

# **CLIMATE CHANGE**

**Solutions to Climate Change  
That People  
Do Not Want to Hear**

**Maintaining the  
Life Support Systems  
For The Earth**

**By  
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Captain Paul Watson

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An Earth Warrior's Guide to Strategy

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*I have no concerns for the media spins  
At the lies and falsehoods they scatter.  
May the future forgive my ecological sins  
For all other sins don't matter.*

- PW

# A CALL FOR LEADERSHIP

In 1972 I attended the United Nations Conference on the Environment in Stockholm, Sweden.

In 1992 I attended the United Nations Conference on the Environment in Rio de Janeiro, Brazil

1972 – 2015 NOTHING ACCOMPLISHED

**COP21/CMP11 Paris 2015**

It's been 43 years since Stockholm and now Paris is hosting the Conference on Climate Change 2015.

Every single U.N. Conference on the Environment, Population and Climate Change has been a Failure –  
Talk, Meetings and More Talk. No Action.

France has the Exciting Opportunity to Initiate Real Leadership on Climate Change  
For France,  
For the Planet,  
For the Future of Humanity.

**Humanity Cannot Afford  
Another Failure**

# **Solutions. Change. Sacrifice.**

We all Want Solutions  
But Very Few  
People Really Want to Implement Solutions.

We All May Want Change But Most Are  
Reluctant To Make Changes.

Solutions Require Change and Change  
Requires Sacrifice.

Do We Love Our Children And  
Grandchildren Enough To Make The Required  
Sacrifices To Change Our Course Away  
From Catastrophe To Survival?

Or Are We All Just Too Comfortable With  
The Current Benefits of Over-Exploitation  
Pollution and Consumerism?

We are all involved. We are responsible.

*“No snowflake in an avalanche ever feels responsible” –*  
Voltaire

# **CLIMATE CHANGE**

The Earth's climate is regulated by the global carbon cycle. It is a vast complex system that processed CO<sub>2</sub> on a global scale. The problem is that it can no longer absorb the excess CO<sub>2</sub> that humans produce.

Since the beginning of the Industrial Revolution the Plants and phytoplankton have been absorbing about 50% of the excess CO<sub>2</sub> that Humanity produces.

**The Present Day Climate Change Threat is Directly Caused by Human Generated Greenhouse Gases.**

**No Government Wants To Be Responsible For The Conditions Causing Climate Change But All Governments Are Profiting From These Conditions.**

All World Governments Today Are Contributing To The Problem of Climate Change, A Few Much More Than Others But Consequences Fall Upon the Entire Human Species. Not One Government Is Exploring Practical Solutions.

**Why?**

Because Corporations And The Majority of People Do Not Want To Hear Unpopular Solutions

# **WATER**

Our Climate is regulated by four life support systems

The Hydrosphere (Water)

The Cryosphere (Ice)

The Atmosphere (Air)

The Biosphere (Living Species)

What they all have in common is water.

Water circulates through all four spheres. It is the blood of the planet. It transports nutrients and it removes waste. It is also the primary factor in regulating climate and thus anything that negatively impacts any of the four spheres.

Rising Sea Levels and Floods  
Glaciers Retreating or Advancing.  
Pollution of Air and Water  
Species Diminishment.  
This is the Water Planer  
All Life is Water

**NO WATER = NO LIFE**

## Where to Begin?

The first thing we need to do is to understand  
the three basic laws of ecology.

All species must adhere to these three laws to  
survive on the planet.

Failure to do so will lead to extinction.

Diversity

Interdependence

Finite Resources

# The Law of Diversity

The strength of an eco-system is  
Determined by the diversity of species  
within the eco-system.

The greater the diversity, the stronger  
The eco-system.

Diminishing biodiversity  
diminishes the eco-system.

Therefore it is imperative that all  
Species be protected to maintain a  
healthy eco-system.

Humanity must recognize and maintain  
diversity of species within every  
eco-system if Humanity is to survive.

# The Law of Interdependence

All species within an eco-system are interdependent.

Every species is connected to every other species, some more intimately than other, but ultimately all are linked in this wonderful network called the Biosphere.

The Whales are the gardeners of the sea providing nutrients like iron to the Phytoplankton that provide food to the Zooplankton that provide food to the Fish and the Whales.

Water and Nutrients cycle through plants, animals and minerals.

We are all a part of each other  
No species is an island entire to itself.

# The Law of Finite Resources

There are limits to growth.

There are limits to carrying capacity.

Humanity is stealing the carrying capacity of millions of species.

As human numbers and consumption increase biodiversity is diminished.

Interdependence is diminished.

The ability of the Biosphere to support all of us including humanity is dangerously diminished.

WHEN THE BIOSPHERRE IS  
DIMINISHED,  
HUMANTIY IS DIMINISHED

# The Biosphere is the Life Support System for the Earth

It is the Biodiversity of all interdependent species, from bacteria and phytoplankton to the Blue Whale and the Redwoods that sustains and maintains all life, including human life on planet Earth.

The Biosphere produces oxygen, sequesters CO<sub>2</sub>, provides food, cleans up waste and regulates temperature and climate.

It is the millions of species working hard on land and in the sea as engineers that provide these services. They are the living crew of Spaceship Earth.

A healthy crew is a healthy planet.

The Crew Needs Humanity and  
And Humanity needs the Crew.

We are Killing the Crew.

# WE ARE PASSENGERS WE ARE NOT THE CREW

Humans are essentially passengers on Spaceship Earth. We spend most of our time consuming and stealing resources from other species and the rest of the time entertaining ourselves.

We take from the biosphere and return –  
Nothing!

The Kayapo Indians of Amazonia call us the Termite People because we gobble up all that lives.

Our lives depend on a healthy crew of Geo-engineers, yet we are systematically exterminating many of the species that maintain our life support systems.

# Keystone Species

Some species are keystones.  
holding together the ecological integrity  
of an eco-system.

## The Sea Otter

Sea Otters were slaughtered to the brink of extinction in the 19<sup>th</sup> century resulting in catastrophic ecological damage. Removing the otter created an explosion of urchins that depleted the kelp beds from California to Alaska. The kelo beds are slowly now returning because of protected measures for the sea otters.

Now reduction in wild salmon is forcing Orcas to prey on Sea otters with potential similar consequences.

“When they try to pick out anything by itself, we find it hitched to everything else in the Universe”  
- John Muir

# Germs and Worms Bees and Trees Are More Important Than Humanity

Outrageous!  
Misan tropic!  
A provocative statement!  
Blasphemous – perhaps!

But – An ecological truth.

Germs and worms, bees and trees can  
live on the planet without us.

We can't live without them.

We need them.  
They don't need us.

It's as simple as that

# A World Without Bees!

Bees are keystone pollinators.  
Bees pollinate 70 of the 100 crops  
humanity grows for food.

A world without bees cannot sustain 7.5  
billion people.

## BEES ARE DYING

Because of the loss of flower meadows,  
climate change, parasites and disease.

Something is terribly wrong in the  
world of Bees.

And that means something is terribly  
wrong in the world of Humans.

No Bees = No Civilization

# A World Without Grass!

Imagine a world without grass.

The family Poaceae is the single most important food for Humanity.

Grasses represent 24% of the planet's vegetation of over 10.000 species.

We depend on just 35 species.

Wheats, oats, rye, barley, maize, millet, rice, bamboo, sorghum and spelt are amongst the most common cereal crops.

Grasses are self-pollinators but disruption of the diversity of beneficial species in the soil can lead to fungal and other parasitic lethal issues.

The World Must Eliminate  
Herbicides, Fungicides and Pesticides

IF  
THE  
OCEAN  
DIEW  
WE  
ALL DIE!

HUMANITY CANNOT  
SURVIVE  
ON THIS PLANET  
WITH  
A  
DEAD  
OCEAN

# Imagine

Imagine a world without worms,  
Without Phytoplankton.  
Without Zooplankton.;  
Without Honeybees,  
Without Bacteria,  
Without Wales,  
Without Grass,  
Without Trees,  
Without Fish.

Imagine a world without Humanity.

Because Without the Others,  
Humanity Cannot Exist.

We need The Others,  
They Do Not Need Us.

# RESTORE. CONSERVE. PROTECT.

We must replenish  
biodiversity in the Ocean.

Humanity has been diminishing  
biodiversity to the state of collapse.

Biodiversity in the Ocean has been  
reduced by 90% by a species that holds  
Absolutely no ecological niche within  
the marine ecosystem.

We take.

We do not give back.

Whales, fish, sea birds, seals and all  
marine species contribute to the life  
support system that is the Ocean.

We do not. That is the problem.

# We Need to Shut Down All Industrialized Fishing Operations

To replenish the Ocean we need to stop  
Taking from it.

Seven billion people cannot continue to eat  
The Ocean.

There are no Sustainable Fisheries.

All government subsidies to fishing industries  
must be ended.

The fish cannot survive the continued  
onslaught of super trawlers, draggers, long-  
liners, drift netters, gill-netters, seiners and  
aquarium collectors.

**WE NEED TO ALLOW THE FISH  
TO RECOVER.**

# Restore the Populations Of Whales, Seals & Sea Birds

For millions of years the relationship between marine species benefited each other.

Cetacean, Pinniped and Bird populations were much higher, yet there was no shortage of fish.

## WHY?

Because marine animals cycle nutrients. Whales bring up iron and nitrogen from the depths to the surface to feed phytoplankton, nutrients are provided in feces, and decaying bodies. Seabirds even fertilize coastal terrestrial forests.

Since 1950, between 40% and 50% of the ocean's phytoplankton has been diminished.

Phytoplankton is the Foundation of life on this Planet providing up to 80% of the Oxygen.

More whales = more phytoplankton

More phytoplankton = more zooplankton

More zooplankton = more fish

More people = less of everything in the sea

# **RESPONSIBILITY**

## **We Need To Stop Blaming Everything But Ourselves**

Human overpopulation and over consumption is the most significant cause of biodiversity diminishment.

More of us mean less of everything else  
- It's the law of Finite Resources.

The word “Sustainability” means only one thing in a world dominated by 7.5 billion humans.

It means, “Business as usual.”

It was a word invented to make humanity feel good about continued diminishment.

# POPULATION

1700 – 700 Million

1900 – 1.5 Billion

1950 – 2.5 Billion

1999 -6 Billion

2010 7 Billion

2015 – 7.5 Billion

Daily Births: 390,000

Daily Deaths: 153,000

Present Daily Increase: 237,000

The Human Population has increased by  
One Billion a decade since 1980.

Increasing Human Population + increasing human  
consumption of resources = diminishment.

Exponential Growth leads to Diminishment.

Diminishment leads to collapse.

Eco-system collapse is extremely bad news for the  
Planet and humanity.

*“Reality is that which, when you stop believing in it, Doesn’t go away”.* – Philip K. Dick

# Population Solutions Are Imperative

The Question of Exponential Growth is the most important issue of all.

The Root Cause of Climate Change,  
Pollution, Species Depletion,  
Resource Depletion, Poverty and War.

Exponential Human Population Growth Will Be the Cause of the Collapse of Eco-Systems and of Human Societies. The Collapse is happening now.

Humanity Needs Ethical Solutions to Intelligently Reduce or at Least to Stabilize Population Growth.

Any Solution to Addressing Climate Change Cannot Ignore Exponential Population Growth.

Does everyone have a right to have a child?  
Or should having a child be based on responsibility?  
The ability to provide nurturing and education  
And most importantly on the ability to provide love.

The World cannot afford more unwanted,  
uneducated, unskilled and unloved children.

On this more than any other threat to our future, the world needs wise leadership

# WE NEED REVOLUTIONARY NEW ECONOMIC SYSTEMS

All the world's economic systems are based on growth. More people means more profits.

Escalating consumption of resources must be discouraged. We simply do not need the majority of the products that are manufactured today.

Increasing numbers of humans means  
Increased production of consumer goods,  
Which means further depletion of resources.

It means war, poverty and disease for those who have little, stress and disease, for those who have more

An Economic System Based on Consumerism is Destructive to the Planet and to Humanity,

We Need to Establish Green Economics.

# SOLUTION

No more transportation of raw materials around the globe.

Everything from iron ore to flowers to fruits and vegetables to bottled water are shipped over thousands of miles using vast amounts of energy and resources.

Communities Need to Be Self-Sufficient.

Produce Locally. Eat Locally  
Curb the Excesses of Consumerism.

People in Bolivia can no longer afford to eat one of their staples – Quinoa, Demand from health conscious westerners buys 100% of their crop.

Bottled water using hundreds of millions of plastic Bottles transported thousands of miles to consumers.

1965: The price of a litre of water – Free  
2015: The price is between 3 and 7 Euros.

Today water now costs more than gasoline.  
We adapted to diminishment.

# We Need to Stop Adapting to Diminishment

What was once a survival trait has now become a dangerous adaptation. As resources diminish we accept the diminishment and forget the way things were.

Water in plastic bottles costing more than gasoline – unthinkable a generation ago.

As one species of fish crashes we move onto the next without a thought to the loss.

The list of endangered and extinct species grows larger every year.

Where once we viewed the extinction of a species with horror we now shrug our shoulders and move on.

We will soon run out of places to move onto.

# **VISION**

Envision the world of 2100.  
Would you want to live there?  
Would you want your children to live there?

202 – 8 Billion people  
2025 – The Death of Coral Reef Systems  
2035 – Total Collapse of Fisheries  
2040 – 10 Billion People  
2050 – Global Temperature rise of 4C

Rising Sea Levels  
Radically Disrupted Eco-Systems  
Emerging New Diseases  
Increased Poverty and Starvation  
More Wars Over Resources  
More Global Conflicts  
Reduced Levels of Oxygen  
Massive Pollution  
Restrictions on Freedoms

Vastly Reduced Quality of Life

Before 210: Ecological Collapse

# THE CONTINUUM

We are what we are because of all that came before and the future will be what it will be because of what we do today.

Will the future judge us condemn us?

“Make no decision until taking into account the consequences of that decision on all future generations.”

- Thoughts from the Mohawks

# MORE UNPOPULAR SOLUTIONS

Stop Manufacturing Useless Items of Plastic

There are millions of tons of plastic in the ocean killing marine life.

It's all been put there since 1950.

Most of it was manufactured for throw-away non-essential purposes.

We need to abolish all throw away plastic products.

We need to produce biodegradable plastic.

We need to clean up the plastic we have polluted the world with.

We need to stop wasting a finite resource like oil to produce throw-away plastic items.

We need to exercise some commonsense with regard to plastic.

# A Major Solution to Address Climate Change

A Plant Based Global Diet

What we eat and what we don't eat impacts  
the world more than anything else.

The  
Law of Finite Resources  
dictate that 7.5 billion meat eating humans  
cannot be supported on this planet.

Does this seem crazy?

Better to be considered crazy than to actually  
be ecologically insane.

Human can survive on a plant-based diet.  
We cannot survive on depleting eco-systems  
to raise meat and to remove all the fishes  
from the Ocean.

# Stop Eating Meat and Fish

The meat industry produces more greenhouse gasses than the entire transportation industry.

The meat industry is the largest source of ground water pollution on the planet.

The meat industry is a major cause of dead zones in the Ocean.

The meat industry is a major cause of deforestation on the planet.

The meat industry consumes some 40% of the biomass exploited from the ocean.

The meat industry is a leading cause of human health problems.

Is a Hamburger Really Worth Killing the Planet?  
(Production of 1 Hamburger = 600 litres of water)

This is a solution few people want to hear.

# Transportation Solutions

Less Global Transport of Resources

More Transport by Sailing Ships.

Elimination of Individual Transport Vehicles.

Replace Jet Air Cargo with Zepplins.

Greater Reliance on Bicycles.

More Public Transport  
Using Alternative Energy.

Non-Fossil Fuel Energy Productions

Ideally the World should be set up with Small Global Villages of between 20 and 50 Thousand People connected by a Global Communication Network and Efficient Transportation Between each community with each community separated by nature zones designed to restore bio-diversity.

# Abolish the Military

Nothing defines ecological insanity  
More than the destructive operations of the world's  
military operations.

## Top Fifteen Military Budgets 2015

1. USA: \$610 Billion
  2. China: \$216 Billion
  3. Russia: \$84 Billion
  4. Saudi Arabia: \$81 Billion
  5. U.K: \$61 Billion
  6. France: \$53 Billion
  7. India: \$50 Billion
  8. Japan: \$48 Billion
  9. Germany: \$46 Billion
  10. South Korea: \$36 Billion
  11. Brazil: \$32 Billion
  12. Italy: \$31 Billion
  13. Australia: \$25 Billion
  14. Israel: \$23 Billion
  15. United Arab Emirates: \$23 Billion
- Total: 1, 362 Billion Dollars

WAR WHAT IS IT GOOD FOR?

ABSOLUTELY NOTHING

# Abolishing Military Budgets

Would Provide Every Human Being on  
the Planet with Food, Clean Water,  
Shelter, and Medical Services.

It would help put an end to many causes  
of terrorism, piracy, wildlife poaching,  
domestic violence, human trafficking,  
poverty and crimes.

The military could be replaced with a  
peace corp of engineers, doctors,  
dentists, nurses, teachers and builders.

The most blatant evidence of  
the insanity of humanity is  
our violently destructive  
military history.

# **The Insanity Of Modern Humanity**

We have to end the insanity in a world where religion breeds violence, universities breed ignorance, where doctors undermine our health, where the media manipulates the truth, the banks impoverish the world, politicians lack the courage to lead and lawmakers discredit justice with convenient laws.

We need a world where universities explore and provide knowledge, where doctors seek to heal, not profit, where banks contribute to a better world, where lawyers and politicians stand for justice.

We need courageous leaders who are not afraid to speak the truth.

“Humans are causing climate change and there will be “grave consequences” If we don’t act fast.”

- Pope Francis

June 18, 2015

# **THE SIXTH EXTINCTION**

## **THE ANTHROPOCENE EXTINCTION EVENT.**

The solutions described may seem unrealistic, unacceptable, irrational, detestable, crazy and off-the-wall, ridiculous and impossible.

But unless humanity is prepared to implement radical solutions to address the reality of ecological diminishment and collapse, our societies will never make it to 2100.

The Primary rule of Evolution is:

**ADAPT OR DIE!**

**IF THE OCEAN DIES, WE DIE!  
IF THE GRASSES DIE, WE DIE!  
IF THE FORESTS DIE, WE DIE!  
IF THE WORMS DIE, WE DIE!  
IF THE BEES DIE, WE DIE!**

# **THE CASSANDRA PRINCIPLE**

IF WE DO NOT TRY, WE DIE  
CLIMATE CHANGE  
IS REAL  
AND  
IT WILL IMPACT  
ALL OUR LIVES  
BUT  
MORE IMPORTANTLY  
IT WILL DEVASTATE  
THE LIVES OF ALL OUR CHILDREN.

CLIMATE CHANGE DENIERS CALL US  
ALAMISTS AND DOOM AND GLOOM  
CASSANDRAS.

BUT THEY FORGET  
THAT  
CASSANDRA  
WAS RIGHT!

HER CURSE WAS THAT NO ONE  
BELIEVED HER.

HUMANITY HAS STEPPED OVER THE LINE OF ECOLOGICAL TOLERANCE.

# COP21/CMP11 PARIS 2015

THE LAST CHANCE FOR A SOLUTION

THE LAST OPPORTUNITY FOR LEADERSHIP

THE LAST CHANCE FOR HUMANITY

*“For the first time in the history of the world, there is a threat that concerns everyone, It’s possible we’ll pull together like a small, shipwrecked family in an infinite universe. This is our moment of truth. The only thing we recycle well are words and speeches; the same ones have been going round and round for 25 years.”*

NICOLA HULOT  
SPECIAL ENVOY FOR THE PLANET FOR  
FRENCH PRESIDENT FRANCOIS HOLLANDE

# The Situation

Climate Change is Global.

Addressing Climate Change is Unpopular.

Dealing with Climate Change is Expensive,

People Do Not Want to Change.

The Powerful are Too Comfortable.

The Poor Are Too Powerless.

The Rich Want to Stay Rich.

The Poor Want to Become Rich.

World Leaders Lack the Courage.

Imagination and Vision.

The Ultimate Solution is You and I  
All of Us Together.

IT's what we eat, how we live, how we travel,  
what we believe, what we support.

Our Imaginations, Our Courage  
Our Passion. Our Future

“We probably could have saved ourselves, but we were  
Too damned lazy to try hard, and to damned cheap.”

- Kurt Vonnegut