

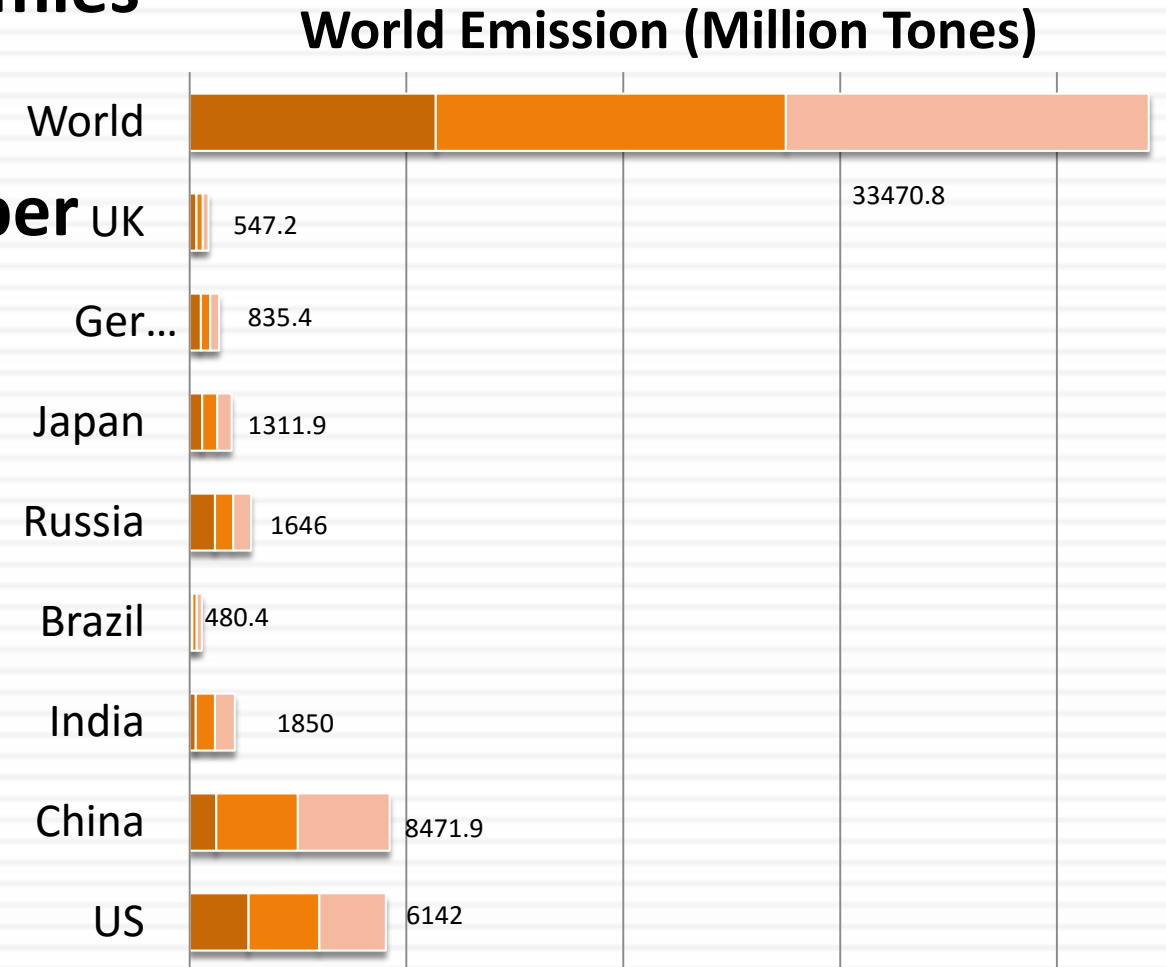
02-Sept-16

Webinar

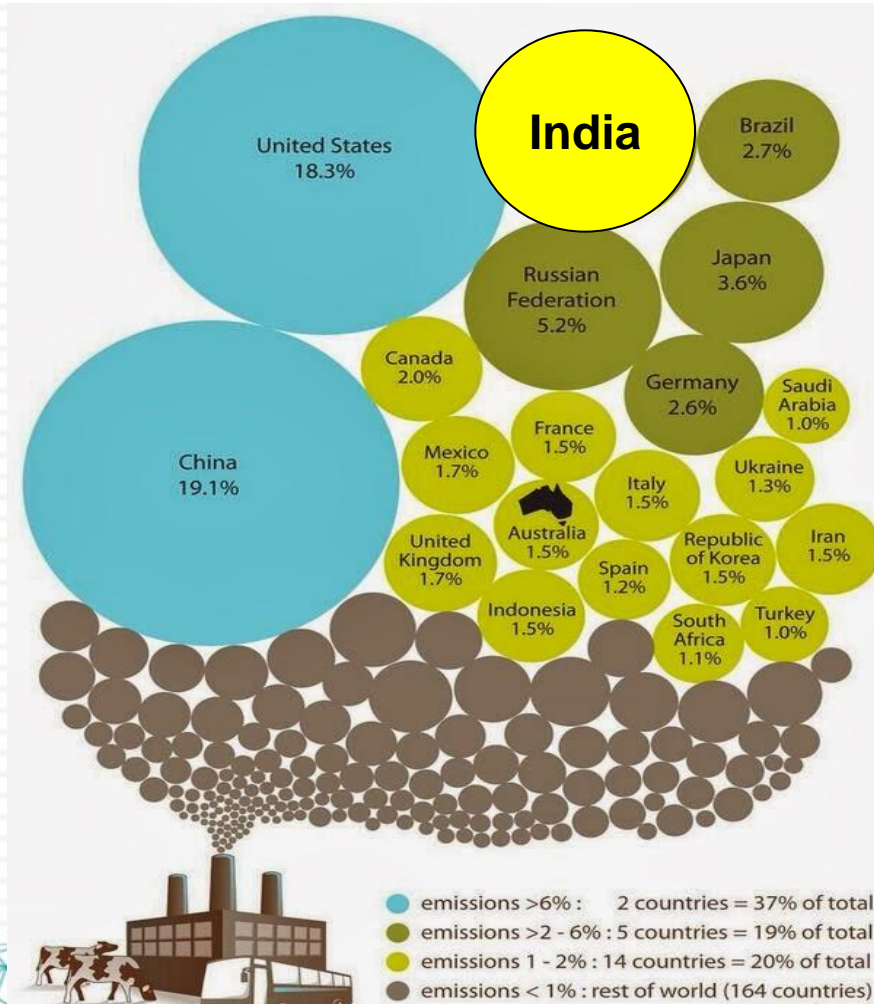
Approaches to GHG Accounting in the Building Sector

India and Climate change

- One of the fastest growing economies
- Fast growing GHG emissions
- Per capita emission (metric tons per capita) 2011-World Bank
 - ▣ India - 1.7 T
 - ▣ World - 4.5 T
- Emission Growth
 - ▣ Avg. growth : 10%
 - ▣ 12% reduction in GHG Intensity (2005-2010)

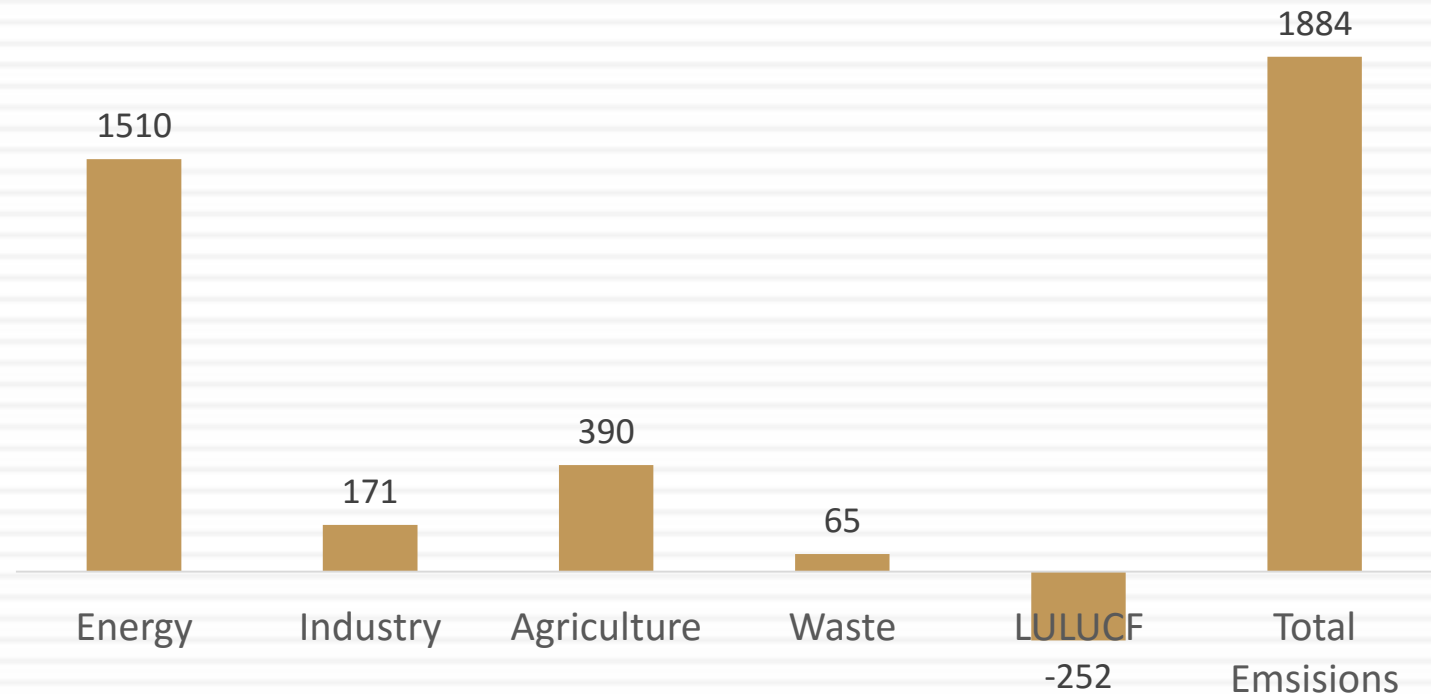


India's GHG emission Profile



- emissions >6% : 2 countries = 37% of total
- emissions >2 - 6% : 5 countries = 19% of total
- emissions 1 - 2% : 14 countries = 20% of total
- emissions < 1% : rest of world (164 countries)

India GHG Emissions (2010) in Million Tones of CO2



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GOI on Climate change

- ❑ **INDC-** Reduce the emissions intensity of the GDP by 33 to 35 percent by 2030 from 2005 level
- ❑ Challenge – Meet developmental goal with reduced emissions
- ❑ Industries expected to step up in achieving the targets for GHG emissions
- ❑ Targets getting stringent
- ❑ India has already unveiled a National Action Plan on Climate Change (8 national missions)

Building sector

- 40 % of global energy utilized by this sector
- 1/3rd of total GHG emissions
- Largest potential of long term reduction of cost effective GHG reduction
- Life span of building is also higher so the actions taken would continue over a significant period of time
- **Embodied energy** is the energy consumed by all of the processes associated with the production of a building, from the mining and processing of natural resources to manufacturing, transport and product delivery.

GHG Protocol

- **Scope I**
 - ▣ **Direct GHG emissions**
- **Scope II**
 - ▣ **Indirect GHG emissions**
- **Scope III**
 - ▣ **Other indirect GHG emissions**



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Scope I emissions

- Direct emissions from sources company owns/controls
- Example
 - ▣ Generation of electricity, heat or steam
 - ▣ Physical or chemical processing
 - ▣ Transportation of material, products, wastes or employees

Indirect Emissions



Maintenance service
(owned by another company)

Direct Emissions



Your factory



Power plant
(owned by utility company)



Scope I – emission sources



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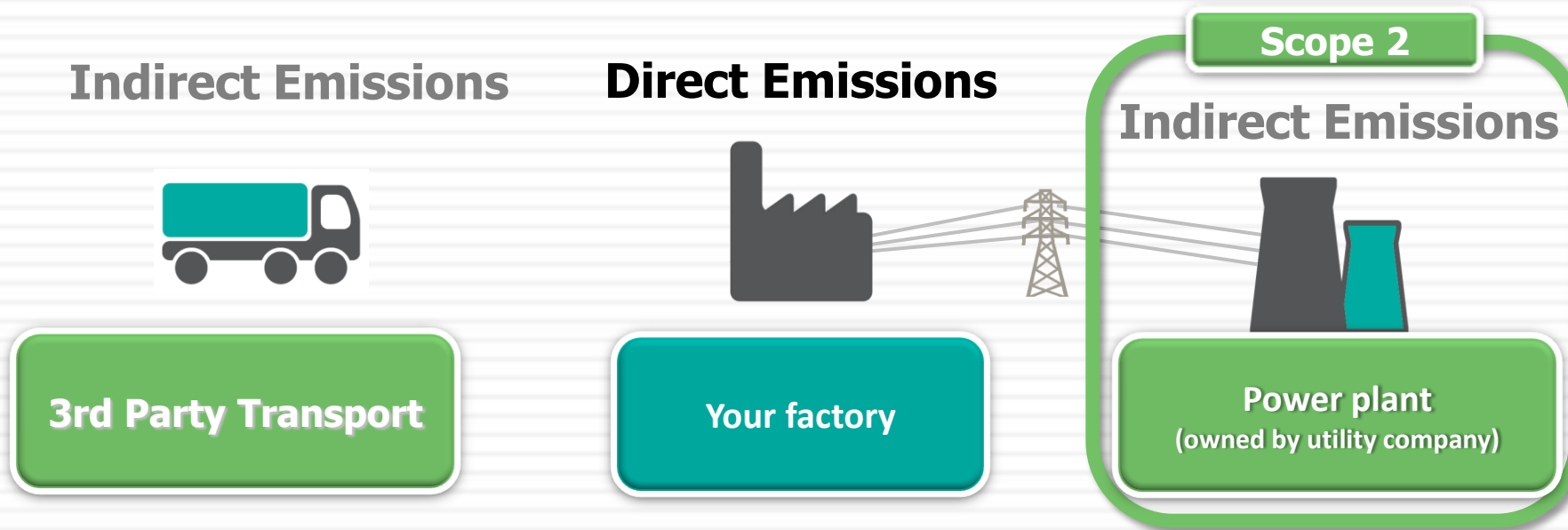
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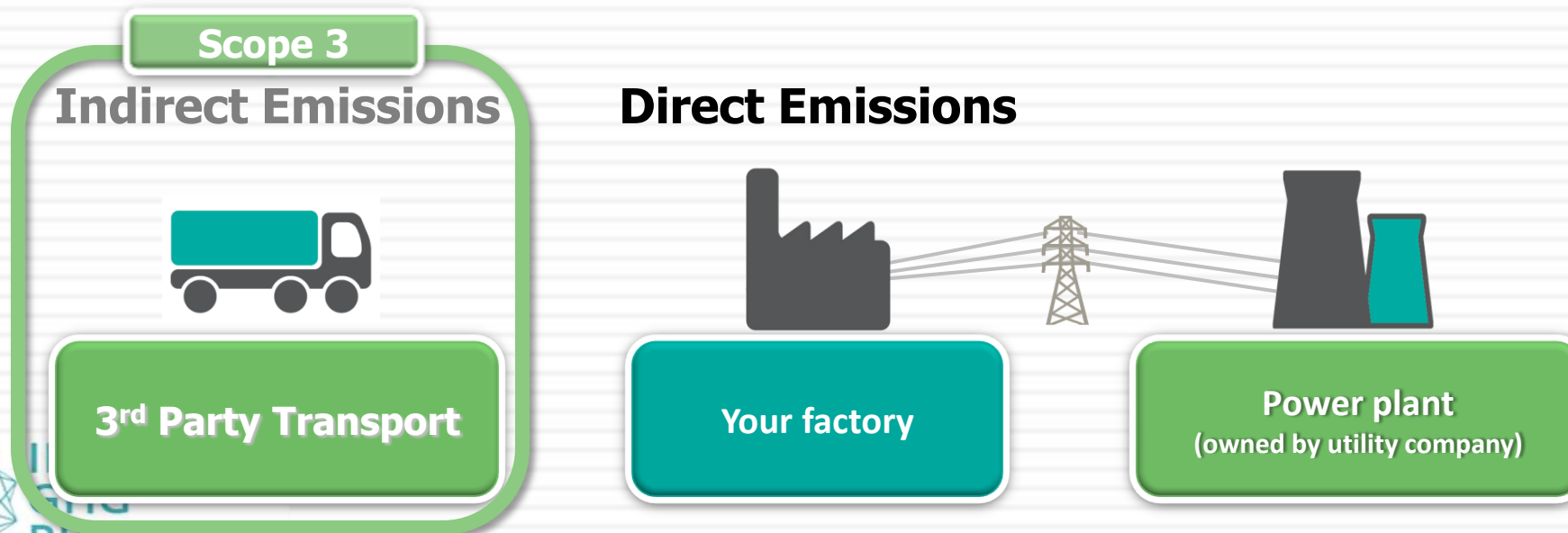
Scope II emissions

- Indirect emissions from purchased electricity or steam



Scope III emissions

- All indirect emission other than electricity
- Example
 - ▣ Transport in vehicles which are not company owned/controlled by the company
 - ▣ Employee commute, Product transportation etc.



Scope III – emission sources



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Thank You



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