The Paris Agreement: We can do (and have done) better

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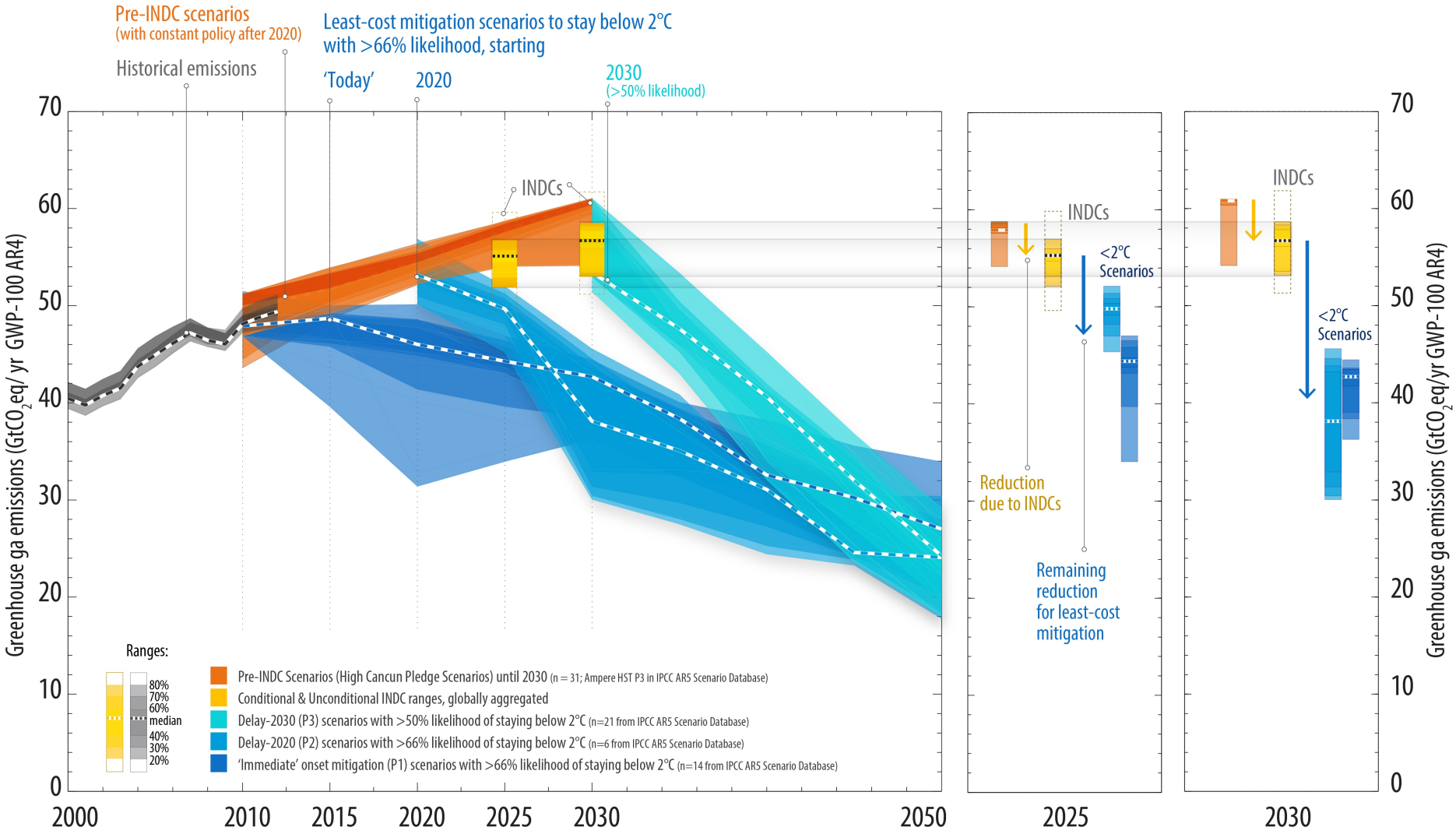
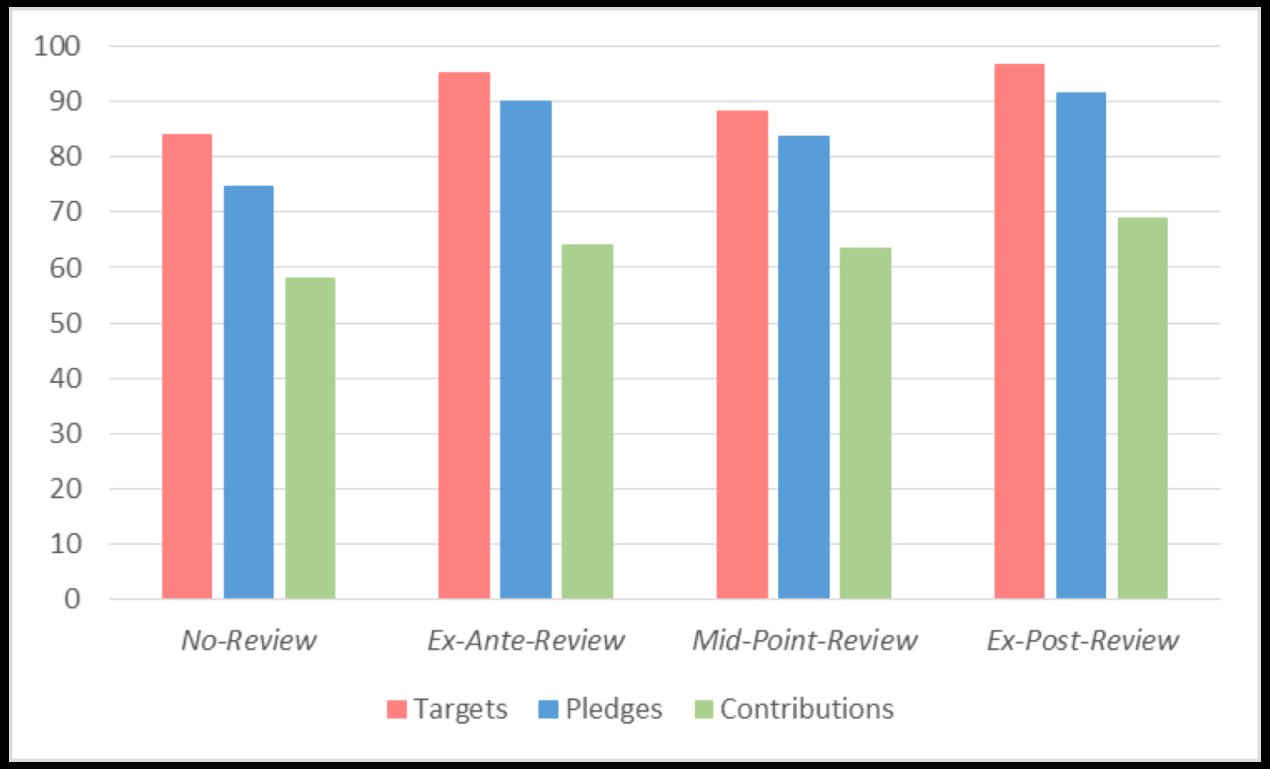
Will the pledges, if met, achieve the collective goal?



Will the pledges be met?

FC outcome > Targets > Pledges > Contributions > NC outcome



Review causes:

1. Targets to rise directly.
2. Pledges to increase indirectly.
3. Contributions don't increase.

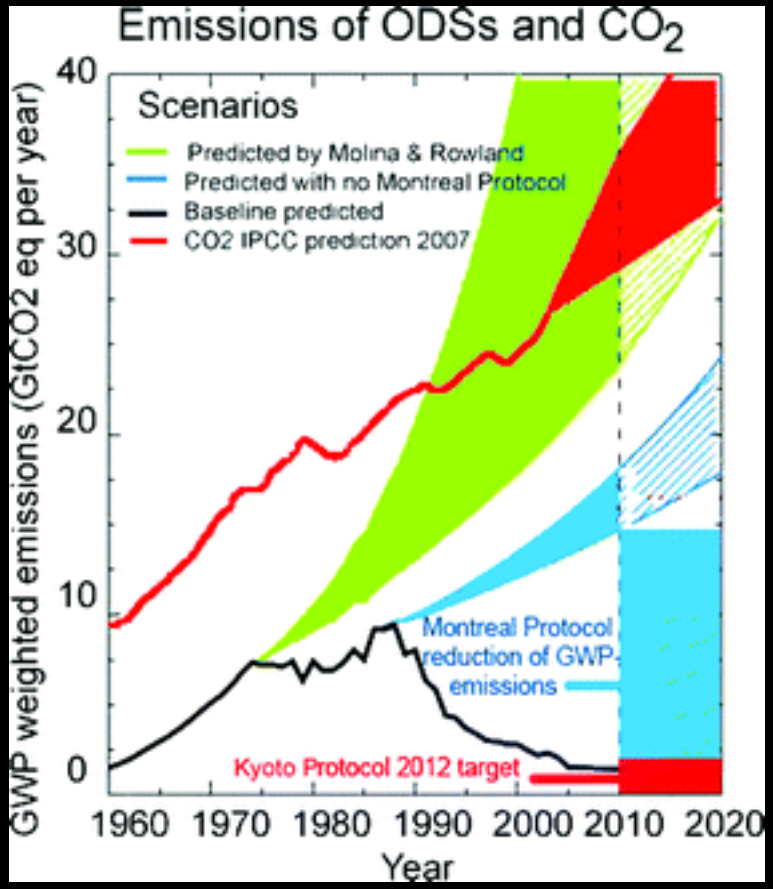
S. Barrett and A. Dannenberg, "An Experimental Investigation into 'Pledge and Review' in Climate Negotiations," *Climatic Change* 2016.

What's the problem?

- Over and over again, negotiators have treated climate as a prisoners' dilemma, relying on voluntary contributions.
- The international system is very bad at enforcement.
- It is very good at coordination.
- Why not ask the international system to do what it's good at doing?

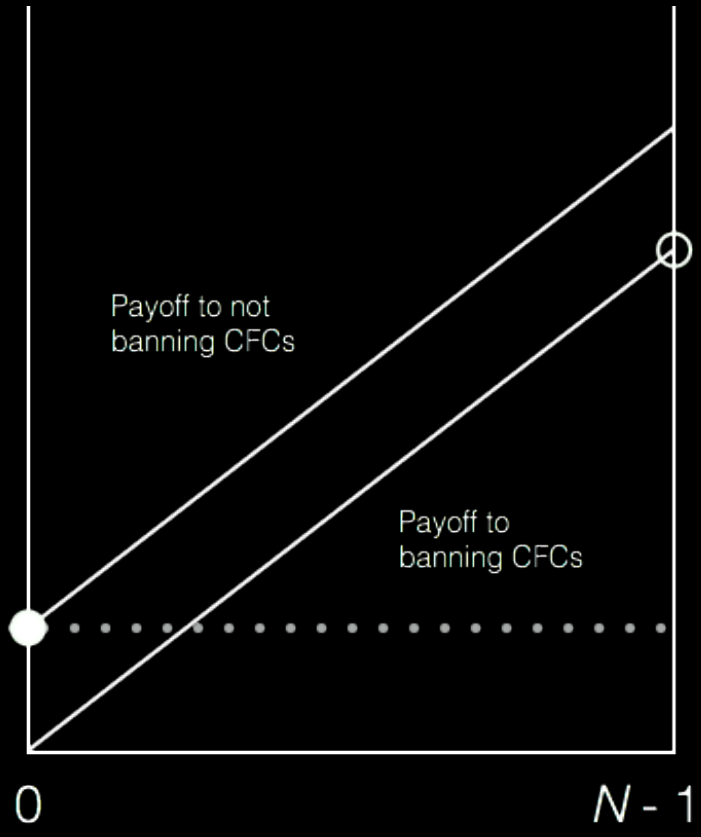
The best climate agreement so far

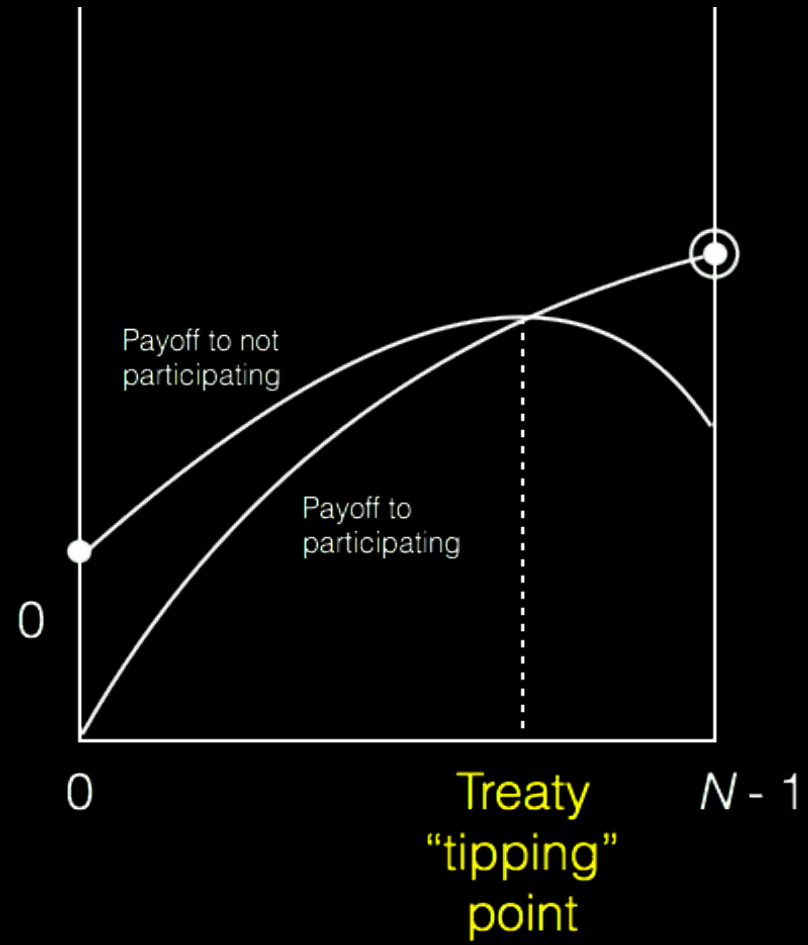
The Montreal Protocol has been shown to have reduced GHG emissions 4-5× as much as Kyoto tried, but failed, to achieve.



GJM Velders GJM et al. (2007) The importance of the Montreal Protocol in protecting climate. *Proceedings of the National Academy of Sciences* 104(12): 4814-4819.

Why? Montreal coordinates behavior





How to do better?

- Negotiate coordination treaties *alongside* the Paris Agreement.
- We've already made a start:
  - Amendment of MP for HFCs.
  - Agreement by ICAO for new technical standards.
- Other opportunities? Examples:
  - Ocean shipping.
  - Aluminum manufacture.
  - Electric cars.
  - Electricity transmission.

Finally, short of a “miracle”…

- Backstop
  - Carbon geoengineering; coordination in financing and in choosing scale.
- Fallback
  - Climate geoengineering; coordination in deployment.