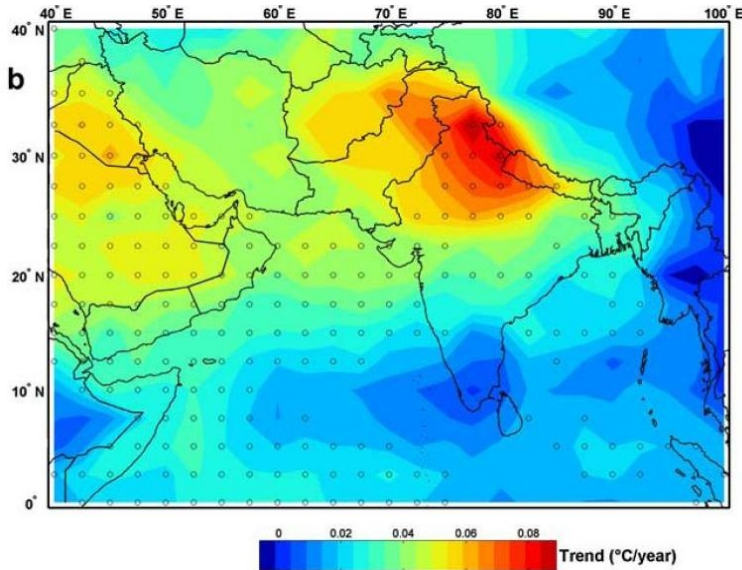


Moving Forward: Refining the Science, Changing Policy

Danielle Meitiv
Clean Air Task Force
March 30, 2011



Building good policy from the science up

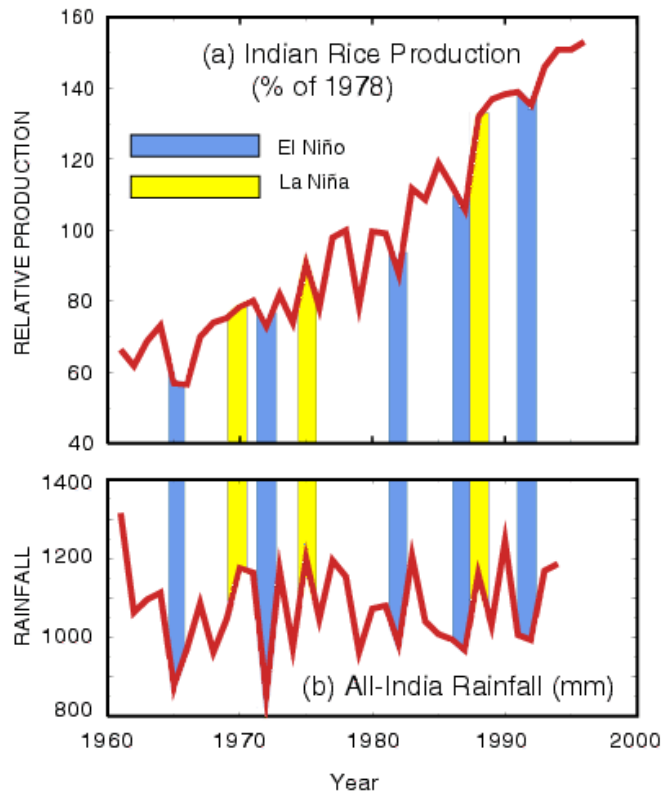


- Begin in India, supporting local partners.
- Work with researchers to fill science gaps.
- Communicate findings to policymakers and the public.
- Generate policy options and implementation pathways for local and national levels.



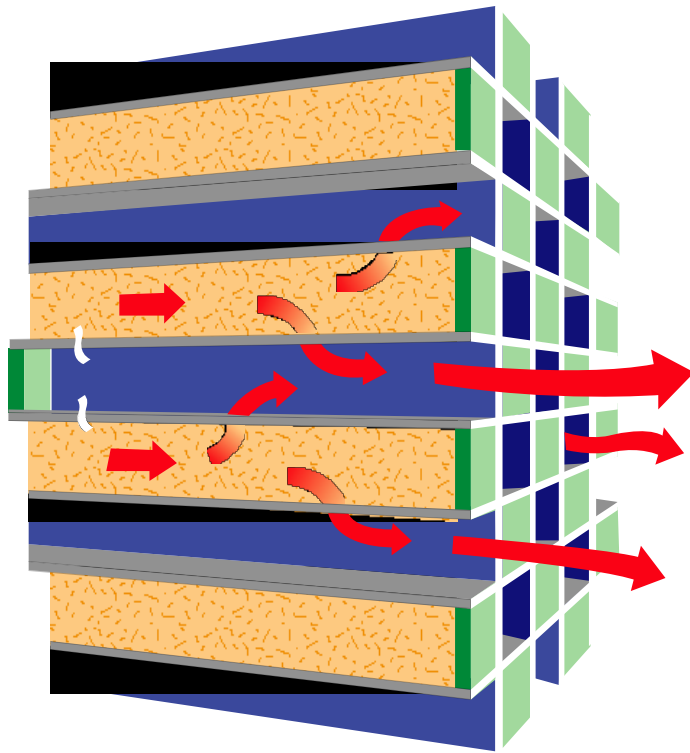
Why target Black Carbon (BC)?

Relationship of Indian Rice Production and Indian Rainfall



- BC affects human health
- BC affects regional climate, including monsoon precipitation and Himalayan glaciers
- BC has a short atmospheric lifetime.
 - ↓ emissions means immediate ↓ in atmospheric BC.
 - Emissions don't travel far. Both impacts and benefits are felt *locally*.

We know how to reduce BC emissions



Filter particulates from diesel engines and power plants

Modernize brick kilns



India is concerned about the impacts of BC

8/30/10:



Ministry of Environment and Forests
GOVERNMENT OF INDIA

Indian Network for Climate Change Assessment (INCCA)

India announces major National Carbon Aerosol Programme

New Delhi, 30th August 2010

3/30/11: Black Carbon Research Initiative National Carbonaceous Aerosols Programme (NCAP) Launched

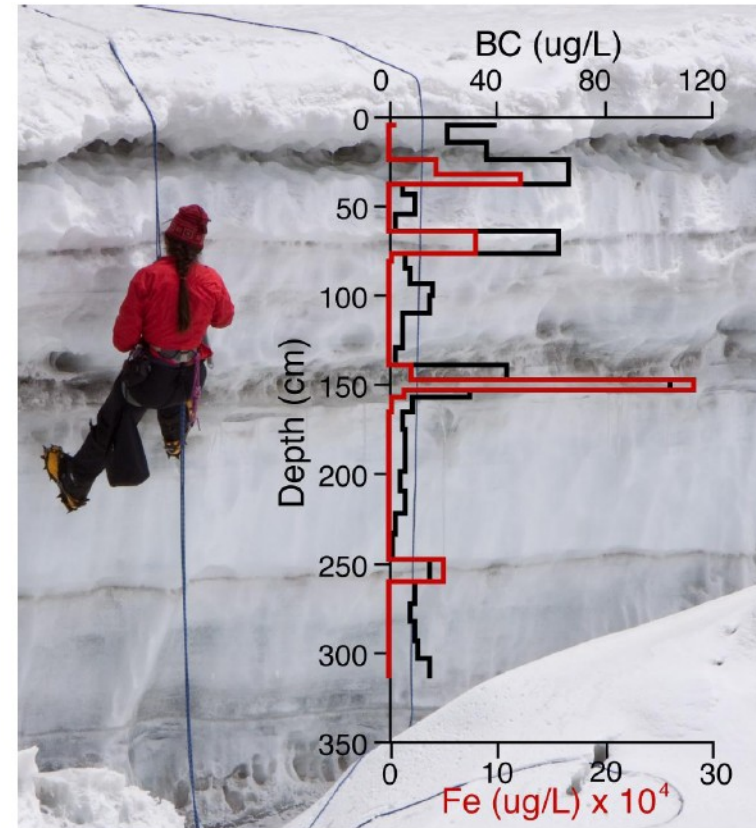
- 5-year program to study the sources of BC, impacts on health and the environment
- Ministry of Environment and Forests, Ministry of Earth Sciences, Indian Space Research Space Organisation (ISRO), Department of Science and Technology and more than 100 research institutions.
- “We need to be pro-active in our approach. This is an important step forward, not just for India, but for the international community.” MoEF Minister Jairam Ramesh

-
- “We need to be pro-active in our approach. This is an important step forward, not just for India but for the international community. India is well aware of the importance of the issue (of climate change), and is committed to addressing it, based on sound scientific assessments,” said environment minister Jairam Ramesh.
 -

CATF's role in reducing BC emissions

Work with local partners to:

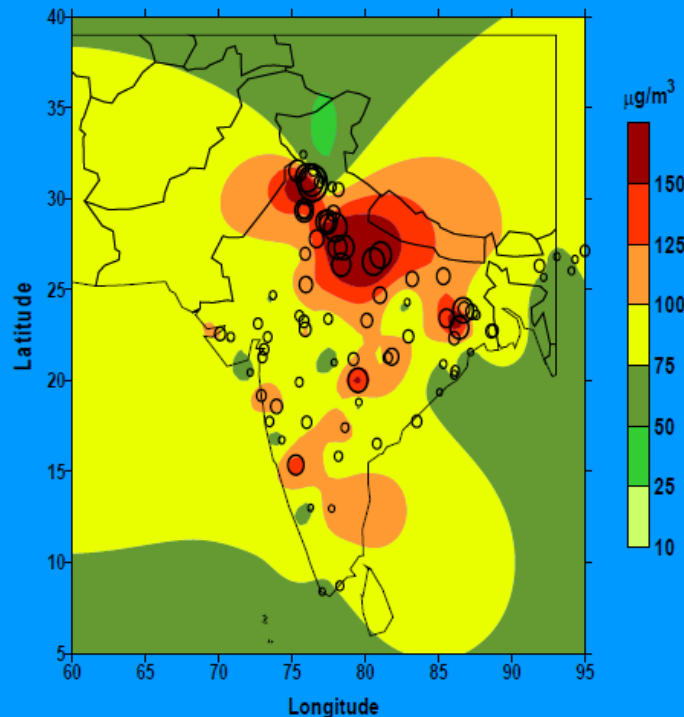
- Measure BC to identify sources that have health and climate impacts.
- Use results to strengthen regional climate models.
- Communicate findings to pollution control boards, and the public.
- Work with local and national leaders to generate and implement policy.



Photographs by J. Cunningham

Next steps: Expand air quality monitoring

PM₁₀ Pollution in India



In 2008

- 40% of the cities exceeded the PM health standards for outdoor air pollution
- An estimated ~300,000 premature deaths a year and a large number of morbidity cases

Measure BC emissions from other sources



Brick kiln monitoring is already underway

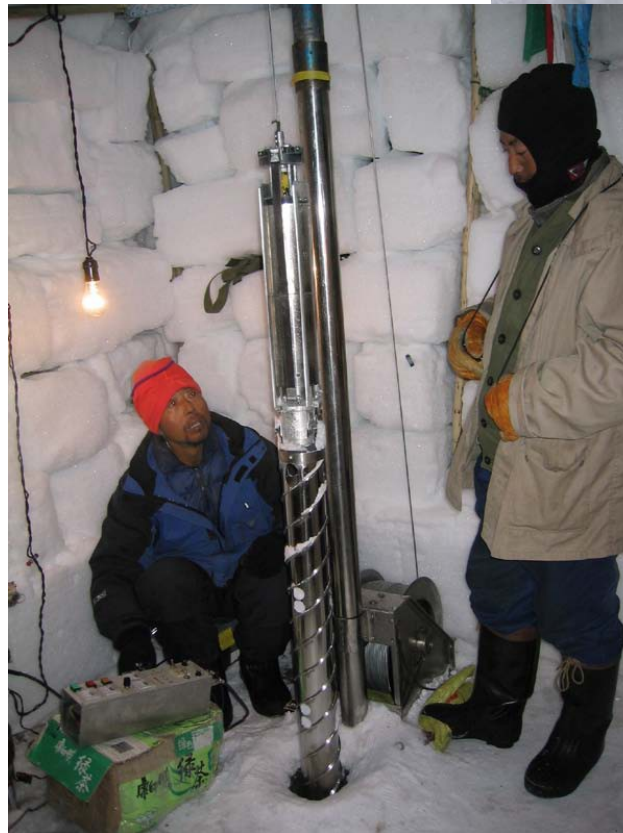
- Comprehensive monitoring of environmental and energy performance
- 7 kilns in India, 2 in Vietnam



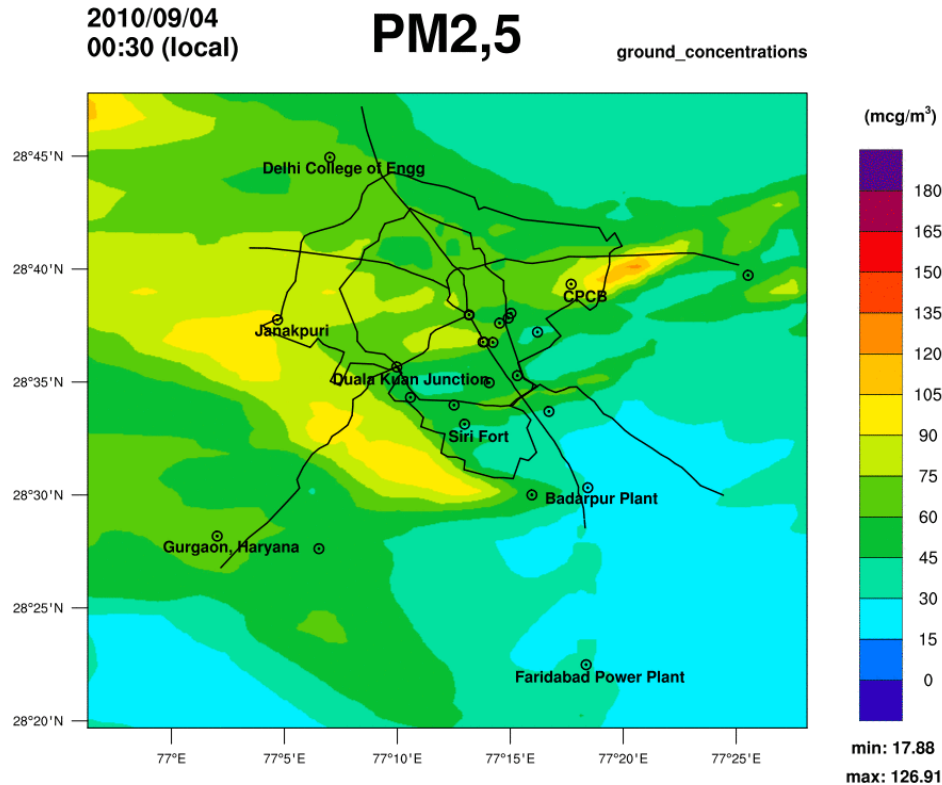
Funded by Shakti Sustainable Energy Foundation (India) and Climateworks Foundation (Vietnam)

Improve understanding of BC impacts in Indian Himalayas

- Current models mostly based upon data from Western China and Nepal.
- Region is highly diverse - need to clarify warming, melting, and albedo impacts of BC in Indian Himalaya



Communicate results to policymakers and the public

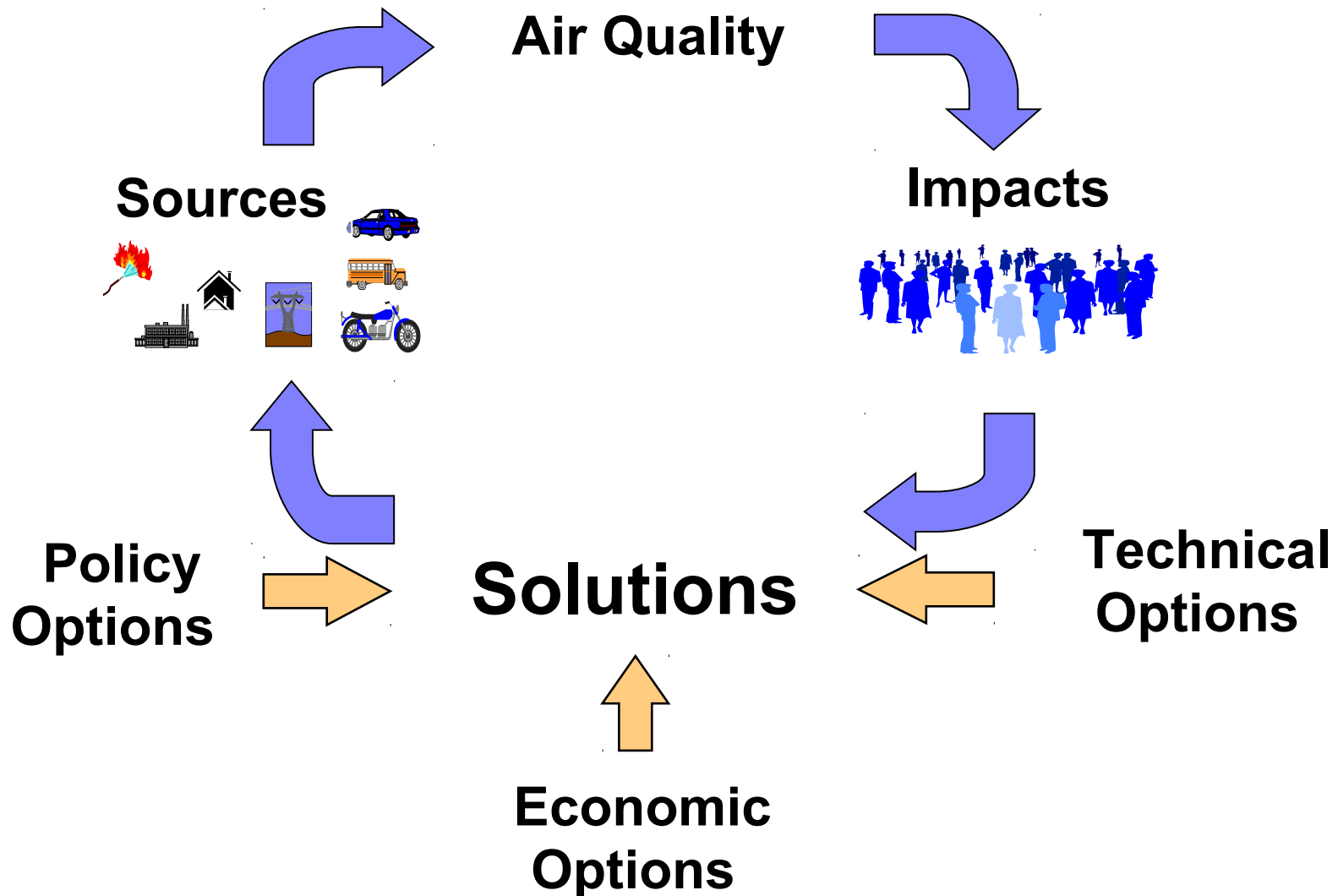


For example:

- AQ monitoring in all urban areas includes collaboration with Central Pollution Control Board.
- AQ forecasts will inform the public of pollution levels



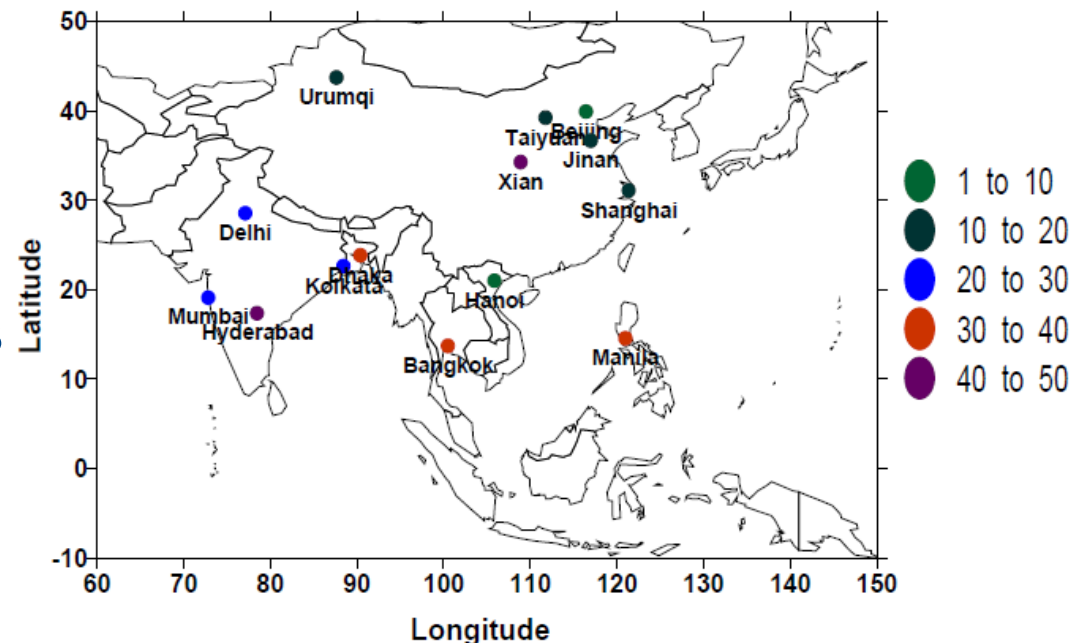
Putting it all together



Possible Solutions:

Local-National-Regional levels

- Brick kiln initiatives: mandates and incentives to move to cleaner technology
- National requirements and retrofits of vehicles and power plants with particulate filters.
- Expand air quality monitoring, modeling, and data-sharing among Pakistan, Nepal, Bangladesh, Thailand, Vietnam.



The contribution of transport emissions to measured ambient air quality in Asia.

Thank you

