

CARBON NEUTRALITY & CLIMATE STABILITY SUMMIT

Veerabhadran Ramanathan

**Chair, UC's Carbon Neutrality And Climate Stability Summit &
BENDING THE CURVE Report**

OCTOBER 26, 2105

SCRIPPS FORUM, LA JOLLA

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The UC-50 Climate Solutions Group

“We are the University of California, and there is no reason that UC can’t lead the world in this quest, as it has in so many others.”

President Janet Napolitano
University of California
2013

Statement issued during the
announcement of the Carbon
Neutrality Initiative of the
University of California

“We must combine rigor and imagination to confront climate change: the rigor of scientific facts with the imagination to perceive what is now unseen – the dangers that lie ahead if we do not act.”

Honorable Edmund G. Brown, Jr.
Governor of California
September 25, 2015



BENDING THE CURVE

EXECUTIVE SUMMARY

Ten scalable solutions for carbon
neutrality and climate stability

Great Team Work:

- ***UCOP(Over 25 including JN)***
- ***All 10 Campuses & 3 DOE Labs***
- ***Governor's Office***
- ***The UC Climate Solutions Group (Gang of Fifty)***
- ***UCSD Logistics & Events Team***

BENDING THE CURVE

3 TRILLION TONS CO2 BY 2030

2030



BENDING THE CURVE

3Tt

2030

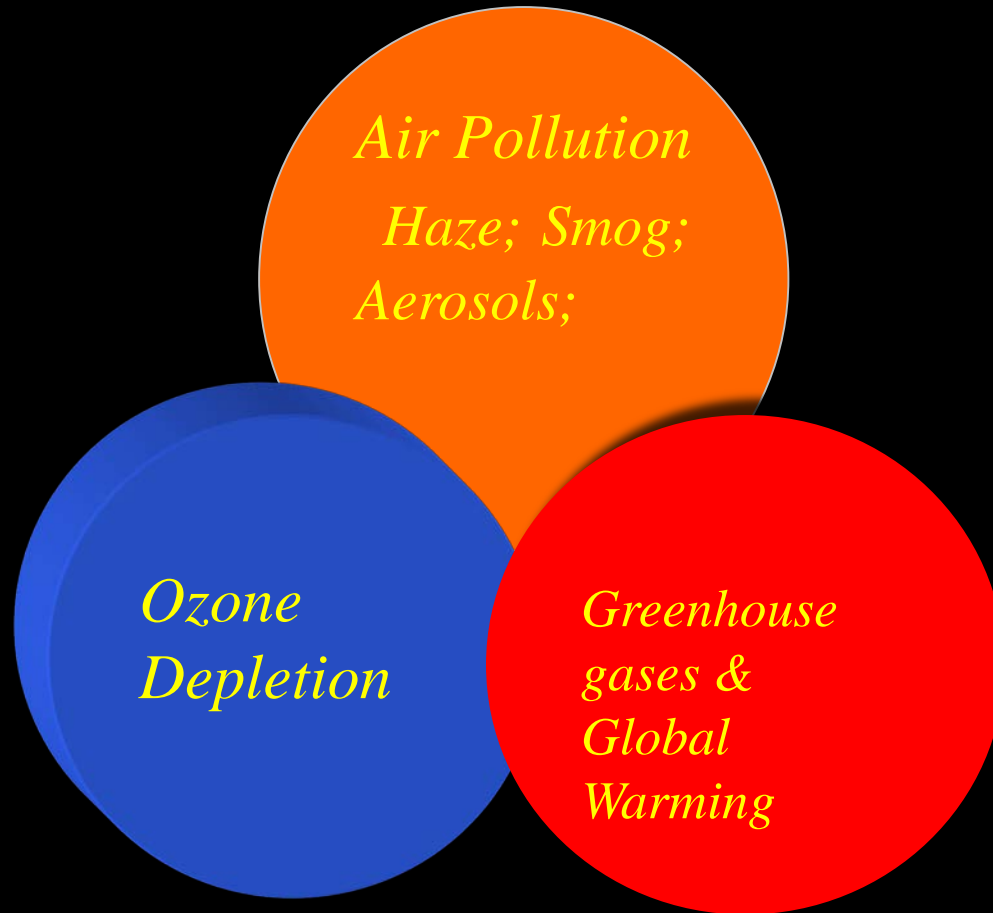
2050

EXCEEDING 2 C
BY 2050

***NEED TO WORRY ABOUT
TWO TIME SCALES:***

- ***NOW TO 2030***
- ***2030 TO 2050***

One Of The First Reports To Recognize Air Pollution, Ozone Depletion And Climate Change Are Linked Problems & this linkage Creates New Opportunities To Solve The Mitigation Problem.



CLIMATE DISRUPTION IS A MULTI-DIMENSIONAL PROBLEM

SO THE UC-50 FORMED

- ***Science Solutions Cluster***
- ***Societal Transformation Solutions Cluster***
- ***Governance Solutions Cluster***
- ***Market and Regulations-Based Solutions Cluster***
- ***Technology-Based Solutions Cluster***
- ***Natural and Managed Ecosystem Solutions Cluster***

TOP ONE BILLION

Unsustainable Consumption Of Coal, Oil And Gas



Contributed 60% Of Climate Warming Pollution

BOTTOM THREE BILLION

***Forced by Poverty to Rely On 18th Century Technologies
4 million succumb to black carbon and other pollution in smoke***



Contributed Only About 5% of Greenhouse Gases

Message from the Vatican

Oct 26, 2015

I have quickly read through your ten solutions which not only recall God's Ten Commandments but are also very appropriate. I have a meeting with the Secretary of State today and I shall inform him as well. The PAS and I fully support you and we are going to organize the event in Paris.

Mgr MARCELO SANCHEZ SORONDO

**Chancellor of the Pontifical Academy of Sciences and
Pontifical Academy of Social Sciences**

The Challenge For The Nation

From 2015 to 2050

Population : 326 M to 440 Million

GDP : \$17 Trillion to \$40 TRILLION

CO2 : 6.5 Gt to 1 Gt

Per Capita CO2: 20 tons to 2.3 tons

How about Oceanic and Land Carbon sink?

Current Carbon sink in Land = 1 Gt/yr

Climate Change- Drought- Fires??

***THANK YOU: UCOP & THE TEN-CAMPUS UC SYSTEM FOR
STARTING ON THE GREAT JOURNEY OF A DECARBONIZED
WORLD***

The UC Slogan for COP-21
BEND THAT CURVE