

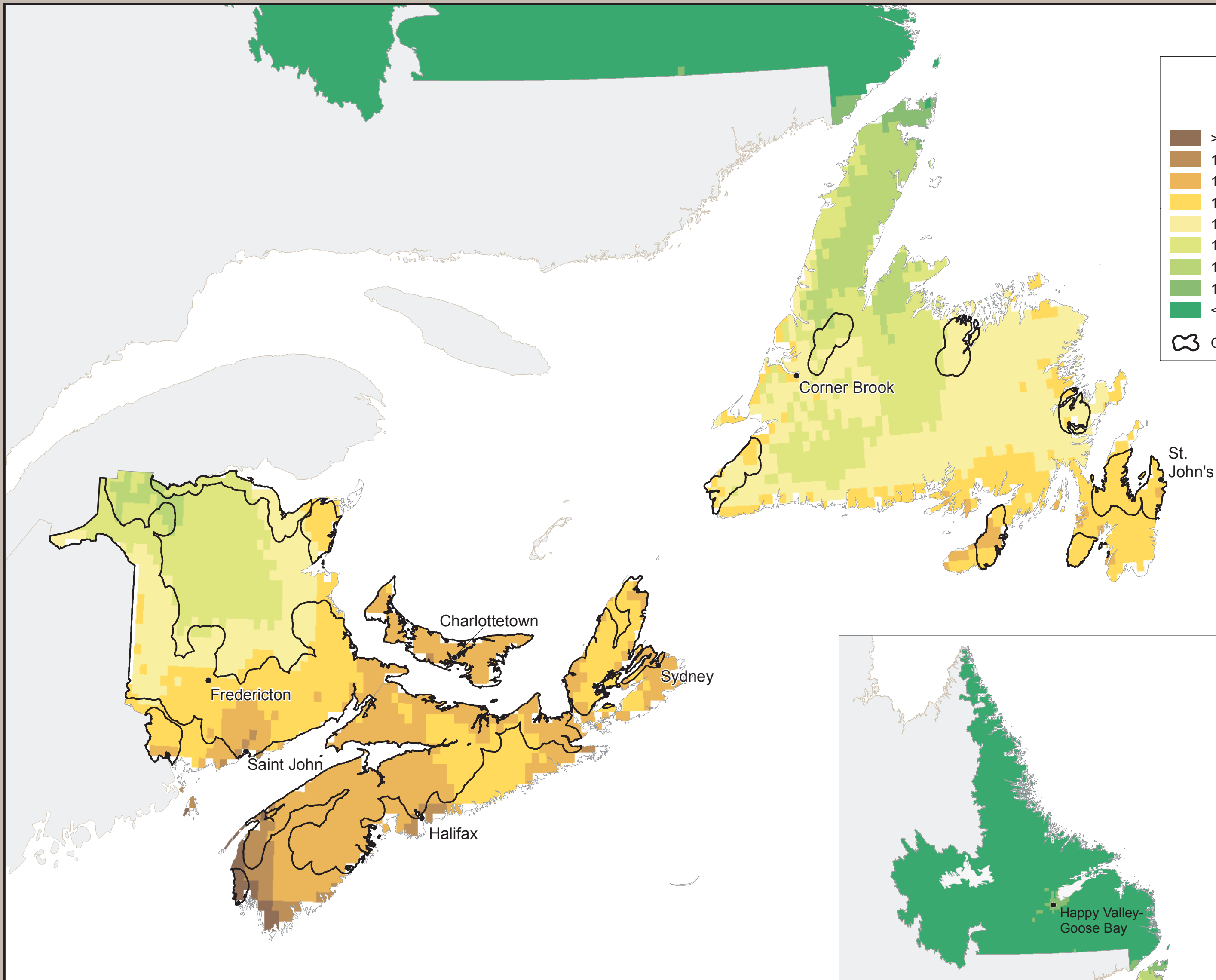


## Atlantic Region

### Length of Growing Season:

- Measured in days starting from the estimated seeding date (10 days after average daily temperature is above 5 °C) until fall frost (minimum daily temperature is 0 °C) or until October 31, whichever comes first.
- This is the same time period used to calculate effective growing degree days

Baseline: 1971 - 2000



Climate Change Scenario: 2010-2039

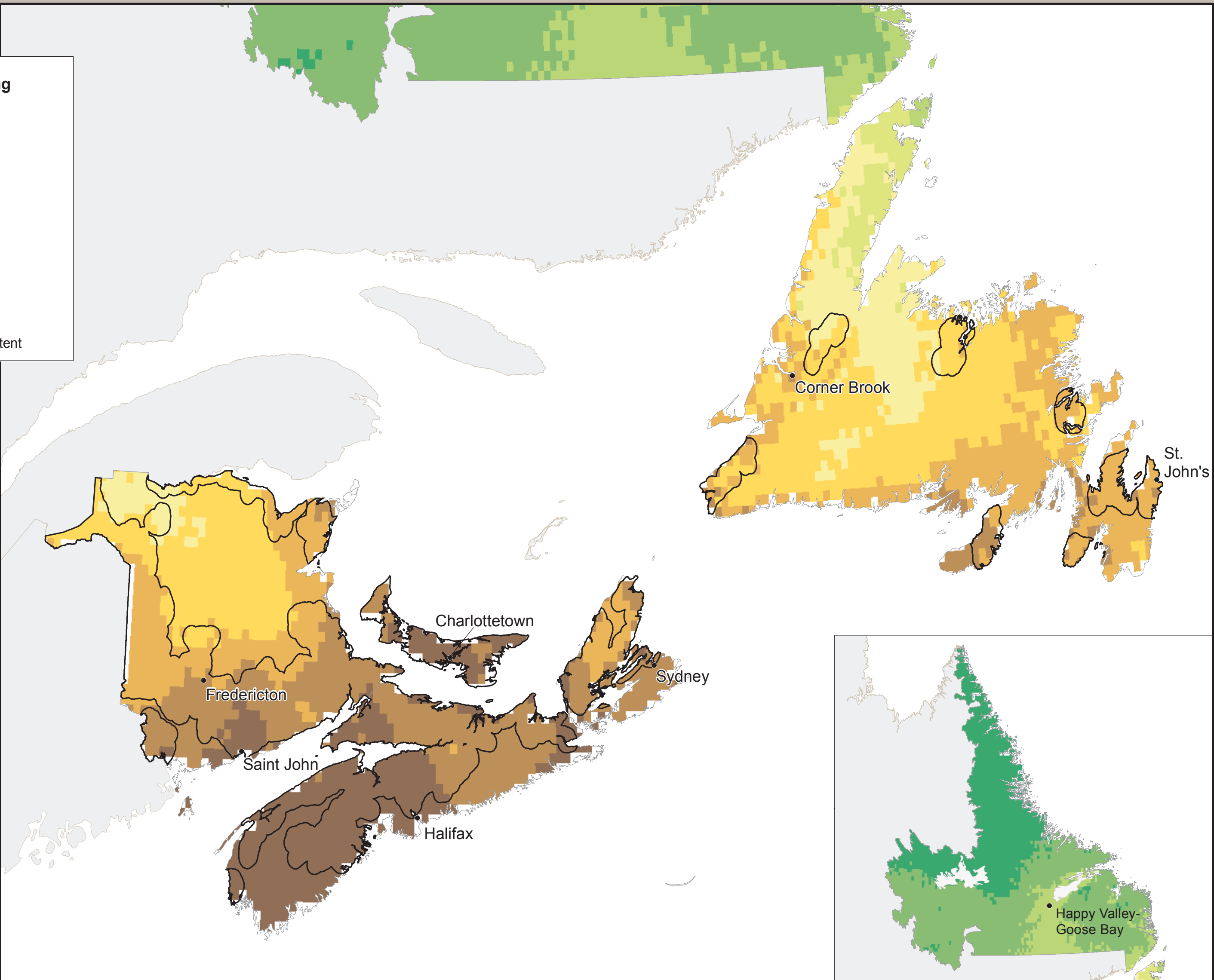


Table 1: Summary of Length of Growing Season comparing 1971-2000 to projected climate change in 2010-2039

Lengh of Growing Season (days)	1971 - 2000 Baseline	2010 - 2039 CGCM 3.1
	Percent of total area	
> 170	0.3	6.0
160 - 170	0.7	7.4
150 - 160	7.5	9.5
140 - 150	9.7	11.9
130 - 140	11.2	4.7
120 - 130	8.3	1.3
110 - 120	2.8	6.9
100 - 110	1.2	29.4
< 100	58.4	23.0

- The CGCM 3.1 model predicts a 1 to 2 degree Celsius increase in monthly average temperatures by 2010-2039, resulting in earlier crop seeding dates, and later fall frost dates.

#### Climate Data and Future Scenario:

- 30 year average monthly climate data (Tmax, Tmin, ppt) was used to calculate:
  - Effective Growing Degree Days,
  - Moisture Deficits (P-PE) and
  - Length of Growing Season (seeding date until fall frost).
- Baseline data (1971-2000) provided by Natural Resources Canada (Great Lakes Forestry Centre).
- Climate Change Scenario (2010-2039)
  - Global Climate Change Model (GCM) used: Canada's Coupled Global Climate Model (CGCM3.1) developed by the Canadian Centre for Climate Modelling and Analysis.
  - Climate data was spatially interpolated using ANUSPLIN software (2.5° grid interpolated to ~10km grid).

#### Limitations:

- Represents only a single climate change model result, using the A2 climate change scenario from the Intergovernmental Panel on Climate Change (IPCC).
- Seasonal and inter-seasonal variability in the 30 year average monthly climate data was not considered (e.g. extreme events such as drought and excess spring moisture).