INTERNATIONAL VEGETARIAN UNION

VEG STARTER GUIDE

EVERYTHING YOU NEED TO KNOW TO EAT RIGHT FOR YOUR HEALTH, FOR ANIMALS, AND FOR THE EARTH

BE VEG.
GO GREEN.
AND PRESERVE
A FUTURE FOR
OUR CHILDREN
AND OURSELVES.

CONGRATULATIONS!

By opening this guide, you've just taken the first step toward one of the best choices that you can make for yourself, animals, and the planet. The pages that follow will give you everything needed to know on how to adopt a healthy and compassionate diet. It's packed with important information, tips, and recipes to help you establish eating habits that you'll feel great about.

It's easy to live and let live, and this guide will show you how. Dig in!

CONTENT

THE WHYS AND HOWS

SPECIAL REPORT

CLIMATE CHANGE AND MEAT CONSUMPTION

A recent authoritative report published by the World Watch institute, authors Goodland and Anhang concluded that over 51% of greenhouse gases (GHGs) emissions come from Livestock.

A widely cited 2006 report by the United Nations Food and Agriculture Organization, Livestock's Long Shadow, estimates that 18 percent of annual worldwide greenhouse gas (GHG) emissions are attributable to livestock; however, recent analysis by Goodland and Anhang co-authors of "Livestock and Climate Change" in the latest issue of World Watch magazine found that livestock and their byproducts actually account for at least 32.6 billion tons of carbon dioxide per year, or 51 percent of annual worldwide GHG emissions!

THE MAIN SOURCES OF GHGS FROM ANIMAL AGRICULTURE ARE:

1. Deforestation of the rainforests to grow feed for livestock.
2. Methane from manure waste.
   – Methane is 72 times more potent as a global warming gas than CO2
3. Refrigeration and transport of meat around the world.
4. Raising, processing and slaughtering of the animal.

Meat production also uses a massive amount of water and other resources which would be better used to feed the world's hungry and provide water to those in need.

Based on their research, Goodland and Anhang conclude that replacing livestock products with soy-based and other alternatives would be the best strategy for reversing climate change. They say "This approach would have far more rapid effects on GHG emissions and their atmospheric concentrations and thus on the rate the climate is warming than actions to replace fossil fuels with renewable energy."

MITIGATION EFFORTS BASED ON DIETARY CHANGES SCENARIOS*

- Dietary Changes already lowers 31-47% of the total greenhouse gas emissions reduction target
- Less emission reduction is needed in the Energy Sector
- Net Present Value of Mitigation Cost of over 2000-2005
  - — No Meats can reduce GDP cost by 70%
  - **— Non Animal Products can reduce GDP cost by 80%**
- Healthy Diet is a more Realistic Scenario

BENEFITS OF DIETARY CHANGES*

- More Land Available
  - — Due to the abandonment of crop and pasture land
  - — Increase from 170 EJ to 450 EJ
- Reduction in Agricultural Land that leads to more land available for other purposes such as energy crops or nature reserve

** From "Climate benefits of changing diet" publication from Netherlands Environmental Assessment Agency by Elke Stehfest, Lex Bouwman, Detlef P. van Vuuren, Michel G. J. den Elzen, Bas Eickhout, Pavel Kabat*

The fact is that we are being informed of the dangerous path we are on by depending greatly on animal flesh for human consumption. We still have the opportunity to make the most effective steps in saving ourselves and this planet. By simply choosing a plant based diet we can reduce our carbon foot print by a huge amount.

We are gambling with our lives and with those of our future generations to come. It's madness to know we are fully aware of the possible consequences but yet are failing to act.

Please make a truly environmental, healthy and compassionate choice, choose to drastically reduce your meat intake or simply go vegan. This is the single most powerful action for preventing climate change as it is the single largest source of greenhouse gas emissions.

WHAT WORLD LEADERS AND TOP SCIENTISTS SAY ON CLIMATE CHANGE AND A PLANT-BASED DIET

AUSTRALIA

FORMER SENATOR ANDREW BARTLETT (1997-2008) AND PARLIAMENT Member Ronan Lee have called on all Australians to urgently change to a plant-based diet, in response to Australia's prolonged water shortage and high levels of methane emissions from livestock.

BULGARIA

CO-FOUNDER OF BULGARIAN DEMOCRATIC PARTY, MR. EDVIN SUGAREV: "Producing meat requires a lot of resources. For example from water, big quantities are needed to make meat into an alimentary product, whereas that's not the case with plants. So it's no doubt that we save resources in this respect. And perhaps ecology will be one of the factors that will lead more people into preferring the vegetarian diet."

(Interview with Supreme Master Television – 18 September 2008)

INDIA

PARLIAMENTARIAN AND FORMER INDIAN ENVIRONMENT MINISTER, MANEKA GANDHI: Unless we change our food choices nothing else matters because it is meat that is destroying most of our forests, it is meat that pollutes the waters, it is meat that is creating disease which leads to all our money being diverted to hospitals, so it's the first choice for anybody who wants to save the Earth.''

"We are so, so close to the red light, that we may wake up tomorrow and find there is nothing to save after all."

UNITED KINGDOM

LORD STERN, A FORMER CHIEF ECONOMIST OF THE WORLD BANK AND NOW I. G. PATEL PROFESSOR OF ECONOMICS AT THE LONDON SCHOOL OF ECONOMICS SAID "Meat is a wasteful use of water and creates a lot of greenhouse gases. It puts enormous pressure on the world's resources. A vegetarian diet is better."

NORWAY

ENVIRONMENT AND DEVELOPMENT MINISTER, ERIK SOLHEIM: " We have to reduce the meat consumption and one way of doing it is of course that a larger amount of what we eat is vegetarian and everything else other than meat."

(Interview with Supreme Master Television - 17 September 2008)

SWEDEN

JENS HOLM (MEP): Probably the biggest step a person could take is to reduce the consumption of meat and other animal products. And if you really want to become climate-friendly, well then you should become vegetarian and stop eating meat totally.

But also, we should be active in politics and in organizations, and make sure that our governments and political parties do what they have to do, and that is not to subsidize the meat industry, promote vegetarian food, for instance.

TAIWAN

PRESIDENT MAYING-JEOU AND VICE PRESIDENT VINCENT SIEW led the entire presidential office in the signing of a declaration of measures to reduce CO2 and save energy, which includes eating locally and partaking of more vegetables and less meat.

More than one million Formosans (Taiwanese) pledge to go veg to save the Earth as a result of the "No Meat No Heat" campaign. More than 1.2 million people in Formosa, including government officials, have promised to help reduce carbon emissions by converting to vegetarianism, meaning an animal free diet, which will remove at least 1.5 million tons of carbon emissions from the atmosphere each year.

USA

PROFESSOR OF GEOPHYSICAL SCIENCES AT UNIVERSITY OF CHICAGO, DR. DAVID ARCHER: "It's very clear that when you grow grain and then feed it to animals and then eat the animals, you lose 90% of the energy from the original grain, and so not only can you feed fewer people on the agriculture that you have but as they discovered, it also requires a lot more fossil fuel energy to make that happen."

UNITED NATIONS

CHAIRMAN OF INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, DR. RAJENDRA PACHAURI, has said on many occasions: "Please eat less meat; meat is a very carbon intensive commodity."

"I would say it's probably far better to impose a tax on all products, including meat, that lead to emissions of greenhouse gases."

... I think we have to raise our voices as a scientific community certainly, civil society, academia, to highlight this as an area where there are multiple benefits from reducing meat consumption."

(Interview with Supreme Master Television – 12 September 2008)

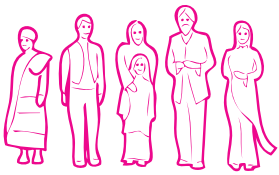
UN Framework Committee on Climate Change Executive Secretary, Yvo de Boer, has pointed out that a bigger part of higher food price increases comes from feeding grain to animals being raised for meat. Secretary de Boer stated, "The best solution would be for us all to become vegetarians."

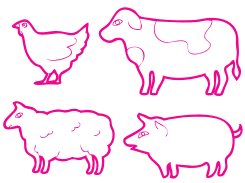
SURVIVAL OF THE WORLD IN YOUR HANDS

GLOBAL WARMING IS CAUSING CATASTROPHIC DISASTERS WITH HEAVY LOST OF HUMAN LIVES. AND THE RISING TEMPERATURES COULD SEND MORE THAN A MILLION OF PLANTS AND ANIMALS TO EXTINCTION.

SAVE HUMAN'S LIVES

- 20% of the world's population, or 1.4 billion people, could be fed with the grain and soybeans fed to U.S. cattle alone.
- Millions of people across the globe are faced with hurricanes, heat waves, droughts, floods, wildfires and water shortages.
- Scientists predict that global warming would displace 150 million people over the next 50 years.



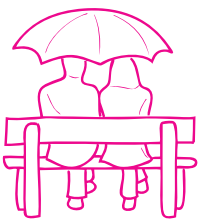


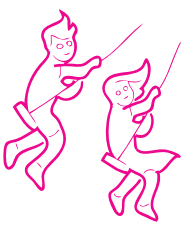
SAVE FARM ANIMALS' LIVES

- In the United States, 10 billion animals are slaughtered every year.
- In the European Union, the annual figure is 300 million cattle, sheep, and pigs, and 4 billion chickens.
- In Canada, 650 million are killed annually.

SAVE OUR OWN LIVES

- Increases life expectancy by up to 15 years
- Reduces heart disease risk by 50%
- Reduces heart surgery risk by 80%
- Lowers blood pressure
- Lowers cholesterol levels
- Reduces Type 2 diabetes
- Prevents stroke conditions
- Reverses atherosclerosis
- Prevents many forms of cancer
- Stronger immune system

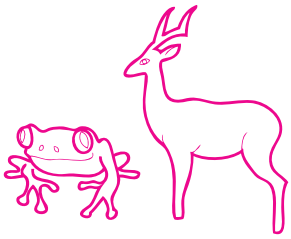




SAVE OUR CHILDREN'S LIVES

"We hold the future in our hands. Together, we must ensure that our grandchildren will not have to ask why we failed to do the right thing, and left them to suffer the consequences."

— UN Secretary-General, Ban Ki-moon

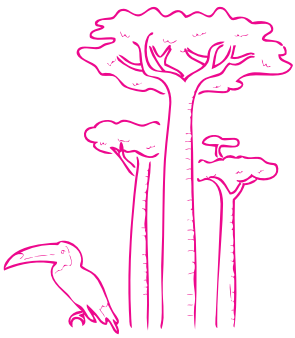


SAVE WILD ANIMALS' LIVES

- The disappearance of 65 amphibian species in Central and South America has a direct correlation to global warming.
- Animal species like antelopes; tortoises and birds found only on the southern tip of Africa cannot move farther south when warming becomes unbearable.
- Over two-thirds of bird species in Australia and more than one-third of those in Europe could simply be wiped off the face of the Earth.

SAVE RAINFORESTS SPECIES' LIVES

• Livestock grazing leads to the destruction of rainforests. And with it, the extinction of over half of the world's animal and plant species.



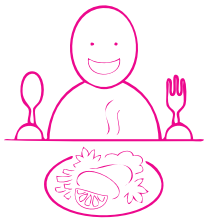
SAVE OCEAN SPECIES' LIVES

- Pollution from animal farms is destroying the world's oceans. Nitrogen from animal feces and fertilizer causes massive increase in algae, leaving little oxygen for other sea lives. In many areas, virtually all the sea animals and plants have died.
- Fish farms creates massive amounts of feces, fish carcasses and antibiotic is causing the ocean floor to rot and toxify.
- Pollution and over-fishing causes diminished food supply for sea animals. Whales are losing weight.

"The diversity of life on Earth is undergoing an "immense and hidden" tragedy that requires the scale of global response now being deployed to tackle climate change, according to one of the world's most eminent biologists. Prof Edward Wilson, an ecologist who has been described as "Darwin's natural heir" and hailed by novelist Ian McEwan as an "intellectual hero" and "inspirational" writer, told the Guardian that the threat was so grave he is pushing for the creation of an international body of experts modeled on the UN's Intergovernmental Panel on Climate Change (IPCC)."

—James Randerson, The Guardian, Nov. 20, 2009

1 PERSON GOING VEG FOR 1 YEAR

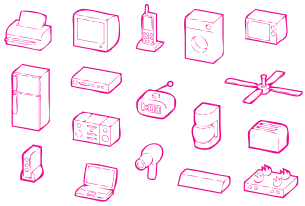


=

REDUCES

3,267 POUNDS OF CO2 EMISSIONS

Equivalent to savings from not using all these equipments for 1 year:

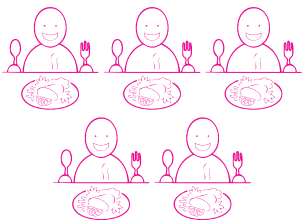


+

STOPS

5 PEOPLE FROM STARVING

We can feed 5 times more people if we use the land to grow crops directly for humans instead of growing crops for livestock and then eating their meat.

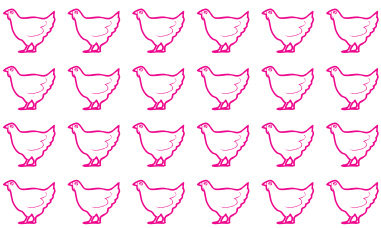


+

SAVES

25 LIVES

0.4 cow
0.5 pig
0.1 sheep
24 chickens



If the whole population of United States of 301 million people eat 2/3 less meat:

=

655 BILLION POUNDS

of CO2 emissions could be reduced.

+

1 BILLION of starving people could be fed.
Enough to stop world hunger!

+

5 BILLION of animal lives could be spared.

SAVE OUR PLANET THE SMART WAY

EFFECTIVENESS VS. CONVENIENCE
(Ratings take into consideration how much an individual can do on the average)

• • • • HIGH
• • •
• •
• LOW

Going Veg is something everyone of us can do easily every day to save our planet. And it's much healthier too. **The World Cancer Research Fund says: "Eat mostly foods of plant origin."**

"Refusing meat is the single most effective thing you can do to reduce your carbon footprint."
The official handbook of the Live Earth concerts that Al Gore helped organize.

GO VEG
EFFECTIVENESS • • • •
CONVENIENCE • • • •

- Install alternative energy like solar panel and windmill.
- Change to compact fluorescent bulbs.
- Take a shower instead of a bath.

You save more water by not eating 1 pound of beef than by not showering for at least 6 months!

SAVE RESOURCES
EFFECTIVENESS • •
CONVENIENCE • • •

- Use public transportation, ride a bike or share a car.
- Buy hybrid model if you are shop ping for a car.

Producing 1 fast-food hamburger uses enough fuel to drive a car for 20 miles! Vegetarians do much more for the planet than meat-eaters who recycle!

TRAVEL EFFICIENTLY
EFFECTIVENESS • •
CONVENIENCE • •

Trees revive the atmosphere by replenishing oxygen while removing carbon dioxide, methane, and other greenhouse gases. **The livestock sector drives 1/3 of the world's deforestation and uses up 3.4 billion hectares of land!**

PLANT TREES
EFFECTIVENESS • •
CONVENIENCE •

- Be a frugal shopper.
- Reduce
- Reuse
- Recycle.

Vegetarians do much more for the planet than meat-eaters who recycle!

RECYCLE THINGS
EFFECTIVENESS •
CONVENIENCE • • •

GO VEG. FOR HEALTHY PLANET & HEALTHY LIFE.

STOP GLOBAL WARMING:

- Stop 80% of global warming
- Save 4.5 tons of emissions per US household per year

SAVE RESOURCES:

- Conserve up to 70% clean water
- Save over 70% of the Amazonian rainforest (3,433 billion hectares of land)
- Free up 760 million tons of grain every year (half the world's supply)
- Free up 85% of the world's soy
- Free up 43% of the world's cereal
- Consume 2/3 less fossil fuels of those for meat product

STOP POLLUTION:

- Stop deforest the lungs of the Earth
- Reduce pollution from untreated animal waste
- Maintain cleaner air
- Maintain cleaner water bodies

SOLUTION FOR WORLD

Problems:
- Stop world hunger
- Revive world economy

LEADING HEALTH EXPERTS AGREE THAT GOING VEG IS THE SINGLE BEST THING THAT WE CAN DO FOR OURSELVES AND OUR FAMILIES. PLANT-BASED DIET PROVIDES US WITH ALL THE NUTRIENTS THAT WE NEED, MINUS THE SATURATED FAT, CHOLESTEROL, HORMONES, ANTIBIOTICS, AND CONTAMINANTS FOUND IN MEAT AND DAIRY PRODUCTS.

- Increases life expectancy by up to 15 years
- Lowers blood pressure
- Lowers cholesterol levels
- Prevents stroke conditions
- Reverses atherosclerosis
- Prevents Infertility
- Stronger immune system
- Prevent animal diseases, 75% of new diseases come from animals.

Meat risks contamination with animal diseases like the H1N1 (Swine flu), Bird flu, Mad cow disease, Blue tongue disease, E coli, Salmonella, etc.

REDUCE HEART DISEASE

- Reduces heart disease risk by 50%
- Reduces heart surgery risk by 80%

— Over 17 million lives lost globally each year
— Cost of cardiovascular disease is at least US$1 trillion a year

PREVENT CANCER

• PREVENTS MANY FORMS OF CANCER

— Over 1 million new colon cancer patients diagnosed each year
— More than 600,000 colon cancer-related mortalities annually
— In the Untied States alone, colon cancer treatment costs about US$6.5 billion
— Millions of people are newly diagnosed with other meat- related cancers every year.

REDUCE DIABETES

• REDUCES TYPE 2 DIABETES

— 246 million people are affected worldwide
— An estimated US$174 billion spent each year on treatment just in the United States

PREVENT OBESITY

• AT LEAST 2.6 MILLION PEOPLE DIE ANNUALLY FROM PROBLEMS RELATED TO BEING OVERWEIGHT

OUR EARTH

HOW EVERY BITE AFFECTS MOTHER NATURE

Eating veg is one of the most important and effective actions you can take to help stop global warming, conserve natural resources, prevent water and air pollution, and save species from extinction. According to Dr. David Brubaker, PhD, at Johns Hopkins University's Center for a Livable Future, "The way that we breed animals for food is a threat to the planet. It pollutes our environment while consuming huge amounts of water, grain, petroleum, pesticides and drugs. The results are disastrous." As the Sierra Club put it in their 2002 report on animal factories "violations by the meat industry add up to a rap sheet longer than *War and Peace*."

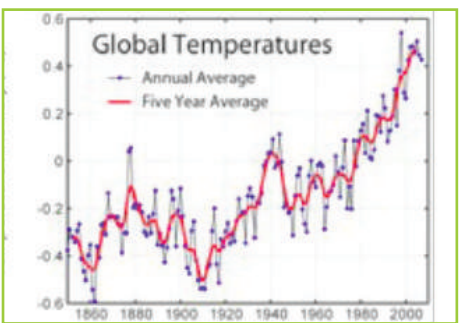
FOOD FOR THOUGHT

Growing grain for animal feed is extremely resource intensive and wasteful.

Feces runoff from factory farms often pollutes local groundwater.

Between 1990 and 1997, manure spills killed more than one billion fish.

Countless acres of rainforest have been destroyed to create land for cattle grazing.



Scientists agree that human activities are causing our planet to warm up.

NATURAL DISASTERS HAVE DOUBLED IN THE LAST 20 YEARS. AND MOST ARE LINKED TO GLOBAL WARMING.

— UNITED NATIONS

LIVESTOCK: A MAJOR CAUSE OF GLOBAL WARMING

1 Livestock raising drives 1/3 of the world's deforestation. It uses up 3.4 billion hectares of land for animal gazing and for growing crops to feed the animals.

2 Livestock's gas and waste produces the no.1 source of nitrous oxide and methane, which are 310 times and 72 times more power than carbon dioxide respectively.

Livestock industry produces more carbon dioxide than all the world's cars, trains and planes combined - by raising the animals, transporting them to the slaughterhouses, the slaughtering process, refrigerating and transporting their carcasses all over the world.

GLOBAL WARMING

According to Livestock's Long Shadow, a groundbreaking 2006 United Nations report, raising animals for food causes more global warming than all the cars and trucks in the world combined.

This is due to a number of factors, including the greenhouse gases emitted from the manure, belches, and flatulence of billions of farmed animals.

Deforestation caused by the expansion of grazing and the growing of animal feed also causes global warming, since the trees are no longer there to absorb the CO2. The burning of fossil fuels used to produce the massive amount of feed crops, to heat and cool the buildings that house the animals, and to transport, process, and refrigerate the meat also contributes to the problem.[1]

Researchers at the University of Chicago calculated that eating a vegan diet prevents the equivalent of 1.5 tons of CO2 emissions every year — even more than the 1 ton of CO2 emissions prevented by switching from a large sedan to a Toyota Prius.[2] They also determined that switching to a vegan diet is 50 percent more effective than switching from a regular car to a hybrid in reducing your impact on global warming.

"THE LIVESTOCK SECTOR EMERGES AS ONE OF THE TOP TWO OR THREE MOST SIGNIFI CANT CONTRIBUTORS TO THE MOST SERIOUS ENVIRONMENTAL PROBLEMS, AT EVERY SCALE FROM LOCAL TO GLOBAL."

— UNITED NATIONS
LIVESTOCK'S LONG SHADOW REPORT 11/06

WASTING RESOURCES

Feeding large amounts of grain to farmed animals in order to produce a small amount of meat is a waste of limited resources. A July 7, 2002 Time magazine article reported on the fi ndings of Cornell ecologist David Pimentel: "Pimentel argues that vegetarianism is much more environment-friendly than diets revolving around meat. 'In terms of caloric content, the grain consumed by American livestock could feed 800 million people'... Animal protein also demands tremendous expenditures of fossil-fuel energy—eight times as much for a comparable amount of plant protein."

"THE COSTS OF MASS-PRODUCING CATTLE, POULTRY, PIGS, SHEEP AND FISH TO FEED OUR GROWING POPULATION... INCLUDE HUGELY INEFFICIENT USE OF FRESHWATER AND LAND, HEAVY POLLUTION FROM LIVESTOCK FECES... AND SPREADING DESTRUCTION OF THE FORESTS ON WHICH MUCH OF OUR PLANET'S LIFE DEPENDS."
TIME MAGAZINE, 11/8/99

The meat industry is a major cause of fresh water depletion. According to Ed Ayres of the World Watch Institute, "Around the world, as more water is diverted to raising pigs and chickens instead of producing crops for direct consumption, millions of wells are going dry. India, China, North Africa and the U.S. are all running freshwater deficits, pumping more from their aquifers than rain can replenish." Ayres states, "Pass up one hamburger, and you'll save as much water as you save by taking 40 showers with a low-flow nozzle." [3]

EXTINCT IS FOREVER

The United Nations reports that, "the livestock sector may well be the leading player in the reduction of biodiversity, since it is the major driver of deforestation, as well as one of the leading drivers of land degradation, pollution, climate change, overfishing, sedimentation of coastal areas and facilitation of invasions by alien species." [1]

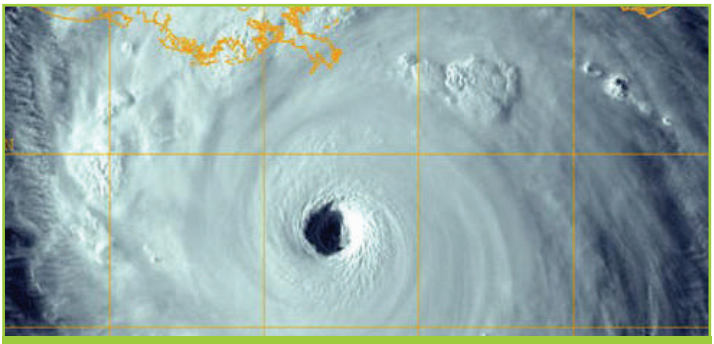
In the United States, grazing has contributed to the demise of 26% of federally listed threatened and endangered species.[4] The situation is no better in South America where ranching-induced deforestation is one of the main reasons for the loss of plant and animal species in tropical rainforests. [1]

AIR & WATER POLLUTION

According to the United Nations, animal agriculture "is probably the largest sectoral source of water pollution, contributing to eutrophication, 'dead' zones in coastal areas, degradation of coral reefs, human health problems, emergence of antibiotic drug resistance and many others. The major sources of pollution are from animal wastes, antibiotics and hormones, chemicals from tanneries, fertilizers and pesticides used for feed crops, and sediments from eroded pastures." [1]

THE TIME TO ACT IS NOW!

Our planet is well on the way to 1°C rise in temperature and beyond. Earth's temperature hasn't varied by more than 1.8°F (1°C) in the past 10,000 years. But in the last 100 years alone, it has increased by 1.1°F (0.6°C). And it leads to catastrophic disasters all over the world.



Global temperatures are expected to rise a further 1.8 - 4.0°C (3.2 - 7.2°F). IPCC, United Nations

WHAT EXACTLY IS GOING TO HAPPEN AS EARTH HEATS UP? HERE IS THE DEGREE-BY-DEGREE GUIDE:

1°C increase
Ice-free sea absorbs more heat and accelerates global warming; fresh water loss from a third of the world's surface; low-lying coast-lines flooded...

2°C increase
Europeans dying of heatstroke; forests ravaged by fire; stressed plants beginning to emit carbon rather than absorbing it; a third of all species face extinction...

3°C increase
Carbon release from vegetation and soils speeds global warming; death of the Amazon rainforest; super-hurricanes hit coastal cities; starvation in Africa...

4°C increase
Runaway thaw of permafrost makes global warming unstoppable; much of Britain made uninhabitable by severe flooding; Mediterranean region abandoned...

5°C increase
Methane from ocean floor accelerates global warming; ice gone from both poles; humans migrate in search of food and try vainly to live like animals off the land...

6°C increase
Life on Earth ends with apocalyptic storms, flash floods, hydrogen sulphide gas and methane fireballs racing across the globe with the power of atomic bombs; only fungi survive...

'Six Degrees: Our Future on a Hotter Planet' by Mark Lynas. Based on authoritative scientific articles, the latest computer models, and information about past warm events in Earth history.

CONSIDER THIS

AMOUNT OF U.S. GRAIN FED TO FARM ANIMALS: **70%**

POUNDS OF CORN AND SOY REQUIRED TO PRODUCE JUST ONE POUND OF PORK: **NEARLY 7**

WATER NEEDED TO PRODUCE A POUND OF WHEAT: **14 GALLONS**

WATER NEEDED TO PRODUCE A POUND OF MEAT: **441 GALLONS**

OF ALL WATER USED FOR ALL PURPOSES IN THE UNITED STATES,

MORE THAN HALF GOES TO: LIVESTOCK PRODUCTION

THREATENED AND ENDANGERED SPECIES IMPERILED BY LIVESTOCK GRAZING: **161**

AMOUNT OF FARMED ANIMAL MANURE PRODUCED IN THE UNITED STATES: **5 TONS OF WASTE FOR EVERY PERSON**

"RAISING ANIMALS FOR FOOD IS "ONE OF THE TOP TWO OR THREE MOST SIGNIFICANT CONTRIBUTORS TO THE MOST SERIOUS ENVIRONMENTAL PROBLEMS, AT EVERY SCALE FROM LOCAL TO GLOBAL."
—UNITED NATIONS

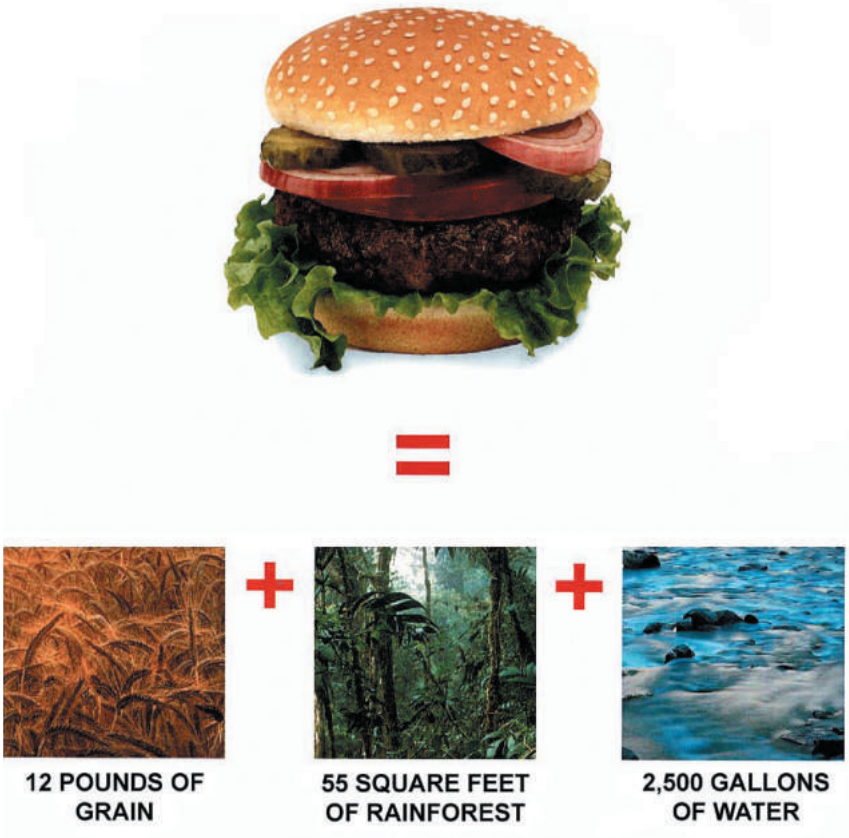
Sources for above statistics: USDA81,85, Cattle-Fax82, Journal of Animal Science83, National Audubon Society84, U.S.

1: F.A.O., United Nations. (2006). Livestock's long shadow.
2: NewScientist.com (2005, Dec 17). It's better to green your diet than your car.
3: Ayres, E. (1999, Nov. 8). Will we still eat meat? Time.
4: USDA-NRCS. (1997). America's private land: a geography of hope (p. 54). Program Aid 1548.

"IF ANYONE WANTS TO SAVE THE PLANET, ALL THEY HAVE TO DO IS JUST STOP EATING MEAT. ... IT'S STAGGERING WHEN YOU THINK ABOUT IT. VEGETARIANISM TAKES CARE OF SO MANY THINGS IN ONE SHOT: ECOLOGY, FAMINE, CRUELTY."
—SIR PAUL MCCARTNEY

Did you Know?

THE TRUE COST OF A HAMBURGER



12 POUNDS OF GRAIN

It takes 12 pounds of grain to produce one pound of hamburger. This could make eight loaves of bread, or 24 plates of spaghetti. Grain consumption by livestock is increasing twice as fast as grain consumption by people. Cattle consume 70 percent of all U.S. grain.

55 SQUARE FEET OF RAINFOREST

While not all hamburgers come from the rainforest, for every pound of rain forest beef, approximately 660 pounds of precious living matter is destroyed, including 20—30 different plant species, over 100 insect species, and dozens of mammals and reptiles.

2,500 GALLONS OF WATER

It takes 2,500 gallons of water to produce one pound of hamburger. This could be used to grow more than 50 pounds of fruits and vegetables. Half of all water consumed in the United States is used to grow feed and provide drinking water for cattle and other livestock.

Source: Earth Save International (www.EarthSave.org)

Henning Steinfeld, UN FAO Livestock Information and Policy Branch Chief states: *"Livestock are one of the most significant contributors to today's most serious environmental problems. Urgent action is required to remedy the situation."*

UN Framework Convention on Climate Change (UNFCCC) chief Yvo de Boer, states: *"The best solution would be for us all to become vegetarians."*

NASA-GISS director Dr. James Hansen states: *"If you eat further down on the food chain rather than animals, which have produced many greenhouse gases, and used much energy in the process of growing that meat, you can actually make a bigger contribution in that way than just about anything. So that, in terms of individual action, is perhaps the best thing you can do."*

MEAT THE FACTS

MORE THAN 30 BILLION ANIMALS ARE KILLED BY THE AMERICAN MEAT INDUSTRY EACH YEAR — IN WAYS THAT WOULD HORRIFY ANY COMPASSIONATE PERSON AND THAT WOULD BE ILLEGAL IF CATS OR DOGS WERE THE VICTIMS.

Chicks have their sensitive beaks cut off without any painkillers.

CHICKENS

WHAT HAPPENS TO CHICKENS?

Most small farms have been replaced by massive corporate-run "factory farms" in which chickens, pigs, turkeys, and cows are treated like machines instead of living, feeling individuals. Now, virtually all the meat, eggs, and dairy products purchased in supermarkets and restaurants come from animals raised on such farms. The giant corporations that profit from factory farming spend millions trying to obscure reality with images of animals who are living peacefully in an idyllic barnyard. Unfortunately, this pretty picture couldn't be any further from the truth.

More chickens are raised and killed for food than every other farmed animal combined, yet not a single federal law protects chickens from abuse—even though two-thirds of Americans say that they would support such a law.

Chickens raised and killed for their flesh spend their entire lives in filthy, ammonia-laden sheds with tens of thousands of other birds. They are dosed with a steady stream of drugs and bred to grow so large so fast that many become crippled under their own weight or suffer organ failure.

A New Yorker writer who visited a major chicken factory farm wrote, "I was almost knocked to the ground by the overpowering smell of feces and ammonia. My eyes burned and so did my lungs, and I could neither see nor breathe."

Many chickens suffer from chronic respiratory diseases, weakened immune systems, and bronchitis. According to a report by the USDA, more than 99 percent of chicken carcasses are contaminated with E. coli bacteria by the time they reach the market, largely because of the filthy conditions in the sheds in which they are raised.

After six weeks in these horrible conditions, the birds are roughly thrown into cages that are stacked on the back of a truck, and then they are shipped through all weather extremes to the slaughterhouse.

At slaughter, workers violently grab them and hang them upside-down by their legs, which they force into shackles, breaking many of them in the process. Then, the chickens' throats are slit, and they are dragged through tanks of scalding-hot water, often while they are still conscious.

Birds who are raised for their eggs are packed, five to 11 at a time, into wire cages that are so small that they don't have enough room to spread even a single wing. Their wings and legs atrophy from disuse, and their legs and feet become deformed from standing on slanted wire cage bottoms. The tip of each hen's sensitive beak is cut off with a burning-hot blade. It takes 34 hours to produce just one egg. After about two years of confinement, they are violently pulled from their cages and shipped to slaughter. Their bodies are already so battered and emaciated that they can only be used for soup or companion animal food.

Ammonia levels in chicken farms are so high that the corrosive substance burns the birds' lungs and skin.

Male chicks are worthless to the egg industry because they don't lay eggs and because their breed is too small to be raised for flesh. The egg industry kills millions of newborn male chicks every year by suffocating them to death in bags or by dropping them alive into high-speed grinders.

Hens are crammed by the tens of thousands into filthy sheds, with 5 to 11 hens per cage—the cages are so small that the birds can't spread even one wing.

Turkeys and chickens have their wings and legs broken when they are shoved into transport trucks, and they are shipped through all weather extremes with no food or water.

Chickens are genetically manipulated and dosed with antibiotics to make them grow so large so quickly that they become crippled under their own weight.

AMAZING ANIMALS: CHICKENS

Research has proved that chickens are smarter than dogs, cats, and even some primates. In a natural setting, a mother hen begins to teach her chicks various calls before they even hatch—she clucks softly to them while sitting on the eggs, and they chirp back to her and to each other from inside their shells. Unfortunately, chickens in factory farms never meet their mothers.

COWS

DOWN ON THE DAIRY FARM

The corporate-owned dairy factories that have replaced most small farms treat cows like milk machines. To boost production, many farmers inject cows with synthetic growth hormones, which increase the cows' risk of developing mastitis, a painful infection. Cows produce milk for the same reason that humans do: to nourish their babies. Their calves are traumatically taken from them shortly after birth. Female calves are added to the dairy herd or are slaughtered for the enzyme rennet in their stomachs (used to make cheese). When their milk production wanes after about four or five years, the mother cows are killed and ground up to make burgers.

The Link Between Dairy Products and Veal

Even on small family dairy farms, unwanted male calves are sold to the veal industry. Chained by their necks inside tiny stalls that reek of ammonia from accumulated waste, they are unable to take even one step in any direction, turn around, or lie down comfortably. Calves raised for veal are killed when they're just a few months old.

What Happens to 'Beef Cattle'?

"Beef cattle" spend most of their lives on extremely crowded feedlots. Ranchers have found that they can maximize profits by giving each steer less than 20 square feet of living space—the equivalent of putting a dozen half-ton steers in a typical American bedroom! Steers undergo painful procedures like branding, castration, and dehorning without pain relief. They often die of pneumonia, dehydration, or heat exhaustion from spending long periods without food or water in crowded trucks while being transported to feedlots or slaughterhouses.

Cows spend their lives in cramped sheds and fenced-in enclosures, mired in mud and their own waste.

Veal calves are confined to crates so small that they can't even turn around.

AMAZING ANIMALS: COWS

Scientists in the United Kingdom discovered that cows enjoy solving problems and even experience "Eureka!" moments (in which their heart rate speeds up, their adrenaline flows, and they jump) when they are successful—just like human beings. Cows also interact in socially complex ways, so that a herd of cows is very much like a pack of wolves, with alpha animals and complex social dynamics, including friendships that develop over time.

PIGS

WHAT HAPPENS TO PIGS?

Pigs in factory farms are castrated and have hunks of flesh cut from their ears, bits of their teeth cut off with wire cutters, and their tails chopped off—all without any painkillers.

Sometimes, the stalls that they are confined to are stacked, and excrement from the pigs in the upper tiers falls onto those below. "Breeding" pigs in factory farms are artificially impregnated several times during their short lives and are confined to stalls that are barely larger than their own bodies; they literally go insane from being unable to turn around their entire lives. These crates have been banned in many countries and will be totally banned across the European Union as of 2013.

The accumulation of filth, feces, and urine in the sheds causes more than one-quarter of pigs to suffer from agonizing mange, and three-fourths of pigs have pneumonia by the time they reach the slaughterhouse. Drugs and genetic breeding cause pigs to become so lame that they are crippled or, at best, can barely walk—420,000 pigs a year arrive crippled at the slaughterhouse, and another 1 million arrive dead from the journey.

The sheer number of animals killed makes it impossible for them to be given humane, painless deaths. Because of improper stunning, many pigs drown or are scalded to death when they are put, still alive, in the scalding-hot water tanks that are intended to soften their skin and remove their hair.

Many pigs go insane from extremely crowded conditions in factory farms and compulsively chew on the bars of their pens.

Pigs spend their lives in crates so small that they can't even turn around.

Pigs do not receive any pain relief when they have the ends of their teeth cut off with wire cutters.

AMAZING ANIMALS: PIGS

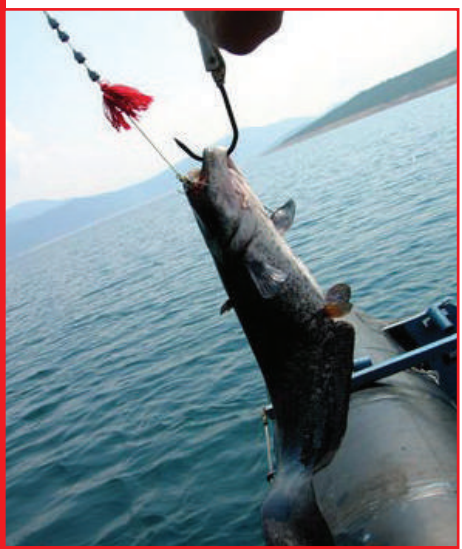
Pigs are smarter than dogs and every bit as friendly, loyal, and affectionate. Pigs can play video games far more successfully than dogs can and even better than some primates can (watch a video about this at PETA.org). Asked to compare a pig's cognitive development to that of a 3-year-old human child, professor Donald Broom of Cambridge University Veterinary School says, "[Pigs] have the cognitive ability to be quite sophisticated. Even more so than dogs and certainly [more so than] 3-year-olds."

FISH

WHAT HAPPENS TO FISH?

Like other animals, fish feel pain and experience fear. Dr. Donald Broom, animal welfare advisor to the British government, says,"Anatomically, physiologically, and biologically, the pain system in fish is virtually the same as in birds and mammals." When they are dragged from the ocean depths, fish undergo excruciating decompression—the rapid pressure change often ruptures their swim bladders, pops out their eyes, and pushes their stomachs through their mouths. Then they're tossed onboard ships, where many slowly suffocate or are crushed to death. Others are still alive when their throats and bellies are cut open.

Now that commercial fishing has basically emptied the oceans of "target" fish, the seafood industry has turned to raising fish in contained fish farms, a practice known as "aquaculture," which uses either tanks on land or cages in the ocean. The fish are packed so tightly together that they constantly bump into each other and the walls of the enclosure, causing painful sores and damage to their fins. The enormous amount of feces in the enclosures leads to rampant outbreaks of parasites and disease. In order to keep the fish alive in such unhealthy conditions, large quantities of antibiotics and other chemicals are poured into the water. When the fish are fully grown, they are killed by having their stomachs cut open or die of suffocation when the water in their tank is simply drained away.



The thin mesh of commercial fishing nets slices into the flesh of many fish, causing blood loss and strangling them in the water or in the net as it is dragged aboard.

Dragged from the ocean depths, fish suffer from decompression, suffocation, and being crushed.

VEG FOODS
POWERFUL TOOL FOR HEALTH

A HEALTHY HEART

Vegetarians have much lower cholesterol levels than meat eaters, and heart disease is less common in vegetarians. The reasons are not hard to find. Vegetarian meals are typically low in saturated fat and usually contain little or no cholesterol. Since cholesterol is found only in animal products such as meat, dairy, and eggs, vegans consume a cholesterol-free diet.

The type of protein in a veg diet may be another important advantage. Many studies show that replacing animal protein with plant protein lowers blood cholesterol levels — even if the amount and type of fat in the diet stays the same. Those studies show that a low-fat, veg diet has a clear advantage over other diets.

CANCER PREVENTION

A veg diet helps prevent cancer. Studies of vegetarians show that death rates from cancer are only about one-half to three-quarters of the general population's cancer-death rates. Breast cancer rates are dramatically lower in countries where typical diets are plant-based. When women from those countries adopt a Western, meat-based diet, their rates of breast cancer soar. Vegetarians also have significantly lower rates of colon cancer than meat eaters. Colon cancer is more closely associated with meat consumption than any other dietary factor.

Why do veg diets help protect against cancer? First, they are lower in fat and higher in fiber than meat-based diets. But other factors are important, too. Plants contain other cancer-fighting substances called phytochemicals. For example, vegetarians usually consume more of the plant pigments beta- carotene and lycopene. This might help to explain why they have less lung and prostate cancers. Also, some studies have suggested that diets that avoid dairy products may reduce the risk of prostate and ovarian cancers.

Some of the anticancer aspects of a veg diet cannot yet be explained. For example, researchers are not quite sure why vegetarians have more of certain white blood cells, called natural killer cells, which are able to seek and destroy cancer cells.

CONTROLLING DIABETES

The latest studies on diabetes show that a veg diet high in complex carbohydrates and fiber (which are found only in plant foods) and low in fat is the best dietary prescription for controlling diabetes. A diet based on vegetables, legumes, fruits, and whole grains, which are also low in fat and sugar, can lower blood sugar levels and often reduce or even eliminate the need for medication. Since individuals with diabetes are at high risk for heart disease, avoiding fat and cholesterol is important, and a veg diet is the best way to do that.

LOWER BLOOD PRESSURE

An impressive number of studies, dating back to the early 1920s, show that vegetarians have lower blood pressure than non-vegetarians. In fact, some studies have shown that adding meat to a veg diet raises blood pressure levels rapidly and significantly. A veg diet also reduces sodium intake: When patients with high blood pressure begin a vegetarian diet, many are able to eliminate the need for medication.

THE CALCIUM CONNECTION

Vegetarians are less likely to form either kidney stones or gallstones. In addition, vegetarians may also be at lower risk for osteoporosis because they eat little or no animal protein. A high intake of animal protein encourages the loss of calcium from the bones. Replacing animal products with plant foods reduces the amount of calcium lost. This may help to explain why people who live in countries where the typical diet is plant-based have little osteoporosis, even when calcium intake is lower than that in dairy-consuming countries.

PLANNING VEG DIETS

Grains, beans, and vegetables are rich in protein and iron. Green leafy vegetables, beans, lentils, tofu, corn tortillas, and nuts are excellent sources of calcium, as are enriched soymilk and fortified juices. Vitamin D is normally made in the body when sun shines on the skin. People who are dark-skinned or live at northern latitudes have some difficulty producing vitamin D year-round. Vitamin D can easily be obtained from fortified foods.

Regular intake of vitamin B12 is important. Good sources include all common multiple vitamins (including vegetarian vitamins), fortified cereals, some brands of nutritional yeast, and fortified soymilk. When reading food labels, look for the word cyanocobalamin in the ingredients list. This is the form of vitamin B12 that is best absorbed by the body.

DIETARY CHANGE:
THE KEY TO PRESERVING BIODIVERSITY, THE ENVIRONMENT AND CIVILIZATION

The role livestock play in biodiversity loss is so great, the recently published (May 2010) United Nations Environment Programme's (UNEP) Global Biodiversity 3 recommends that governments immediately institute programs to reduce meat consumption, including the abolition of harmful subsidies. In fact, as early as 2006, in their Livestock's Long Shadow report, the United Nations Food and Agriculture Organization (UN FAO) identified livestock as being most likely the single greatest cause of biodiversity loss on the planet, as well as being the root cause of many such 'civilization buster' trends. The report states:

> **The livestock sector emerges as one of the top two or three most significant contributors to the most serious environmental problems, at every scale from local to global. The findings of this report suggest that it should be a major policy focus when dealing with problems of land degradation, climate change and air pollution, water shortage and water pollution and loss of biodiversity.**

A NEW VISION FOR BIOLOGICAL DIVERSITY

"We need a new vision for biological diversity for a healthy planet and a sustainable future for humankind."

UN Secretary General Ban Ki-Moon,
Global Biodiversity Outlook 3, Foreword

In 2002, world leaders reaffirmed the commitment made at the 1992 Convention on Biological Diversity (CBD) Summit in Rio de Janeiro to halt and begin to reverse the rate of biodiversity loss by 2010, but the chances of meeting this target look increasingly remote; the consequences of failure increasingly unnerving. With another saga of slipped targets leaving many of the world's vital ecosystems in a precarious position, UN Secretary General Ban Ki-Moon has called for an urgent rethink on the policies and mindset of tackling biodiversity loss. The imperative immediacy of the problem requires the corresponding recognition and implementation of effective, if necessary unprecedented, solutions.

Aside from the removal or significant reduction of livestock-related subsidies, the instigation of far-reaching education and public information initiatives and various other legislative and economic levers, a sea-change in perception between individual and environment must be engendered if the Millennium Development Goals are to be met and biodiversity decline reversed.

BIODIVERSITY LOSS:
RACING TOWARDS A SIXTH GREAT EXTINCTION EVENT?

Biodiversity continues to be lost at an astounding rate 1,000 times higher than the background extinction rate of the 600m-year fossil record. The situation is so dire that many scientists fear we may be experiencing the sixth great extinction and warn the situation is as critical as climate change. The UN highlights that any perturbance in the environmental integrity that biodiversity and ecosystems provide threatens humanity with the potential loss of water supplies, rising food prices and even the increased likelihood of war.

Perhaps more worryingly, the UNEP's Global Biodiversity 3 reports that the loss in life-sustaining natural systems and habitats could reach the point of irreversibility, with one result of the degradation being that the world moves closer to "tipping points" beyond which some ecosystems that play a part in natural processes such as climate regulation or food chains may be permanently damaged or even lost.

With deforestation, pollution and overexploitation damaging the productive capacity of the most vulnerable environments, including the Amazon rainforest, lakes and coral reefs, Ahmed Djoghlaf, Executive Secretary of the UN Convention on Biological Diversity, was led to the conclusion that ***"... we are reaching the tipping point where irreversible damage to the planet is going to be done unless we act urgently."***

The UNEP report adds to data from the International Union for Conservation of Nature (IUCN) which shows that 21 per cent of all known mammals, 30 per cent of amphibians and 35 per cent of invertebrates are threatened with extinction, the present time being the first since the dinosaurs that humans are driving plants and animals to extinction faster than new species can evolve. Dr. Djoghlaf noted that countries had failed to honour pledges to reduce the rate of biodiversity loss and warned that ***"the magnitude of the damage [to ecosystems] is much bigger than previously thought."***

PRICING THE PRICELESS:
THE ECONOMIC RAMIFICATIONS OF BIODIVERSITY LOSS

Some of the global economic considerations related to biodiversity loss and ecosystem decline were elucidated in the Economics of Ecosystems and Biodiversity (TEEB) Review, released at the Convention on International Biodiversity in Bonn in 2008 which looked at how, if the goods and services provided by the natural world are not valued and factored into the global economic system, the environment will become more fragile and less resilient to shocks, risking human lives, livelihoods and the global economy. Often referred to as the "'Stern Review' of Biodiversity", it showed that global GDP could fall 7% by 2050 if biodiversity levels and ecosystems are not sufficiently protected, and that humankind is causing terrestrial ecosystems damage amounting to £40bn annually; the cost of species loss arguably unquantifiable.

The most up to date TEEB paper, which will be released this summer 2010 in advance of the CBD summit in Japan, investigates the ratio of costs of conserving ecosystems or biodiversity to the benefits of doing so. In a recent interview, TEEB report team leader, economist Pavan Sukhdev stated that "Our studies found ranges of 1:10, 1:25, 1:60 and 1 to almost 100... The point is they are all big ratios." He continued ***"We need a sea-change in human thinking and attitudes towards nature: not as something to be vanquished, conquered, but rather something to be cherished and lived within," also urging us to recognize our "[failure] to recognize the extent to which we are dependent on natural ecosystems, and not just for goods and services, but also for the stability of the environment in which we survive".***

"WE KNOW WHAT WE NEED TO DO. WE KNOW WHAT WORKS"

Speaking on May 21, 2010, the International Day for Biodiversity, United Nations Secretary General Ban Ki-Moon emphasized this warning that the current rates of flora and fauna loss are pushing ecosystems to points beyond which they can actually no longer sustain life; ***"Let us reflect on the root causes of biodiversity decline and take action to arrest it. Let us adjust policies and mindsets to reflect the true value of species and habitats. Let us recognize that biodiversity is life; our life. Let us act now to preserve it, before it is too late. We need focused action. We know what we need to do. We know what works. The time for delay is over. The time for delivery is now."***

UN: LIVESTOCK MOST LIKELY LEADING CAUSE OF BIODIVERSITY LOSS

In the Livestock's Long Shadow report, the livestock group within the UN's Food and Agriculture Organization emphasized how consumption of animal products is threatening biodiversity and ecosystems:

"Livestock now account for about 20 percent of the total terrestrial animal biomass, and the 30 percent of the earth's land surface that they now pre-empt was once habitat for wildlife. Indeed, the livestock sector may well be the leading player in the reduction of biodiversity, since it is the major driver of deforestation, as well as one of the leading drivers of land degradation, pollution, climate change, overfishing, sedimentation of coastal areas and facilitation of invasions by alien species."

In an overview of this report, the FAO published that an estimated 80 percent of growth in the livestock sector comes from industrial production systems, causing livestock to enter into direct competition for scarce land, water and other natural resources, with the sector being by far the single largest anthropogenic user of land; grazing occupying 26 percent of the Earth's terrestrial surface and feed crop production requiring approximately a third of all arable land. It also reveals how the expansion of grazing land for livestock is a key factor in deforestation, especially in Latin America: some 70 percent of previously forested land in the Amazon is used as pasture, and feed crops cover a large part of the remainder. Furthermore, 70 percent of all grazing land in dry areas is considered degraded, mostly because of overgrazing, compaction and erosion attributable to livestock activity.

"The best solution would be for us all to become vegetarians."

Yvo de Boer, Former head of UNFCCC

CATTLE CONSUMERS RESPONSIBLE FOR 80% OF AMAZONIAN DEFORESTATION

The Millennium Ecosystem Assessment confirmed the most important direct causes of biodiversity loss to be changes in habitats (predominantly caused by land-use change), overexploitation, the introduction of non-native species, pollution and climate change; with livestock production contributing significantly to each of these factors and having the biggest impact upon the change of land use.

Introducing a more remonstrative tone, the 2009 Greenpeace report 'Slaughtering the Amazon' highlighted how the cattle sector in the Brazilian Amazon is responsible for 14% of the world's annual deforestation. The Brazilian government is quoted therein, 'Cattle are responsible for about 80% of all deforestation' in the Amazon region. Such over consumptive practices are shown to have caused deprivation of diverse species of food sources, chronic deforestation and expansion of dead zones or oxygen-depleted zones in the tropical Atlantic and Pacific.

UN: "REDUCE MEAT TO PROTECT BIODIVERSITY"

Among the actions recommended to reverse such decline is the reduction or minimization of livestock raising, which is recognized by the UN as a significant cause of biodiversity loss. Livestock's role in biodiversity loss is so grave that the UN has started to call for governmental policy changes. The UNEP's recent (May 2010) Global Biodiversity Outlook 3 assertively recommends a reduction in meat production/consumption, highlighting the need to remove or ***"[avoid] perverse subsidies to minimize unsustainable resource use and wasteful consumption,"*** in reference to underlying causes and indirect drivers of biodiversity decline, including livestock. The report further encourages the promotion of market incentives that encourage healthier food options and better use of natural resources, such as ***"more moderate, less wasteful – and more healthy – levels of meat consumption."***

At the launch of the Lancet's "Health Benefits of Tackling Climate Change" series in November 2009, in which one of the recommendations was to reduce meat intake to mitigate climate change while reducing deaths due to ischaemic heart disease, UN Secretary General Ban stated: ***"Experts say that eating less meat will also minimize our impact on the environment and help reduce GHGs."***

THE CALL OF THE FUTURE

While there have been such notable voices calling for individual and collective consumption pattern change, to date there has little evidence of the vision, and indeed legislation, required to effect such breakthrough policies of livestock-lessening that could stem the flow of species loss, deforestation, water shortage and other livestock-contributory perils. With regard to the direction the future must take, one voice has always been loud and clear: United Nations IPCC Chairman Dr. Rajendra Pachauri commented during a 2009 interview that ***"Government [livestock] subsidies must be removed, because clearly they point you in the wrong direction, they create conditions by which externalities or external impacts, such as emission of greenhouse gases, only increase... Governments must look at this objectively and in its entirety, both in terms of environmental benefits and financial benefits that clearly would accrue if these subsidies were removed as quickly as possible."***

FROM UNPALATABLE TO UNPARALLELED:

HELPING THE PUBLIC TO LIVE WITHOUT LIVESTOCK

While the promotion of livestock-free lifestyles was not previously widespread even among notable environmental groups, the urgent need to legislate and educate to radically reduce particular consumption patterns has now been accepted into the mainstream of environmental consciousness as an affordable, accessible and effective course of action.

For example, Friends of the Earth's Vicki Hird echoes that biodiversity loss *"...is being caused by human behaviour, including the way we eat... The Government[s] must act to protect the world's vital natural diversity; by helping us cut back on products that are driving the destruction of forests and other habitats. This means passing a new law to reduce the impact of the meat and dairy industry..."*

Success in facilitating the global re-evaluation of the once thought unpalatable to the now known unparalleled livestock-independent diets (such as the vegan diet) requires giant steps; but steps that can be taken with the collective will, bold vision and unprecedented leadership that the present critical times necessitate.

As Ban Ki-Moon urged, ***"Let us adjust policies and mind-sets to reflect the true value of species and habitats. Let us recognize that biodiversity is life – our life. Let us act now to preserve it, before it is too late."***

REVERSING OTHER THREATS TO CIVILIZATION AND THE ECOSYSTEM

In the following section, we explore the linkage between livestock and consumption of animal products to other major trends threatening environmental and civilization collapse.

Climate Change

Dietary change is the fastest way to bring global temperatures down, affordably.

Climate change is now happening at a rate equivalent to the worst case scenario predicted by the IPCC, displacing people due to severe weather conditions, with intense storms at one extreme, and lack of water and drought at the other. Even if the current pledges by governments are adhered to, it is still estimated there will be an average global warming of 3.5C by 2100, which threatens island nations, the continent of Africa, coastal areas and the global food supply.

CO2 reductions will not act fast enough to save us. Bolder moves that act quickly are necessary to avoid civilization collapse; however the current focus on carbon dioxide (CO2) reductions cannot bring about change quickly enough. CO2 from fossil fuels is now estimated to be capable of warming the atmosphere for tens of thousands of years, meaning reliance on CO2 reductions are not sufficient to save civilization.

Climate Forcer	Atmospheric Lifetime	Global Warming Potential (20 yrs)	Global Warming Potential (100 yrs)
Carbon Dioxide (CO2)	10,000 years	1	1
Methane (CH4)	12 years ± 3 years	100	33
Ozone (03)	Hours to days	0.5	
Black Carbon (soot)	Weeks to months	4,470	1,055 – 2,240

Lifetime and potency of greenhouse gases and aerosols

Source: UN IPCC, University of Chicago, Stanford University

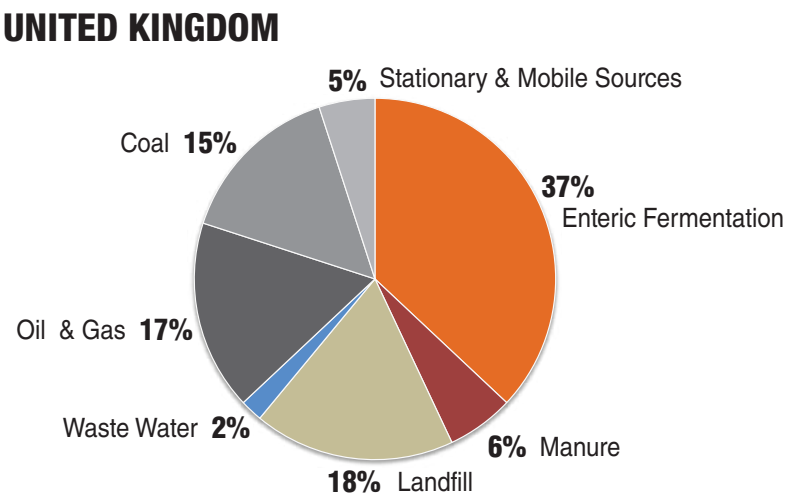
Reducing shorter-lived climate forcers may save us. There is a growing call for focusing on reducing methane, ozone and black carbon. These are much more potent than CO2 at creating warming in the atmosphere, and they have very short lifetimes, meaning reductions may bring about rapid planetary cooling. Methane, the most prevalent, is 100 times more potent than CO2 over a 20 year period, and black carbon is 4,470 times more potent. Methane dissipates within about a decade, while black carbon takes about a month and ozone takes a few hours or days.

Dietary shift to a vegan diet: the fastest way to reduce shorter-lived climate forcers. Because livestock are responsible for 36 percent of human-caused methane, the global adoption of a vegan diet will have a significant effect. Furthermore, because ozone has been found to be created through a series of chemical reactions starting with methane, any reductions in methane are expected to bring about rapid reductions in ozone. Livestock and consumption of animal products are the single greatest source of black carbon in Western Antarctica and the Antarctic Peninsula, regions experiencing some of the fastest rates of warming. The black carbon in Antarctica is coming from the slash and burn agriculture involved in raising cattle and growing animal feed in the Amazon, and it and may also be playing a significant role in the melting of Andean glaciers. Even without accounting for how fast cooling might occur due to the climate forcers created by the demand for animal products, livestock play a significant role in climate change. The UN estimate livestock create 18 percent of global emissions, while environmental researchers from the World Bank estimate livestock may be responsible for as much as 51 percent of emissions. The bottom line is that a plant-based diet will play a significant role in addressing climate change without the capital expenditures associated with buying a more efficient car or installing solar panels.

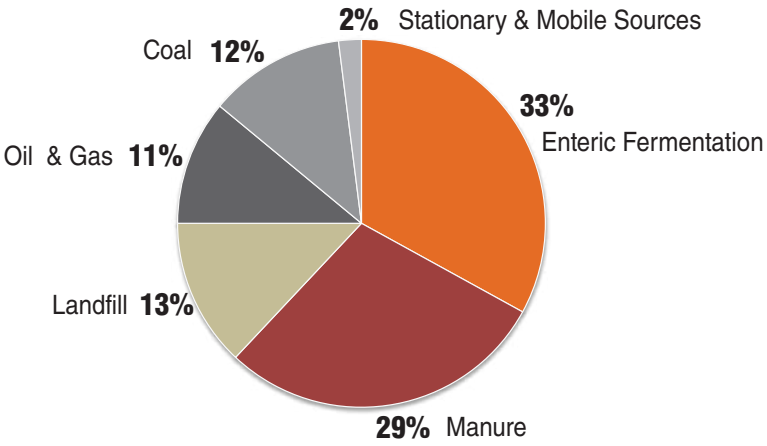
A vegan diet will reduce climate change mitigation costs 80 percent. The Netherlands Environmental Assessment Agency estimates that global adoption of a diet with no animal products will result in a reduction of climate change mitigation costs of over 80 percent. The benefits come from a combination of eliminating livestock emissions as well as land use changes, as discussed above.

ANTHROPOGENIC SOURCES OF METHANE

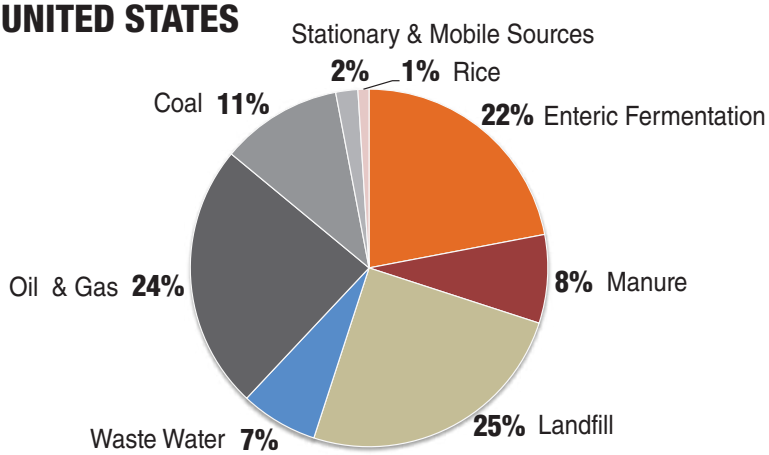
Source: Methane to Markets



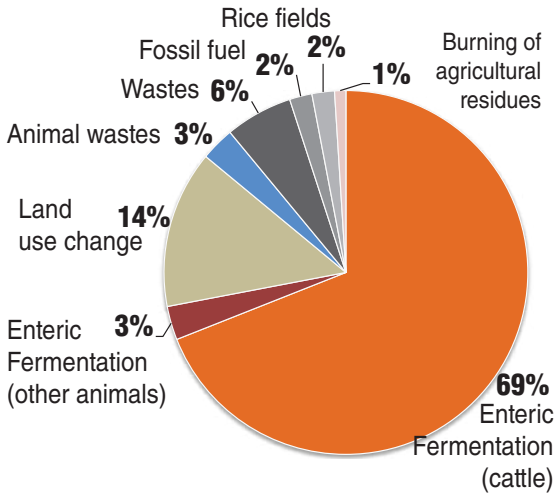
GERMANY



UNITED STATES



BRAZIL



UNITED KINGDOM

- No.1 - Livestock (43%)
- No.2 - Landfill (18%)
- No.3 - Oil & Gas (17%)

GERMANY

- No.1 - Livestock (62%)
- No.2 - Landfill (13%)
- No.3 - Oil & Gas (11%)

UNITED STATES

- No.1 - Livestock (30%)
- No.2 - Landfill (25%)
- No.3 - Oil & Gas (24%)

BRAZIL

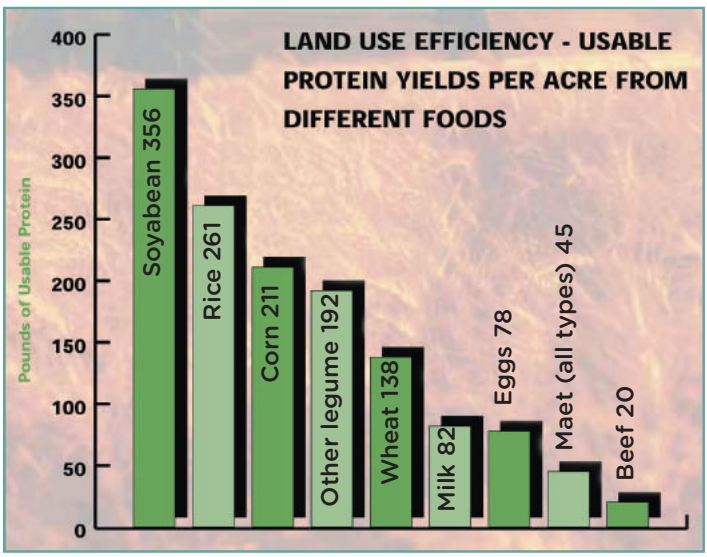
- No.1 - Livestock (75%)
- No.2 - Land use change (14%)
- No.3 - Wastes (6%)

Water and Food Security

A plant-based diet: the easiest way to feed and water more with less.

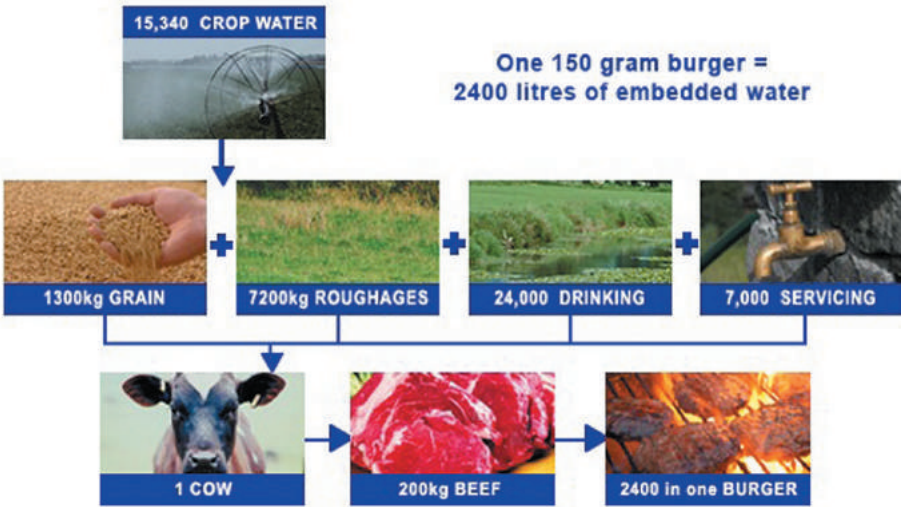
History is littered with great civilizations who met their demise when they lost control of their food supply. Our civilization is on the brink with soil loss, extreme weather and growing water scarcity. For the first time in recent history, food price increases in 2008 — which caused global protests — were trend driven rather than event driven, ringing a warning bell to governments and policymakers across the globe. The situation is exacerbated by climate change, which is causing crop losses due to weather extremes from flooding to drought. Growing water scarcity is also one of the greatest threats facing humanity over the next few decades.

The best way to do more with less is to adopt a vegan diet. The Stockholm International Water Institute estimates 70 percent of all water is used by farming, and that it takes about 10 times as much water to grow beef as it does to grow the same amount of wheat. We can conserve water by consuming a plant based diet. Evaluating water usage in California, USA agriculture, University of California-Davis found three complete vegan meals can be grown for the same water as one serving of chicken, and 13 complete vegan meals can be made using the same amount of water needed to produce one serving of beef. From a food standpoint, animal products are highly inefficient because most of the food fed to livestock is used up in the animals' metabolic processes. It takes around 5 kg of grain to create 1 kg of meat. Livestock also consume 36 percent of global grain, compared to 5 percent used for biofuels. The best way to make limited food go farther is to eat plant-based foods.



Source: US Department of Agriculture, FAO/WHO/UNICEF Protein Advisory Group

PRODUCING MEAT IS INEFFICIENT



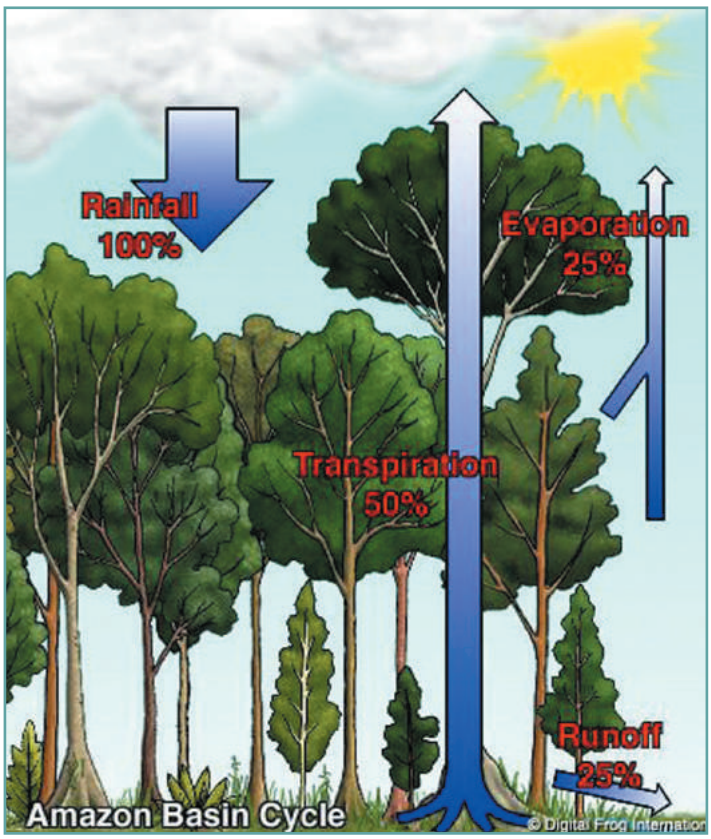
Deforestation

A plant based diet would enable all pastureland to be reforested.

Over 50 percent of the world's forests have been lost, with much of the rest under threat. In Climate Benefits of Changing Diet, the Netherlands Environmental Assessment Agency estimates that plant-based diets are so efficient at feeding people that a shift to a plant based diet would allow all lands currently being used as pastureland to be reforested. The rainforests provide much of the world's fresh water, regulating the overall temperature. They also sequester CO2, and their destruction has been associated with up to 25 percent of greenhouse gas emissions. Trees act as large water pumps, with one single rainforest or coniferous tree estimated to have an evaporative surface area equal to a 40 acre lake. Once trees are decimated or deforested, a region tends to experience desertification because the trees are no longer pumping groundwater back into the atmosphere to create rain. They are also the lungs of the world, acting as one of the earth's natural air conditioners.

Most of the emphasis in saving forests tends to focus on logging while ignoring that forested land has been converted to pastureland or agricultural land to feed livestock. Demand for meat and dairy continues to play a role in global deforestation, especially in the three remaining tropical rainforests in Asia, Africa and South America. The largest by far is the Amazon in South America, where Brazilian researchers estimate 75 percent of deforestation has occurred to create pastureland for livestock, with much of the rest used for growing soya crops, which are then exported to Europe and others as livestock feed. In Africa, forested areas are often burned down to expand agricultural land for ruminant animals. The UN Environmental Program estimates overgrazing of livestock transformed Sudan's formerly fertile land into a desert, as livestock populations swelled from 27 million to 135 million. Within

15 years, slash and burn agriculture, much of which occurred to create pasture for the growing animal population, led to a deforestation crisis reducing Sudan's forests to 12 percent of their previous forest cover. The resulting decline in rainfall and increased temperatures have been associated with the genocide in Darfur. In Asia, where forests are torn down to create palm tree plantations, one of the three main products, palm kernel expeller, is used as animal feed.



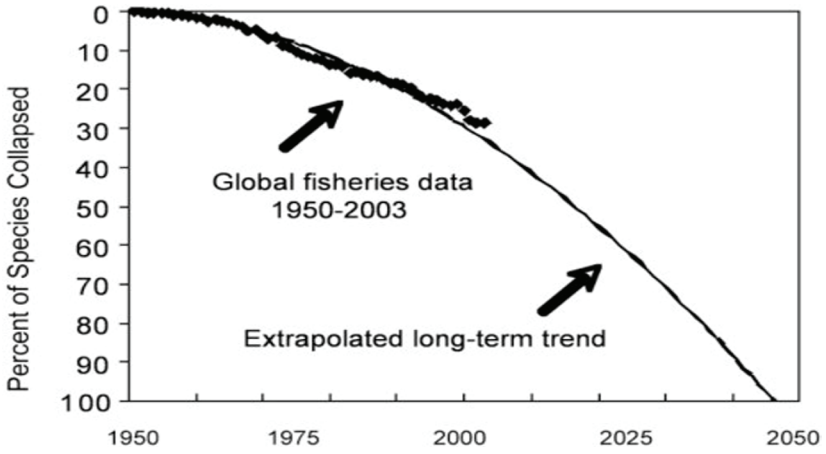
Oceanic Ecosystems collapse

Avoid a complete collapse by 2048 with plant foods.

Many people mistakenly think that by shifting their diet from meat to fish, they will be averting the environmental or health destruction associated with eating meat. This is a dangerous misconception. If the planet is in peril, the oceans are in double jeopardy. By comparison, 30 percent of animal species have been lost since the 1970's, but 91 percent of the ocean's fish have been halved in number, and 45 percent have either nearly disappeared or become extinct. Loss of marine life is already estimated to be impairing the ocean's ability to maintain water quality and recover from perturbations. Scientists estimate that the current trends are leading us to a complete collapse of global fisheries by around 2050. Aquaculture is no answer, either, because the farm-raised fish are typically fed between one to two kilograms of sea-caught fish to grow one kilogram of farm-raised fish, making them an artificial predator in the ocean.

THERE MAY BE NO MORE FISH IN THE OCEANS BY 2050

Source: Dalhousie University



NUTRITIONAL SUPERIORITY OF PLANT-BASED DIETS

Improves health and reduces health care costs. The American Dietetic Association (ADA), the largest group of professional nutritionists in the world, has verified that well-planned vegan diets are nutritionally sound for all stages of the human lifecycle. The ADA states:

"It is the position of the American Dietetic Association that appropriately planned vegetarian diets, including total vegetarian or vegan diets, are healthful, nutritionally adequate, and may provide health benefits in the prevention and treatment of certain diseases."

Vegetarians have less cardiovascular disease, obesity, diabetes and lower rates of certain cancers than meat-eaters. A growing number of medical doctors have also been successful in developing dietary programs to cure cardiovascular disease and diabetes within a very short period of time.

THE VEGAN CHOICE:

The Common Denominator of a Sustainable World for All

In summary, the livestock industry and public demand for animal-based foods are some of the most significant common denominators driving biodiversity loss, climate change, deforestation, food and water security and oceanic ecosystems collapse. Through fast-acting, forward thinking measures, biodiversity can be brought back from the brink and the Millenium Development Goals can yet be met. Additionally, people who choose a plant-based diet are likely to be healthier and can feel confident that their dietary choice is not only nutritionally sound but that it directly promotes the sustenance of life and the abundance of biodiversity planet-wide: every vegan meal chosen over a meat- or dairy-based meal is a step towards a sustainable and healthy planet for all co-inhabitants. Through a new vision which supports the removal of livestock-related subsidies, the instigation of far-reaching education and public information initiatives and other socio-economic influencers, the requisite sea-change in perception can be effected, and for the first time, humanity will have acted as one in overcoming a civilization-threatening event; an inspiration for future generations who may thereby prosper in our legacy of ever greater health, biodiversity, planetary stability and environmental affluence.

LEARN MORE

EDUCATION IS KEY TO LIBERATION

IVU.ORG
World Union of Vegetarian/Vegan Societies - Promoting vegetarianism worldwide since 1908.

SUPREMEMASTERTV.COM
Features programs that support a modern lifestyle that is green, healthy, and compassionate.

WORLDPRESERVATIONFOUNDATION.ORG
Materials and guidance for individuals to encourage the media and governments and other institutions to introduce beneficial legislation and policies resulting in decreased consumption of animal products.

MERCYFORANIMALS.ORG
The official website of MFA. Offers info on animal rights issues, online store, & more.

CHOOSEVEG.COM
MFA's online edition of this guide. Offers recipes, videos, tips, & more.

EGGCRUELTY.COM
Photos, videos, and info regarding MFA under-cover investigations into animal cruelty at Ohio egg farms.

VEGGUIDE.ORG
The ultimate restaurant and shopping guide for vegetarians and vegans.

GOVEG.COM
Resources for activists, news articles, hundreds of recipes, & more.

VEGANHEALTH.ORG
Info on how to live a healthy vegan lifestyle.

VIVA.ORG.UK
Popular campaigns, solid research, undercover exposés and effective media skills Viva! have brought the reality of modern farming into people's living rooms.

International Vegetarian Union (IVU)

The International Vegetarian Union (IVU) was founded in 1908 when the first World Vegetarian Congress was held in Dresden, Germany. The idea for IVU came from the French Vegetarian Society, the first Congress was organised internationally by the British Society and locally by the Dresden Society with support from the Deutsche Vegetarier-Bund. Since then a series of World Congresses have been held all around the world, and in 2008 IVU returned to Dresden for the Centenary 38th Congress.

www.IVU.org

Supreme Master Television

SUPREME MASTER TV is a free-to-air satellite channel broadcasting 24 hours a day, 7 days a week, with a variety of engaging programs in English with over 40 languages and subtitles. Being the ideal television channel that brings to your life Nobility and Spirituality. Broadcasting on 14 satellites platforms across the globe.

www.SupremeMasterTV.com

THE SURVIVAL OF THE WORLD IS IN YOUR HANDS. SO IS THE SOLUTION.

"We have a climate crisis that is a planetary emergency."
— Al Gore
Environmental activist and former Vice President of the United States

"It (Climate Change) is the only thing that I believe has the power to fundamentally end the march of civilization as we know it."
— Bill Clinton
Former President of the United States

"The hour is late, it's time to decide. I'm quite confident that you will make the choice wisely."
— Ban Ki-moon
Secretary-General, United Nations

"The doomsday clock of climate change is ticking ever faster towards midnight; we are simply not reacting quickly enough."
— Prince Charles
Prince of Wales

"80% of the global warming will be stopped if all people begin to be vegetarian. ...if they don't fix it, 4-5 years time, finito. No more. It's really that urgent. "
— Supreme Master Ching Hai
World-renowned humanitarian and respected spiritual teacher

- It takes decades to change our massive infrastructure of cars and power plants. Whereas cutting back on meat consumption is some thing every person can do every day to effectively combat global warming.
- Leading medical organizations agree that balanced plant-based diets provide the best protection against the three biggest killers: heart disease, cancer and strokes.

THE CRISIS

"THE ARCTIC OCEAN COULD BE NEARLY ICE-FREE AT THE END OF SUMMER BY 2012. "

— DR. JAY ZWALLY *NASA CLIMATE SCIENTIST*

THE CONSEQUENCES

"THIS NEXT YEAR OR TWO YEARS ARE THE CRITICAL TIME PERIODS... BEYOND WHICH IT WILL BE IMPOSSIBLE TO AVOID CLIMATE CHANGE WITH FAR-RANGING UNDESIRABLE CONSEQUENCES. "

— DR. JAMES HANSEN *DIRECTOR OF NASA*

Just 1°C increase alone can flood the low-lying coastlines, which include many major cities. And further increase may trigger the release of massive amounts of poisonous methane gas in the deep oceans.

THE SOLUTION

"PLEASE EAT LESS MEAT - MEAT IS A VERY CARBON INTENSIVE COMMODITY. "

— DR. RAJENDRA PACHAURI *CHIEF OF IPCC (UNITED NATIONS' PANEL OF 2,500 SCIENTISTS ON CLIMATE CHANGE)*

One person eating plant-based diet reduces 1.5 tons of carbon emission per year: equivalent to reducing an average household's electricity by 50%.

BE VEG. GO GREEN. SAVE OUR PLANET.

INTERNATIONAL VEGETARIAN UNION