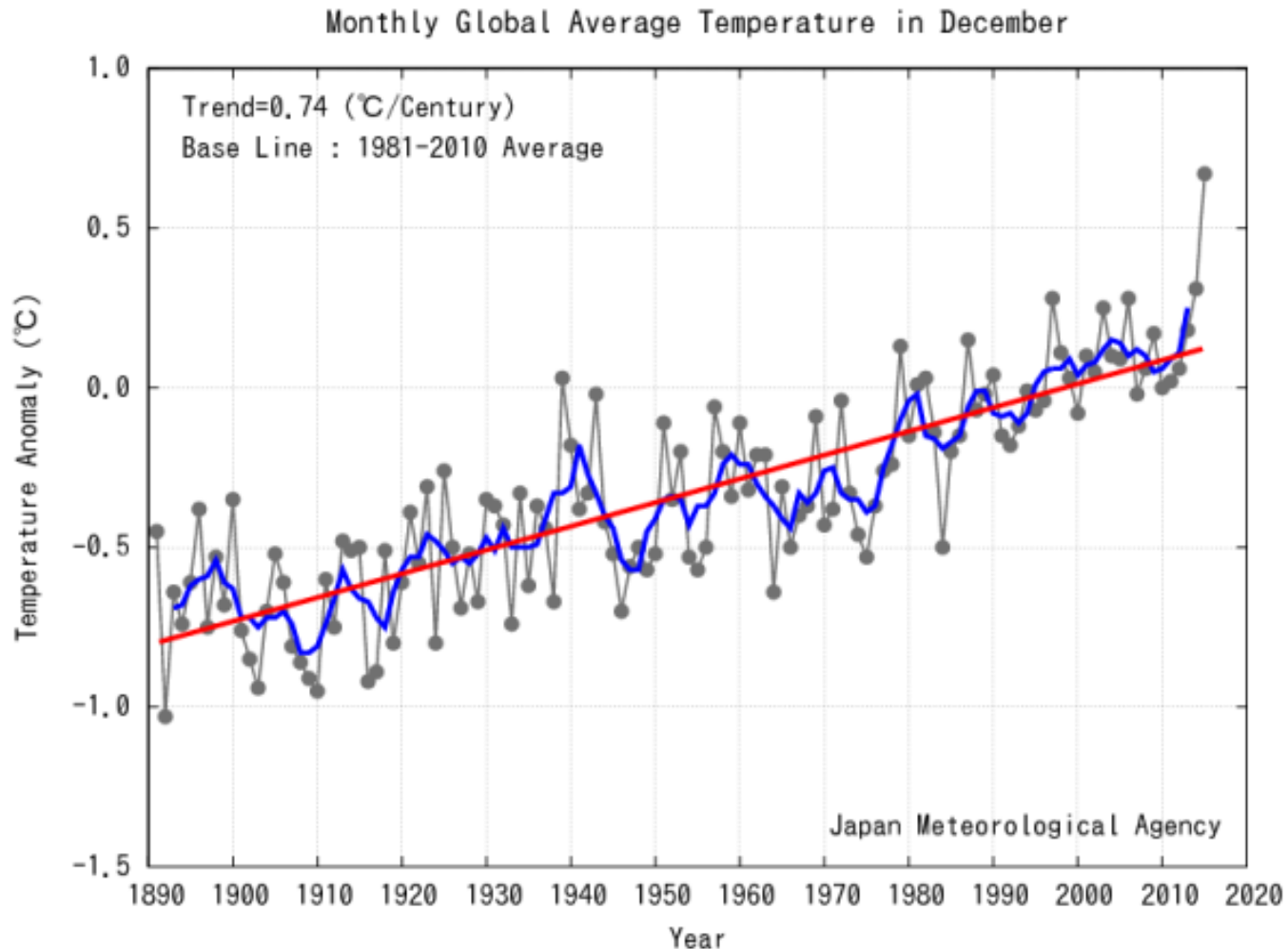


Impacts of Climate Change on Physical Systems

Graph 1: Temperature



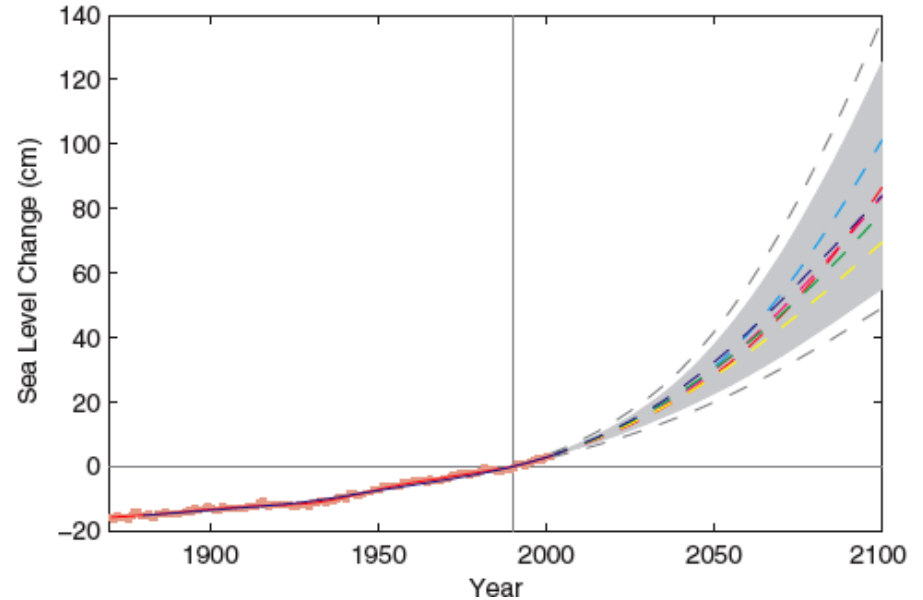
Anomalies are deviation from baseline (1981-2010 Average).

The black thin line indicates surface temperature anomaly of each year.

The blue line indicates their 5-year running mean.

The red line indicates the long-term linear trend.

Graph 2: Sea Level

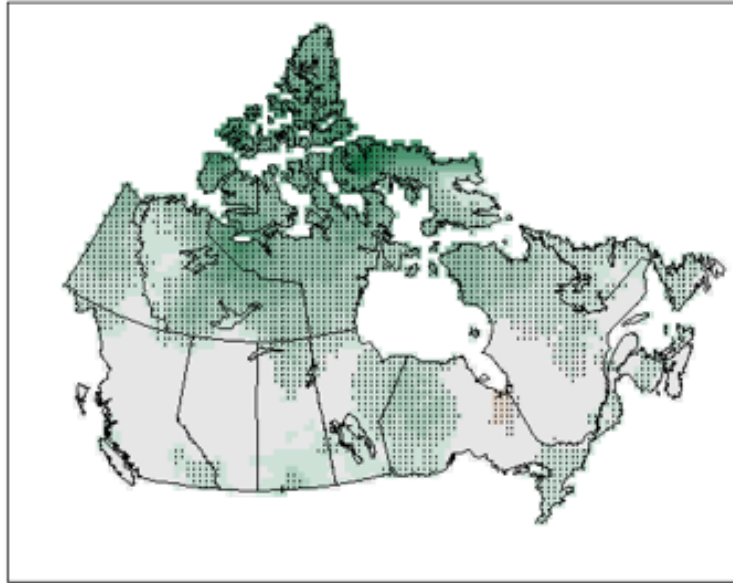


Projected global sea level change. The colored lines represent different models, based on global observations.

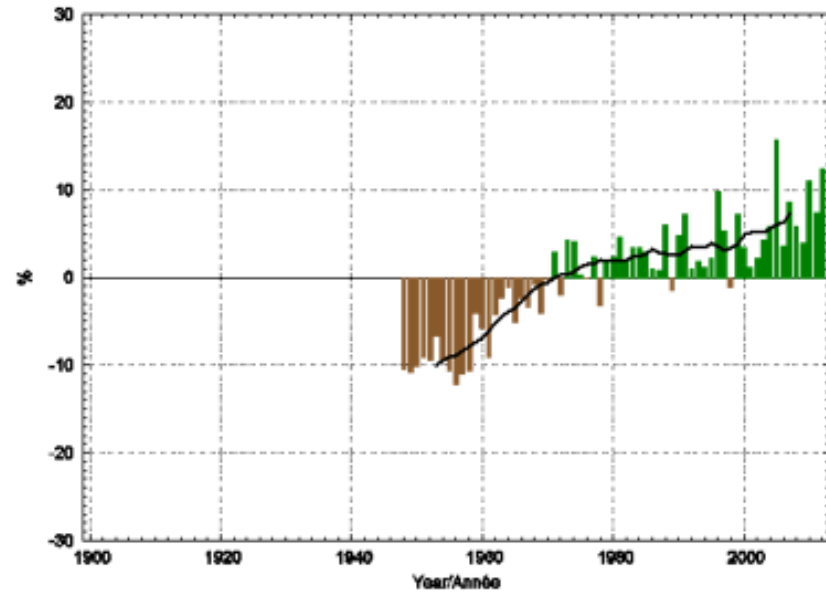
1 m = 100 cm = 1000 mm

Graph 3: Severe Weather

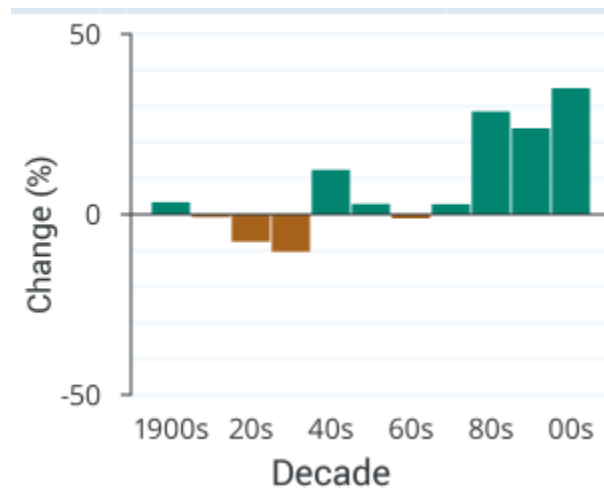
Annual total precipitation trends 1948-2012



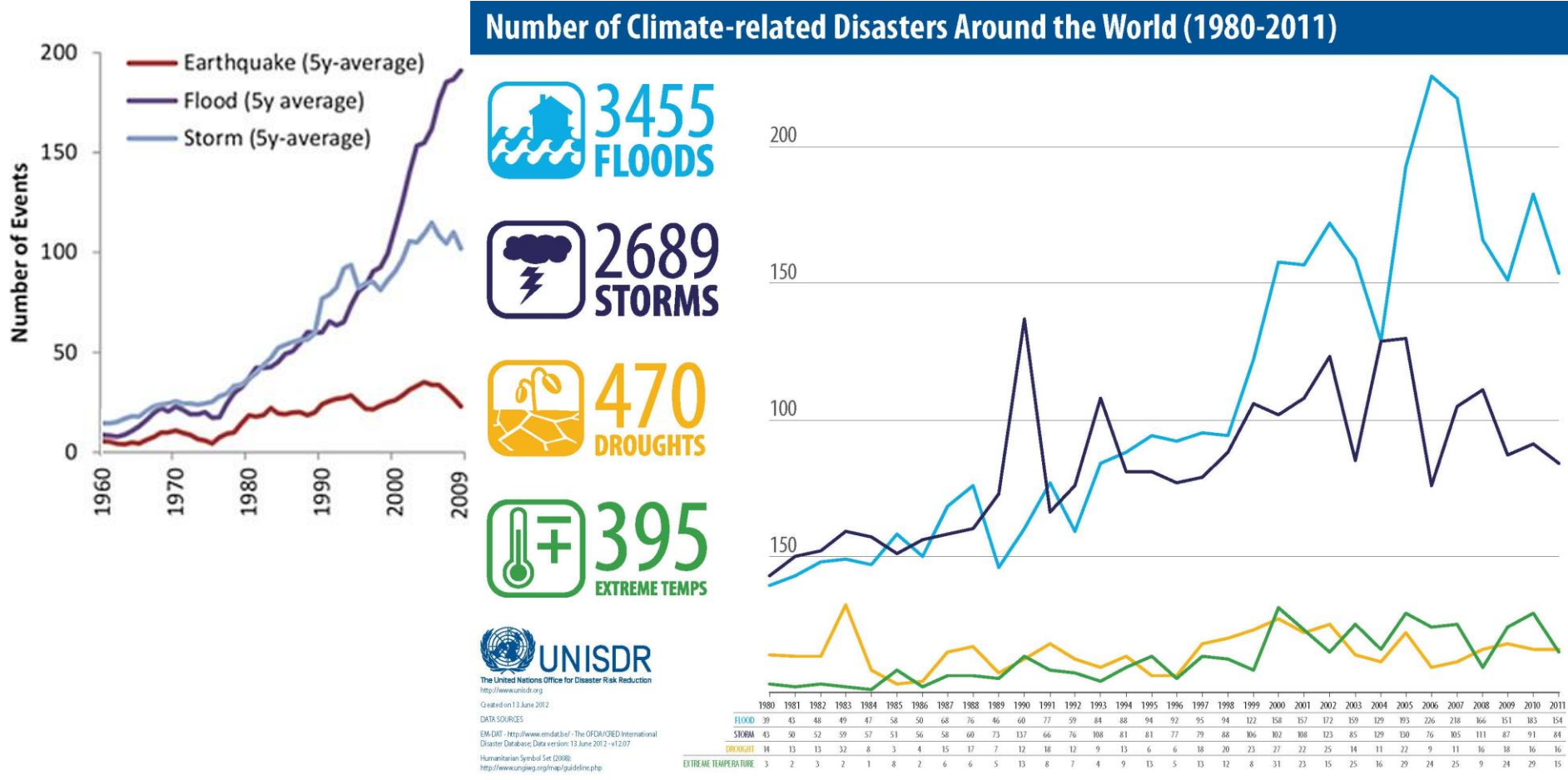
Annual total precipitation anomalies Canada



% change in number of severe rainfall

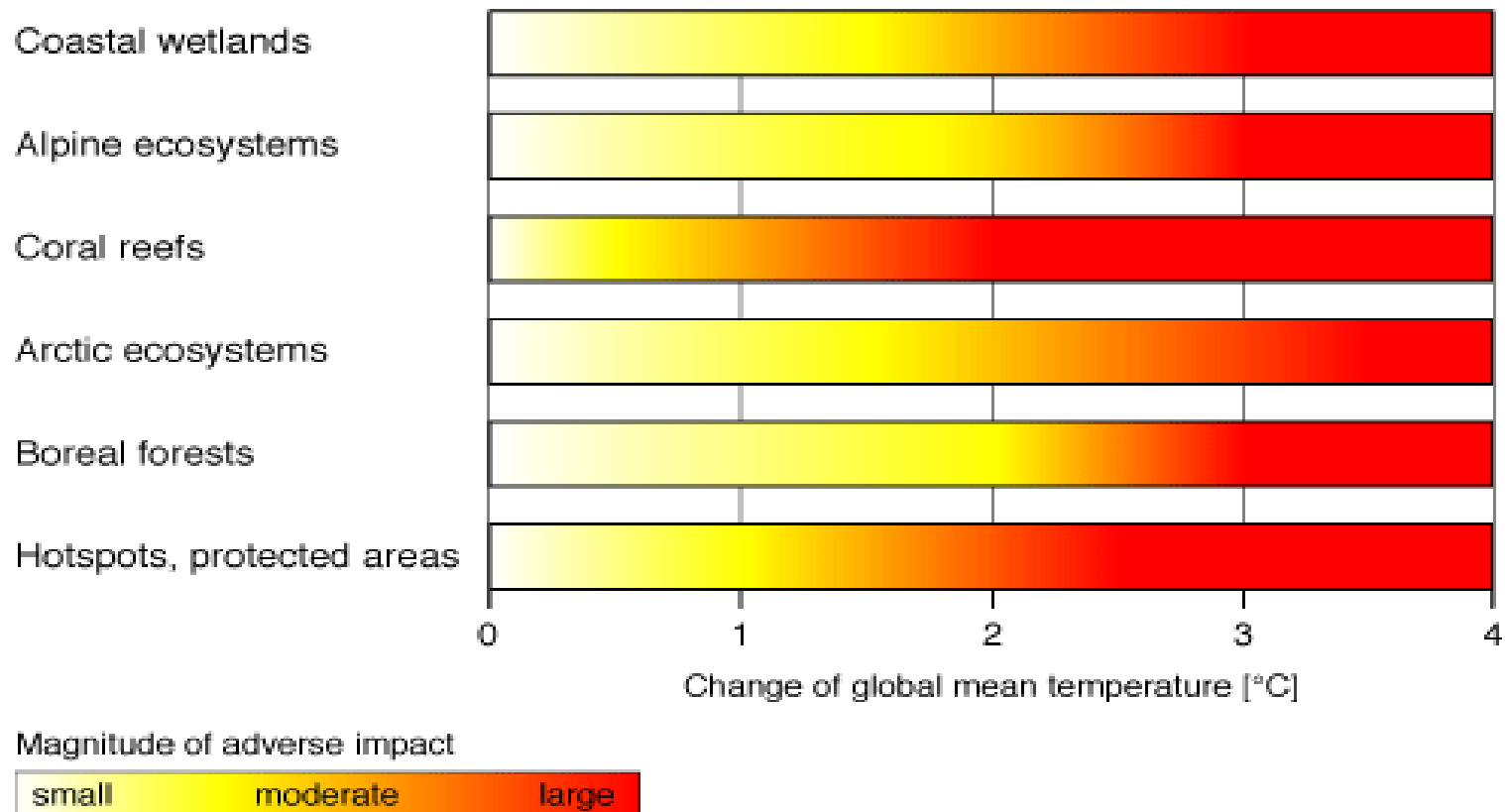


Graph 4: Severe Weather



Climate Change in Biological Systems

Graph 5: Impact of Climate Change on Natural Ecosystems



Coastal Wetland: low lying, marsh, swamp **Alpine:** cold mountaintops
Coral Reefs: ridge of coral near water (marine) **Arctic:** near north pole
Boreal Forests: northern forests (sub-arctic) **Hotspots:** rain forests

Image from: http://www.wbgu.de/wbgu_sn2003_voll_engl.html

Graph 6: Impact of Climate Change on Crop Yield (Food Production)

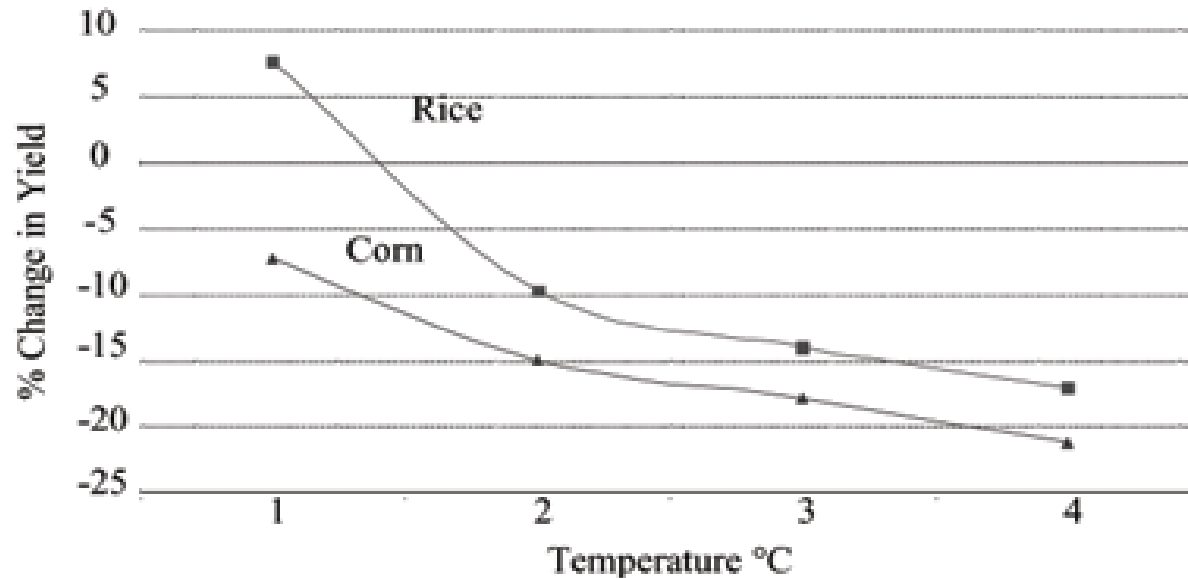


Figure 2 - Corn and rice yields versus temperature increase in the tropics averaged across 13 crop modeling studies. All studies assumed a positive change in precipitation. CO₂ direct effects were included in all studies. Adapted from Easterling & Apps (2005).

Graph 7: Climate Change and Extreme Events

Forest area burned and number of forest fires in Canada, 2005–2015

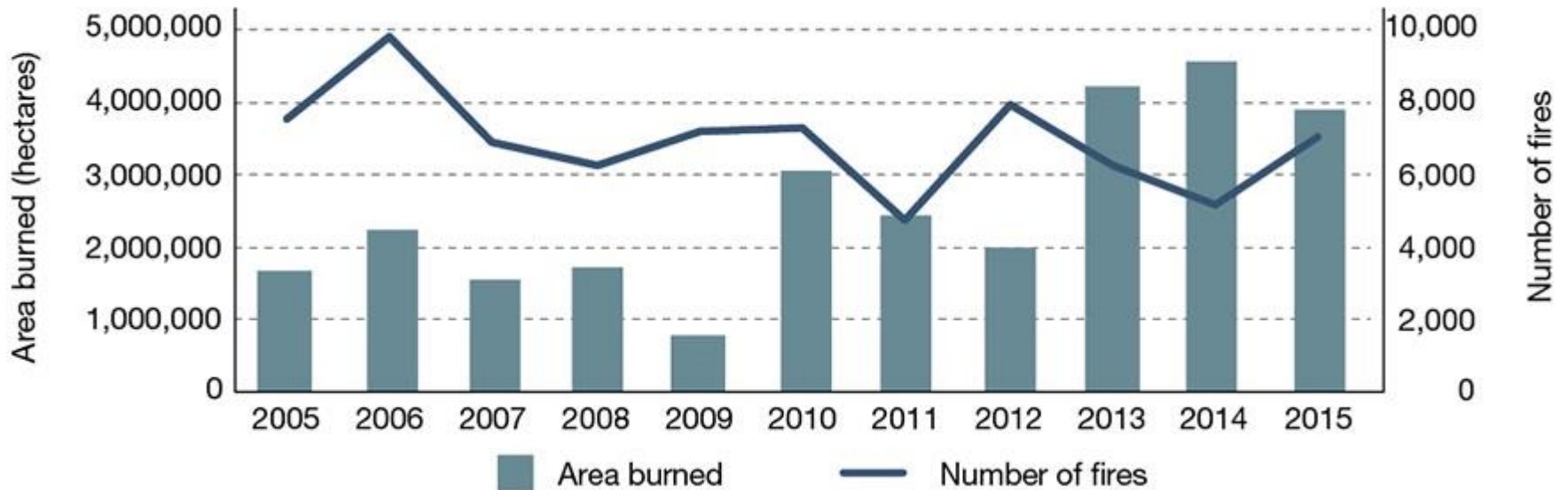


Diagram 8: Impact of Climate Change on Asthma

