
*Delivering on the Paris Agreement: A demand-driven,
integrated assessment modelling approach*



PARIS REINFORCE

LOW-CARBON TRANSITIONS IN AFRICA

Enhancing climate policy through co-creation

October 28th 2020

Online

Dr Ajay Gambhir (Grantham Institute, Imperial College London)



WHAT WE ARE TRYING TO ACHIEVE GLOBALLY – IMPACTS OF CLIMATE CHANGE

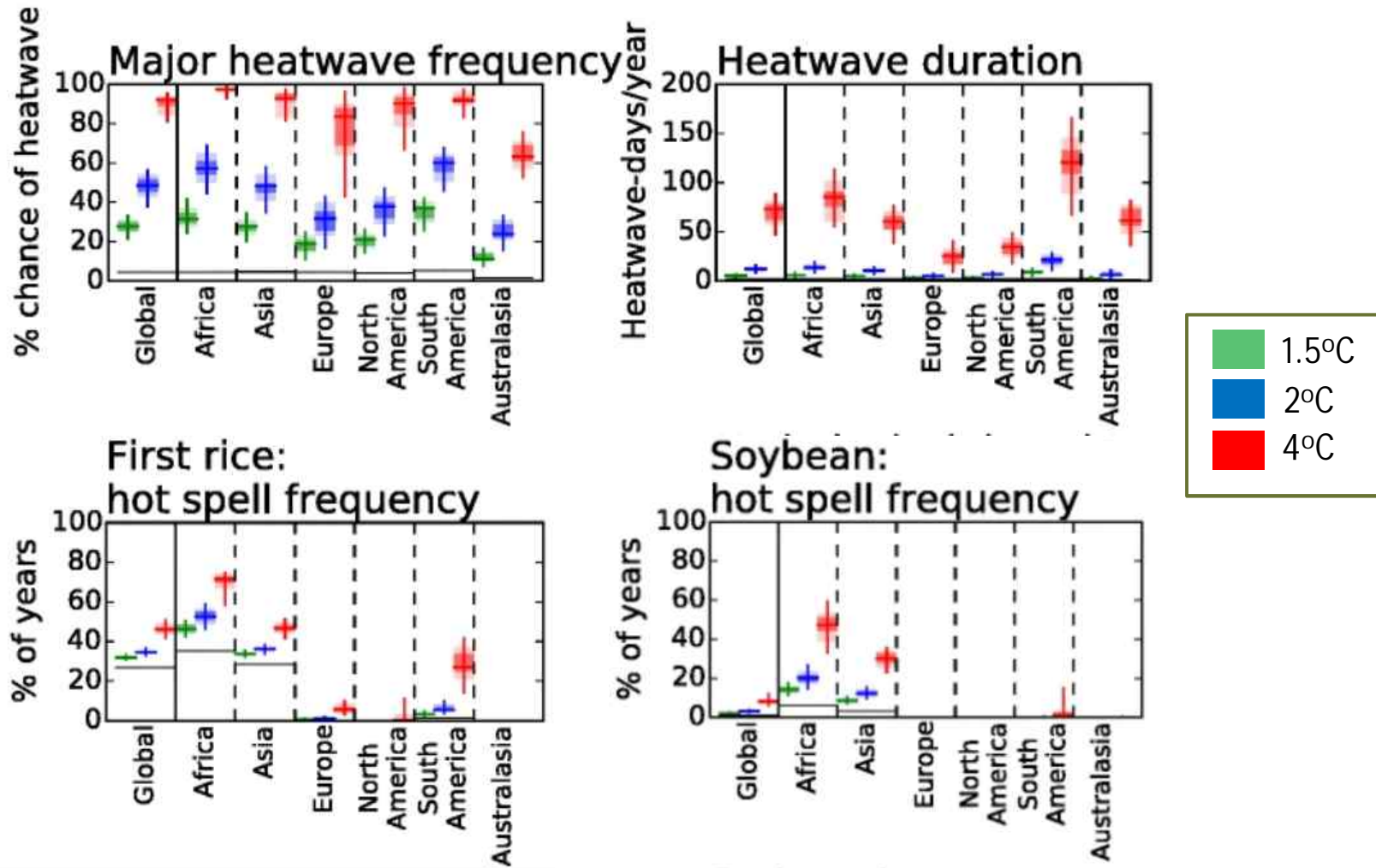


	1981-2010				
Chance of:	0.61°C	1.5°C	2°C		4°C
Major heatwave	5%	28%	49%		92%
Agricultural drought	9%	24%	34%		61%
50-yr river flood	2%	2%	3%		5%
Maize heat damage	5%	12%	18%		50%

Source: Arnell, N. et al. (2019) Global and regional impacts of climate change at different levels of global temperature increase



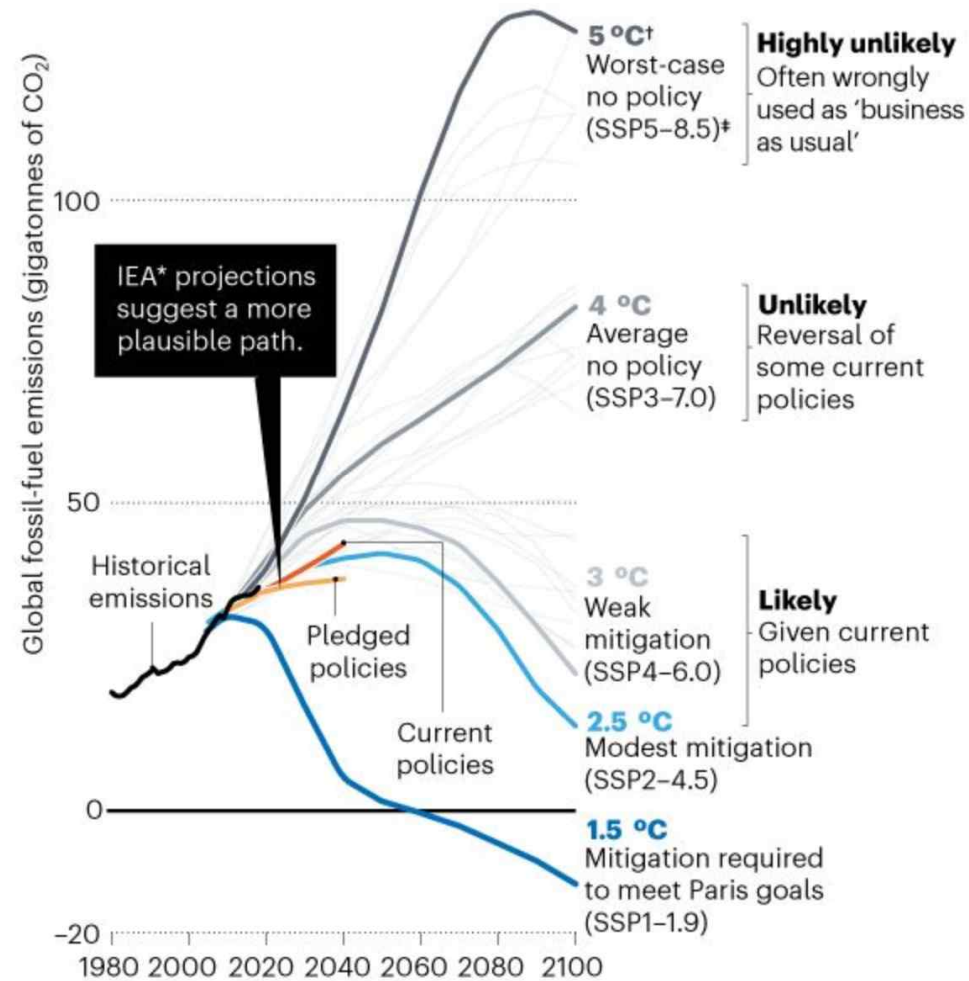
AFRICA WILL FEEL SOME IMPACTS WORSE THAN OTHER REGIONS



Source: Arnell, N. et al. (2019) Global and regional impacts of climate change at different levels of global temperature increase



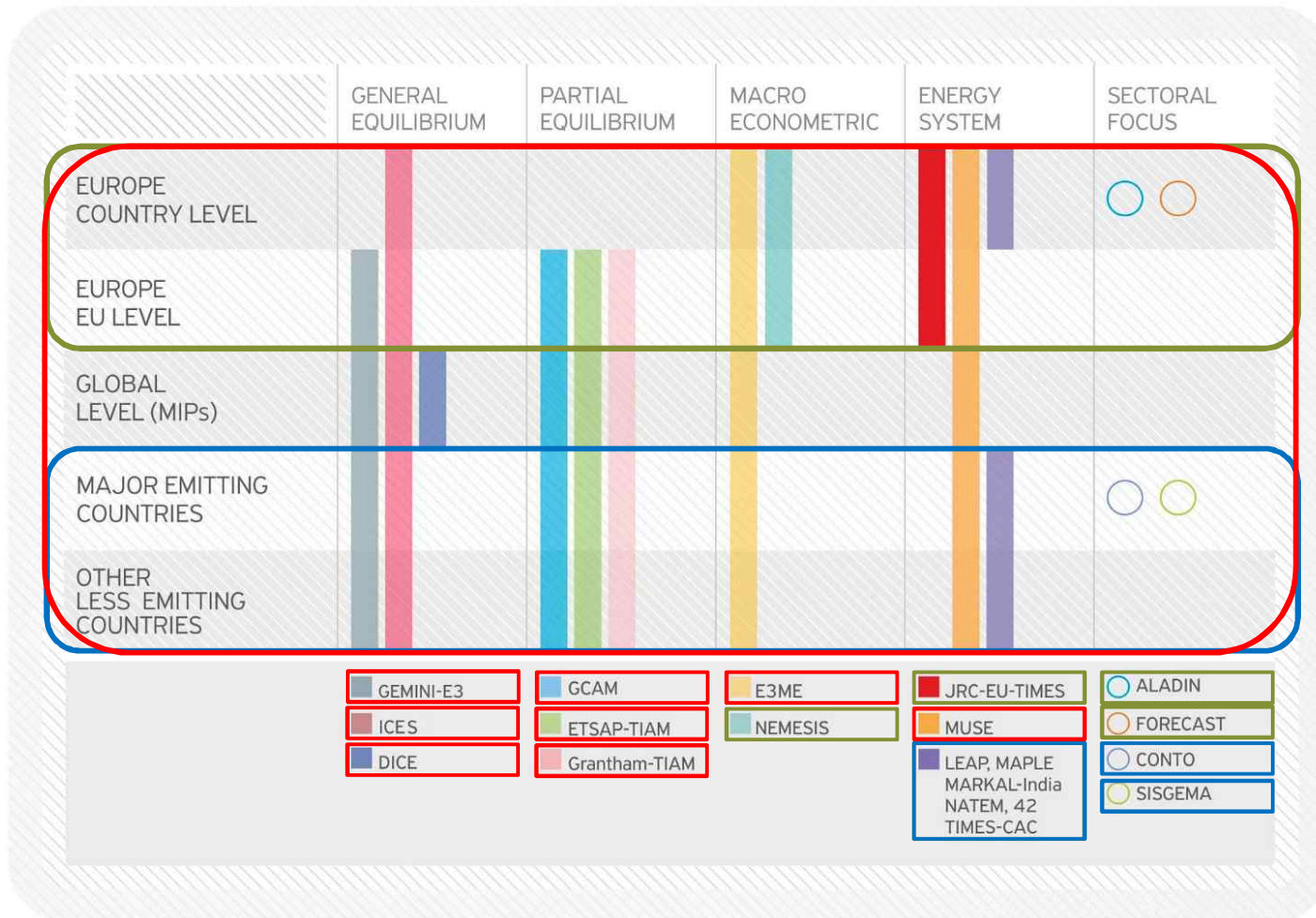
WHICH IS WHY WE NEED TO REDUCE EMISSIONS RAPIDLY



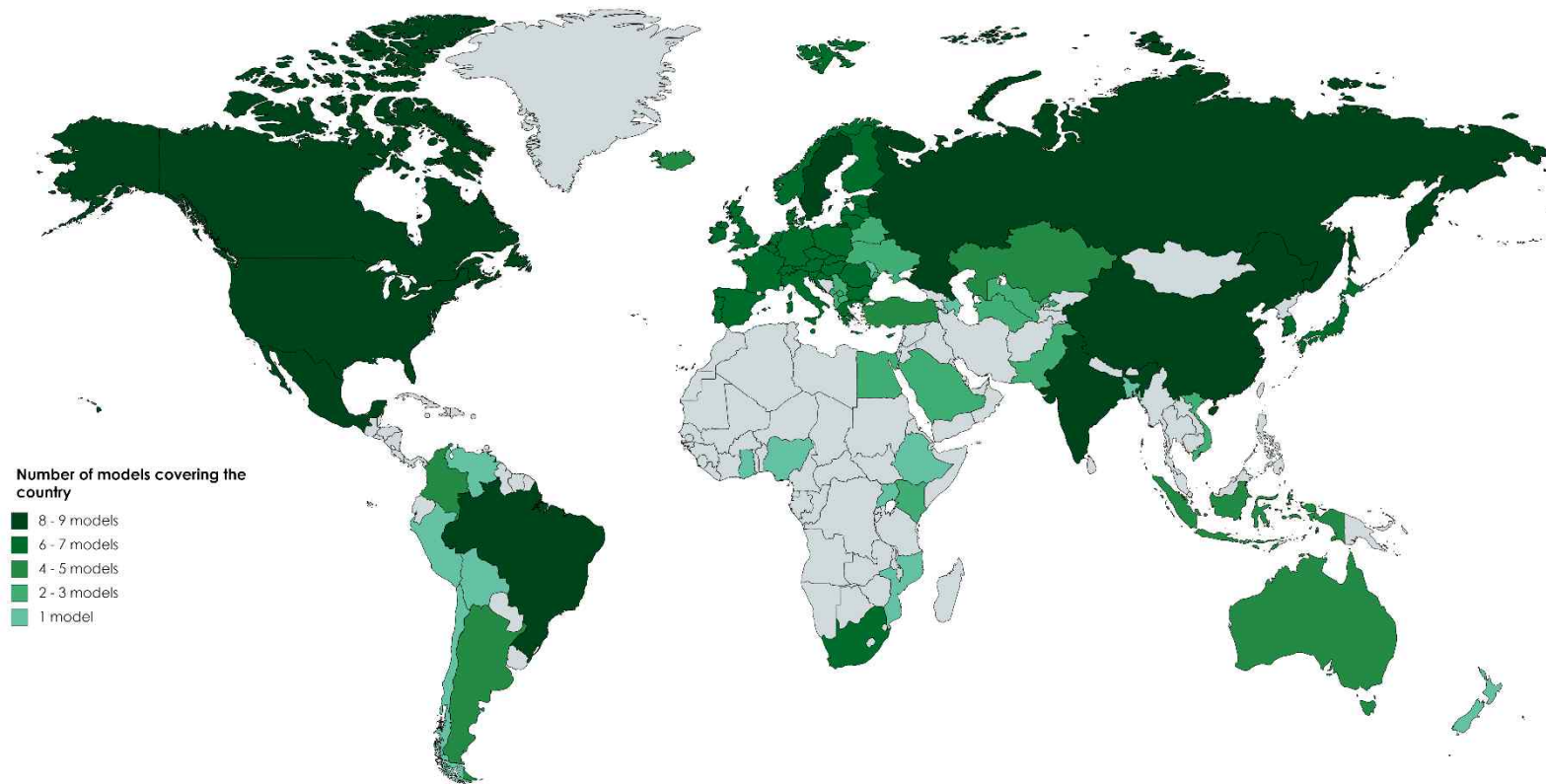
Source: Hausfather and Peters (2020) The "business as usual" story is misleading.



THE PARIS REINFORCE MODELLING ENSEMBLE



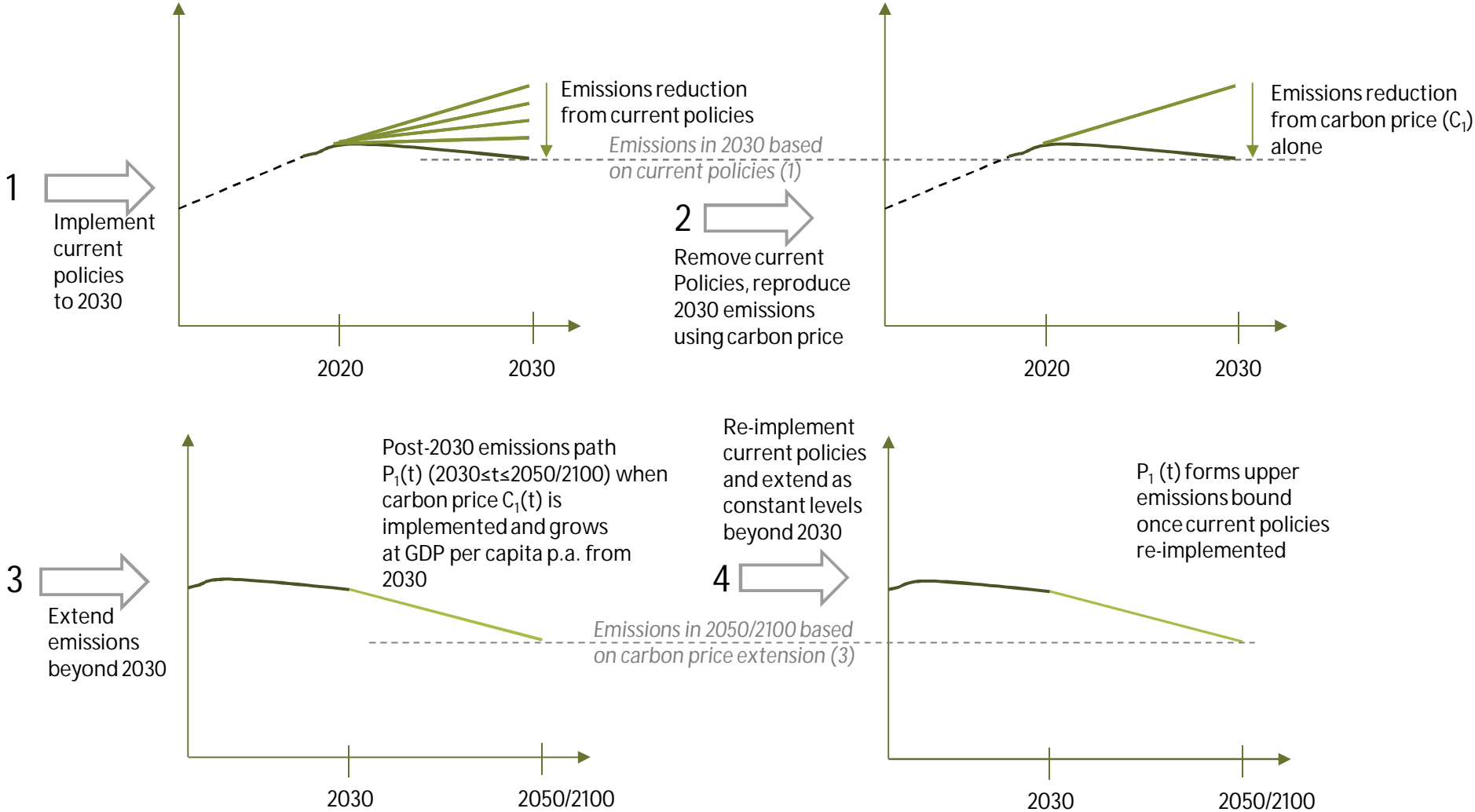
WHAT CAN OUR MODELS DELIVER IN TERMS OF GEOGRAPHIC COVERAGE?



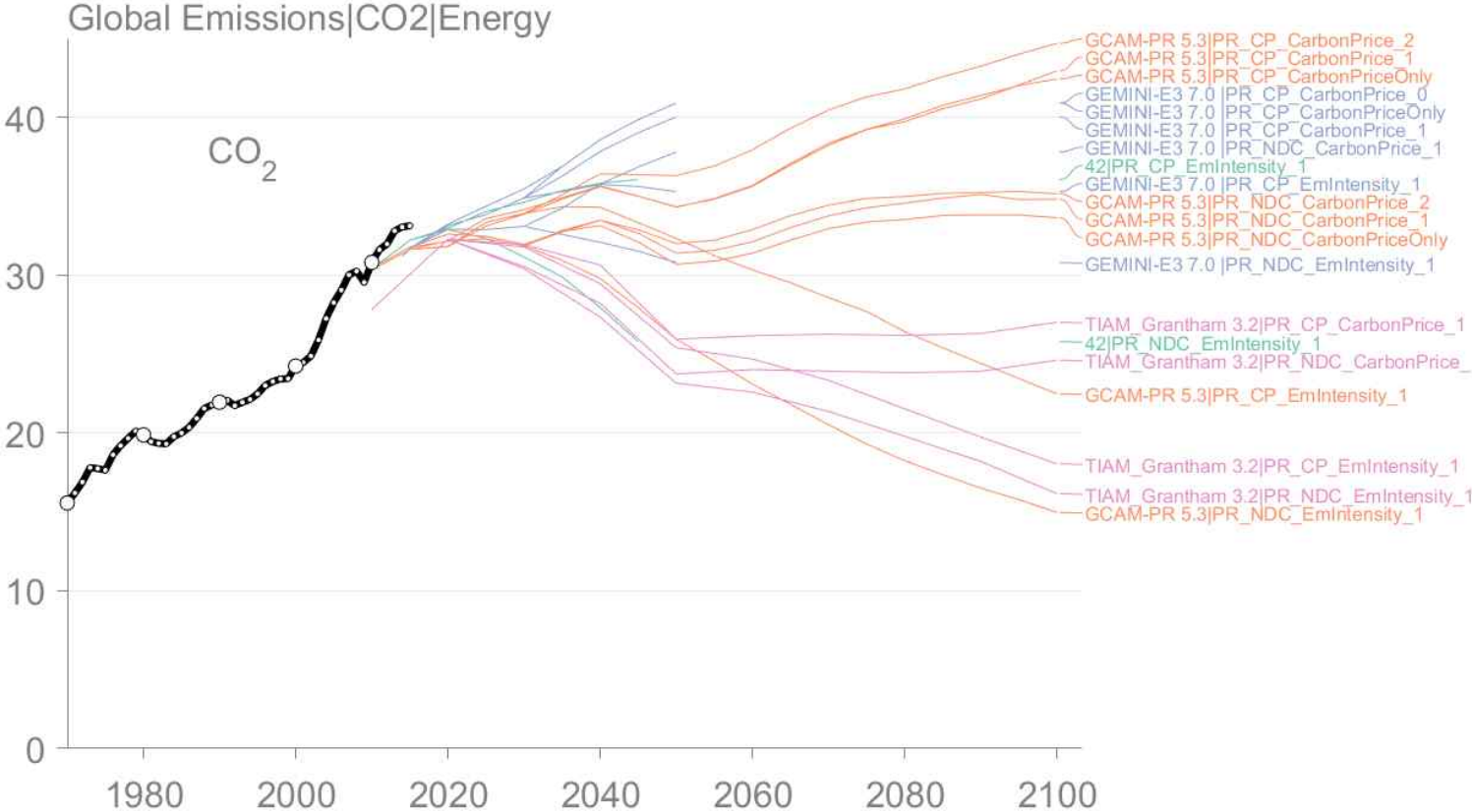
Created with mapchart.net ©



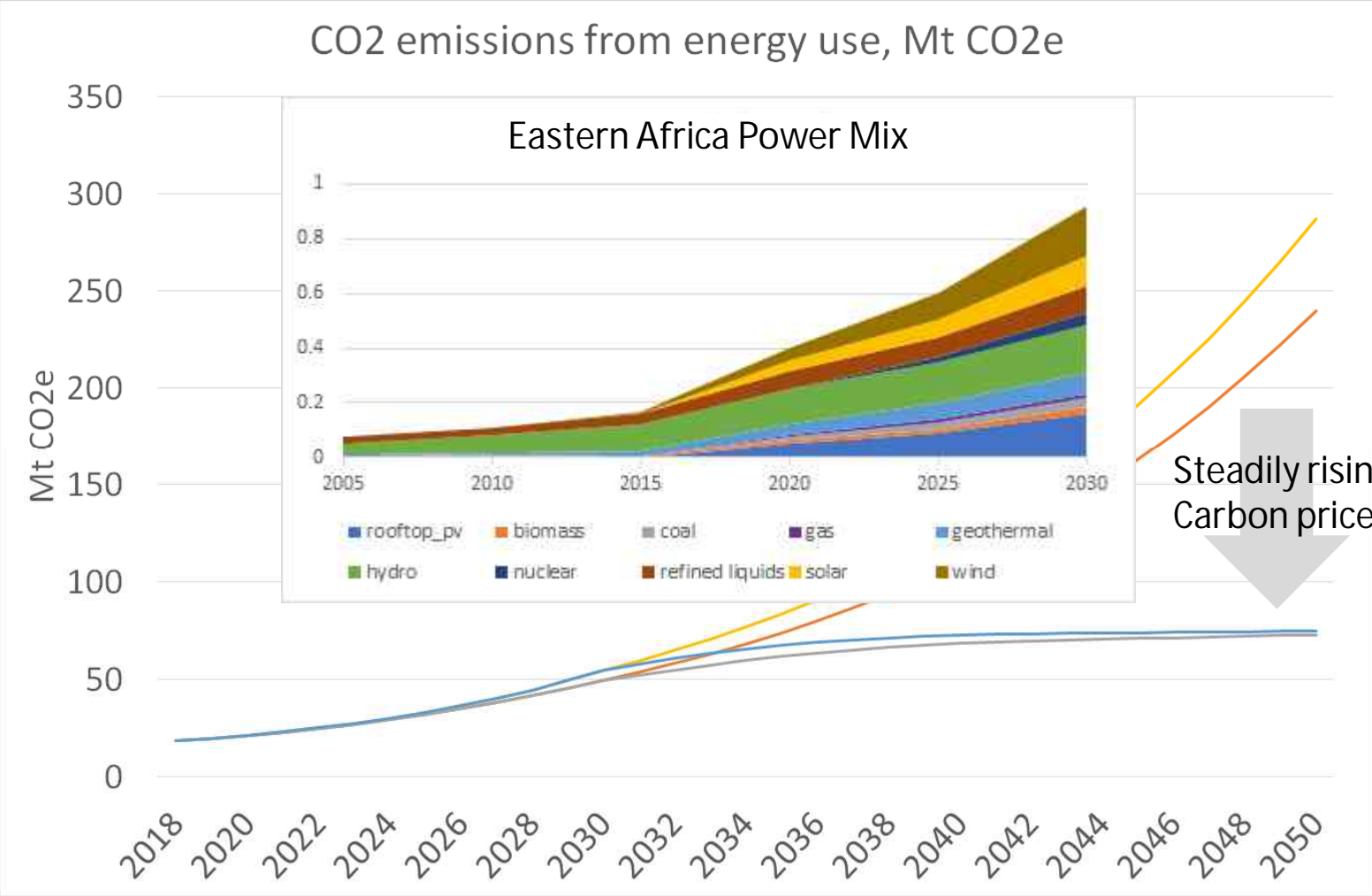
PARIS REINFORCE IS FIRST ASKING: "WHERE ARE EMISSIONS HEADING?"



INITIAL RESULTS(GLOBAL)







INITIAL RESULTS (KENYA)



HOW CAN YOU HELP US MAKE OUR MODELLING REAL-WORLD RELEVANT?



	What's in the NDC?	How fast can Kenya go?
 Power	Expansion of: Geothermal Solar Wind	MW per year? Maximum capacity? Coal plant closures?
 Transport	Efficiency Low-carbon	Vehicle efficiency improvement rate? Electrification rate?
 Heating / cooking	Clean energy technologies	Maximum clean cook stove penetration rate?
 Waste mgmt	Sustainable technologies	Key technologies? Replacement rate?



TIME FOR QUESTIONS & DISCUSSION



Thank you!

Ajay Gambhir: a.gambhir@imperial.ac.uk

