FOOD → MUD THE RUDE TRUTHS

ExNoRa

ExNoRa International

Huge Food Shortage

Expected Permanent & Continuous Food Shortage

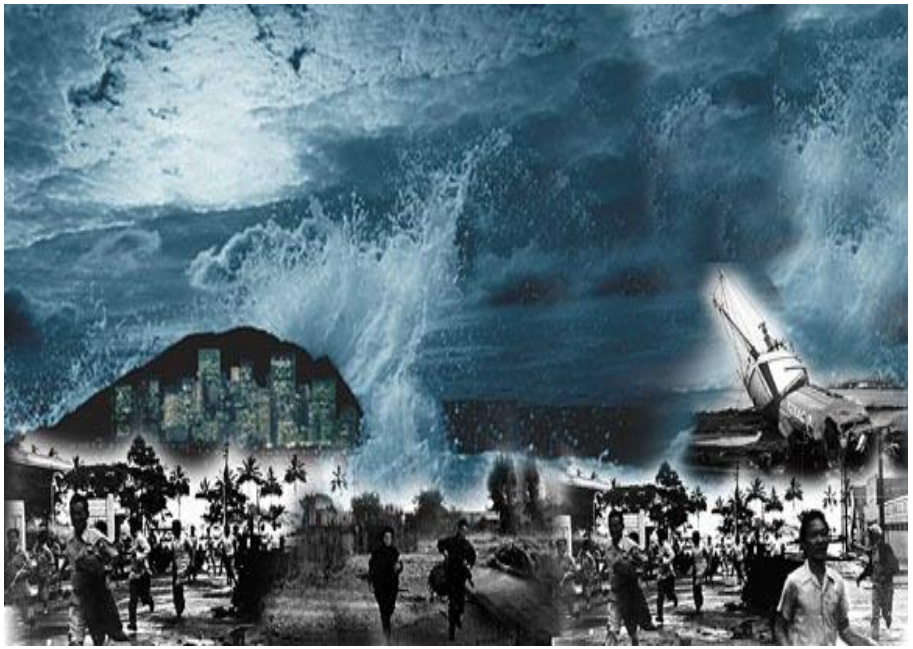
STEEP INCREASE IN DEMAND FOR FOOD & SHARP FALL IN SUPPLY OF FOOD

Threats to farmlands due to

Nature's ANGER

NATURE became against HUMANS

as HUMANS went against NATURE



Consequences of Global Warming

1. Atmosphere Warming

Drastic increase in atmospheric temperature

speeding up the melting of ice caps, glaciers & ice mountains

which in turn will lead to increase in sea level

which will eventually result in coastal areas going beneath water

RESULTING IN MELTING OF POLAR CAPS

farm lands will get inundated or will become saline

The most shocking information

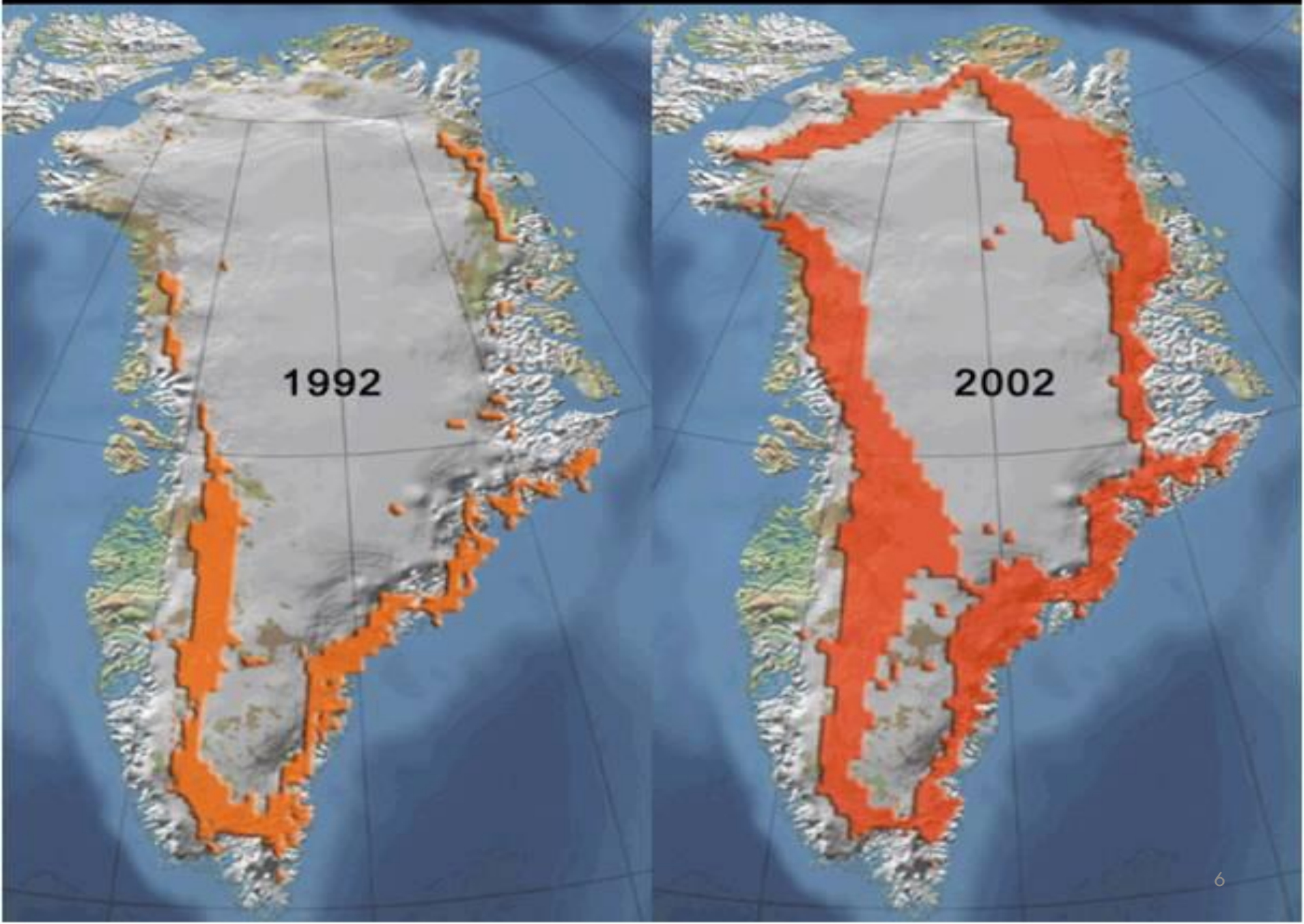
Crumbling of Ice Shelves

If the West Antarctic Ice Sheet were to melt and collapse into the sea, it would push the sea levels up 10 meters (more than 32 feet) and many coastal areas would completely sink beneath the ocean.

DANGER

Global Warm(n)ing

Greenland Ice Sheet Melt 1992 to 2002



1. Atmosphere Warming

Inundation & loss of Farm land due to increase in sea level

.

India has 7500 km long LOW coastline.

Indian Coastline Length
7516.6 km

GUJARAT
Coastline
1,600 km (Longest coastline)

TAMIL NADU
Coastline
1, 076 km (2nd longest Coastline)

ANDHRA PRADESH
Coastline
972 km (3rd longest coastline)

MAHARASHTRA
Coastline
720 km

KERALA
Coastline
590 km

ODISHA
Coastline
485 km

KARNATAKA
Coastline
300 km

WEST BENGAL
Coastline
158 km

Tropical Forests & Grass Lands will disappear.

Cereals yields will decline

Ground water level will go

down heat will increase steeply

This will lead to spreading of heat related diseases

2. Soil Warming

THE MINDBOGGLING PARADOX

Global Warming causes excess Soil Warming and affects AGRICULTURE

AGRICULTURE is a large scale CAUSE for Global Warming

Climate Change and AGRICULTURE are interrelated processes, both of which take place on a global scale.

Global Warming is projected to have significant impacts on conditions affecting agriculture, including temperature, carbon dioxide, glacial run- off, precipitation and the interaction of these elements.

These conditions determine the carrying capacity of the biosphere to produce enough food for the human population and domesticated animals.

THE MINDBOGGLING PARADOX

continued

At the same time, agriculture has been shown to produce significant effects on climate change, primarily through the production and release of greenhouse gases such as carbon dioxide, methane, and nitrous oxide, but also by altering the Earth's land cover, which can change its ability to absorb or reflect heat and light, thus contributing to radioactive forcing.

Land use change such as deforestation and desertification, together with use of fossil fuels, are the major anthropogenic sources of carbon dioxide; agriculture itself is the major contributor to increasing methane and nitrous oxide concentrations in Earth's atmosphere.

3.Sea Warming

Warming oceans are pushing fish toward the poles in search of cooler waters, according to a study that raises new concerns that climate change is robbing the tropics of a primary source of income and nutrition.

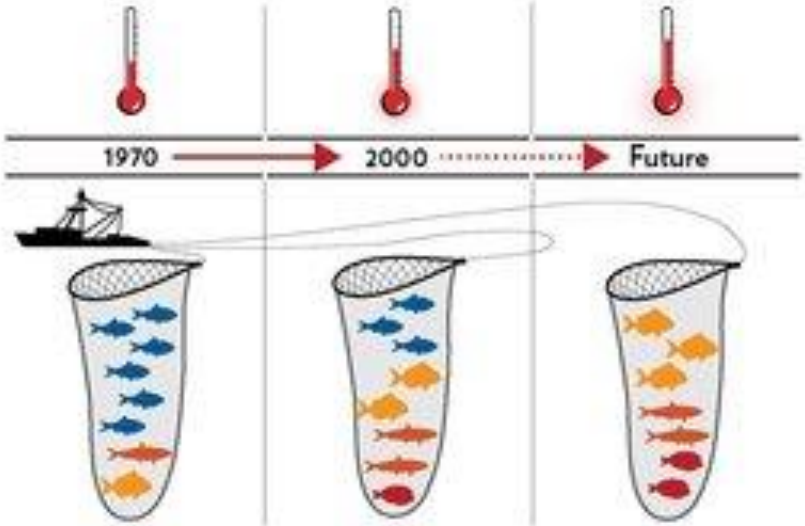
Loss of sea food & Sea Warming making Wind Warmer

Warming Oceans Are Reshaping Fisheries

Marine species are gradually moving away from the equator into cooler waters, and, as a result, species from warmer waters are replacing those traditionally caught in many fisheries worldwide. Scientific studies show that this change is related to increasing ocean temperatures.

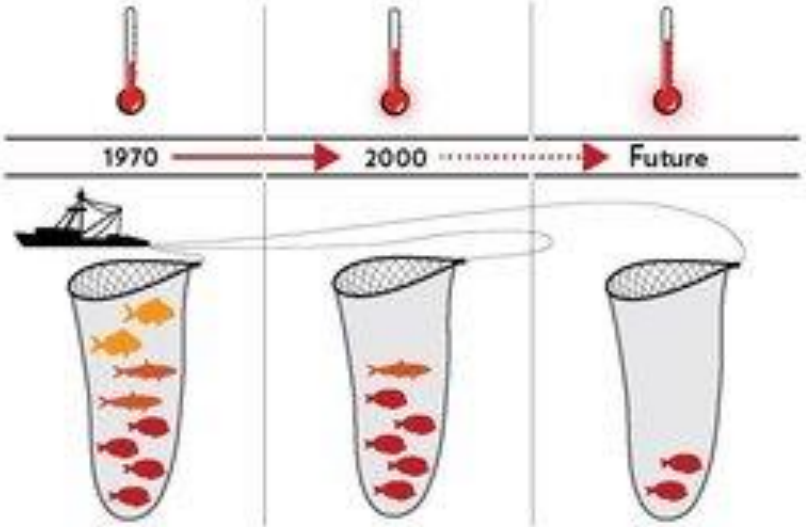
Subtropic and temperate ocean

From 1970 to 2006, as open temperatures were rising, catch composition in the subtropic and temperate areas slowly changed to include more warm-water species and fewer cool-water species.



Tropics

In the tropics, the catch composition changed from 1970 to 1980 and then stabilized, likely because there are no species with high enough temperature preferences to replace those that declined.



Temperate/cool-water fish Subtropical fish Tropical/warm-water fish

These shifts could have negative effects including loss of traditional fisheries, decreases in profits and jobs, conflicts over new fisheries that emerge because of distribution shifts, food security concerns, and a large decrease in catch in the tropics.

This graphic presents concepts from: Cheung, W.W.L., R. Watson and D. Pauly. 2013. Signature of ocean warming in global fisheries catch. *Nature*. DOI:10.1038/nature12156.
The thermometers are representative of trends in ocean temperature over time and the fish are representative of trends in catch composition over time. They do not represent specific values. Please consult the results section of Cheung et al. (2013) for exact data points.
Graphic by The Pew Charitable Trusts' ocean science division, www.pewenvironment.org/research-programs

Sea Warming – a shocking news

It is not just a case of dwindling fish population & migration of fish population towards south near Antarctic . It is much more than that

Global warming is likely to shrink the size of fish by as much as a quarter in coming decades, according to a ground-breaking new study of the world's oceans.

In other words the fish will drastically shrink in its size

The reduction in individual fish size will be matched by a dwindling of overall fish stocks, warned scientists, at a time when the world's growing human population is putting ever greater pressure on fisheries.

Sea Warming

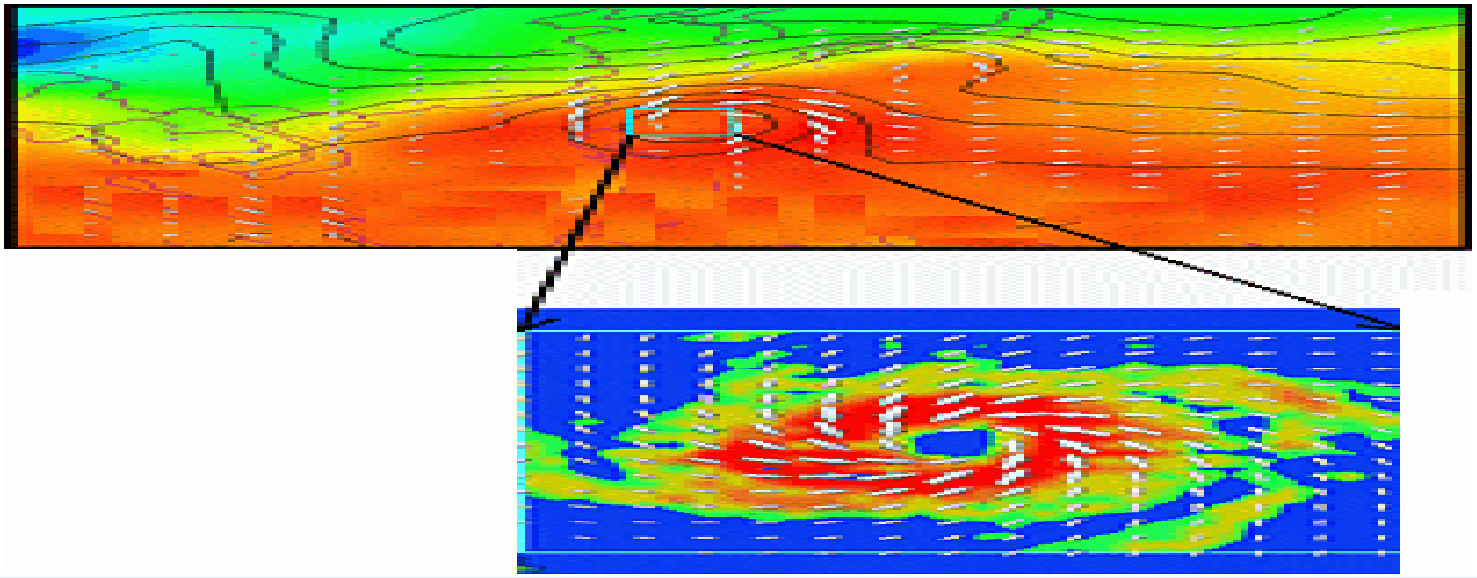
Scientists fear declining Arctic sea ice and warming waters may have caused an unprecedented mass migration of thousands of walrus from the ice floes to dry land along Alaska's coast.

4. Wind Warming

Atmosphere, Soil & Sea Warming lead to Wind Warming

Wind Warming will make cyclones, hurricanes & typhoons more violent, virulent, volatile & frequent.

Wind will cause destruction agriculture and forests including uprooting of fruit bearing trees.



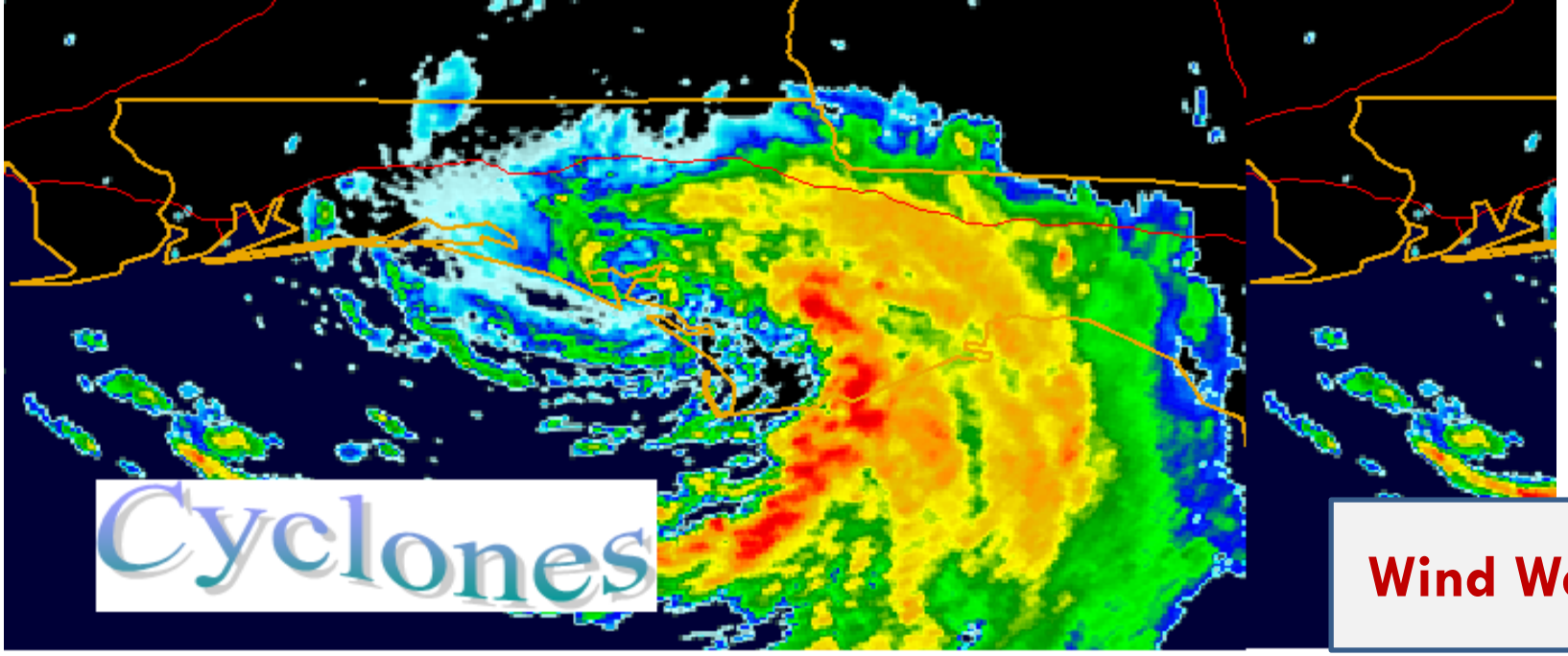
GLOBAL WARMING CAUSES WIND WARMING WHICH CAUSES STORMS

The above picture show a model how a cyclone is generated by the temperature difference and the wind flow caused by the warmth of the ocean .

Typhoons play a significant role in distributing the ocean's heat.

Oceans which cover two-thirds of the planet's surface and absorbs massive amounts of heat from the atmosphere.

Cyclones whip up the sea like the spinning steel blades of a food mixer



Wind Warming

Scientists have long studied the relationship between warmer sea surface temperatures and cyclonic, slowly spinning storms in the Atlantic Ocean, but the new study attempts to project how many of the most damaging hurricanes could result from warming air temperatures as well

(Reuters) - The number of Atlantic storms with magnitude similar to killer Hurricane Katrina, which devastated the U.S. Gulf Coast in 2005, could rise sharply this century, environmental researchers reported on Monday.

Wind Causing damage of trees

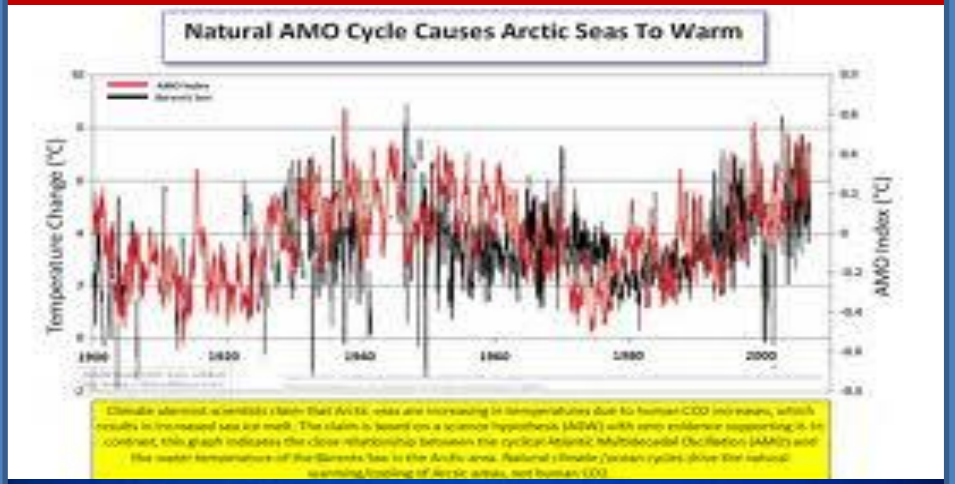
Wind Causing damage of Crops

2020 AD will witness serious food-shortage & will see Food & Water Civil War

1 Soil Warming will cause less farm output

Soil Warming measuring meter

2. Sea Warming will kill fishes & result in lesser fish production



What is soil degradation?

Soil degradation is when soil deteriorates because of human activity and loses its quality and productivity

It happens when soil loses its	nutrients,	or	its organic matter.
It also happens when the	Soil, structure breaks down,		or it becomes toxic from pollution.

The primary cause of soil degradation is erosion, but compaction, salinization, and depletion by nutrient demanding crops may also cause degradation.

Soil degradation is which the movement of soil particles from one place to another by wind or water, is considered to be a major environmental problem.

Erosion has been going on through most of earth's history and has produced river valleys and shaped hills and mountains.

Such erosion is generally slow, but the action of man has caused a rapid increase in the rate at which soil is eroded (ie. a rate faster than natural weathering of bedrock can produce new soil).

This has resulted in a loss of productive soil from crop and grazing land, as well as layers of infertile soils being deposited on formerly fertile crop lands; the formation of gullies; siltation of lakes and streams; and land slips.

Man has the capacity for major destruction of our landscape and soil resources.

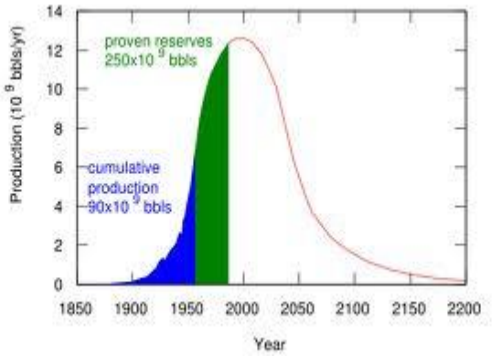
Hopefully he also has the ability to prevent and overcome these problems.

FARMLAND CANCER DUE TO USE OF CHEMICAL -PESTICIDE

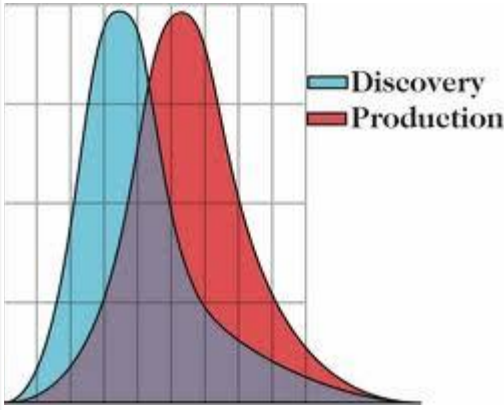
Needs no explanation

6. Peak Oil leading to Peak Fertilisers & Peak Fertilizers leading to Peak Food due to STEEP DROP in Agricultural Produces

Peak oil is the point in time when the maximum rate of global Petroleum extraction is reached, after which the rate of production enters terminal decline.



This will lead to psychological pressures, due to which there will be step escalation of Petroleum Products , which in turn will lead to Peak Fertilisers followed by acceleration of price of Fertilisers.



Know all about PEAK OIL

Hyperlink Page

5. Population Explosion

Danger

More Stomachs & less food, what will happen?

India Population by 2020 will touch a whopping 1.3 billion

POPULATION GROWTH SLIPS BUT...

Figures on the intervening midnight of February 28 and March 1. Source: Census 2011

HOW BIG ARE WE

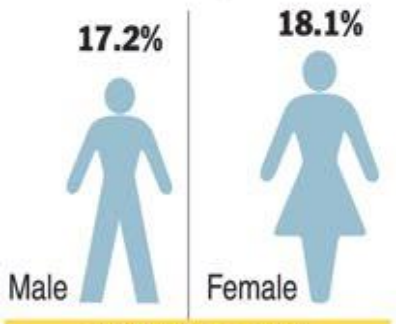
Males 623 million

Females 586 million

India's 1.21 billion is nearly equal to the combined populations of the following six countries

HOW WE GREW

Compared with the growth in 2001



TOTAL: **17.6%**

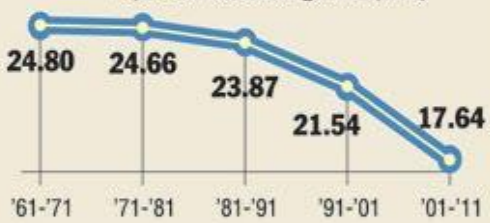
BY HOW MUCH WE GREW

Population rise in a decade

Slightly lower than the population of Brazil

GROWTH RATE PATTERNS

Population decadal growth (in %)



NOTABLE GROWTH RATE DIPS (in %)

UTTAR PRADESH 25 → 20	MAHARASHTRA 23 → 16
BIHAR 29 → 25	BENGAL 18 → 14
ANDHRA PRADESH 15 → 11	MADHYA PRADESH 24 → 20

OVERALL SEX RATIO

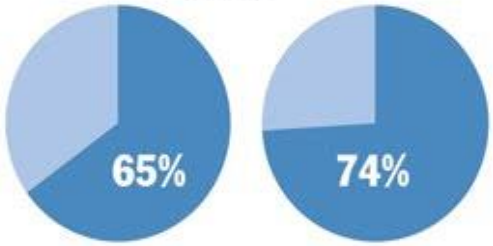
Females per 1000 males

CHILD SEX RATIO

Girls aged 0-6 per 1000 boys

LITERACY

TOTAL



	2001	2011
Male	75 %	82 %
Female	54 %	65 %

DENSITY

Persons per sqkm

Graphic: RAJ

WHAT IS URBANIZATION ??

❖**Urbanization** is the physical growth of urban areas as a result of rural migration and even suburban concentration into cities, particularly the very large ones.

❖When India got her independence , the urban area was less than 34%. By **2050** it is predicted that **64.1%** and **85.9%** of the developing and developed world respectively will be **urbanized.**

❖Urbanization will lead to loss of huge chunk farmlands and villages losing their charm & natural beauty

FARMLAND BECOMING BUILDING LAND

CONSTRUCTION OF BUILDINGS on FARMLANDS

CONCRETE JUNGLES

4. Murder of Farm Lands

Due to accelerated urbanisation. we have Land Cancer. Farm Lands becoming housing and industry land . Instead of crops , buildings grown. The agricultural production will drop down by 20% by 2020 due to shrinking of farm lands.

A new Lay Out with tall building proudly says what LIFE can be ?

But it does not say what LIFE is going to be . May be man has to innovate plastic RICE & Eat

Murder of Farm Lands begins with Layouts

Murder of Farm Lands for Layouts Continues

1200 Colleges & Schools on Farmlands in last 12 years

1200 Colleges & Schools on Farmlands

Welcome SIPCOT Industrial Estates & goodbye to farmlands & food to EAT

ALAS ! Farmers are not now on Farmland . But are 24 hours on streets to protect their farmland which is their bread & butter

Thervoy Kandigai is another Nandigram happening near Chennai.Thervoy Forest, Lifeline of Thervoy Kandigai was cared and protected for more that 200years by the local village.

This protected forest was adopted by the Tamilnadu government in the year 2008 and was chopped off to facilitate setting up factory for Micheline Tyres, World's Largest Tyre manufacture, a Beer Factory and a Glass Factory.

1. Novel agitation: Farmers of Kumbuliampatty and villages surrounding Perundurai SIPCOT industrial estate staging a protest against taking over of their land

2. ERODE: Residents of Kambuliampatty and other villagers neighbouring Perundurai SIPCOT Industrial estate staged a protest at the village against the State Governments proposal to expand the estate.

3. Covering their mouth with black band, the villagers wanted the Government to give up the plan, which if implemented, they said, would affect 1,000 families that were dependent on agriculture.

4. Almost all the 1,000 families had very small land holdings that served as the source of their livelihood

5. In addition to the farmers' families, 1,500 agriculture labourers who were on the land would also lose their livelihood.

Farm Estates are fast becoming Industrial Estates

Murder of Farm Lands for Laying Roads

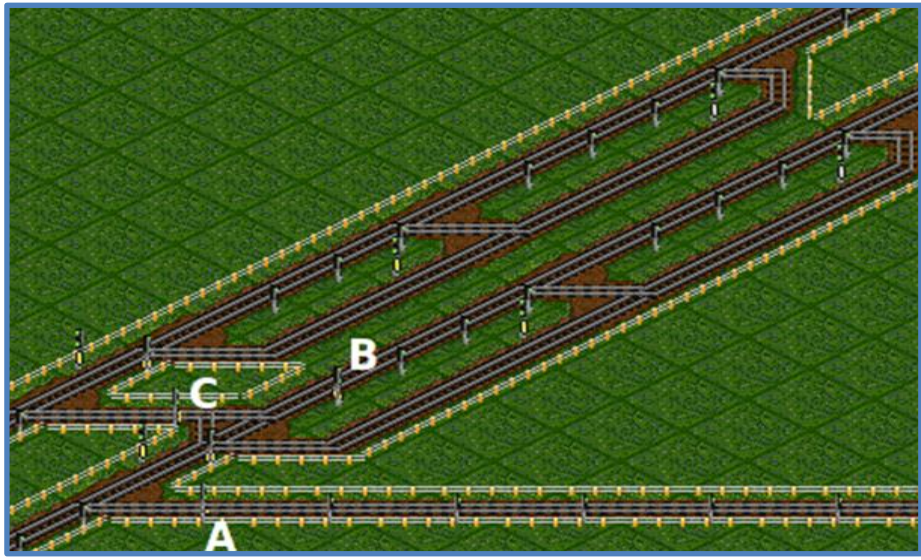
CONSTRUCTION OF ROADS ON FARMS LAND

Airport

Farm Land for Airport

Proposed Huge Airport by name Green Field on Green field (Farm land)

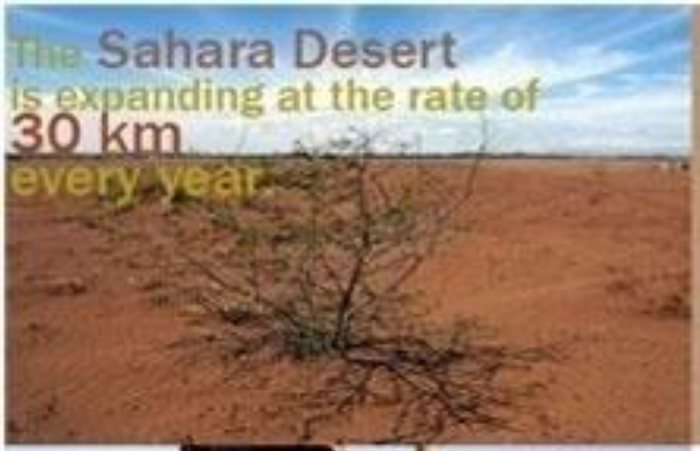
CONSTRUCTION OF RAILWAYS ON FARMS



CONSTRUCTION OF PIPELINES ON FARMS

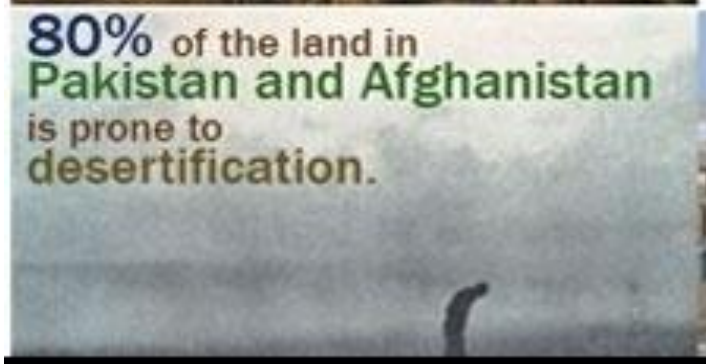
Farmers protest GAIL project, work continues despite resistance.
COIMBATORE/ ERODE: Unilateral attempts by Gas Authority of India Ltd (GAIL) to lay its natural gas pipeline through farm lands in seven districts of Western Tamil Nadu, ignoring protests by affected farmers and stifling voices of dissent using police force, have invited stiff resistance across the region.

Deserts grow by 100 square kilo meters every year.

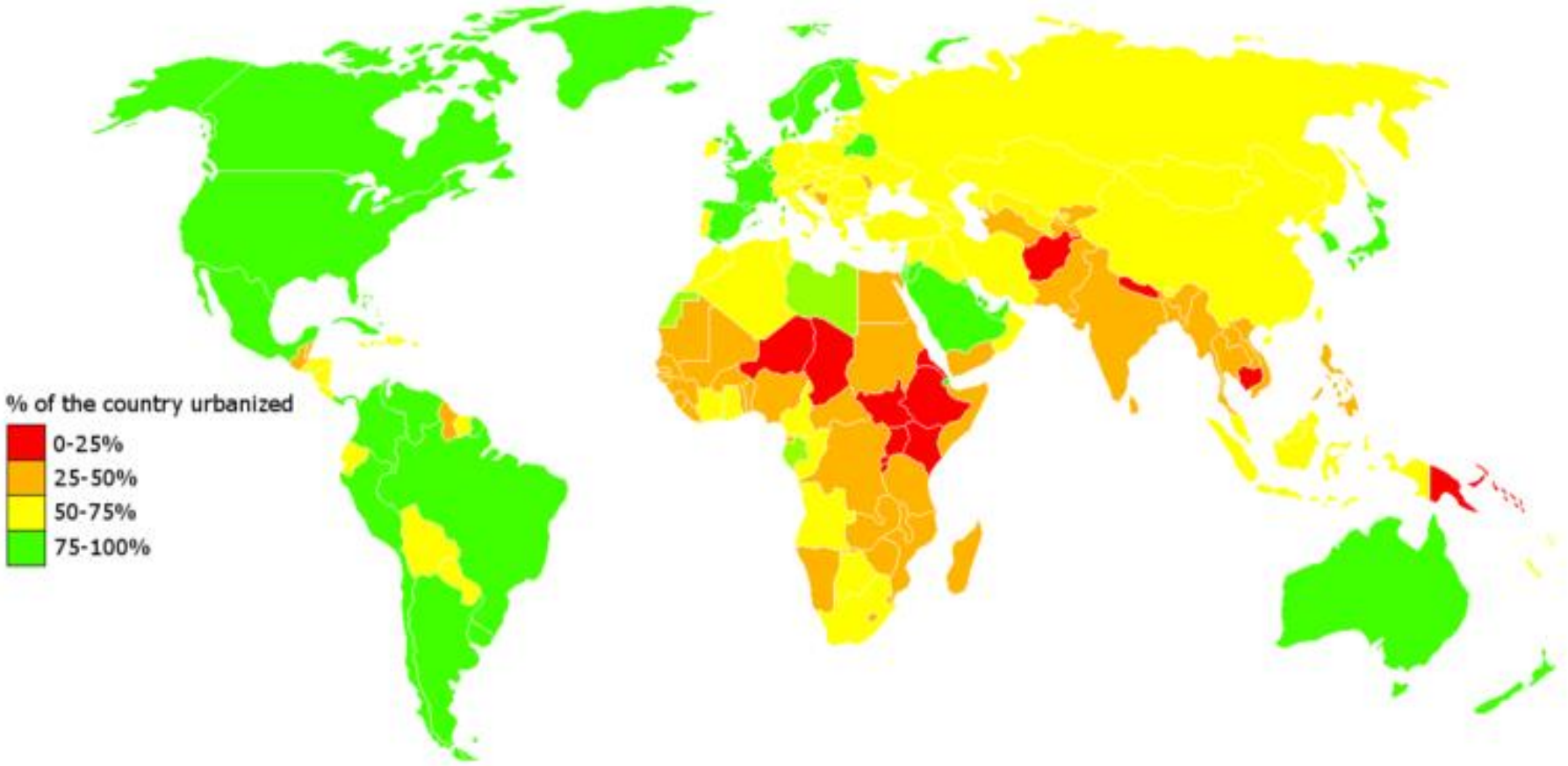


Desertification

The Common Cause



Global urbanization map showing the percentage of urbanization per country



There will be a serious food-shortage in ten years due to (at a glance)

Atmosphere Warming will result in loss of Farm Land due to inundation by Sea and land becoming saline

FOOD PROBLEMS AT A GLANCE

Soil Warming will reduce farm productivity

Sea Warming will decrease Fish Population

Wind Warming will make cyclones , typhoons & hurricanes more violent , virulent , volatile and frequent which in turn will cause destruction of agriculture and forests

Population explosion	Increase in longevity due to better health care
Water issues (see next frame)	Fragmentation land due to succession by heirs

Demand for food will increase due to Population Explosion . MORE BELLIES , LESS FOOD

Loss farmlands due to urbanisation

Construction of Buildings for Houses, Schools , Colleges , Offices , Industries , Parks, Playgrounds, Amusement Parks , atomic power plant , Crematoria ,Garbage & Sewage Dump

Construction of Roads , Railroads , laying of Pipelines ,

Farmers are losing interest in Farming, due to various challenges which keep increasing everyday . Farmers Giving up Farming as it is uneconomical & not viable

Peak Oil (Oil price will sky rocket) will occur which will lead to Peak Fertilizers (Chemical Fertilisers price will sky rocket)

Peak Fertilisers leading to Peak Food (Food prices will sky rocket)

INNOVENTOR
(INNOVATOR+ INVENTOR),
CONCEPT CREATOR, NEOLEXIAN & AUTHOR

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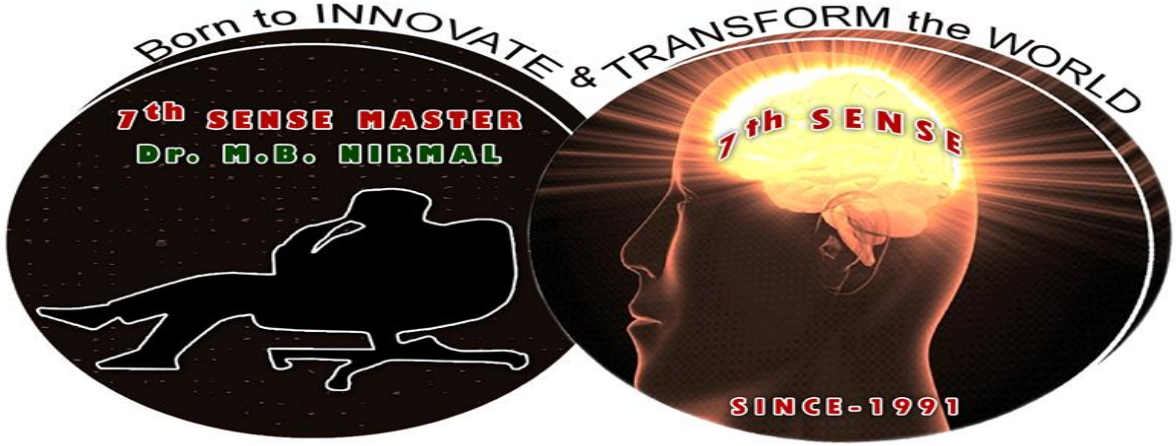
Exn Dr Nirmal Basu, GPian
7th Sense Master & Trainer (SINCE 1991)
FOUNDER- ExNoRa International (1989). 5th Pillar (1997), 7th Sense Society (1999), INNOVENTIONS (1999) & 40 more
INNOVENTOR (INNOVATOR+ INVENTOR), (since 1977) of nearly of 3000 IDEAS, CONCEPTS, SERVICES & PRODUCTS AUTHOR (since 1964) 14 books & hundreds of articles, stories & research papers PHOTO-JOURNALIST (since 1964) NEOLEXIAN (coiner of new words) in 3 languages (since 1980)