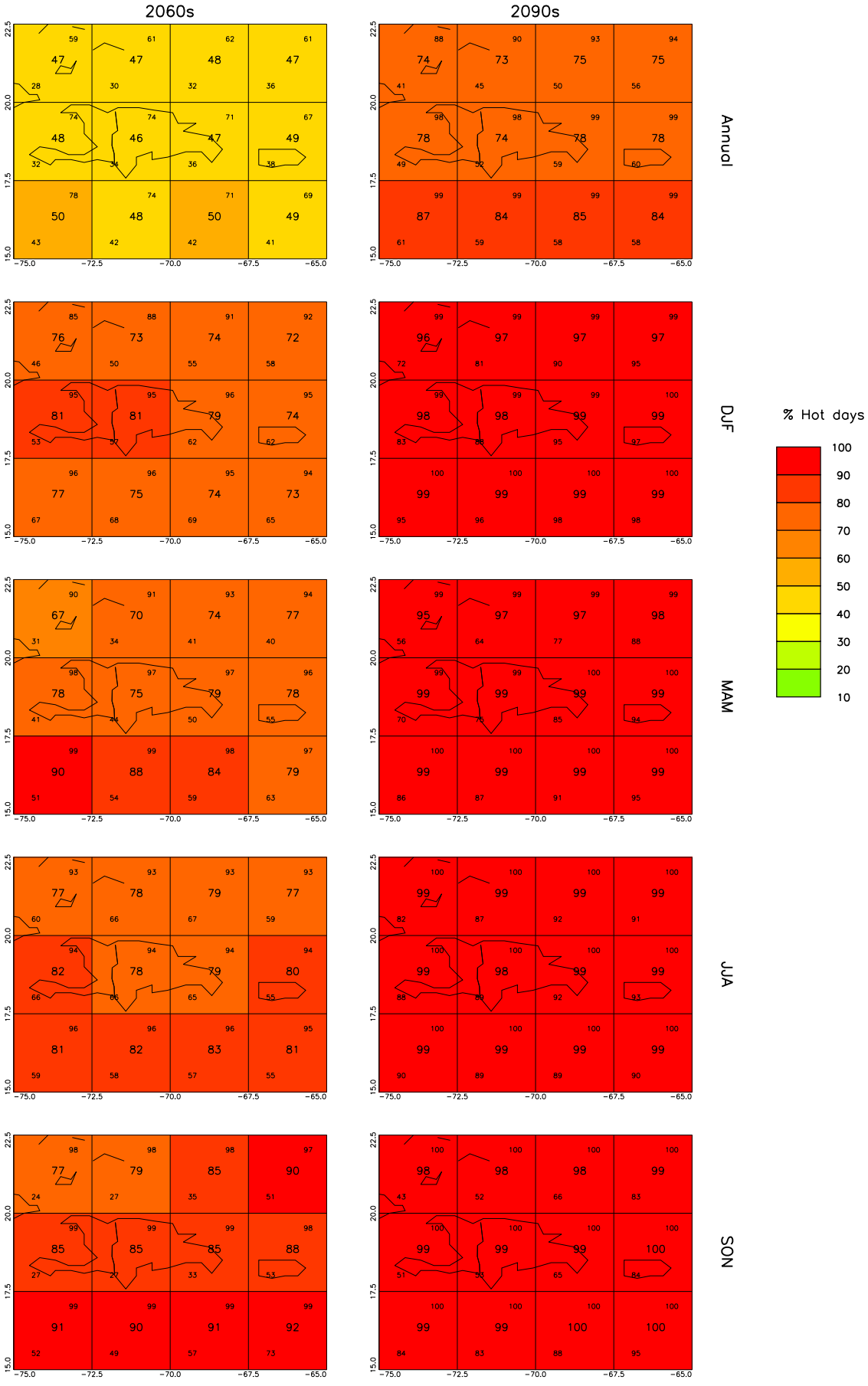

Figure 8: Spatial patterns of projected change in Hot-day frequency for 10-year periods in the future under the SRES A2 scenario. See Figure 2 for details.

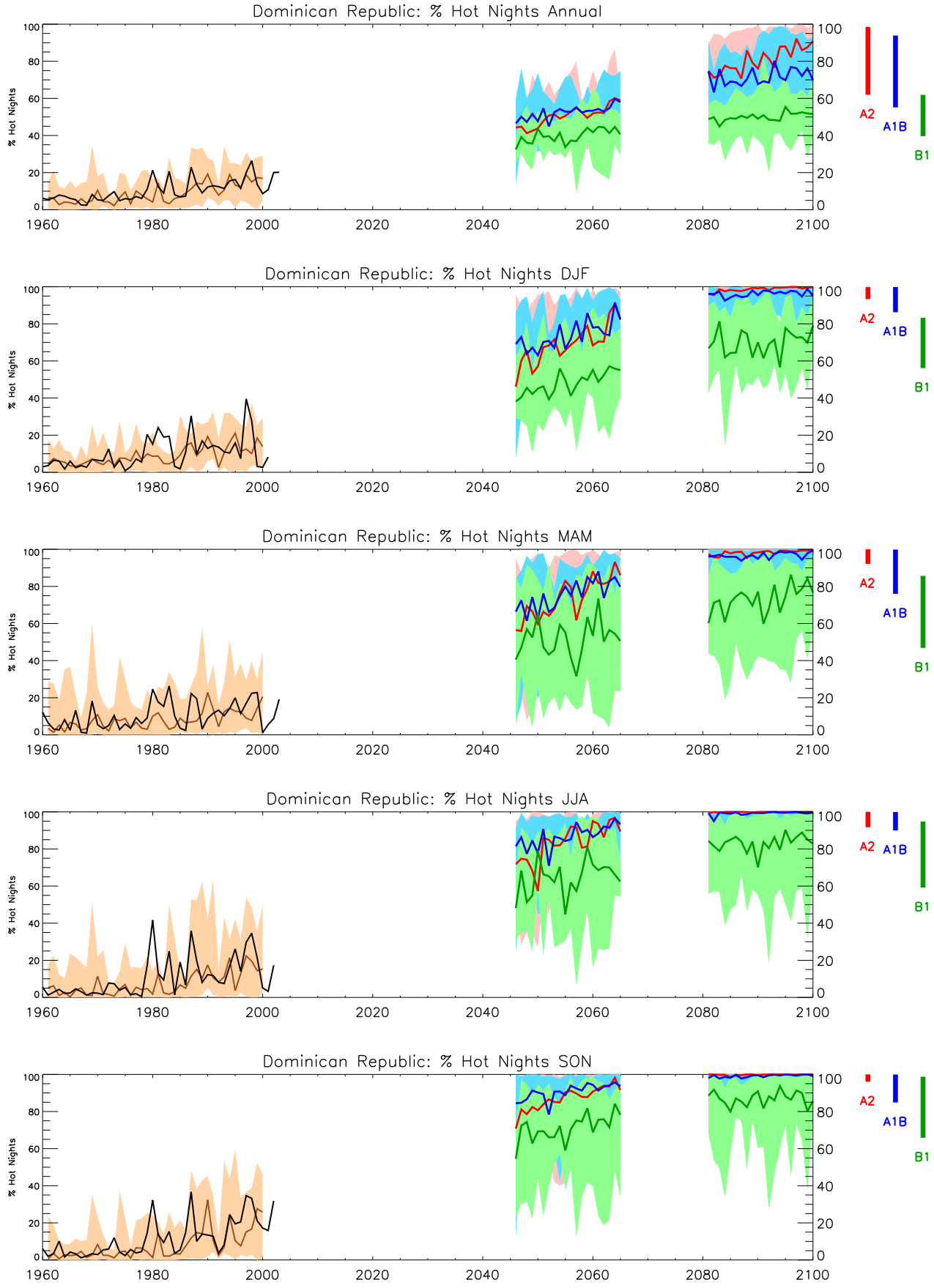

Figure 9: Trends in hot-night frequency for the recent past and projected future. See Figure 1 for details.

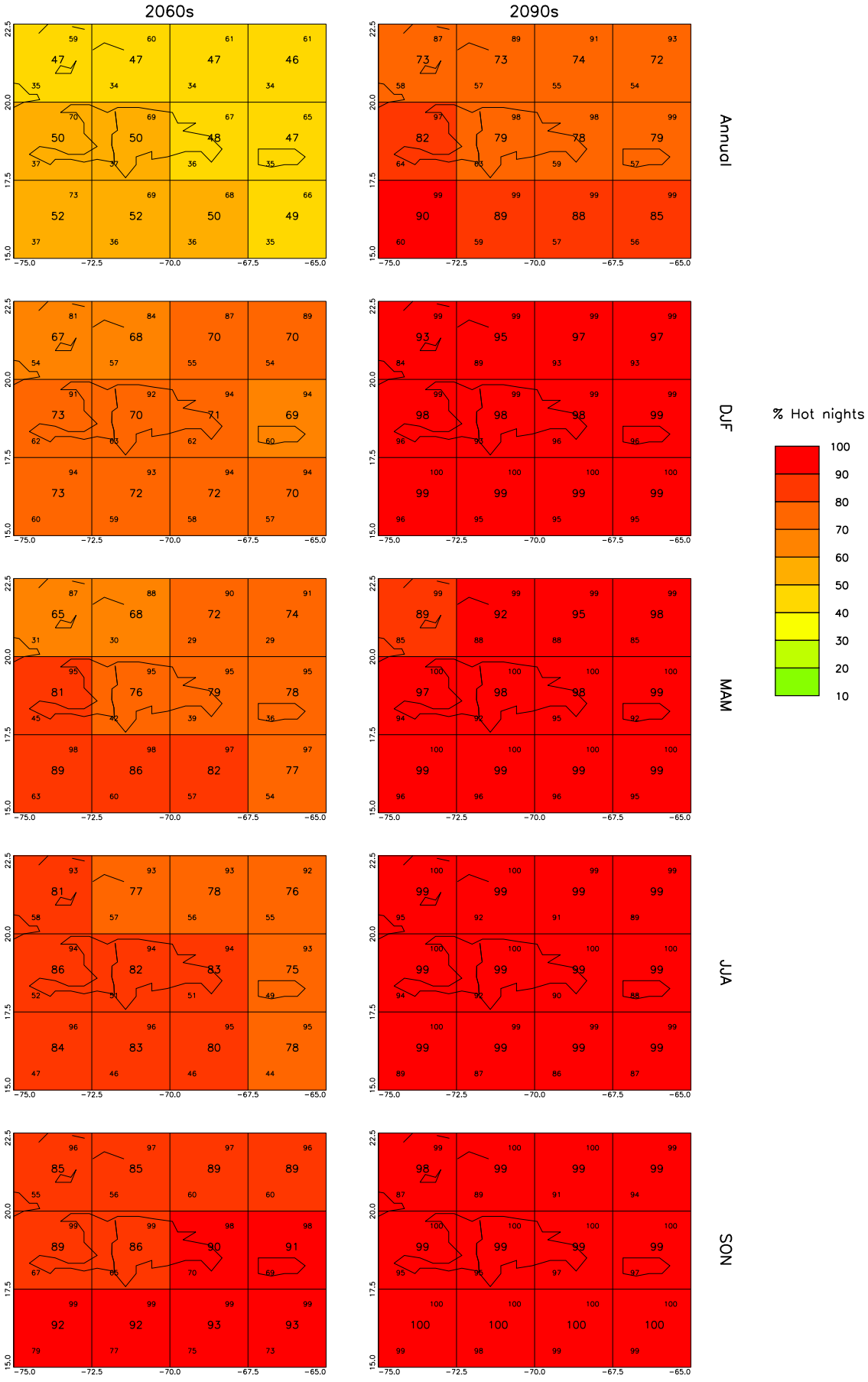

Figure 10: Spatial patterns of projected change in hot-night frequency for 10-year periods in the future under the SRES A2 scenario. See Figure 2 for details.

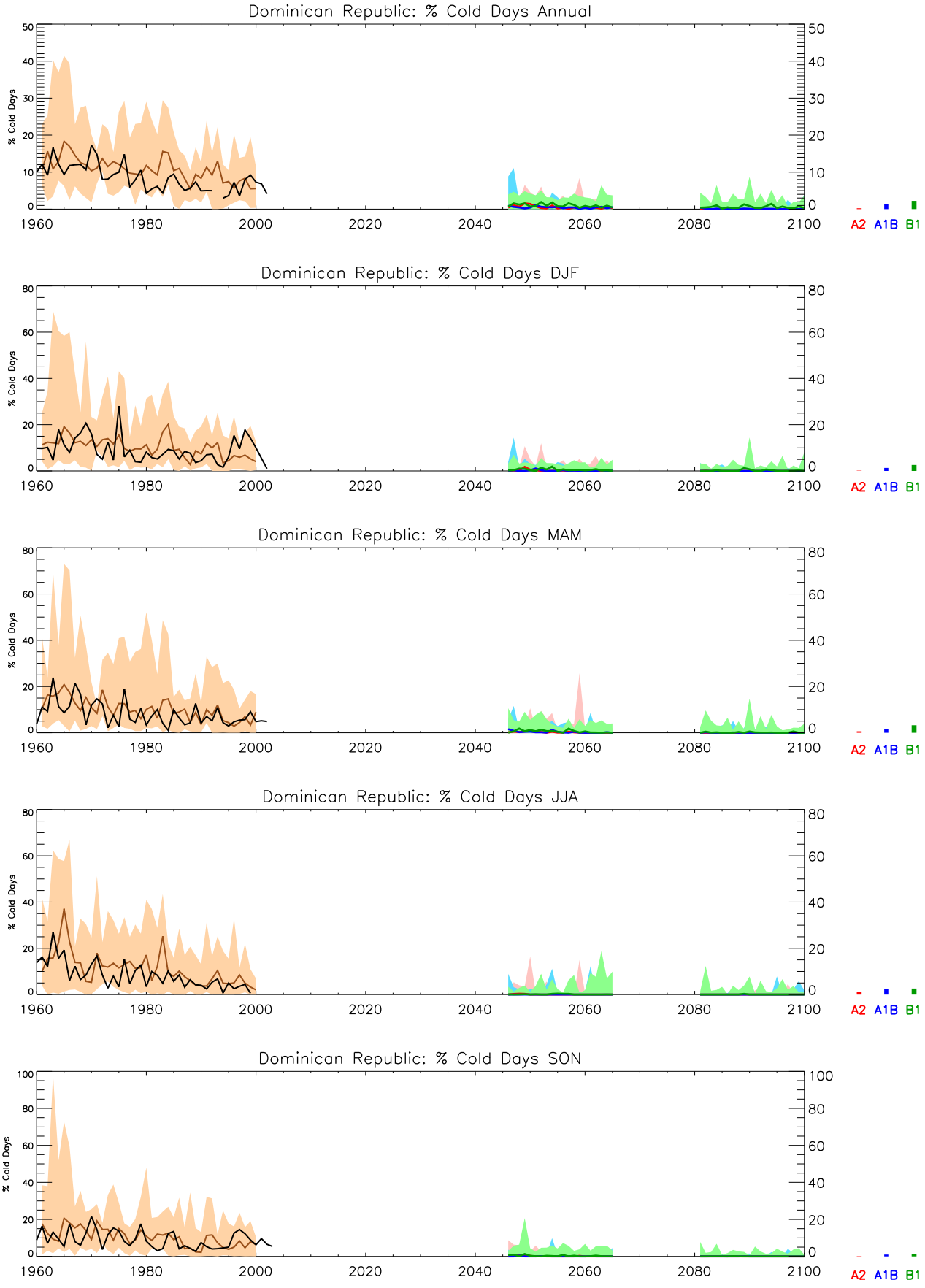

Figure 11: Trends in cold-day frequency for the recent past and projected future. See Figure 1 for details.

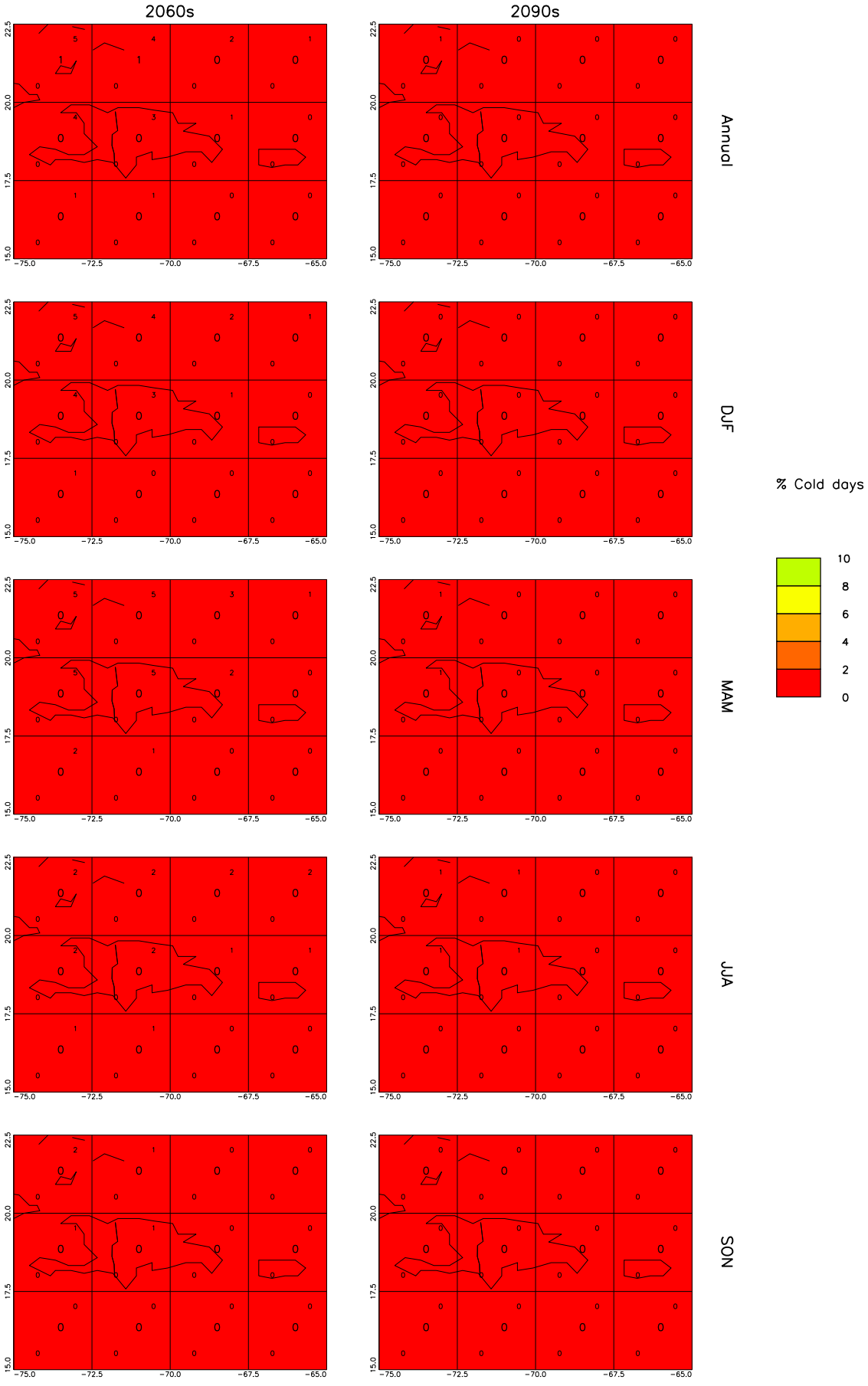

Figure 12: Spatial patterns of projected change in cold-day frequency for 10-year periods in the future under the SRES A2 scenario. See Figure 2 for details.

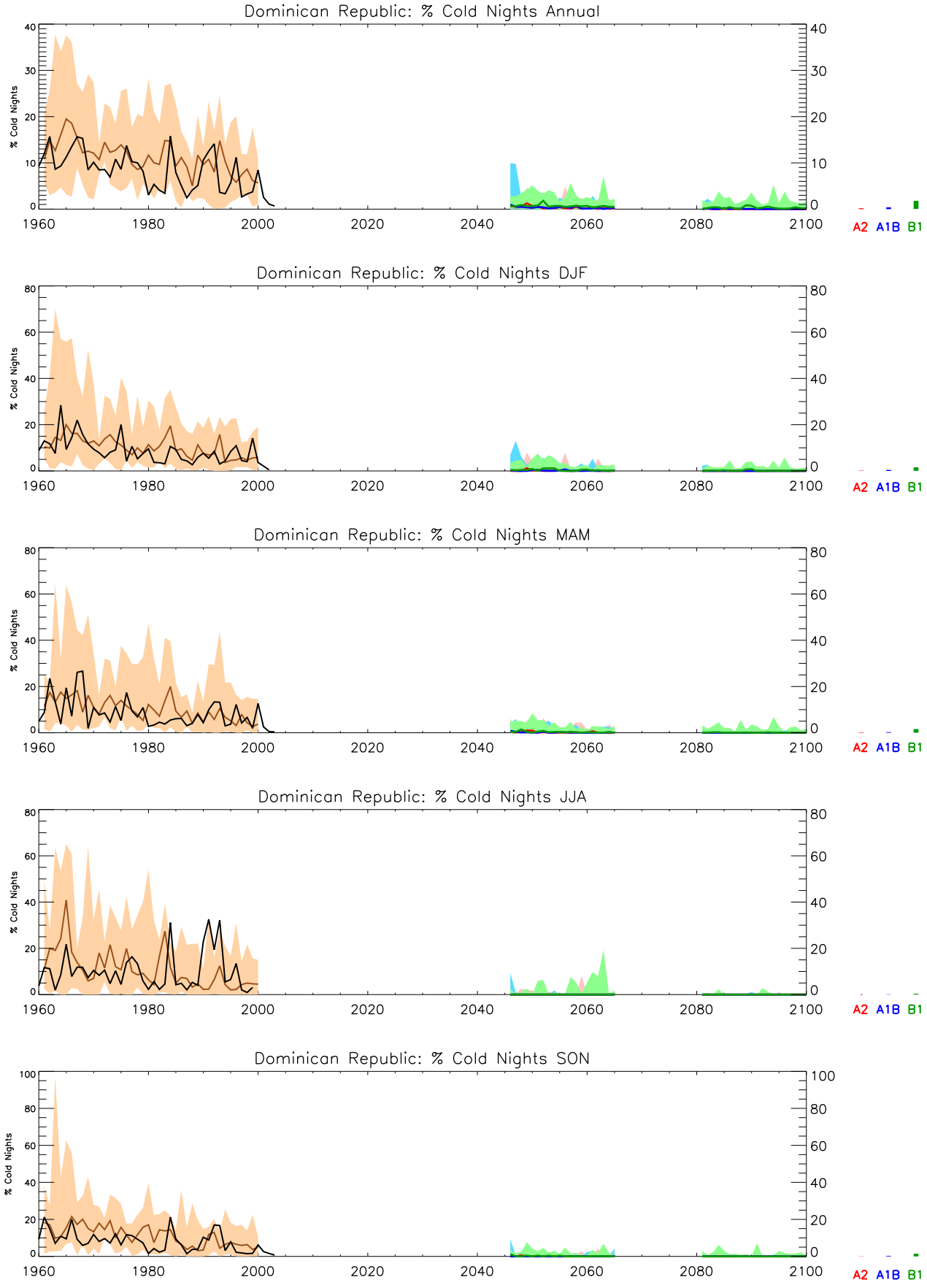

Figure 13: Trends in cold-night frequency for the recent past and projected future. See Figure 1 for details.

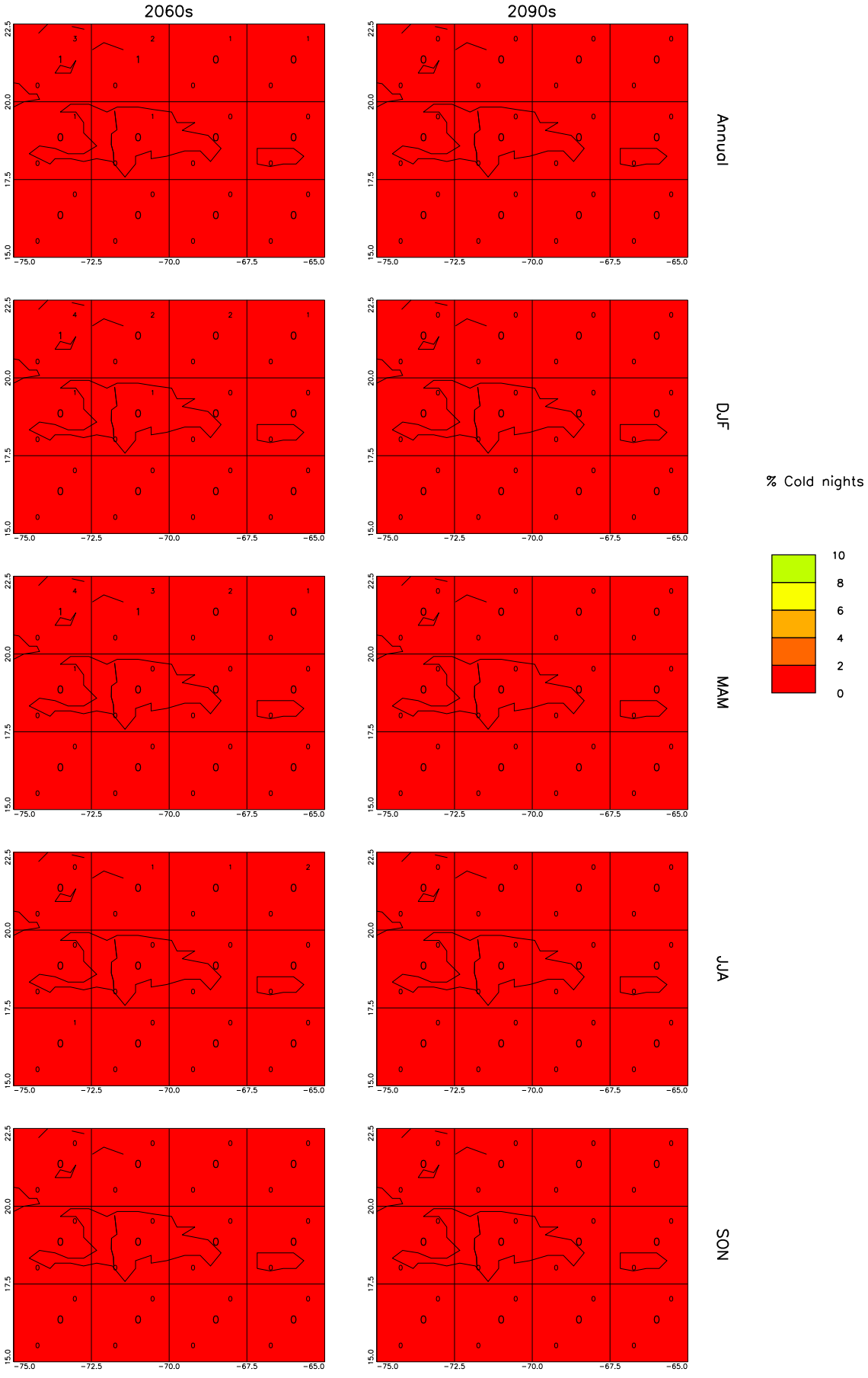

Figure 14: Spatial patterns of projected change in cold-night frequency for 10-year periods in the future under the SRES A2 scenario. See Figure 2 for details.

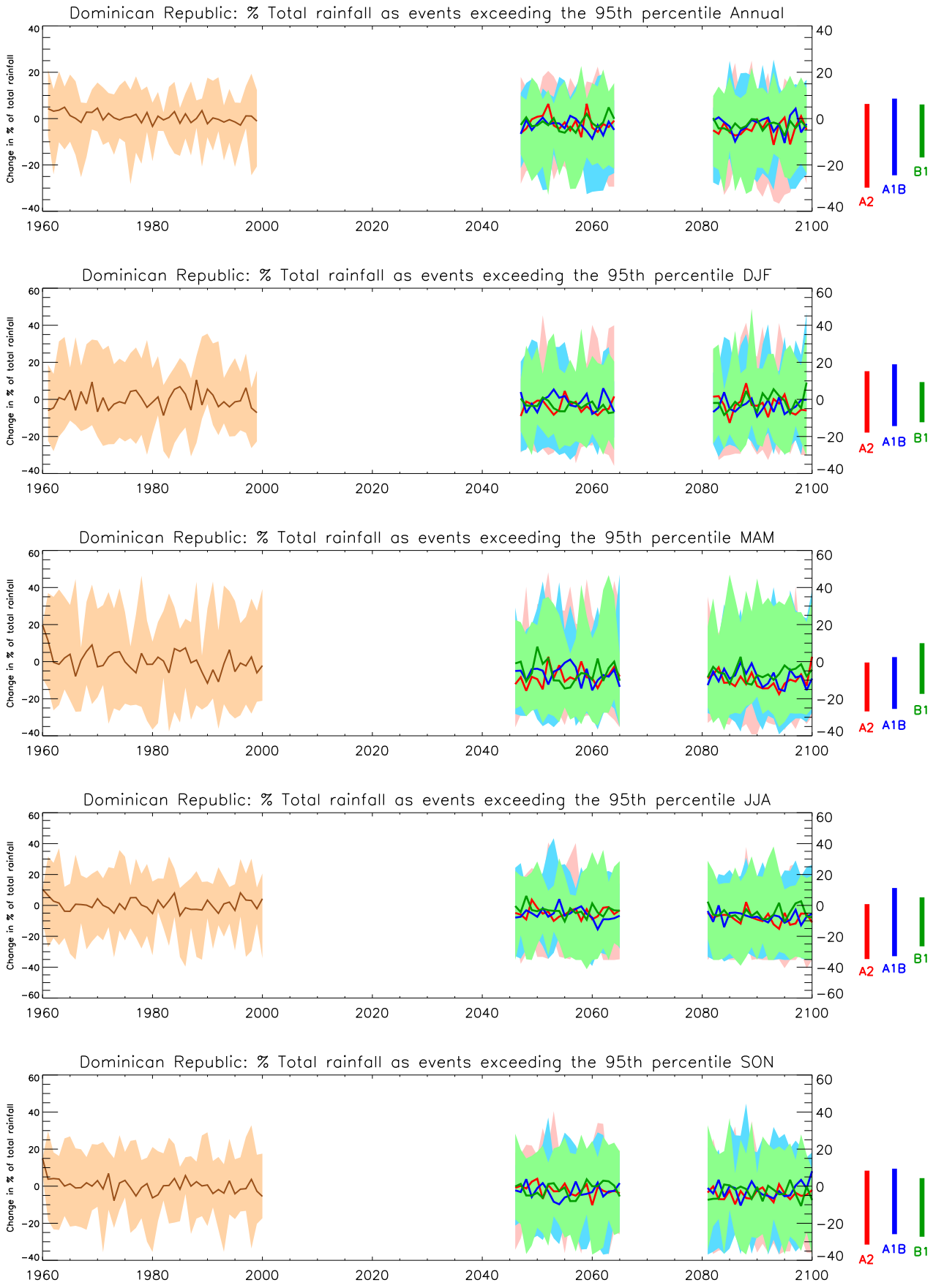

Figure 15: Trends in the proportion of precipitation falling in 'heavy' events for the recent past and projected future. All values shown are anomalies, relative to the 1970-1999 mean climate. See Figure 1 for details.

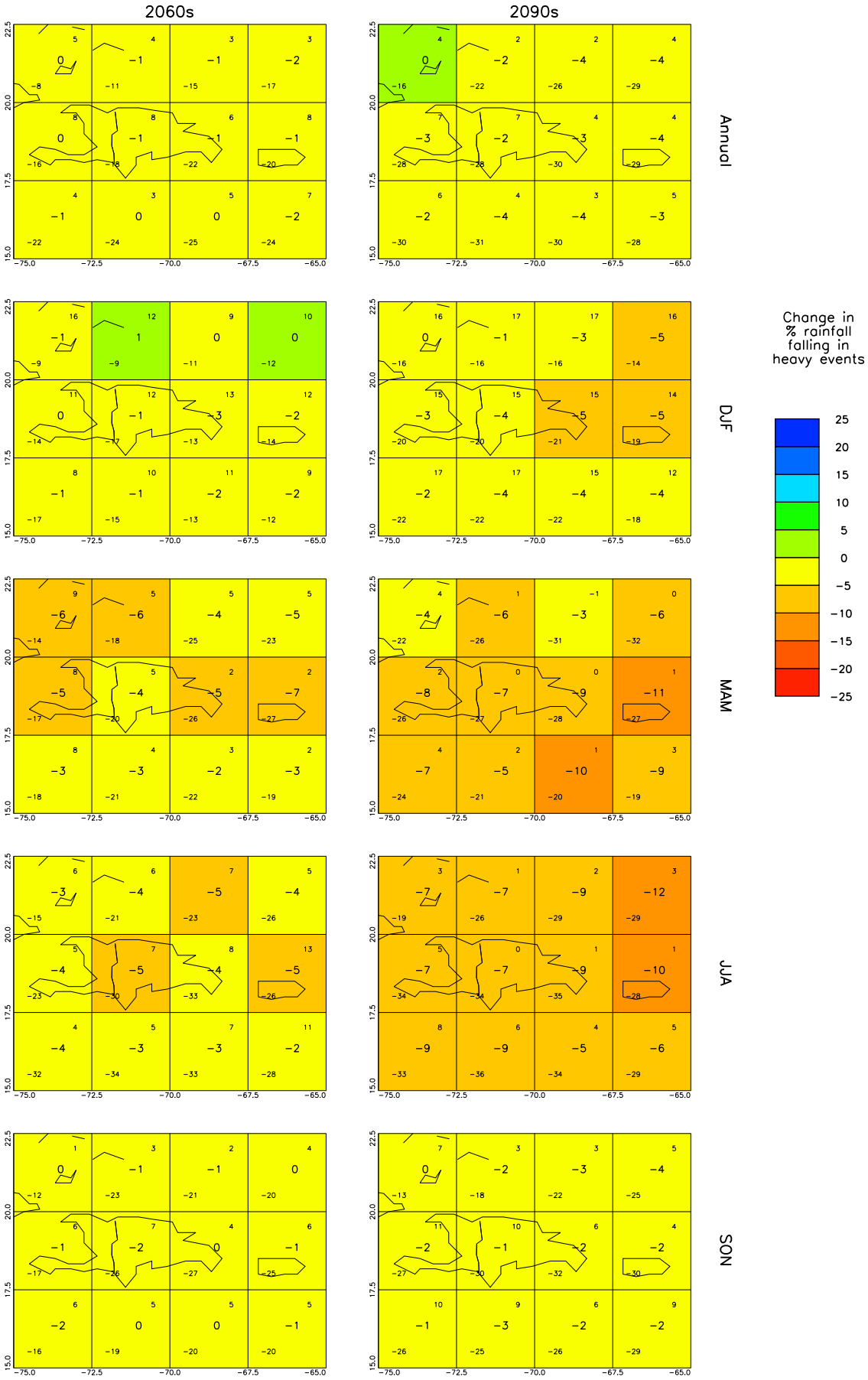

Figure 16: Spatial patterns of projected change in the proportion of precipitation falling in 'heavy' events for 10-year periods in the future under the SRES A2 scenario. All values are anomalies relative to the mean climate of 1970-1999. See Figure 2 for details.

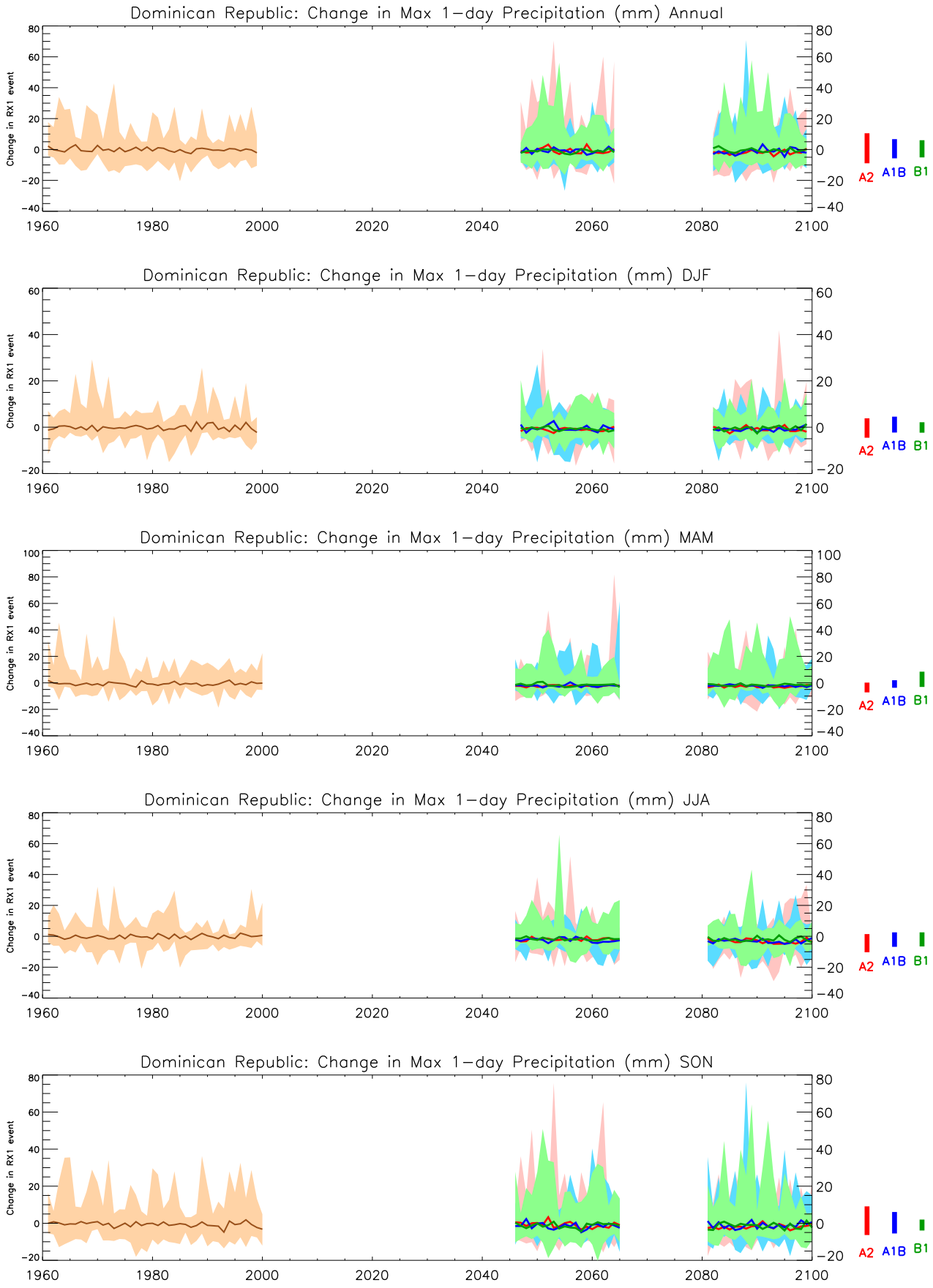

Figure 17: Trends in maximum 1-day rainfall for the recent past and projected future. All values shown are anomalies, relative to the 1970-1999 mean climate. See Figure 1 for details.

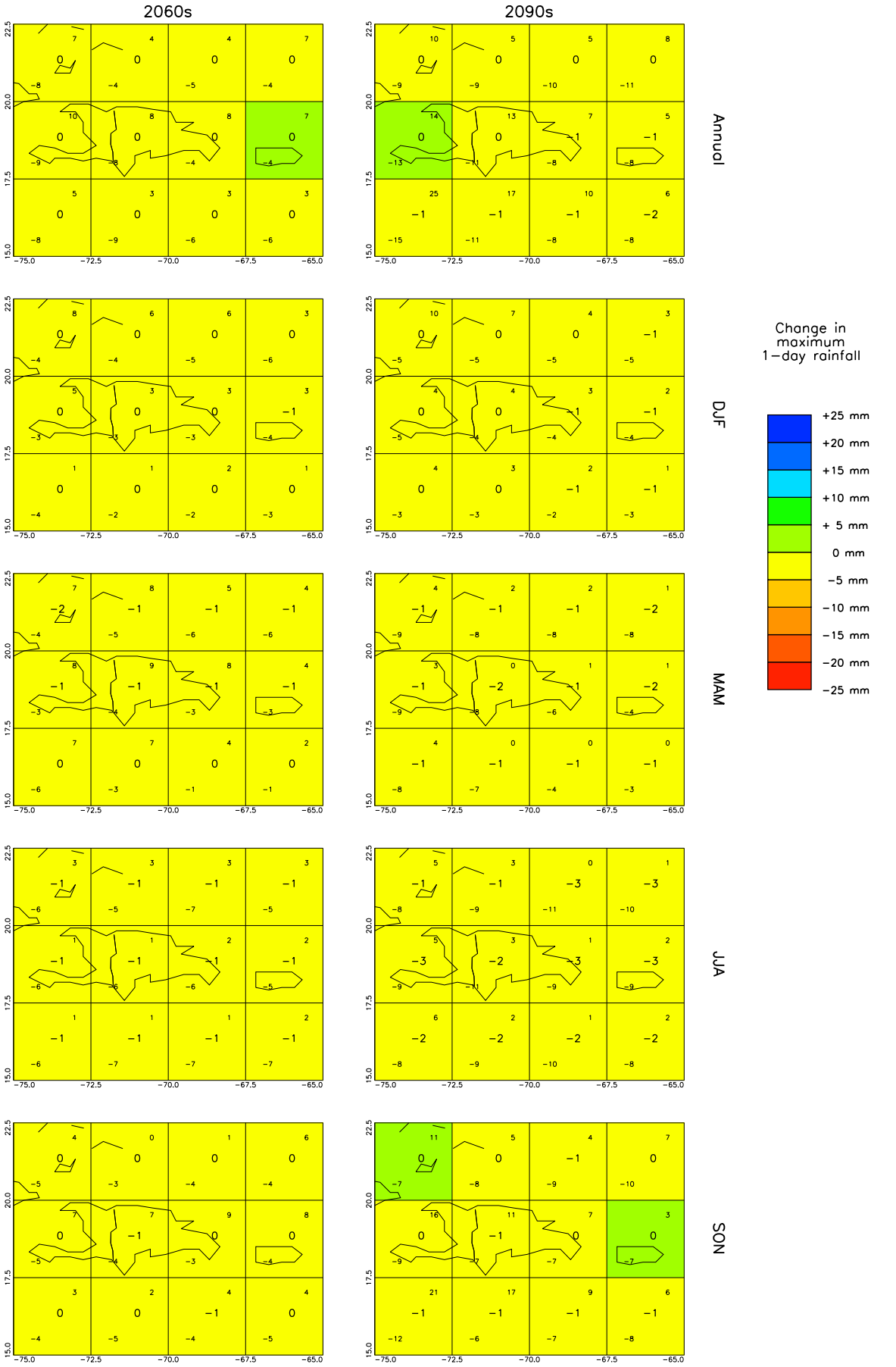

Figure 18: Spatial patterns of maximum 1-day rainfall for 10-year periods in the future under the SRES A2 scenario. All values are anomalies relative to the mean climate of 1970-1999. See Figure 2 for details.

Figure 19: Trends in maximum 5-day rainfall for the recent past and projected future. All values shown are anomalies, relative to the 1970-1999 mean climate. See Figure 1 for details.

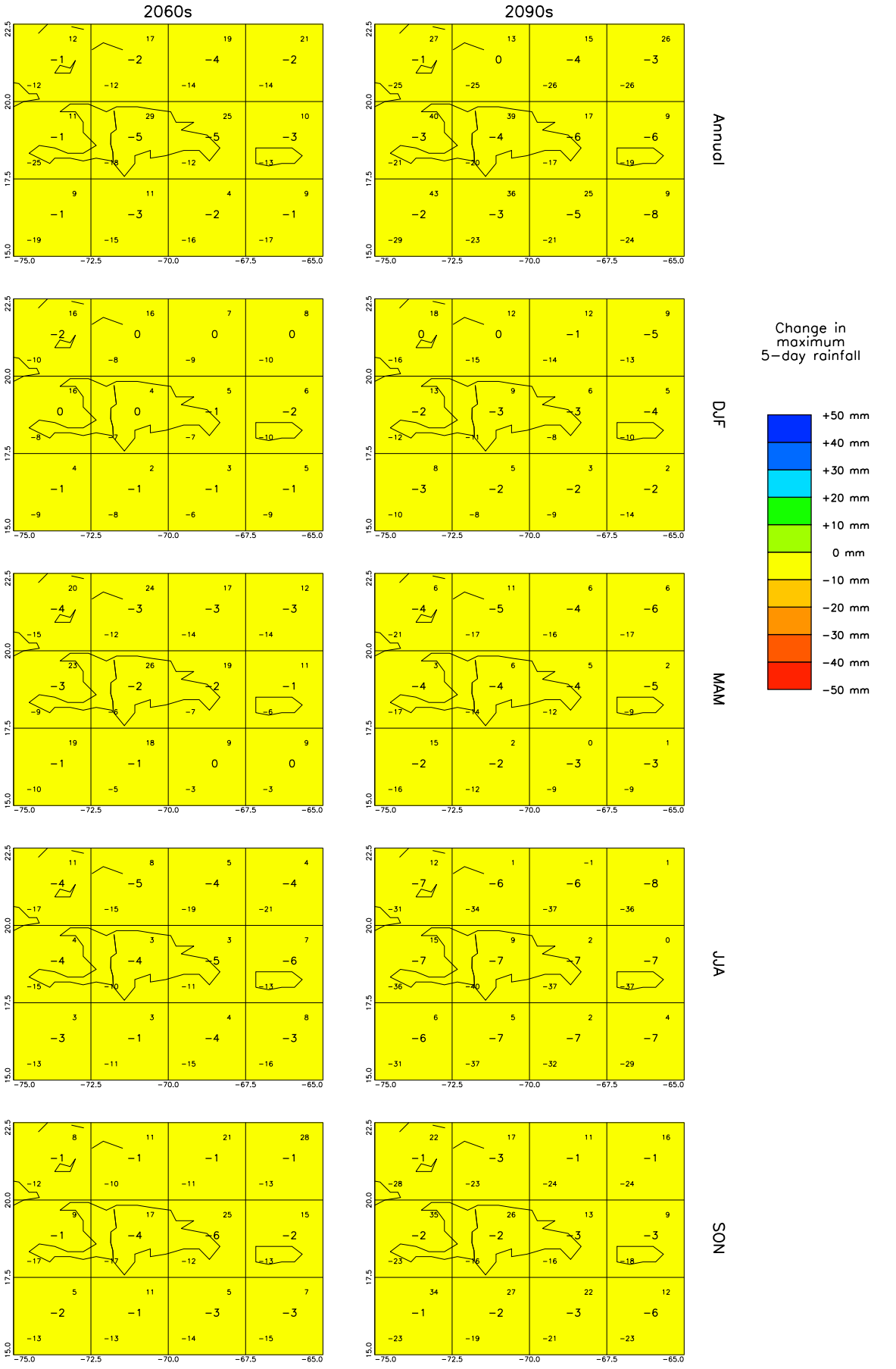

Figure 20: Spatial patterns of projected change in maximum 5-day rainfall for 10-year periods in the future under the SRES A2 scenario. All values are anomalies relative to the mean climate of 1970-1999. See Figure 2 for details.