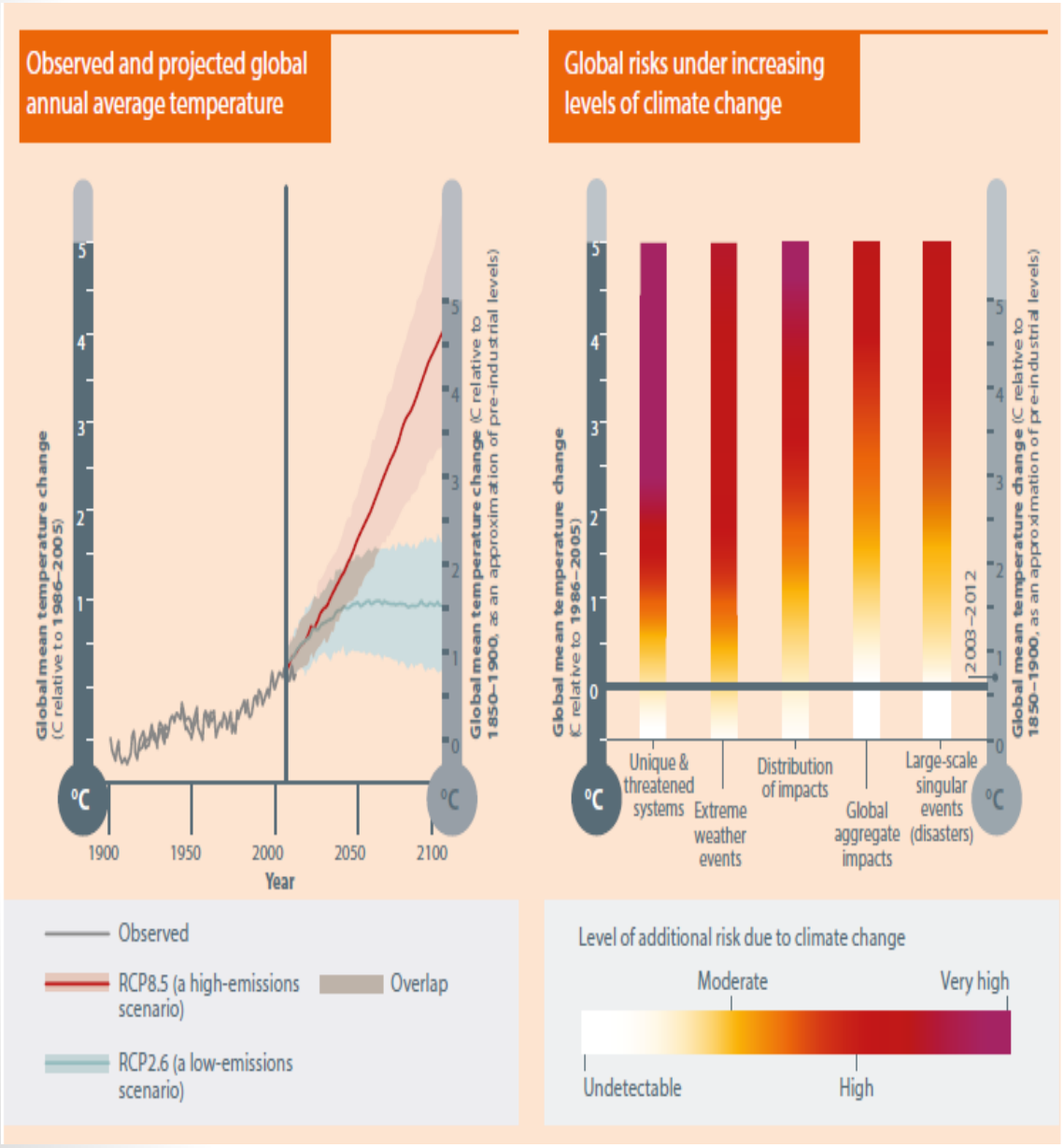
UNFCCC; Science; India and CC



October 07, 2014

Ram Kishan

Global outlook of climate change – IPCC,AR5

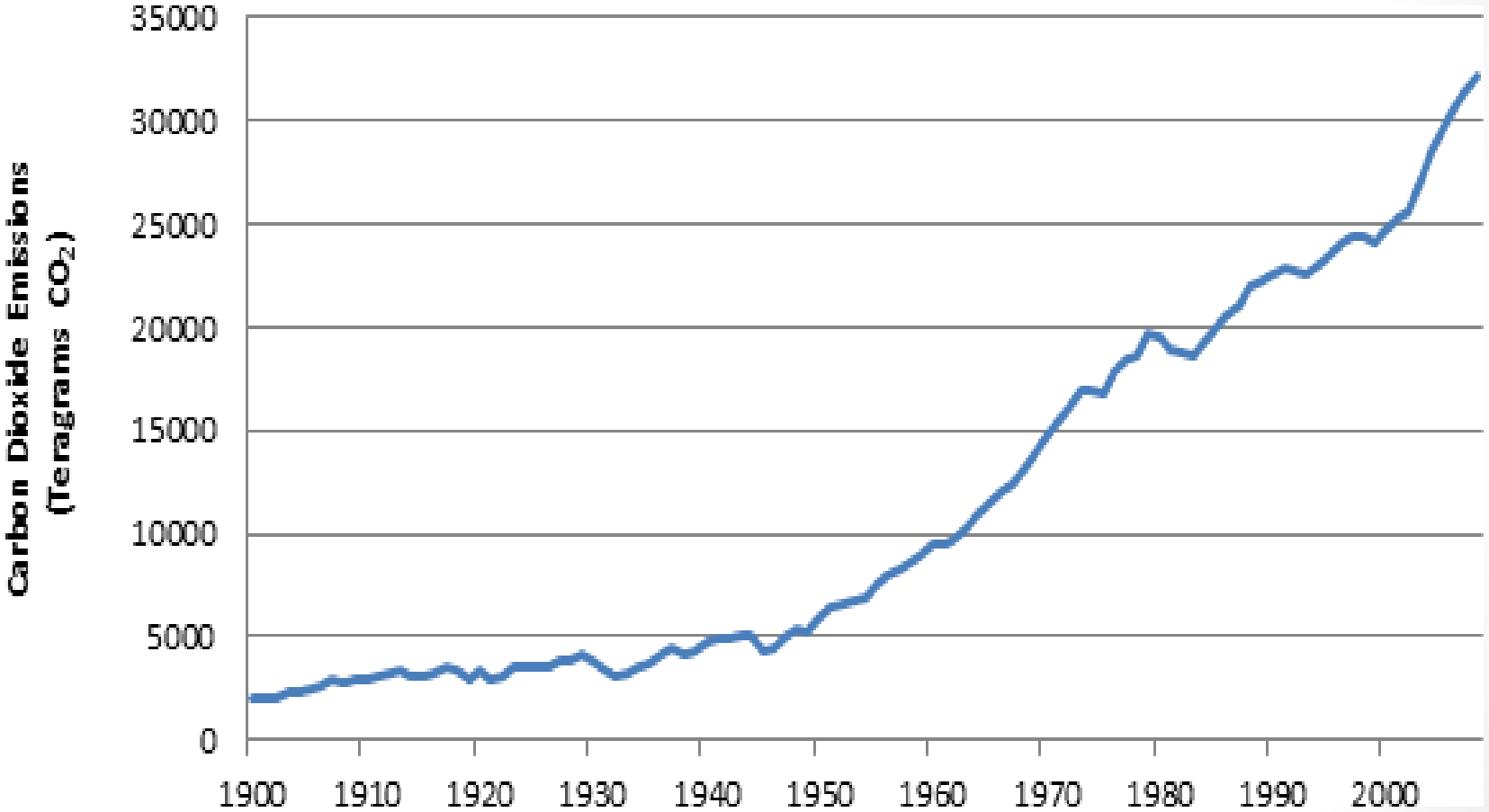
- Human activity- greater than 95% chance that human activities are the dominant cause of observed warming since the 1950s.
- Global changes- estimated warming of 0.85 degrees Celsius since 1880, with the fastest rate of warming in the Arctic.
- Over the period 1901 to 2010, global mean sea level rose by 0.19 [0.17 to 0.21] m.
- The atmospheric concentrations of carbon dioxide, methane, and nitrous oxide have increased to levels unprecedented.
- Carbon dioxide concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and land use change emissions.

- Available budget for limiting temperature increase below 2 deg of which 1890 has been used by 2011.
- Assuming emission stabilize at 2010 levels, the available budget will be consumed within 40 years.
- The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification
- Sea- level rise- Greater that 66% chance that the Arctic Ocean will be ice free during a greater part of the summer before 2050 under a high emission scenario.
- Warming of the climate system is unambiguous.

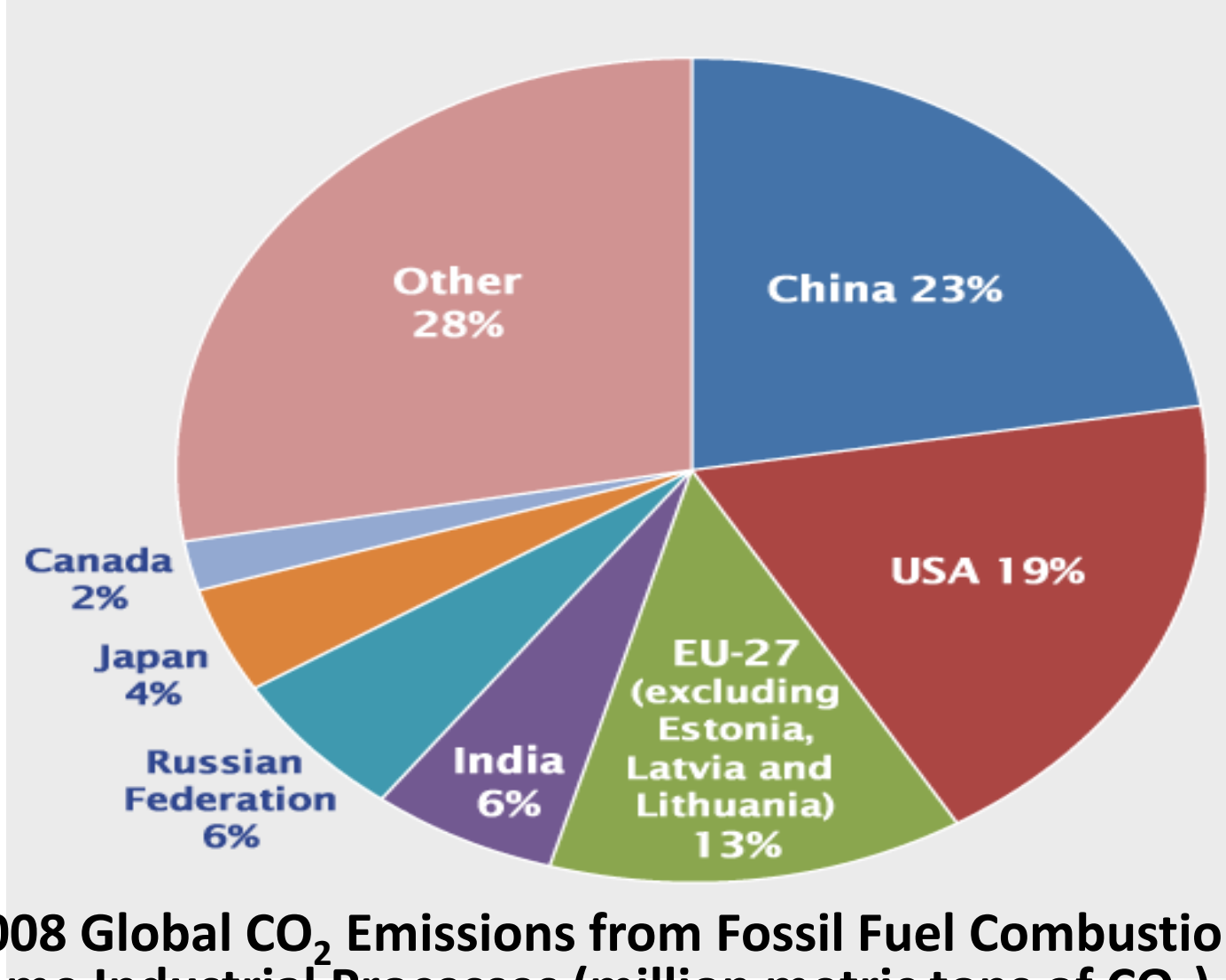
Countries with pledges…

- Australia, China, the European Union, India and the Russian Federation are on track to meet their targets
- Canada, Japan, Mexico and the U.S. and perhaps South Korea are not on track to meet their targets
- Not enough information available on Brazil, Indonesia and South Africa

Trends in Global Emissions

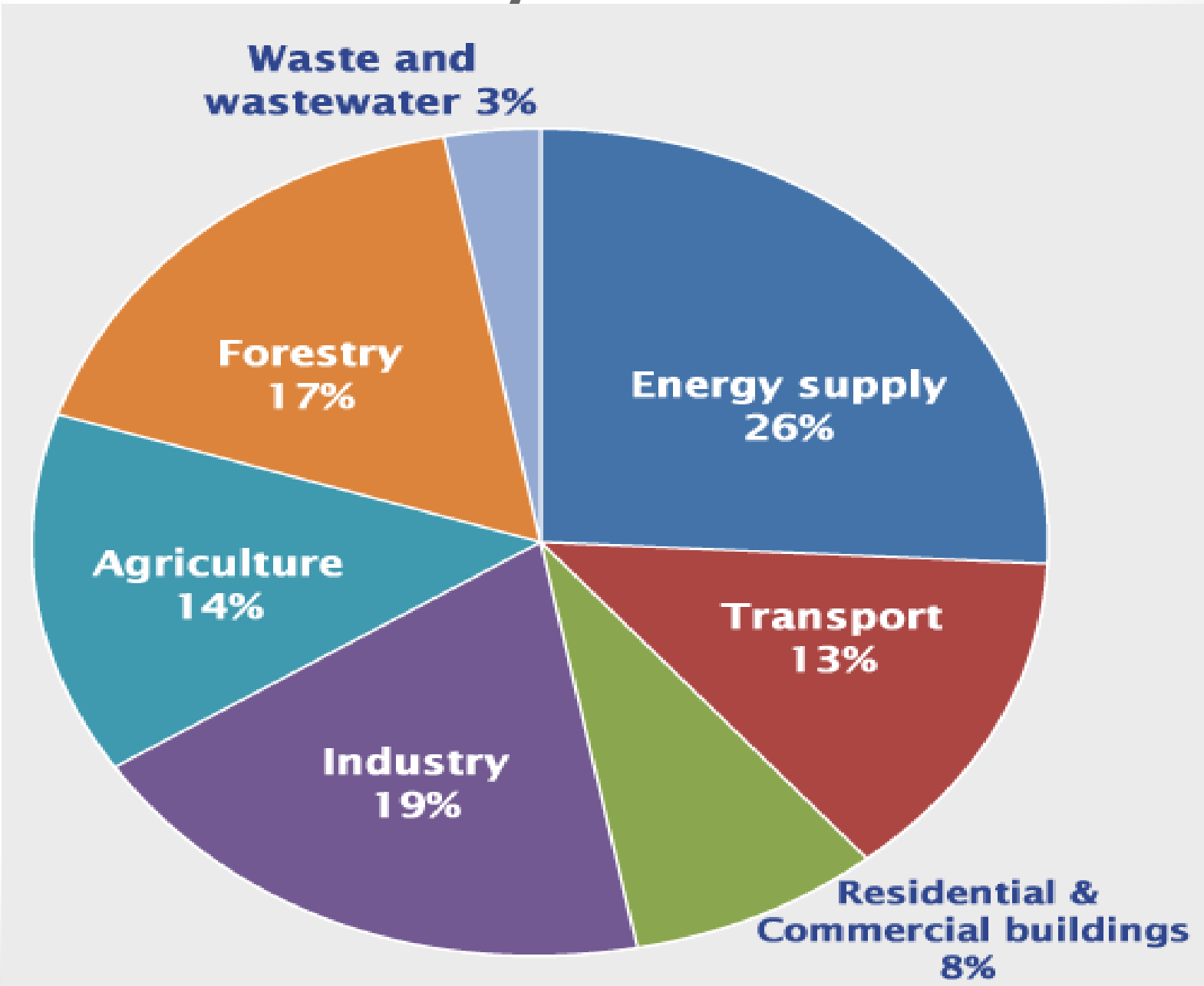


Emissions by Country



2008 Global CO_2 Emissions from Fossil Fuel Combustion and some Industrial Processes (million metric tons of CO_2)

GHG Emissions by Source



Per capita emissions…

Country	Emissions (CO2 Only)- Tons	Rank
Qatar	60.0	1st
Kuwait	26.8	2nd
United Arab Emirates	25.2	3rd
United States	20.4	5th
United Kingdom	9.4	30th
EU-25	8.5	43rd
China	2.7	88th
India	1.0	120th
World	**4.0**	

If fail to meet 2020 emission targets…

- Costs of adaptation will increase
- Currently available technologies will not be sufficient
- Deployment of technologies to achieve negative emissions or control solar radiation will be required. These technologies could have significant environmental impacts

How to Mind the GAP ?

Issues to be dealt…

- Mitigation - Stabilise global average far below 2 degree C
- Adaptation to enhance resilience on life supporting ecosystems and infrastructure
- Adequate response to climate induced Loss and Damage cases
- Climate Finance to scale up RE and Adaptation measures
- Technology transfer

Context…

- Durban – it was agreed to extend Kyoto Protocol and frame new climate post 2020
- The discussions are in two stream –
  - Post 2020 – all countries need to commit mitigation and developed countries to also commit finance
  - Pre 2020 (extended Kyoto Protocol) – Kyoto Parties to raise ambition to be accomplished by 2017

In Paris COP in 2015 – a New Climate Treaty for Post 2020 is expected…

Post 2020…

- **Work stream 1:** decides that [the ADP] shall plan its work …, on **mitigation, adaptation, finance, technology development and transfer, transparency** of action and support, and capacity-building.
- Must be based on science and equity;
  - Participation by all Parties is key;
  - Must be flexible and sensitive to national circumstances;
  - Must be environmentally effective;
  - Must strengthen international rules-based system;
  - Must address all elements of paragraph 5 of 1/CP.17 (Mitigation, Adaptation, Finance, Technology, Transparency of Actions and Support, Capacity Building)

Pre 2020…

- **Work stream 2**: Further decides that the process *shall raise the level of ambition* and shall be informed, by the Fifth Assessment Report of IPCC
- Decides to *launch a work plan on enhancing mitigation ambition* to identify and to explore options for a range of actions that can close the ambition gap with a view to ensuring the highest possible mitigation efforts by ***all Parties*** – Pre 2020

COP 19 on Post 2020 @Warsaw…

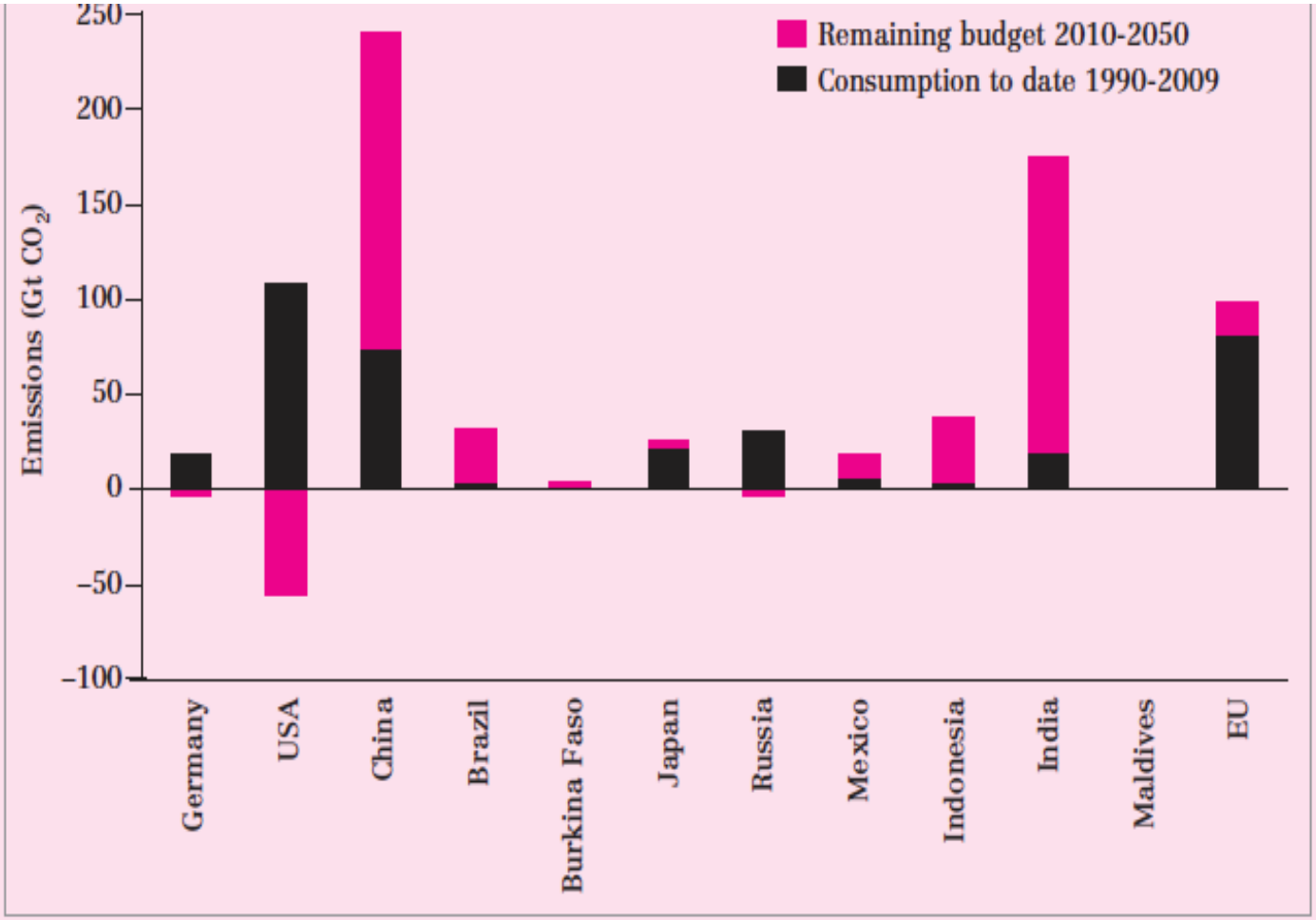
- *Commitment deadlines: is agreed to initiate or intensify domestic preparations* to determine their contributions so as to be “communicated well in advance” to 2015;
- Elements of the 2015 agreement: not defined but will include mitigation and adaptation;
- The *creation of the Mechanism on loss and damage* could potentially have financial implications on a new agreement;

How much is the carbon budget?

Multiple targets with uncertainties:

- There is total emissions budget between 2000 and 2050: 600 – 1200 Gt CO2
- Peaking year target – total global emissions world peak and then start reducing: 2020 or 2030
- What should be the global emissions in 2050 compared to 2000: 50-85% below 2000 levels
- Play with these number to make global emissions trajectory

How budget should be divided?



Source: Anon 2009, *Solving the climate dilemma: The budget approach*, German Advisory Council on Global Change, Berlin, p 26

India @UNFCCC…

- Positioned itself in BASIC group (emerging economies), LMG/ LMDC, G77 & China
- Supports Kyoto Protocol type of architecture (legally binding and committed) but for **developed countries** and voluntary for **developing countries**
- Demands Equity principles to be basis of Post 2020 Climate deal
  - But is still to put forth any equity proposal
- Committed to work towards Post 2020 deal, where all countries will be legally binded

India @UNFCCC…

- Have supported poor developing countries on Loss and Damage positions
- Have prioritised LDCs and Africa for short term finance of 30 billion
- Positioned to achieve relaxation on IPR to facilitate technology transfer from West to East
- Industrialised countries should raise its Ambition in pre 2020
- Public finance to Green Climate Fund

India @Home…

- SAPCC drafted in most States
- Institutionally Ready to directly access International Climate funds (through NABARD)
- Prioritising Adaptation in National Policies
- Carbon Tax as '*Coal Cess*' - Mobilising finance from domestic sources
- 20-25% Energy Reduction targets
- Perform – Achieve – Trade Scheme in action
- 8 Missions under implementation…

National Action Plan on CC

National Missions

- ✓National Solar Mission
- ✓National Mission for Enhanced Energy Efficiency
- ✓National Mission on Sustainable Habitat
- ✓National Water Mission
- ✓National Mission for Sustaining the Himalayan Ecosystem
- ✓National Mission for a “Green India”
- ✓National Mission for Sustainable Agriculture
- ✓National Mission on Strategic Knowledge for Climate Change

Homework to be carried out…

- Post 2020, India need to put its new targets on emission reductions / energy intensity reduction targets
- Need to engage on equity discussion more constructively to find common grounds
- Role of Private Finance in GCF and domestic climate finance architecture
- Mobilising Climate finance for SAPCC
- Draft and negotiate for Equity Framework to review global pledges in UNFCCC
- MRV / ICA architecture for Uni-lateral Mitigation actions

Thank you !!!