



Safety Requirements for Industries during Covid19

By

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Disaster means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area

FLOOD

- 40 million hectares prone to flood;
- 8 million hectares affected by flood every year;

CYCLONE

- Out of 7,516 kms long coastline, 5,700 kms are prone to cyclone;
- 8% of country's area and one third of its population live in 13 coastal states and Uts, encompassing 84 coastal districts, are prone to cyclones.
- Tamilnadu, Andhra Pradesh, Odisha, West Bengal & Puducherry on EAST COAST and Gujarat on the WEST COAST are prone to cyclones.
- Cyclones occur in the months of May-June & October-November.

DROUGHT

- 68% of the area is prone to drought;
- 33% is chronically drought prone, with rainfall less than 750 mm;
- 35% drought prone areas receive rainfall between 750-1125 mm per annum.

LANDSLIDE

- 25% area is prone to land slides;
- Entire Himalayas, North East Region, Western Ghats are perennially affected by landslides.

Vulnerability of Odisha

- Odisha is the most vulnerable State in country
- Major natural disaster occurrences include - flood, cyclone, drought, heat wave, lightning
- Coping mechanism strained due to recurring disasters
- Devastation from Cyclones threefold: winds, torrential rains lead to floods and storm surge
- About 98 hydro-meteorological formations classified as cyclones recorded between 1891 and 2020
- Majority of cyclones in Bay of Bengal passed through Odisha coast
- Cyclones of 1971 and 1999 accounted for nearly 10,000 deaths

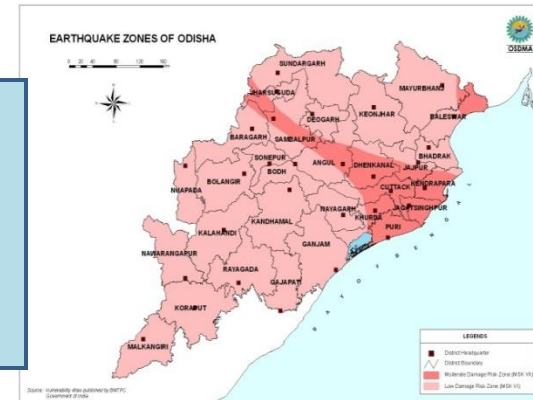
Disasters in the recent past

Year	Calamity
1996	Drought
1997	Drought
1998	Drought, Heat wave
1999	Super Cyclone
2000	Drought
2001	Floods
2002	Drought
2003	Floods
2004	Floods

2005	Floods
2006	Floods
2007	Floods
2008	Floods
2009	Flood & Drought
2010	Flood & Drought
2011	Flood
2013	Cyclone & Flood
2014	Cyclone
2015	Drought
2017	Floods
2018	Cyclone & Flood

During 1996-2018, Odisha has experienced

- 13 years of flood,
- 8 years of drought
- 4 years of cyclone (super cyclone of 1999, Phailin 2013, Hudhud 2014, TITLI 2018, FANI 2019 & Bulbul 2019)



number of cyclones crossing different coasts (1891-2000)

State	Total No
West Bengal	69
Odisha	98
Andhra Pradesh	79
Tamil Nadu	62
Karnataka	02
Maharashtra & Goa	18
Gujarat	28
Kerala	30

[Source: IMD]



Disaster management

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✿ EARLIER CONCEPT – Reactive

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- ❖ Rescue
- ❖ Recovery
- ❖ Relief
- ❖ Rehabilitation

✿ PRESENT CONCEPT - Proactive

- ❖ Planning
- ❖ Prevention
- ❖ Preparedness
- ❖ Response

New Normal – Action Points

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**Workplace
Measures**

Sanitizer, Hand wash

Mask

Thermal Scanning@ entry & exit

Gap between classes

Sanitize class room between classes

Create physical barrier

Large meetings prohibited

Lifts (2/4 persons), Prefer staircase

Training on good hygiene

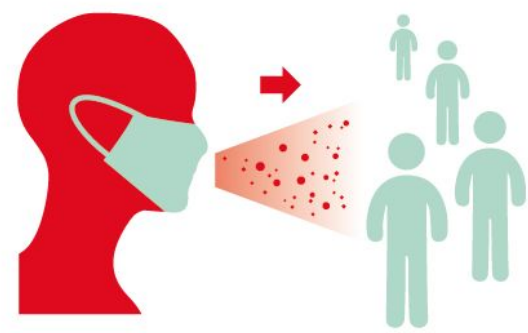
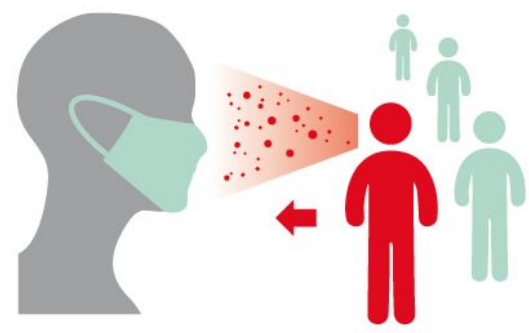
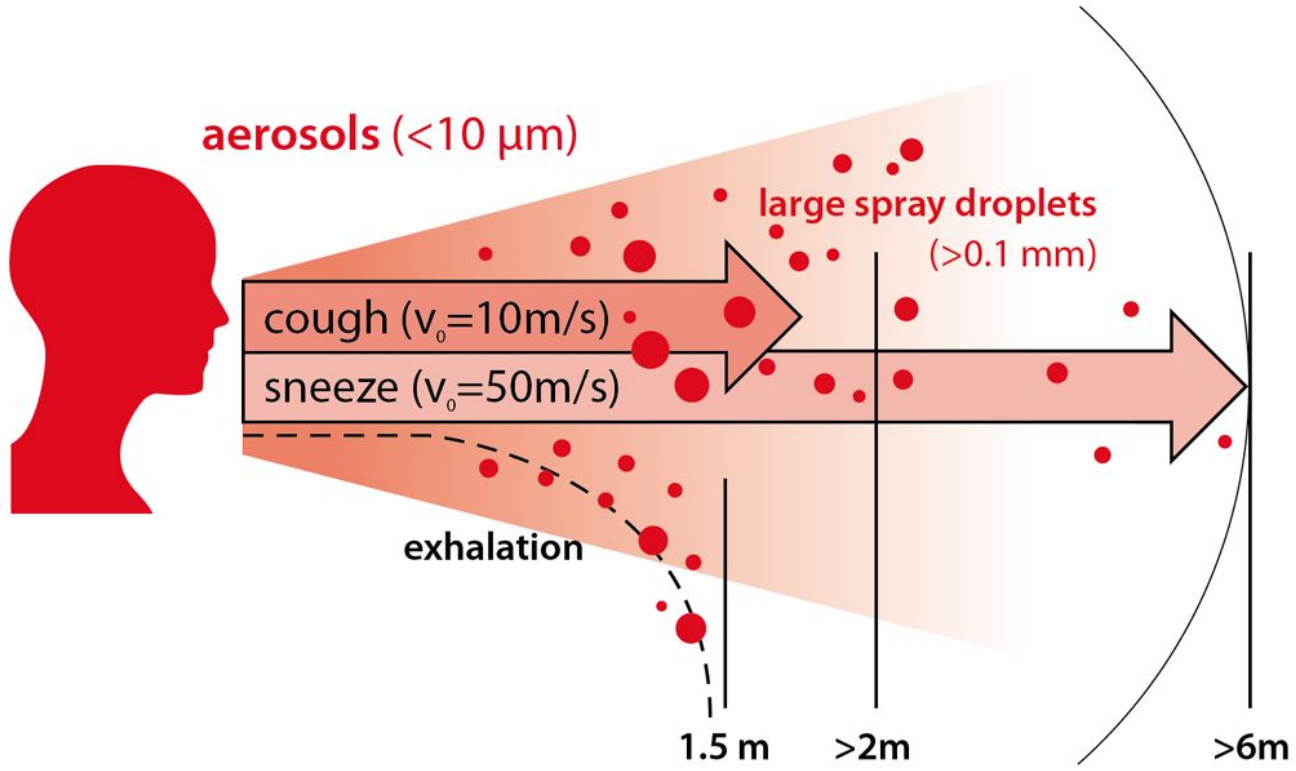
Ban on non-essential visitors

Staggered Lunch

No Gutka, No Tobacco, No Spitting

Social Distancing

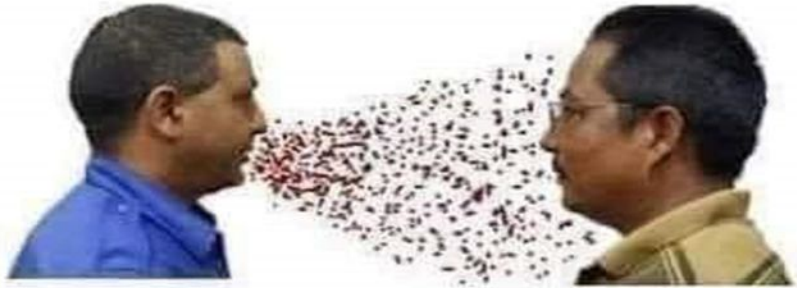
New Normal – Action Points



	Particles leaked through mask	Particles produced in environment
(home made) tea cloth	33	100 (reference value)
Surgical mask	25	
FFP2 (=N95 equivalent)	1	

	Particles produced by coughing	Particles leaked into environment
(reference value)	100	90
		50
		30

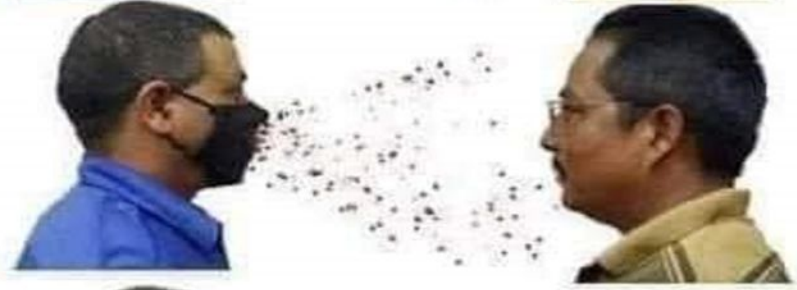
New Normal



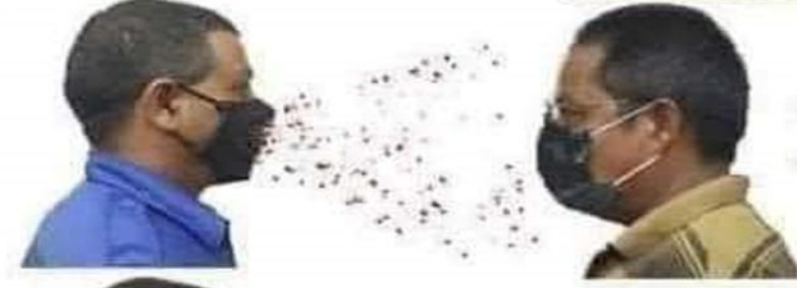
90% RISK
OF TRANSMISSION



30% RISK
OF TRANSMISSION



5% RISK
OF TRANSMISSION



1.5% RISK
OF TRANSMISSION



To effectively reduce disaster risks for communities, the United Nations Children's Fund 'UNICEF' and the United Nations Educational, Scientific and Cultural Organisation 'UNESCO' recognise the important role **education** plays in reducing vulnerability and building resilience.

A disaster resilient society can be created by **educating** children in schools on different types of disasters and their prevention.

Prevention is
BETTER than **CURE**



“FORGET
What hurt you,
But never forget
What it
TAUGHT you.”

THANKS