#### It's here - the Nuclear Industry!

**How Nuclear Energy Works Impact of Nuclear Radiations on Humans Existing Nuclear Plants in India Proposed Nuclear Plants in India** Approximate Impact Area of Nuclear Accidents in India **OK, If Not Nuclear Then What?** (Alternatives) The Politics of Nuclear Energy in India **How You Can Contribute** References

# How Nuclear Energy Works

Radiation at EACH STAGE





Uranium Mining





**Fuel Enrichment** 





Waste Disposal



**Power Generation** 

RADIATION INCREASES multifold at each stage!

#### **Radioactive Waste**

- Generated at each stage *Mining, Enrichment, Power Generation* 
  - Waste from Enrichment has been used in Depleted Uranium (DU) bombs used in Iraq
- Even 21<sup>st</sup> century science has NO ANSWER for Nuclear Waste Disposal
  - Waste contaminates (beyond scope for inhabitation) a huge area in its vicinity for 1000's of years



### Radiation Contaminates Always

- Even if there is NO NUCLEAR ACCIDENT
  - Around a Uranium Mine
  - Around an Enrichment Facility
  - Around a Nuclear Plant
  - Around Nuclear Waste



An area of **30-35 km radius** gets contaminated by nuclear radiation regularly!



### **Radiation Spares Nothing**

- Impacts Vegetation Agriculture
  - Trees near Jaduguda Uranium Mines have DEFORMED SEEDS
  - Agricultural produce is bound to carry unacceptable amounts of radioactive content
- Impacts Animals
  - Radioactive Boars on the rise in Germany (thanks to Chernobyl)
- Impacts Human Beings







#### Nuclear Accidents Are Worse!



#### Nuclear 'Meltdown' in the USA

- Three Mile Island, Pennsylvania: Happened in 1979 due to the meltdown of fuel rods
- Health effects mostly unstudied or kept clandestine



# Impact of Nuclear Radiation on Humans

- Cancer in the next 2 to 60 years
- Deformed babies FOREVER!

The pictures that follow may be disturbing

Jump to Existing Nuclear Plants in India only if you are extremely week-hearted

home

## 40 Years Old Uranium Mines

in Jaduguda, Jharkhand





### Near Rawatbhata Power Plant

Near Kota, Rajasthan





# After Chernobyl Nuclear Disaster

1986





# After American Bombing in Iraq

Depleted Uranium (DU) Bombs made out of The Waste from Uranium Enrichment



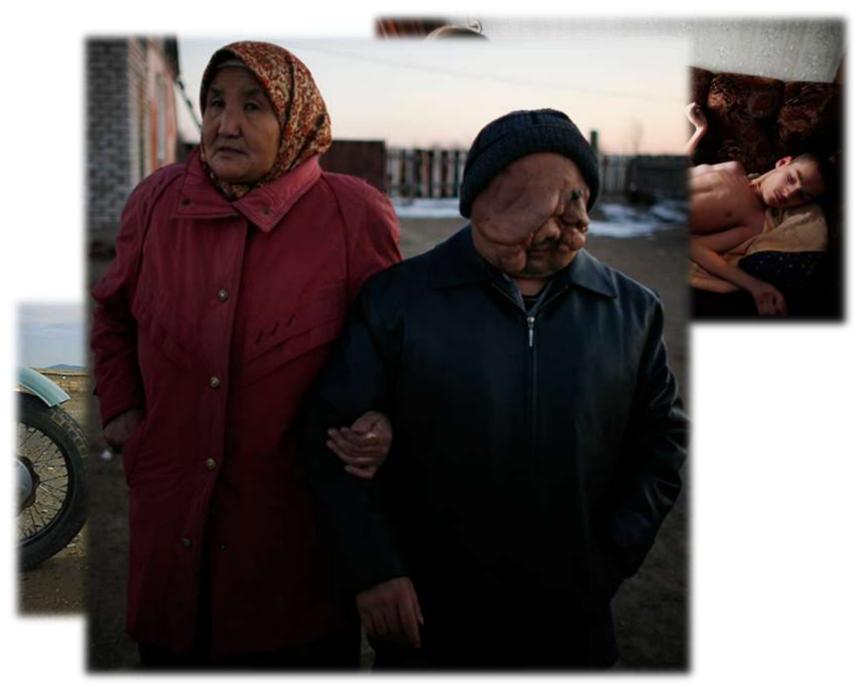




# Semey: USSR's Nuclear Testing Site

During Cold War





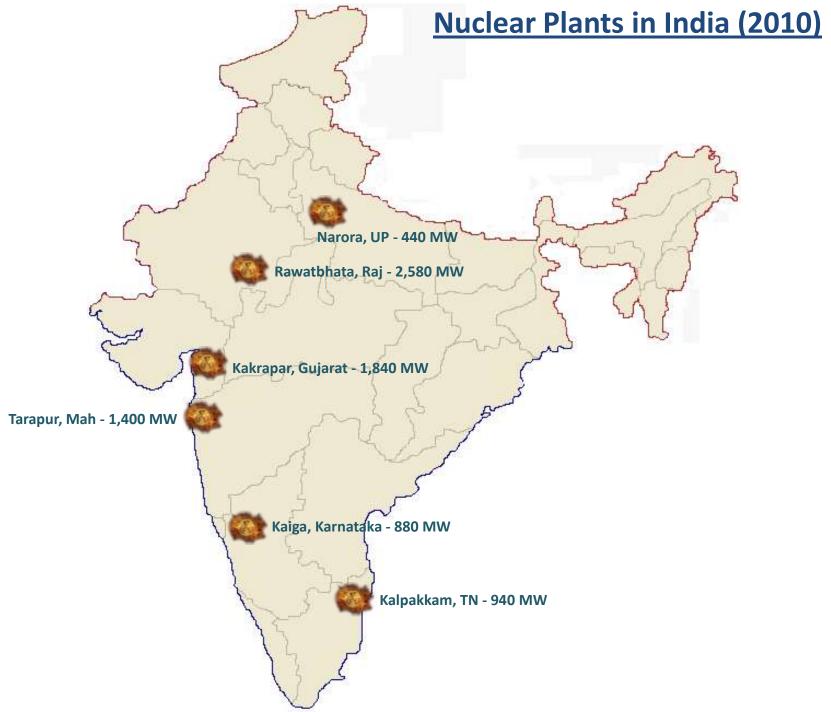
#### Still Nuclear Plants are being pushed in India...



# **Existing Nuclear Plants in India**

Before the Indo-US Nuclear Deal



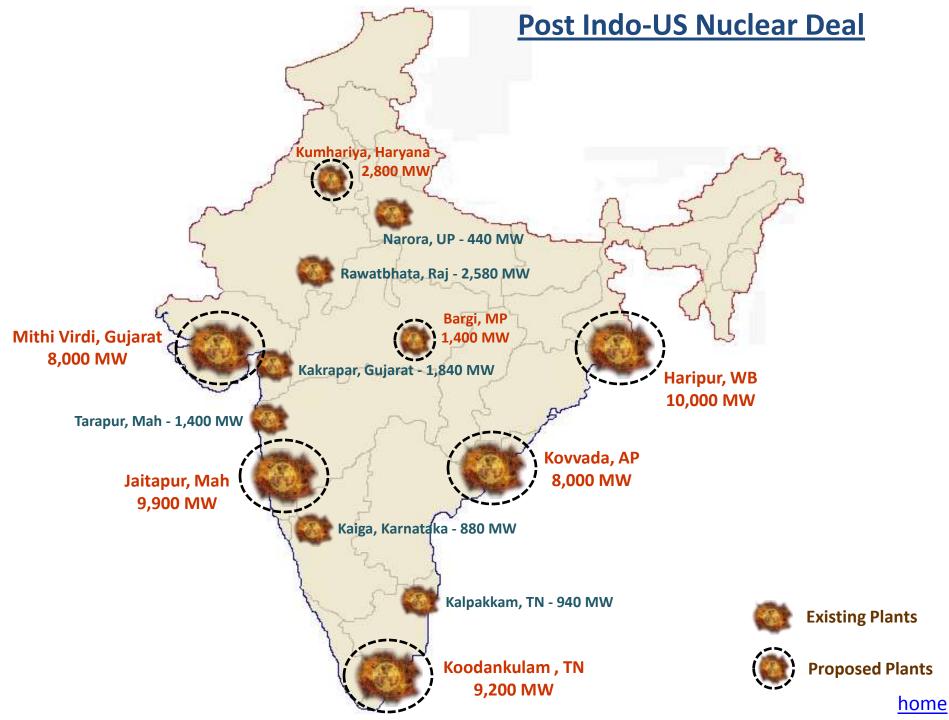


<u>home</u>

# Proposed Nuclear Plants in India

After the Indo-US Nuclear Deal





# Approximate Impact Area of Nuclear Accidents

In India



**Impact of Nuclear Accidents in India** 

Can you imagine the massive loss of Human Lives, Forests, Agriculture, Animals, Economic Activities?

For 1000's of years!



**Existing Plants** 



Proposed Plants

home

# OK, If Not Nuclear Then What?

Feeding Electricity to the Super Power in making...



### Improving Existing Energy Efficiency

- India can save 30-40% of its electricity deficit by simple Conservation techniques
  - Improving the efficiency of existing power plants (we are way behind international standards at the moment)
  - Decentralizing electricity generation to reduce long distance transmission losses

The cost of implementing these Efficiency Improvement Measures is MUCH LESS THAN that of setting up New Plants

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### **Conserving Electricity**

- We can save 30% increased demand of electricity by 2013 by using energy efficient electrical infrastructure at home
  - Fans, Incandescent Bulbs, Tube Lights
  - Refrigerators, ACs, Air Coolers
  - Electric Water Heaters



Computers, TVs, DVD Players, Set-Top-Boxes (active mode)



#### **Use Renewable Sources**

- They are *Cheap*
- They are Unlimited
- They *don't Kill*
- They are 'un-researched'

Spend the millions & billions on research of Renewable Energy rather than on Nuclear

America is the world's largest producer of Wind Power

Solar Energy has the potential to feed Earth 1000 times

Solar Water Heaters in Bangalore save 900 MW of peak load. Already!

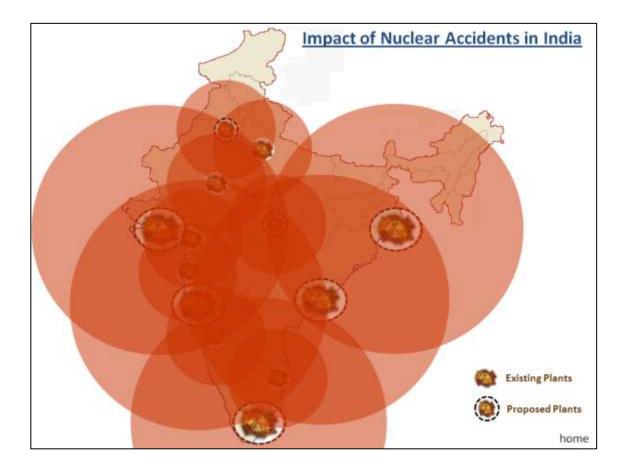


Electricity Produced in 2006	1,60,000 MW
Electricity Required	<b>8,00,000 MW</b> (by 2032 to sustain 8% growth)

#### Government declares

- Projected energy by all Nuclear Plants = just 60,000 MW
  - Hardly 10% of the electricity deficit

#### Why RISK Indian lives for just 10% of electricity?



### The Potential of Renewable Sources

 Latest studies indicate that Wind Energy & Solar Energy hold the keys to sustained development!

	Potential from Wind	1,00,000 MW
	Potential from Sun	4,00,000 MW
	0	
wind F Solf	nerev ar Enerev	

home

## The Politics of Nuclear Power in India

Ever heard of a *lucrative* Wind or Solar Scientist post?

### Why is Nuclear Power Promoted in India?

• Current energy policies are designed to benefit foreign MNCs



#### Newspapers admit that THEY ARE HERE FOR A **\$40 BN BUSINESS**



### Why is Nuclear Power Promoted in India?

- **Profit** for MNCs who will provide reactor designs
- Commission for Indian Politicians, Intellectuals, Scientists



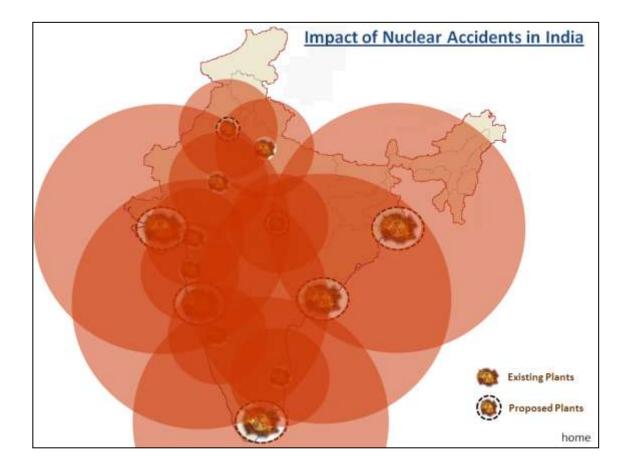
### Why is Renewable Energy Unknown?

- Very less or *No Scope for Investment* (read *profit*)
- Giants MNCs in the Nuclear Power sector are too strong to let the Renewable Energy sector grow
  - And hence, almost *No Solar or Wind Scientists*



Nuclear Industry

#### Why SPOIL Indian lives for their Profit?



### And Our Government's Gift for US

• The Nuclear Civil Liabilities Bill by *our* government says that:

Any *foreign company* WILL NOT be held liable for any nuclear accidents on Indian soil, whatsoever

They WILL NOT pay any Compensation

We CAN NOT sue them in Indian or Foreign courts





## The World Has Started Protesting

Nuclear Energy

### The 'West' is Disowning Nuclear Power

- Most Americans are against Nuclear Power
  - Major concerns:
    - Continuous radiation emitted in normal functioning of Nuclear Plants

home

- Nuclear Waste disposal
- Threats of nuclear accidents
- Australia has never built a Nuclear Power Plant!





### Wondering What You Can Do About This?

- Understand the *politics* of promoting Nuclear Power in India
- Spread *awareness* about this massive public betrayal



#### Jago Re!

