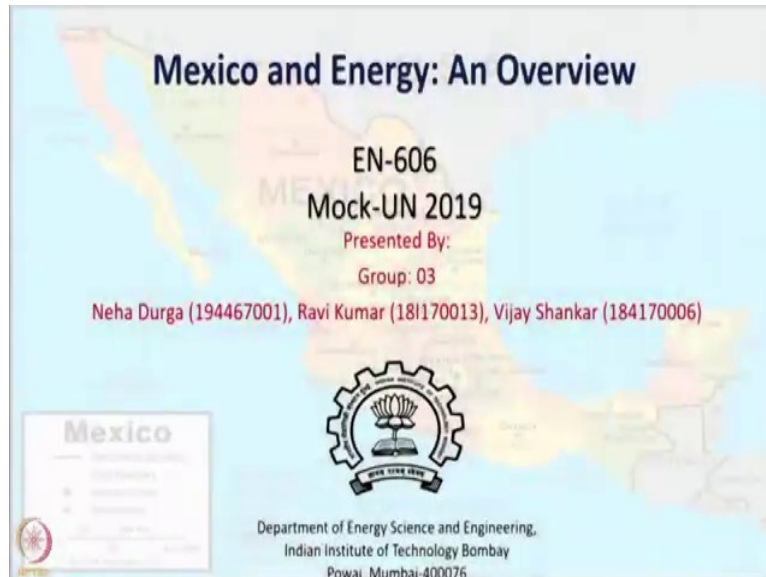


**Energy Resources, Economics and Environment**  
**Professor Rangan Banerjee**  
**Department of Energy Science and Engineering**  
**Indian Institute of Technology, Bombay**  
**Lecture 4 P4**  
**Energy Balance of Mexico**

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Hello everyone, I am Ravi Kumar along with my group members Neha Durga and Vijay Shankar. Today, we are representing Mexico. Mexico is just more than Burrito and tortilla. However, its food is its face in the world.

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**We are more than just "Burrito and Tortilla"**

- Mexico, also known as United Mexican State
- 13th largest state
- 2 million sq-km and population of 128.6 million people
- We are a young and 'newly industrialized' country


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We share our border with US in North and Pacific Ocean in South. We are the 13<sup>th</sup> largest state in the world with two million square kilometer area and about 129 million people. Our population density is about 66 per kilometer square. We are a young country with 50% of population below 30 years. The per capita GDP is about 9 to 9 US dollars, and we fall under the middle income category by World Bank.

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## Economy and Energy

- Service sector
- Human Development Index Rank: 74
- Installed power generation capacity: 68 GW(2015)
- oil (46%) and natural gas(40 %)



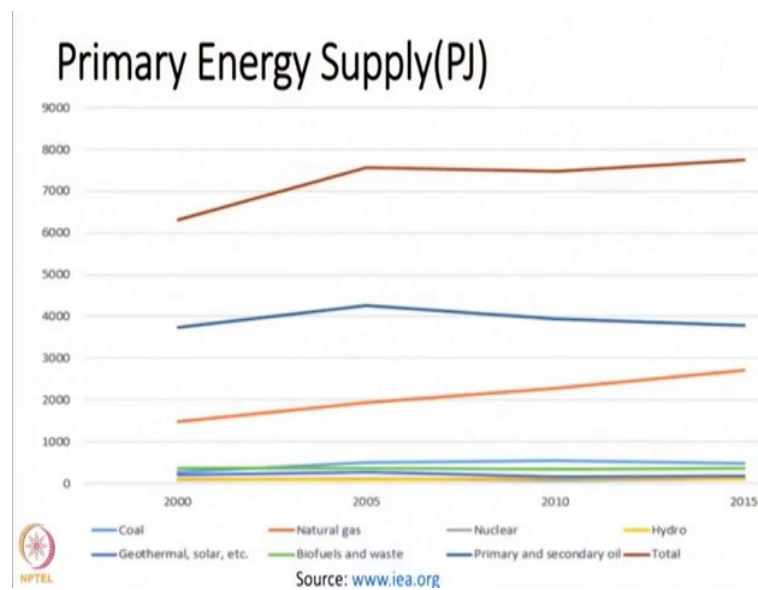
	2000	2010	2015	CAGR(2000-2015)	CAGR(2010-2015)
Population(million)	100.9	114.3	121	1.22	1.15
TPES(PJ)	6311.517	7478.546	7743.319	1.37	0.70
Import of Energy(ktoe)	25706	47984	70673	6.97	8.05
Export of Energy(ktoe)	98046	88337	72235	-2.02	-3.94
CO <sub>2</sub> emission(million tonnes)	359.6	440.3	442.3	1.39	0.09
Installed power (GW)	40.98	52.86	67.54	3.39	5.02
GDP(PPP)(Billion US \$)	1432.5	1730.2	1990.2	2.22	2.84
GDP per capita(US \$)	14197.22	15137.36	16447.93	0.99	1.67
Emission per capita(tonnes per capita)	3.563925	3.852143	3.655372	0.17	-1.04
Carbon intensity (tonnes/TJ)	56.97	58.87	57.12	0.02	-0.60
Energy intensity(MJ/US \$)	4.405946	4.322359	3.890724	-0.83	-2.08

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Our primary sectors are agriculture, industry and service sector but its service sector which provide livelihood to about 63% of people and add around 60% to GDP. Our HDI rank is 74 which is good as compared with the world, but not good as compared to our neighbour US. So, we aim to increase this in coming decades. We are shifting from oil-based economy to gas-based economy by importing natural gas from US and Canada and exporting the crude oil to them, and it clearly depicts in decrease in emission per capita and carbon intensity.

Mexico was the seventh largest producer of crude oil as of 2007. However, the share of crude oil has straightaway declined since 2005.

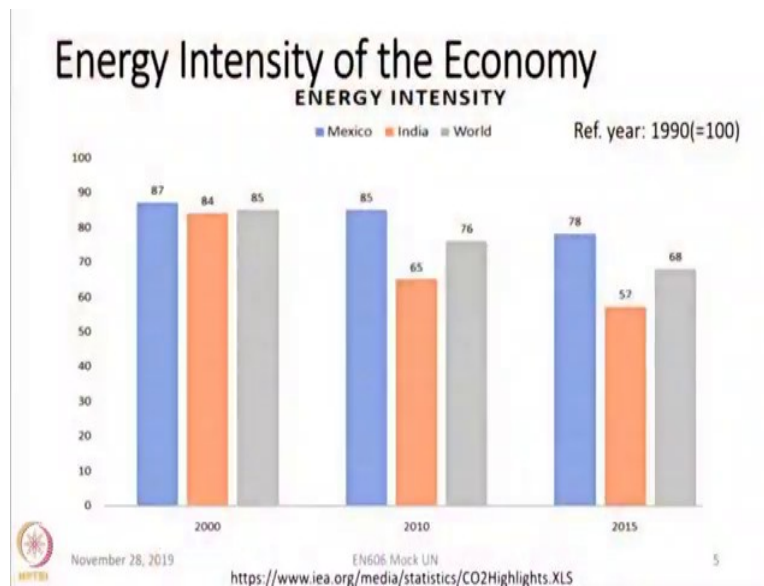
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This is because of increasing share of natural gas in total energy mix. This shows our concern towards climate change issue. The coal NG is less polluted as compared to oil and coal.

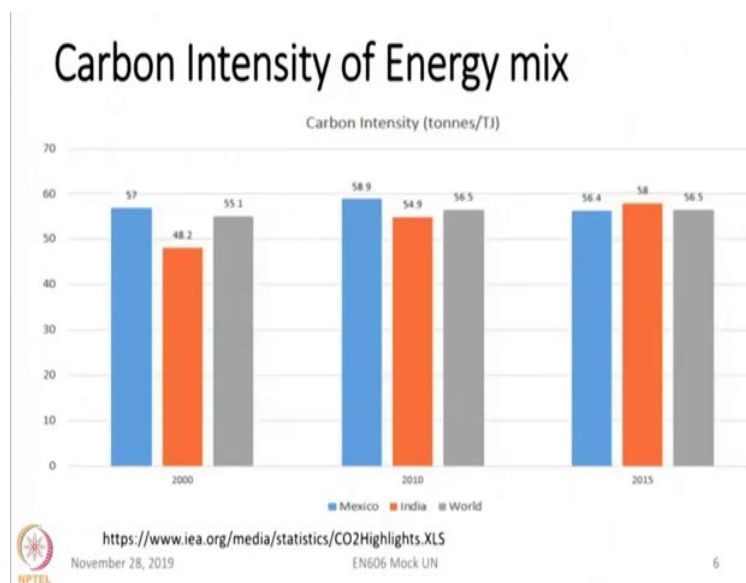
Hi friends, in continuation to Mexico which was elaborated by my group member Ravi, I will discuss about the energy intensity of the economy. If we see the energy intensity of the economy has gradually, first it has gradually decreased but in the last 5 years it has decreased significantly from 85 to 78, this is primarily because of shift in economy from manufacturing base to more towards services and export.

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In fact, 90% of the export of the Mexican economy is under free trade agreement and, and this trade is with more than 40 countries including countries in USA, Asia and other Middle East countries.

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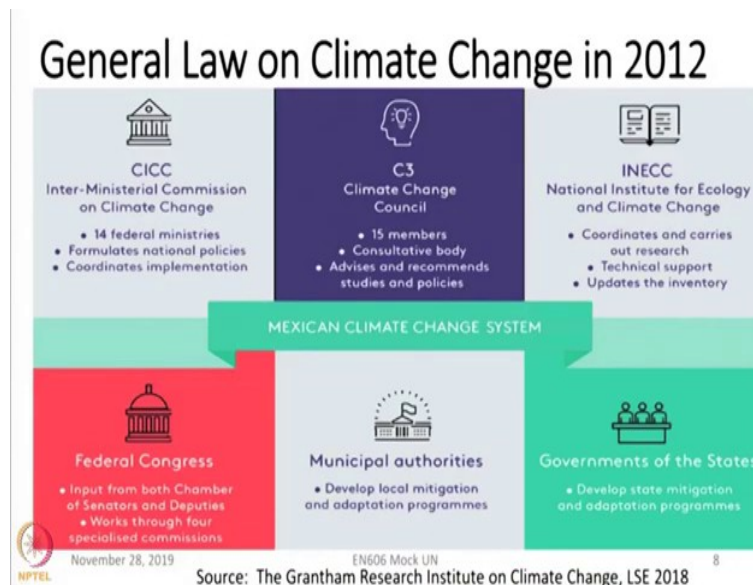


Now, if we see the carbon intensity of energy mix. So, carbon intensity first increase in 3 years have been shown here, 2000, 2010 and 2015, between 2000 and 2010 the, if you see in the slide the carbon intensity of the energy mix has first increased then it has decreased since 2010 when the concern towards the climate change became more aggressive in Mexico and that is why as it was highlighted by my group member, Ravi that the share of the import of natural gas has increased and this is because the energy production is more by means of

natural gas in Mexico because natural gas as we know is a cleaner source of energy compared to oil and coal.

And now, if we talk about the, climate issues which has been discussed by Mexico. Mexico has been very aggressive in terms of dealing with climate issues.

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If I show you this slide, we see that Mexico adopted what is called general law on climate change in 2012. Following were the targets which were highlighted under this and these are in fact quantified targets, these are three-point targets. The targets are minimum 35% of electricity would be from clean energy source by 2024. Reducing emissions by 30% by the year 2020 and 50% reduction in emission by 2015 and this is with the reference to the base year 2000.

And the third very important point in, in order to meet the climate change issues by 2030 Mexico will reduce total greenhouse gas emission by 22% and will reduce its carbon emission by 51% compared with a 2000 baseline. So, this was all about Mexico. Thank you.