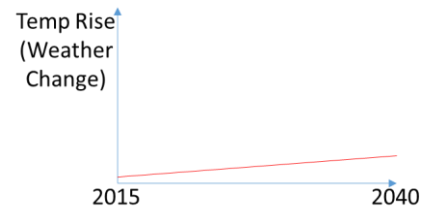


Global Climate System Scenarios 2015 - 2040

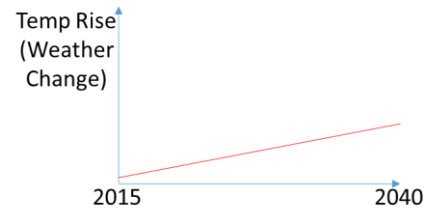
C1: Gradual Change

The climate system continues to respond gradually and in a linear manner to increasing GHGs emissions. The worst scenarios of the climate models do not happen during this time period. The timeframes when destructive changes occur are centuries, not a couple of decades.



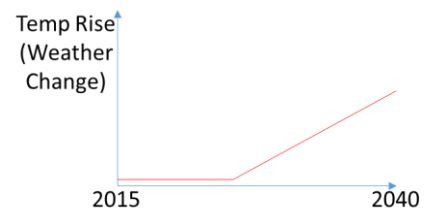
C2: Faster Change

The climate system responds in a linear manner to accumulating atmospheric GHGs but with a faster rate of temperature increase compared to the previous 25 years.



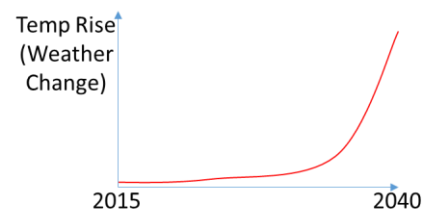
C3: The Pause Ends

A variety of factors (e.g., heat storage in the deeper ocean) hold back serious warming for a while. But that ends, and warming starts to go up very fast, so there is more rapid melting of ice, etc. Ice core data says that abrupt changes on the order of a decade have happened before and it seems we are in the middle of a new episode of abrupt change.



C4: Non-Linear Change

There are many positive feedback loops in the climate system (i.e. albedo change in the arctic, permafrost melting releases large amounts of methane). As multiple tipping points are reached, there are non-linear and irreversible changes. We push the climate system out of its delicately balanced stable point.



C5: Unpredictable

The global climate system defies down-scale prediction. There are rapid swings in local weather. It's not just warmer and wetter. It's all over the place. In some places it's cooler and wetter or warmer and dryer. Floods and droughts happen in the same year in some places. Each year significantly differs from the next.

