

THE WORLD AS IT IS
AND THE WORLD AS IT COULD BE

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PREFACE

“THE WORLD AS IT IS AND THE WORLD AS IT COULD BE”, in its original form, dates from 1983, and it was the first piece that I ever wrote about global problems. My close friend, Keld Helmer-Petersen, an important pioneer of photography as an art form, helped me by improving it and making a Danish translation. We had several hundred 5-page pamphlets printed both in Danish and in English, and we distributed them to our friends. This brought me into contact with a number of important Danish peace activists.

Later, I thought of making an illustrated version of the booklet, and asked several of my friends, who were artists, whether they might be willing to make the illustrations. But before any of my artist friends started on this project, I was able to find images on the Internet that worked quite well. The result was the 32-page version that appears at the end of this book.

Recently the famous Iranian scientist and author, Hassan Fattahi, suggested to me that the small book should be very much enlarged. His idea was the the enlarged book should contain 12 chapters and 365 images, one for each day of the year. The present book is the result of his excellent suggestion. I have approximately, although not completely strictly, followed his plan.

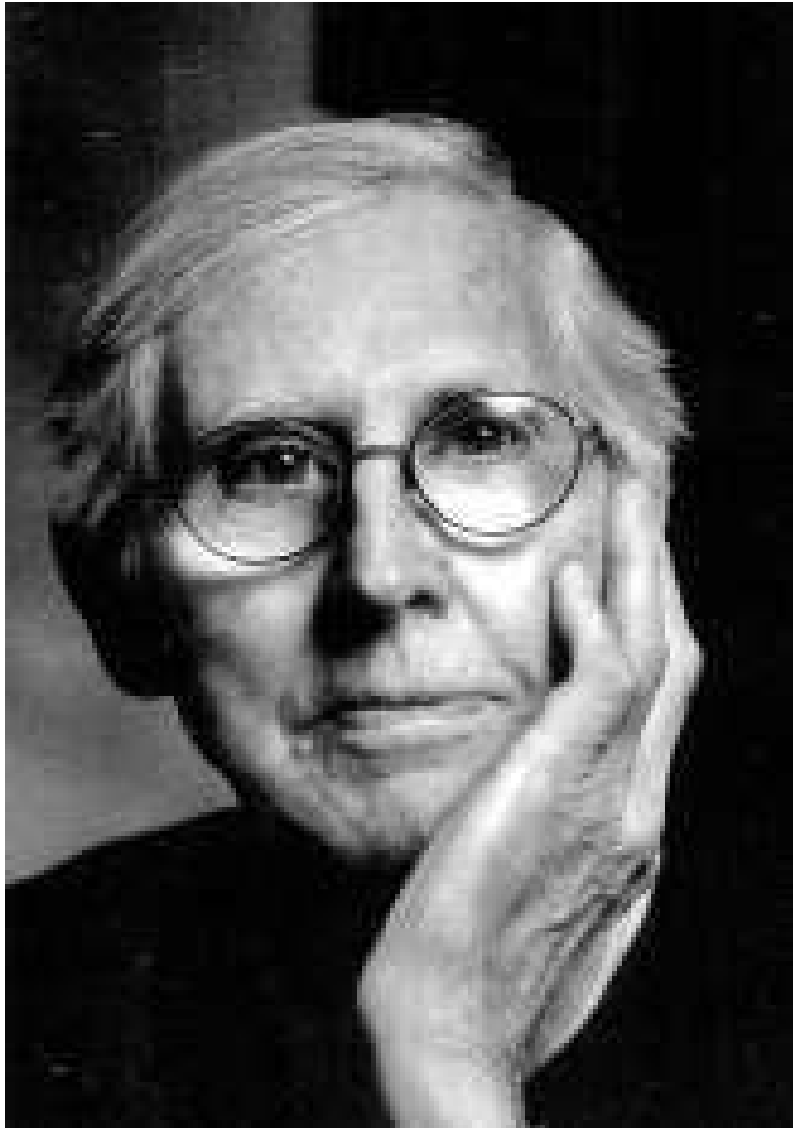


Figure 1: My close friend Keld Helmer-Petersen (1920-2013) was a famous pioneer of modern photography as an art-form. Besides his visual genius, he also had extraordinarily wide-ranging interests and human understanding.



Figure 2: The renowned Iranian writer and scientist, Hassan Fattahi, and his wife, Zoha

ECOLOGY

We must create a livable future world

We give our children loving care, but it makes no sense to do so unless we do everything in our power to give them a future world in which they can survive. We also have a duty to our grandchildren, and to all future generations.

The amazingly rapid growth of science, technology, agriculture and industry has given the world many benefits, but indefinite growth on a finite planet is a logical impossibility, and we have now reached the point where the human success story has become a threat. Today we are faced with the threat of an environmental megacatastrophe, of which the danger of catastrophic climate change is a part. Human ingenuity also produced nuclear weapons, but the development of international law, governance and ethics has not kept pace, and we face the threat of an all-destroying nuclear war. Finally, because of population growth, the effect of climate change on agriculture, and the end of the fossil fuel era, there is a danger that by the middle of the present century a very large-scale famine could take the lives of as many as a billion people.

We owe it to future generations to take urgent action to prevent these threatened catastrophes. In the present chapter, we will focus on the climate emergency, while the dangers of nuclear war and famine will be discussed in chapters 3 and 5.

Only immediate climate action can save the future

Immediate action to halt the extraction of fossil fuels and greatly reduce the emission of CO₂ and other greenhouse gasses is needed to save the long-term future of human civilization and the biosphere.

At the opening ceremony of United Nations-sponsored climate talks in Katowice, Poland, Sir David Attenborough said “Right now, we are facing a man-made disaster of global scale. Our greatest threat in thousands of years. Climate change. If we don’t take action, the collapse of our civilizations and the extinction of much of the natural world is on the horizon. The world’s people have spoken. Their message is clear. Time is running out. They want you, the decision-makers, to act now.”

Antonio Guterres, UN Secretary-General, said climate change was already “a matter of life and death” for many countries. He added that the world

is “nowhere near where it needs to be” on the transition to a low-carbon economy.

The world is burning!

Although the worst threats from catastrophic climate change lie in the long-term future, we are starting to see the effects of climate change today.

California is burning! As of August 28, 2020, 7175 fires have burned 1,660,332 acres, according to the California Department of Forestry and Fire Protection.

The Arctic is burning! A northeastern Siberian town, north of the Arctic Circle, is likely to have set a record for the highest temperature documented in the Arctic Circle, with a reading of 100.4 degrees (38 Celsius) recorded in June, 2020. The dangerous greenhouse gas methane is bubbling up from melting permafrost in the Arctic and from the shallow seas north of Siberia. Furthermore, wildfires in the Arctic are emitting an unprecedented amount of CO₂.

The 2020 hurricane season has started early, notably with Laura, and it is predicted to be unusually severe. Greenland’s ice sheet is melting. Ice shelves are collapsing in the Antarctic. But despite these obvious signs of danger, the climate emergency is hardly mentioned in the 2020 political campaigns, or in U.S. mass media. It ought to be a central issue.

Greta Thunberg’s 2019 speech at Davos

Here are some quotations from the speech of world-famous teenage climate activist Greta:

“Our house is on fire. I am here to say, our house is on fire. According to the IPCC, we are less than 12 years away from not being able to undo our mistakes. In that time, unprecedented changes in all aspects of society need to have taken place, including a reduction of our CO₂ emissions by at least 50%...”

“Here in Davos - just like everywhere else - everyone is talking about money. It seems money and growth are our only main concerns.

“And since the climate crisis has never once been treated as a crisis, people are simply not aware of the full consequences on

our everyday life. People are not aware that there is such a thing as a carbon budget, and just how incredibly small that remaining carbon budget is. That needs to change today.

“No other current challenge can match the importance of establishing a wide, public awareness and understanding of our rapidly disappearing carbon budget, that should and must become our new global currency and the very heart of our future and present economics.

“We are at a time in history where everyone with any insight of the climate crisis that threatens our civilization - and the entire biosphere - must speak out in clear language, no matter how uncomfortable and unprofitable that may be.

“We must change almost everything in our current societies. The bigger your carbon footprint, the bigger your moral duty. The bigger your platform, the bigger your responsibility.”



In the world as is, Chief Luther Standing Bear (1868-1939) was an author and philosopher. In one of his books, he wrote: "I find [a] great distinction between the faith of the Indian and the white man. Indian faith sought the harmony of man with his surroundings, the other sought the dominance of surroundings."

In the world as it could be, we would seek harmony with our global environment, rather than domination.



*In the world as is, we must be the friend of nature.
We must respect nature.*

**In the world as it could be, friendship between humans and nature
would reward both partners.**



In the world as is, we are not the rulers of nature. We are a part of nature, on equal footing with plants and animals.

In the world as it could be, humans would be less arrogant and more modest in their relationship with nature. In return, nature would give humans a stable environment in which future generations could survive.



In the world as is, we must learn to derive more of our happiness from enjoyment of the beauty of the natural world.

In the world as it could be, we would walk in forests, breathing in the fresh air, and enjoying the beauty of the natural world.



In the world as is, even the humblest living creature is worthy of our respect and wonder. This is what Albert Schweitzer meant when he spoke of “reverence for life”.

In the world as it could be, humans would respect and love all the plants and animals with which they share the gift of life.



In the world as is, the earth is our mother. We must learn to respect and love our mother earth, instead of abusing her. She will return our love.

In the world as it could be, the children of the earth would respect and care for their mother.



In the world as is, we must love and respect Mother Earth. She is weeping. Tears are falling from her eyes. We kick and abuse her.

In the world as it could be, we would repent and apologies for the great pain that we have given to our mother.



In the world as is, we need reverence for all life, and even reverence for inanimate nature. We need respect and love for Mother Earth. She will return our love.

In the world as it could be, we would learn reverence for all forms of life, and we would also respect inanimate nature.



In the world as is, Saint Francis said: “My dear and beloved Brother, the treasure of blessed poverty is so very precious and divine that we are not worthy to possess it in our vile bodies. For poverty is that heavenly virtue by which all earthy and transitory things are trodden under foot, and by which every obstacle is removed from the soul so that it may freely enter into union with the eternal Lord God.”

In the world as it could be, we would be less preoccupied with selfish goals and accumulating wealth, and would instead appreciate life, love and the natural world.



In the world as is, Saint Francis wrote, “Be praised, my Lord, through all your creatures, especially through my lord Brother Sun, who brings the day; and you give light through him. And he is beautiful and radiant in all his splendor!...Praised be You, my Lord, through Sister Moon and the stars, in heaven you formed them clear and precious and beautiful.”

In the world as it could be, the “Canticle of the Sun” by Saint Francis would inspire us to better appreciate the natural world.

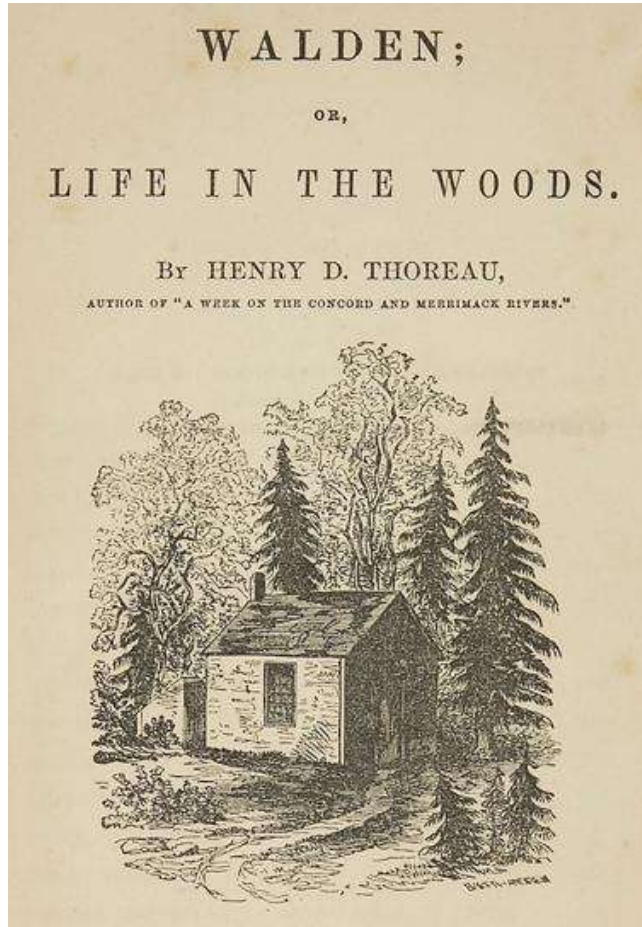


In the world as is, Henry David Thoreau (1817-1862) wrote. “Most of the luxuries, and many of the so-called comforts of life, are not only not indispensable, but positive hindrances to the elevation of mankind. With respect to luxuries, the wisest have ever lived a more simple and meager life than the poor. The ancient philosophers, Chinese, Hindoo, Persian, and Greek, were a class than which none has been poorer in outward riches, none so rich in inward.”

In the world as it could be, we would strive less for outward riches, and more for riches of the mind and spirit.

WALDEN;
OR,
LIFE IN THE WOODS.

By HENRY D. THOREAU,
AUTHOR OF "A WEEK ON THE CONCORD AND MERRIMACK RIVERS."



In the world as is, Thoreau's book, "Walden", has become an inspiration for the environmental movement. The illustration shows the frontpiece of the book, with the small cabin which he built with his own hands.

In the world as it could be, we would read and appreciate all of Thoreau's huge contributions to literature, philosophy and ecology.



In the world as is, Walden has become a place of pilgrimage for the environmental movement. Thoreaus complete Journals, which are in fact his major work, have today been published. They contain roughly seven thousand pages, and two million words. The photo shows Walden Pond, as it looks today. The small cabin which Thoreau built with his own hands was near to the pond.

In the world as it could be, Henry David Thoreau would be remembered as a pioneering thinker who advocated not only environmentalism and respect for nature, but also resistance to tyranny through non-violent civil disobedience.



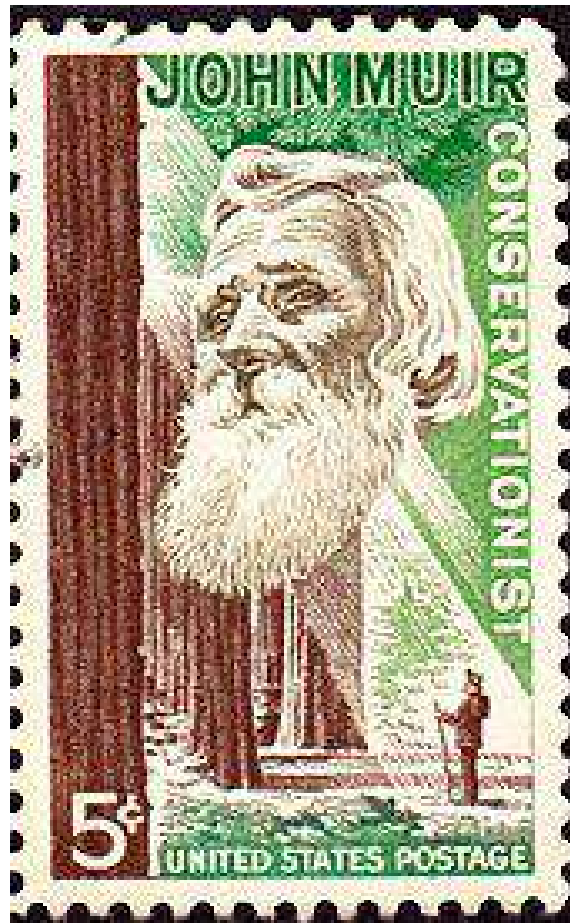
In the world as is, the popular environmental writer John Muir said, “Keep close to Nature’s heart... and break away once in awhile, and climb a mountain, spend a week in the woods, wash your spirit clean.” The photo shows John Muir, circa 1875.

In the world as it could be, we would follow John Muir’s advice and wash our spirits clean by spending time with nature.



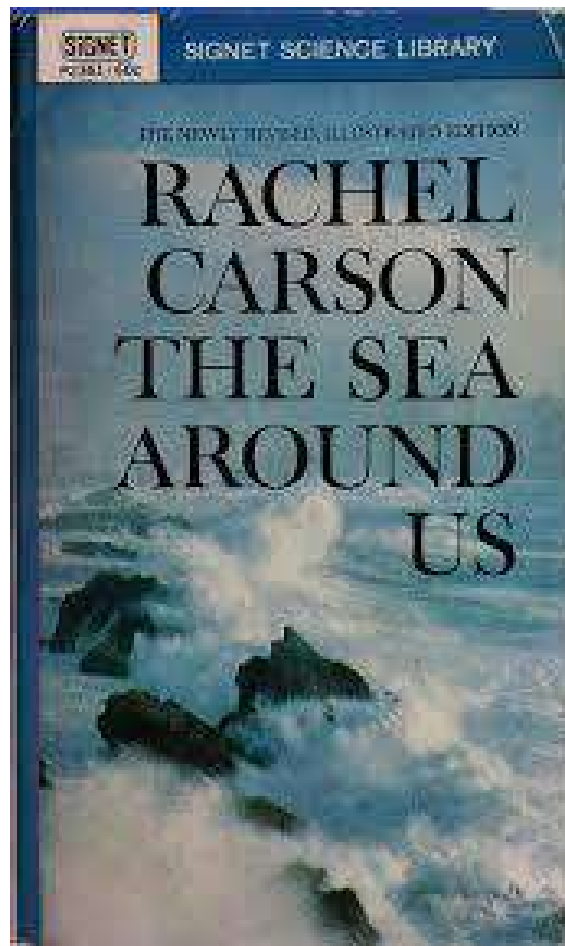
In the world as is, US President Theodore Roosevelt asked John Muir to show him the wonders of Yosemite. They went there together on a camping trip, during which Muir persuaded Roosevelt to make Yosemite a National Park. The photo shows them with Yosemite in the background.

In the world as it could be, US citizens would be grateful to both Roosevelt and Muir for their system of national parks.



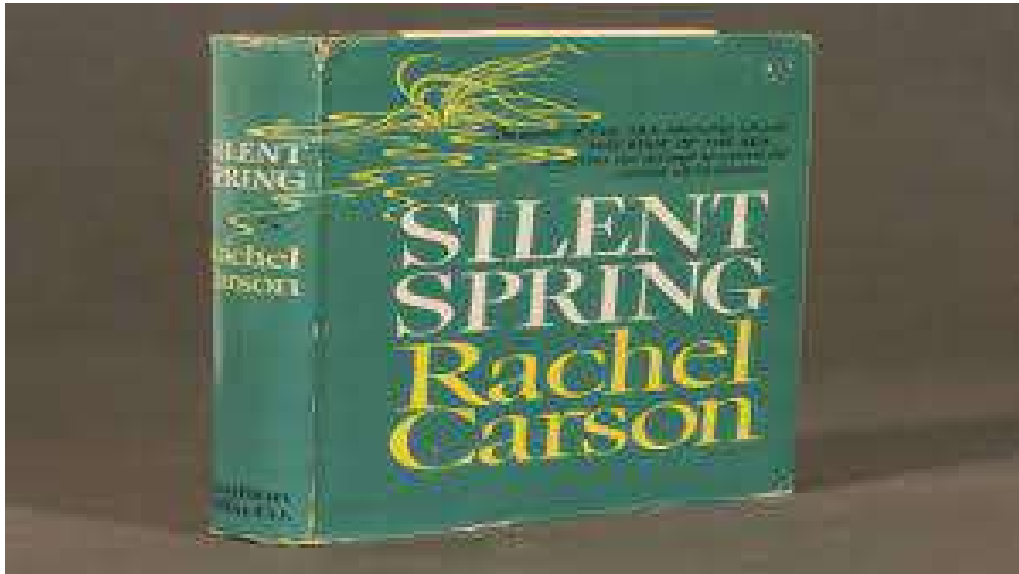
In the world as is, a redwood forest north of San Francisco is named Muir Woods, and 20 other places or landmarks are named after him. His work as an ecologist has been commemorated by two US postage stamps. California celebrates John Muir Day on April 21 each year. The play “Thank God for John Muir”, by Andrew Dallmeyer is based on his life.

In the world as it could be, we would be inspired by John Muir’s life and writings, and we would work for the protection of our environment.



In the world as is, Rachel Carson's gift for writing combined with her wide knowledge of marine biology to make "The Sea Around Us" a best-seller.

In the world as it could be, we would realize that the health of our planet's oceans is vitally important for human society.



In the world as is, Rachel Carson's "Silent Spring" was an international best-seller, and it ignited the environmental movement.

In the world as it could be, we would realize that the excessive use of pesticides is causing a catastrophic loss of biodiversity.



In the world as is, as Rachel Carson's influence increased, she began speaking to large audiences. She died of a cancer that may have been caused by excessive use of chemical pesticides, the very thing that she had worked to combat.

In the world as it could be, we would continue the environmental movement which Rachel Carson helped to initiate.



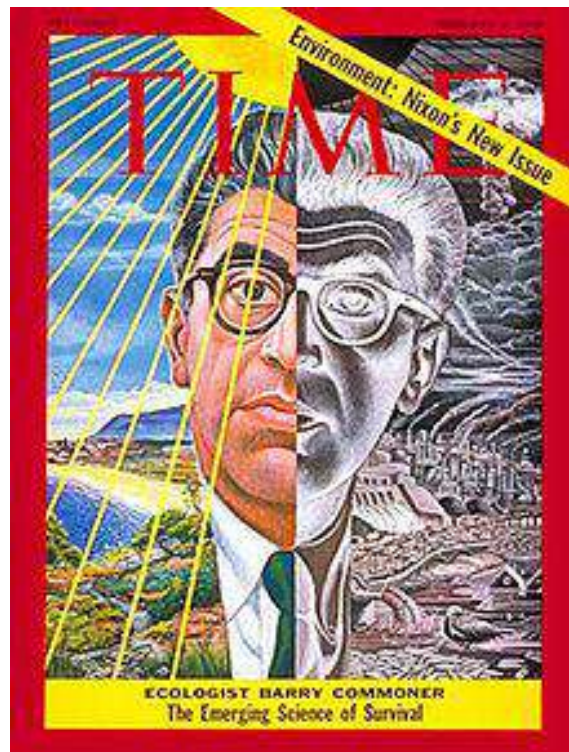
In the world as is, the famous primate researcher and ecologist Jane Goodall works for protection of our environment through her Roots and Shoots organization. She is very concerned by the way in which loss of habitat is leading to loss of biodiversity. The photo shows her in Tanzania in 2018.

In the world as it could be, we would follow Jane Goodall's example and work with dedication to avoid the threatened environmental mega-catastrophe.



In the world as is, an award-winning documentary film about Jane Goodall's life and work makes use of beautiful footage filmed by her first husband, Baron Hugo van Lawick

In the world as it could be, we would enjoy the beautiful film, and at the same time learn much from it.



In the world as is, Time reported in its February 1970 issue that “the national concern over the environment has reached an unprecedented level of intensity.” On the cover, the visage of Barry Commoner projected a powerful image of ecology, which took the stage for the first time in the public eye.

In the world as it could be, we would be grateful to Barry Commoner for calling attention to the ecological crisis that the world faces today.



In the world as is, Helena Norberg-Hodge (born in 1946) is the founder and director of Local Futures, which was previously named International Society for Ecology and Culture. She states that the organization is “dedicated to the revitalization of cultural and biological diversity, and the strengthening of local communities and economies worldwide”. In her important book, “Ancient Futures”, Norberg-Hodge says that modern industrial societies ought to learn from more sustainable traditional cultures, rather than the reverse.

In the world as it could be, industrial societies would learn from the more ancient cultures of the world, since they have found ways to live in sustainable harmony with their environments.



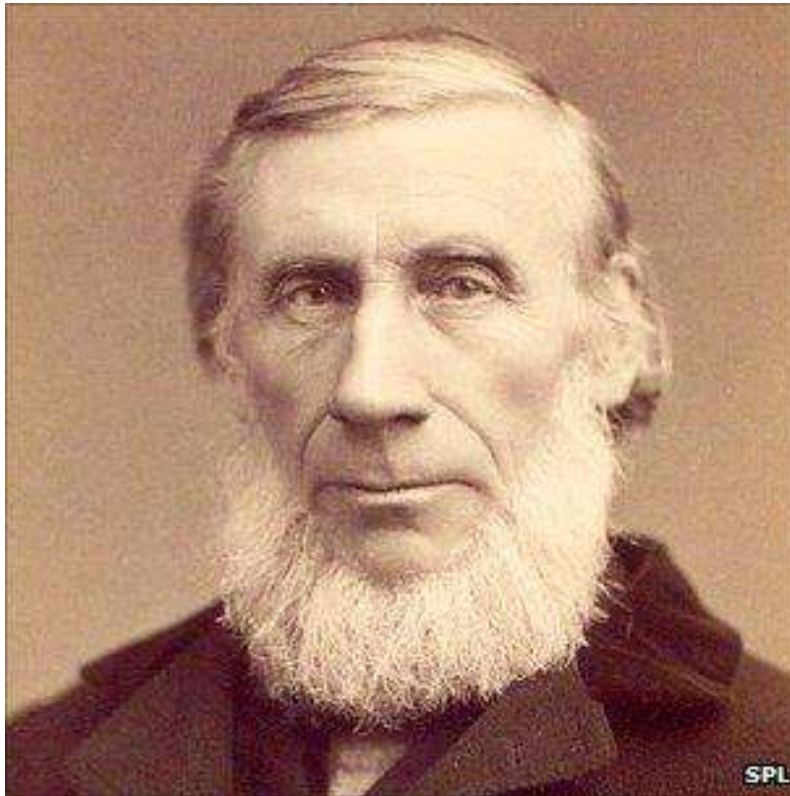
In the world as is, speaking at the opening ceremony of COP24, the universally loved and respected naturalist Sir David Attenborough said: “If we dont take action, the collapse of our civilizations and the extinction of much of the natural world is on the horizon.”

In the world as it could be, Sir David’s words would be taken seriously. since he is one of the world’s greatest experts on the natural world.



In the world as is, Sir David Attenborough testified at the British Parliament in July, 2019. As a result of his testimony, Britain declared a climate emergency.

In the world as it could be, all the nations of the world would acknowledge that there is a climate emergency, as many have already done.



In the world as is, John Tyndall (1820-1893) was a physicist who discovered, among many other things, infrared radiation. Because of his studies of the absorption of radiation by CO₂ and many other gases, he is considered to be an important pioneer of climate science.

In the world as it could be, we would teach climate science in our schools. The history of our knowledge in this vitally important field would be a part of the course.



In the world as is, Svante Arrhenius (1859-1927) was one of the main founders of physical chemistry and a pioneer of climate science. A child prodigy, he taught himself to read and to calculate at the age of three. He was related to climate activist Greta Thunberg, and Greta's father, Svante Thunberg, is named after him. Arrhenius received the Nobel Prize in Chemistry in 1903 for work that he had done much earlier when he was writing his doctoral dissertation.

In the world as it could be, the pioneering work of Svante Arrhenius would be an important part of the history of climate science.



In the world as is, bees and other pollinators are declining in abundance in many parts of the world largely due to intensive farming practices, mono-cropping, excessive use of agricultural chemicals and higher temperatures associated with climate change, affecting not only crop yields but also nutrition. If this trend continues, nutritious crops such as fruits, nuts, and many vegetables will be substituted increasingly by staple crops like rice, corn, and potatoes, eventually resulting in an imbalanced diet.

In the world as it could be, we would abandon the, agricultural practices that threaten populations of bees and other pollinators.



In the world as is, Wangari Maathai (1940-2011) founded the Green Belt Movement in Kenya in 1977. The organization is devoted to planting trees, environmental conservation and women's rights. Since that time, the organization has planted over 51 million trees. In 2004 Maathai was awarded the Nobel Peace Prize for "her contribution to sustainable development, democracy and peace."

In the world as it could be, the importance of forests in sequestering carbon would be recognized and more trees would be planted throughout the world.



In the world as is, on April 16, 2019, Pope Francis met with teenage climate activist Greta Thunberg, and encouraged her to continue with her important work. Pope Francis is also an important figure in the struggle to save our environment.

In the world as it could be, both Pope Francis and Greta Thunberg would inspire us to work with dedication to save our global environment.

THE CLIMATE EMERGENCY

The central problem which the world faces in its attempts to avoid catastrophic climate change is a contrast of time scales. In order to save human civilization and the biosphere from the most catastrophic effects of climate change we need to act immediately, Fossil fuels must be left in the ground. Forests must be saved from destruction by beef or palm oil production.

These vitally necessary actions are opposed by powerful economic interests, by powerful fossil fuel corporations desperate to monetize their underground “assets”, and by corrupt politicians receiving money the beef or palm oil industries.

However, although some disastrous effects climate change are already visible, the worst of these calamities lie in the distant future. Therefore it is difficult to mobilize the political will for quick action. We need to act immediately, because of the danger of passing tipping points beyond which climate change will become irreversible despite human efforts to control it.

Tipping points are associated with feedback loops, such as the albedo effect and the methane hydrate feedback loop. The albedo effect is important in connection with whether the sunlight falling on polar seas is reflected or absorbed. While ice remains, most of the sunlight is reflected, but as areas of sea surface become ice-free, more sunlight is absorbed, leading to rising temperatures and further melting of sea ice, and so on, in a loop.

The methane hydrate feedback loop involves vast quantities of the powerful greenhouse gas methane, CH_4 , frozen in a crystalline form surrounded by water molecules. 10,000 gigatons of methane hydrates are at present locked in Arctic tundra or the continental shelves of the world’s oceans. Although oceans warm very slowly because of thermal inertia, the long-term dangers from the initiation of a methane-hydrate feedback loop are very great. There is a danger that a very large-scale anthropogenic extinction event could be initiated unless immediate steps are taken to drastically reduce the release of greenhouse gases.

Scientists have long been aware of the dangers

Scientists have long been aware that CO_2 and other greenhouse gases released into the earth’s atmosphere through human activities can cause dangerous climate change. László Szombatfalvy’s important book. “The Greatest Challenges of Our Time”, (Ekerlids, 2010), gives the following history of our

knowledge of the link between greenhouse gases and climate change:

“As far back as 100 years ago, Swedish scientists observed that human activities could affect the climate. Arvid Högbom, professor of geology in Stockholm, warned in 1895 that anthracite burning would increase carbon dioxide content in the air. The following year, Svante Arrhenius, professor of physics and Nobel Prize Laureate, estimated that doubling of the content of carbon dioxide in the atmosphere would lead to an increase of the earth’s average temperature by 5-6 degrees C. However, with the low emissions at that time, the process would take several thousand years.

“In 1938, measurements by Guy S. Callendar, an English researcher, confirmed theories that the amount of carbon dioxide in the atmosphere had actually increased since the previous century. His report made little impact since attention at that time was focused on the outbreak of World War II.

“During the 1950s and 1960s, several research reports were published supporting Svante Arrhenius’s calculation of carbon dioxide emissions’ warming effects. But the time perspective in these reports has been reduced considerably.

“In the 1970s, it was discovered that emissions of several other greenhouse gases from human activities heightened carbon dioxide’s effects.

“In 1988, the International Panel on Climate Control, IPCC, was organized. Every fourth or fifth year since 1990, the IPCC has published climate change reports that are increasingly more extensive and ominous.

“In December 1997, the first international agreement to limit emissions of greenhouse gases was signed in Japan. Known as the Kyoto Protocol, the agreement’s goal is that industrialized nations reduce emissions of greenhouse gases by 5.2 percent by 2012, compared with 1990 levels. The Protocol has been hitherto ratified by 176 countries, but unfortunately not by the most important country in this matter: USA.”

More recently, on December 12, 2015, the Paris Agreement was adopted by consensus by the 196 parties of the United Nations Framework Convention on Climate Change. As of June, 2017, 195 UNFCCC members have signed the Agreement, and 153 nations have ratified it.

The Paris Agreement aims at “Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.”

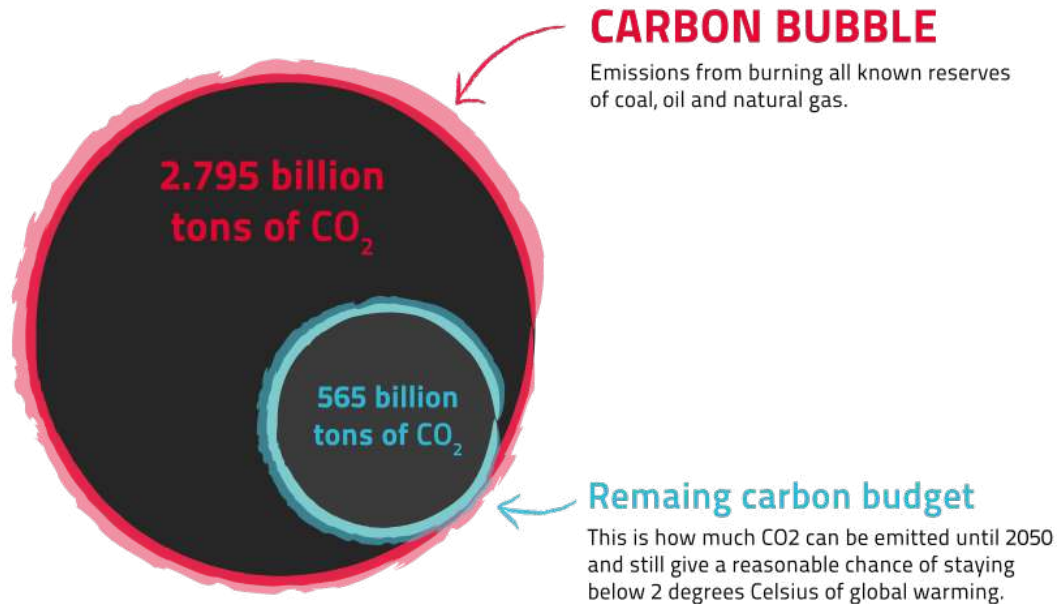
Unchanged life-styles are not an option. Business as usual is not an

option. Inaction is not an option. Public education is needed. Votes for environmentally friendly politicians are needed. A carbon tax is needed. Subsidies to fossil fuel giants must stop. Extraction of fossil fuels must stop. Renewable energy infrastructure must quickly be constructed.

Renewable energy infrastructure represents an unprecedented investment opportunity, and new renewable energy jobs far outnumber those that will be lost in the fossil fuel sector.

There is reason for optimism because of the economic tipping point mentioned in Chapter 1. Renewables are now cheaper than fossil fuels. With the help of renewable-friendly governmental policies, the transition that we so urgently need can be driven by economic forces alone.

We give loving care to our children and grandchildren, but it makes no sense to do so unless we leave them a world in which they and all future generations will be able to survive.

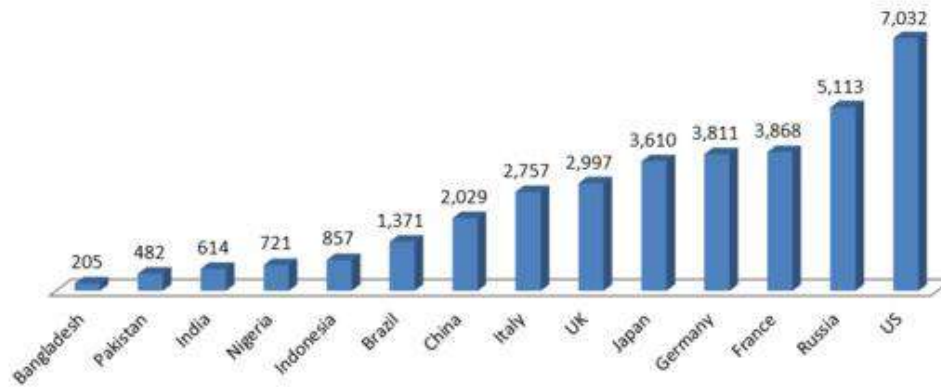


Source: Carbon Tracker Initiative 2013 / PIK Potsdam Institut für Klimafolgenforschung | Illustration: Felix Müfer (www.zukunft-selbermachen.de) | Licence: CC-BY-SA 4.0

In the world as is, in order to avoid tipping points that will make human attempts to avoid catastrophic climate change useless, we must leave most of the known fossil fuel reserves in the ground!

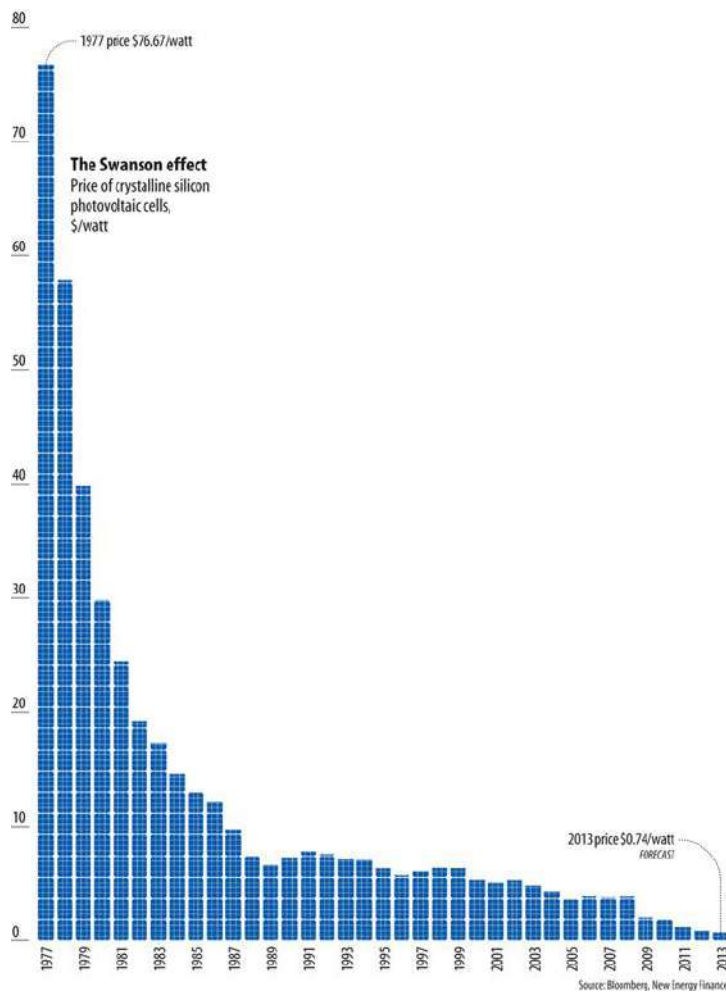
In the world as it could be, the extraction of fossil fuel would be halted through the imposition of a high carbon tax. This r-urgently needed reform would require international cooperation.

Energy Use per Capita



In the world as it is, some countries use much more than their fair share of energy. For example, in the United States the per-capita rate of energy use is 7032 kilowatts, while in Bangladesh, it is only 205.

In the world as it could be, the rate of energy use would be reduced in all countries through conservation measures, and renewable energy resources would be substitutes for fossil fuels.



In the world as it is, renewable energy prices are falling sharply.

In the world as it could be, governments would take advantage of this economic opportunity, and would change their policies to support the universal adoption of renewable energy sources.



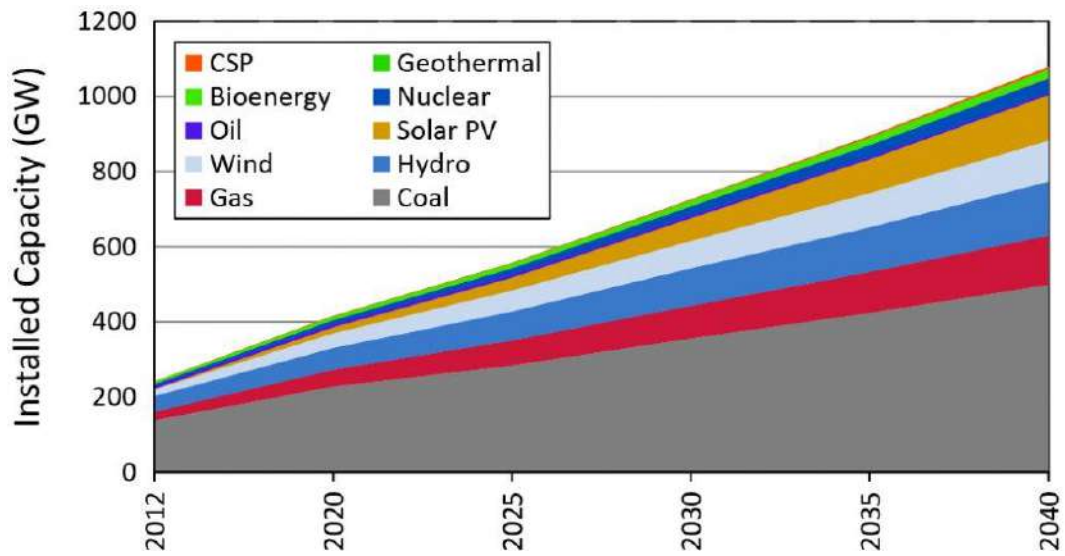
In the world as it is, air pollution from the burning of coal has caused hundreds of thousands of yearly deaths in countries such as China.

In the world as it could be, the construction of new coal-burning plants would be halted immediately, and existing coal-burning plants would be decommissioned as quickly as possible.



In the world as it is, despite protests from people all over the world, the extraction of coal, oil and gas continues.

In the world as it could be, the extraction of fossil fuels would be halted as quickly as possible and forbidden by international law. It would be recognized that the long-term futures of human civilization and the biosphere are so important that present-day financial considerations are insignificant by comparison.



In the world as it is, India's installed and future energy mix, as visualized by the World Coal Association, includes ever-increasing amounts of coal.

In the world as it could be, the government of India would use solar energy, wind power and hydroelectric power to replace the burning of coal. The same would be true of other large coal-burning countries, such as China and the United States.



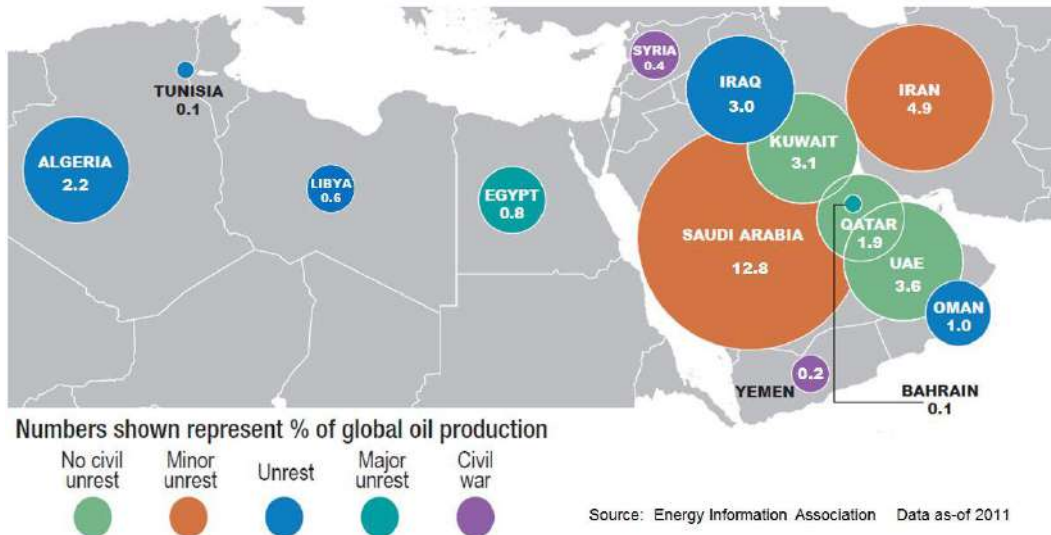
In the world as it is, the extraction of oil continues in the polar seas north of Russia.

In the world as it could be, Russian leaders would recognize their responsibility for the future of our planet, and the extraction of oil, gas and coal would be halted in all parts of Russia, regardless of the present-day economic consequences.



In the world as it is, the extraction of oil from Canada's tar sands represents the most polluting and environmentally dangerous form of oil production. Huge amounts of oil are burned in order to separate the heavy tar-like substance from the tar sands. Despite claiming to be environmentally friendly, the Canadian government condones the project because it is addicted to the financial profits.

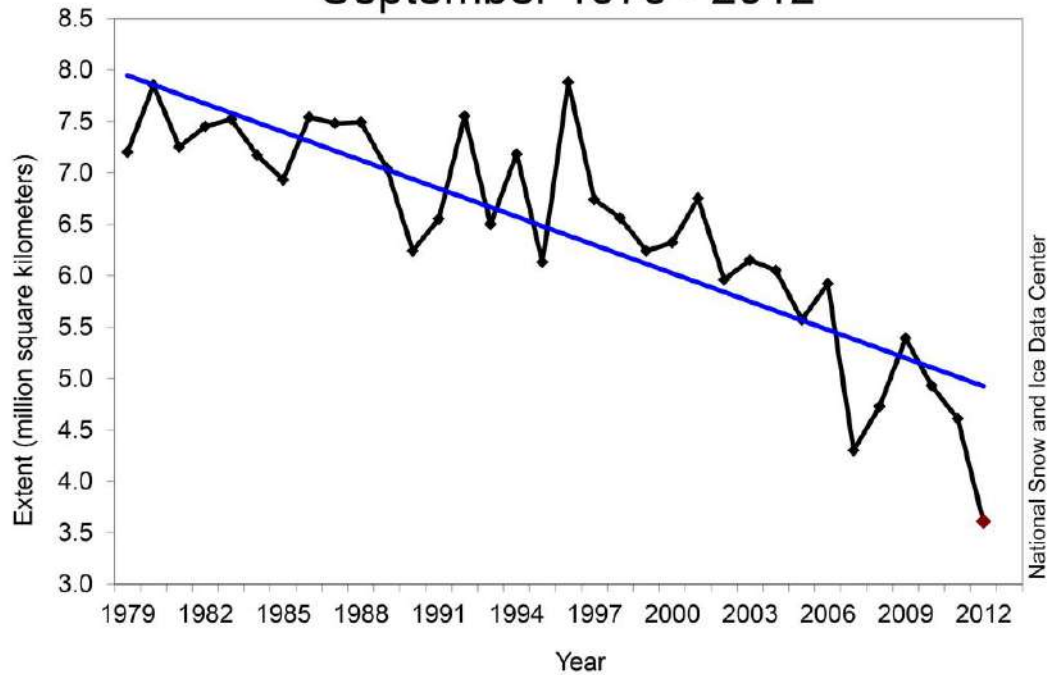
In the world as it could be, the Canadian tar sands project would be stopped immediately, and the construction of associated pipelines would also be halted.



In the world as it is, one speaks of the “resource curse”, meaning that countries with natural resources, instead of benefiting, are cursed with foreign intervention, conflict and corrupt governments. Extraction of oil in the Middle East, besides being prohibitively dangerous to the future of human civilization and the biosphere, also destroys the stability and happiness of the countries involved.

In the world as it could be, the extraction of oil in the Middle East would stop. Countries of the region would use past profits to diversify their economies, and to develop other industries and sources of income.

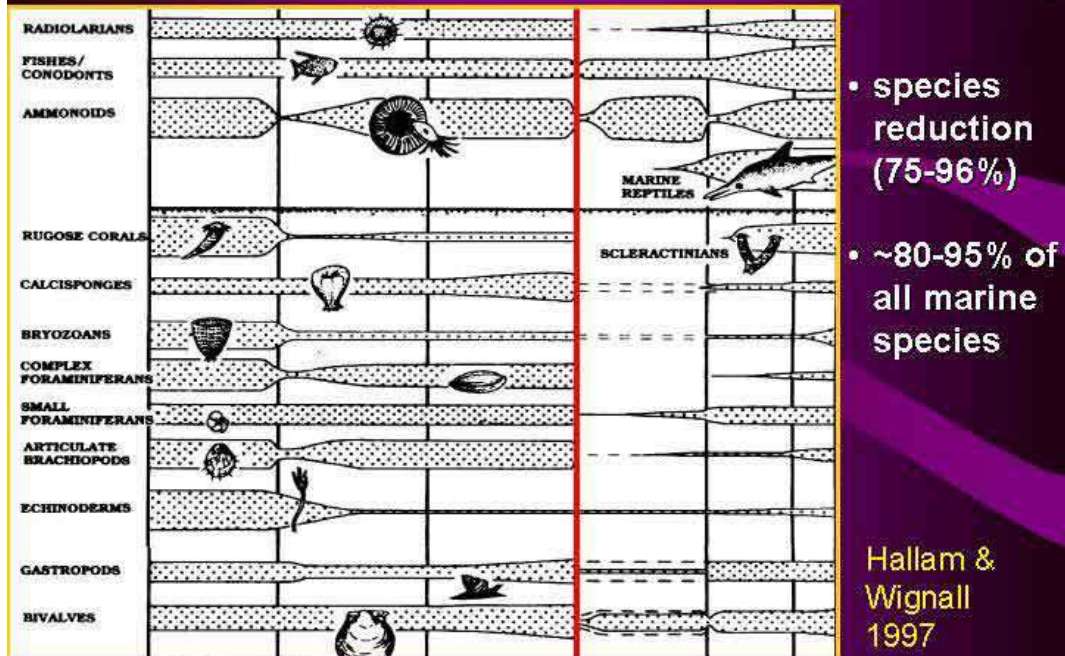
Average Monthly Arctic Sea Ice Extent September 1979 - 2012



In the world as it is, the ice cover in the Arctic Ocean is falling rapidly. Since open seawater absorbs heat from incoming sunlight, while ice-covered waters reflect the heat, a dangerous feedback loop is being initiated by the loss of Arctic sea ice.

In the world as it could be, governments would recognize that the rapid changes now occurring at the poles will initiate feedback loops that threaten the future of human civilization and the biosphere. Climate change would be declared to be an emergency, and urgent steps would be taken to stop the emission of greenhouse gases.

Permian–Triassic boundary



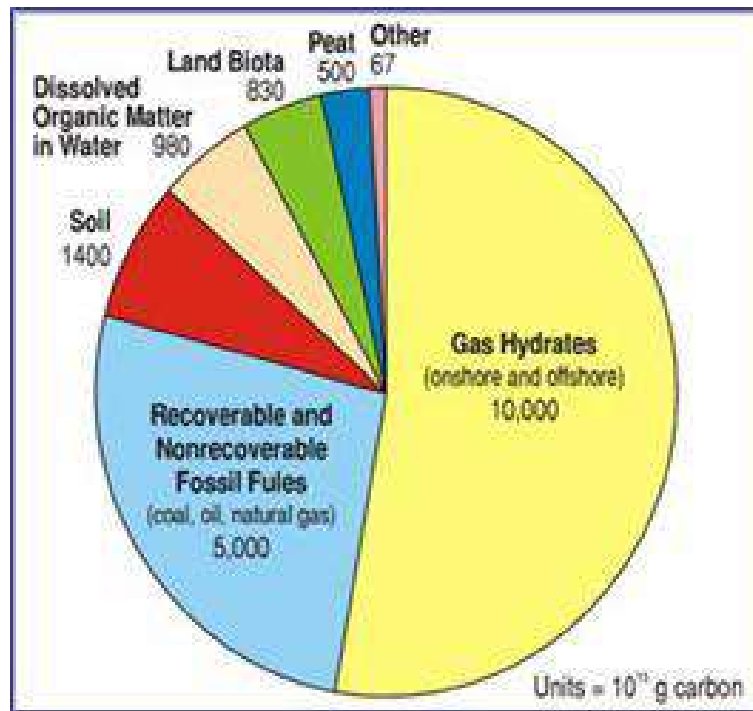
In the world as it is, catastrophic extinction events have been observed in the geological record. The Permian-Triassic extinction shown in the diagram, during which a large percentage of all species were lost forever, closely parallels the catastrophic climate change event which we are provoking by continuing to release large amounts of greenhouse gases.

In the world as it could be, the lessons that can be learned from the extinction events observed in the geological record would be taken seriously, both by governments and by ordinary people. A climate emergency would be universally recognized and declared, and emergency measures would be taken to halt the extraction of fossil fuels and the emission of greenhouse gases.



In the world as it is, large amounts of methane hydrates have accumulated on the continental shelves of the world's oceans. As our oceans gradually begin to warm, these hydrates are becoming unstable and methane gas is observed to bubble up to the surface in large quantities, for example from the shallow seas north of Siberia. The release of the potent greenhouse gas methane produces further warming and further methane release - a highly dangerous feedback loop.

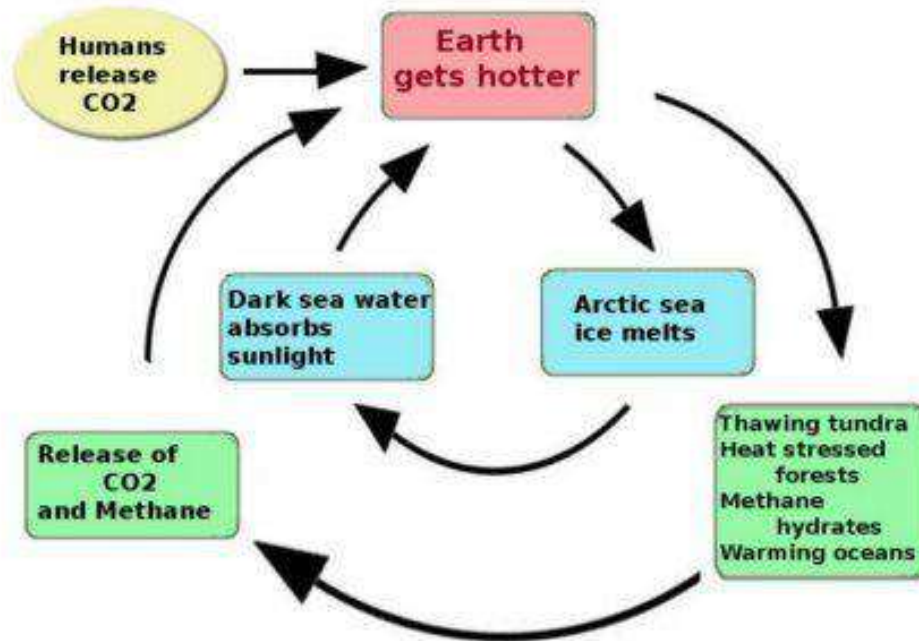
In the world as it could be, the methane-hydrate feedback loop would be recognized as a serious threat to the future of our planet.



In the world as it is, the worrying thing about the methane-hydrate feedback loop is the immense amount of carbon currently locked in methane hydrates on ocean floors - 10,000 gigatons! This is greater than the amount of carbon in all other forms that might potentially enter the earth's atmosphere.

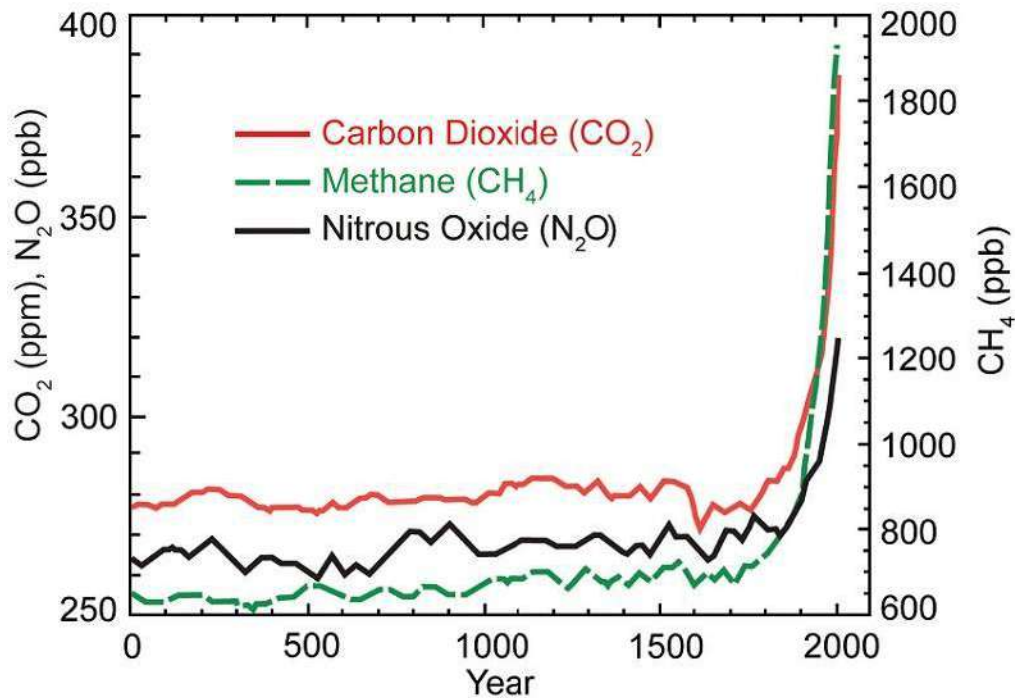
In the world as it could be, the methane-hydrate feedback loop, which is thought to have contributed to the Permian-Triassic extinction event, would be recognized as a serious threat, underlining the urgency of radical climate action.

Climate Feedbacks



In the world as it is, a number of feedback loops threaten the future of human civilization and the future of the biosphere. Among these are the albedo effect, which can be seen, for example, in the low reflectivity of open Arctic sea water, contrasted with the high reflectivity of sea ice. Other dangerous feedback loops involve CO₂ and methane..

In the world as it could be, it would be universally recognized that urgent climate action is needed immediately to avoid feedback loops that might make human measures to avoid catastrophic climate change useless.



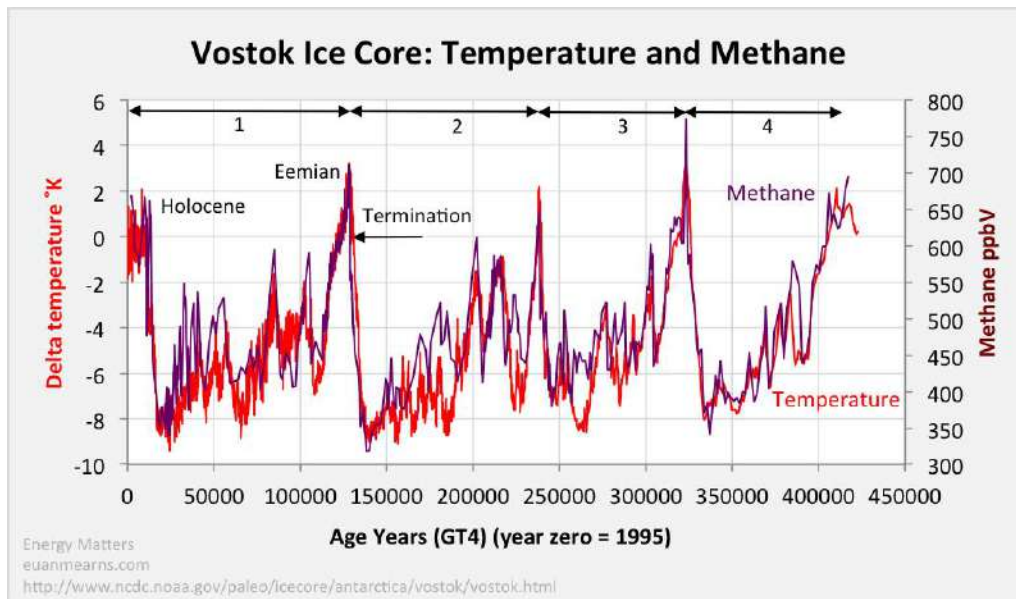
In the world as it is, gases trapped in Greenland ice cores allow us to study the changes in the concentration of greenhouse gases over long periods of time. The rise in the concentrations of the three gases shown in the figure is undoubtedly linked to the growth of both population and industry.

In the world as it could be, it would be recognized that human civilization is entering an unprecedented era, the Anthropocene, where human actions are affecting all aspects of our planet. We must try to ensure that human actions do not destroy our only home, our beautiful but fragile planet, which is also the home of all the plants and animals with which we share the gift of life.



In the world as it is, sea levels are rising throughout the world because of melting polar ice and because of thermal expansion of warming oceans. In the long run, all coastal cities are threatened, as well as low-lying countries such as the Netherlands and Bangladesh. We can anticipate that this flooding will produce a refugee crisis.

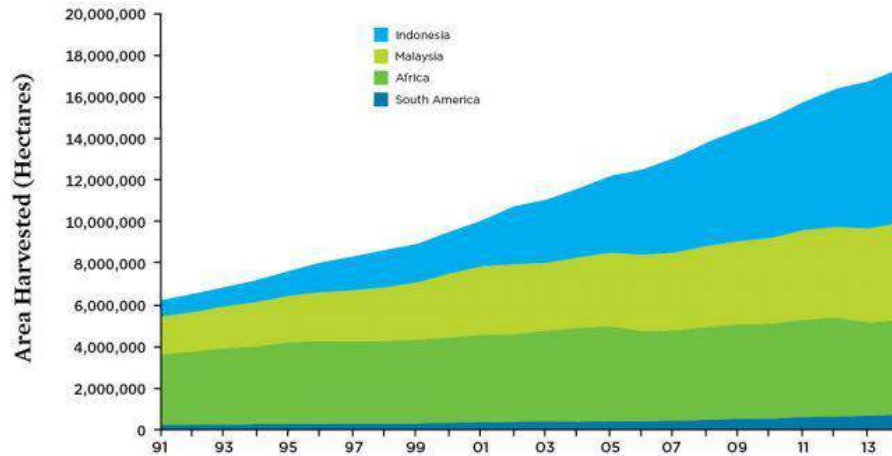
In the world as it could be, the threat of sea level rise would be seen as one more reason for urgent climate action. Climate refugees would be treated humanely, perhaps being sent to the regions of the world that are likely to become more habitable as the planet warms, for example, Siberia, Northern Canada, and Patagonia.



In the world as it is, evidence from ice cores allows us to track the correlation of methane concentrations in the earth's atmosphere and atmospheric temperature over hundreds of thousands of years. A very close correlation can be seen.

In the world as it could be, this ice core evidence would be seen as underlining the danger of the methane-hydrate feedback loop.

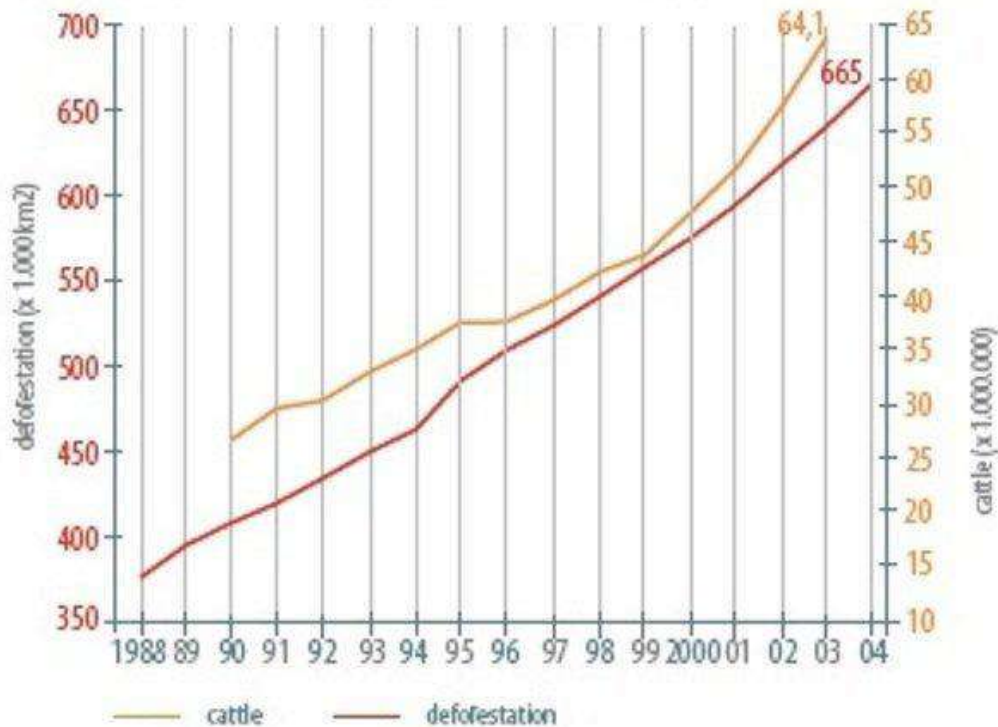
Palm Oil's Rapid Growth



In the world as it is, forests are being burned illegally with the cooperation of corrupt government officials, to make way for palm oil plantations, Regions such as Indonesia (blue), Malaysia (light green) and Africa (dark green), are involved.

In the world as it could be, the destruction of forests for the sake of palm oil plantations would be stopped. Governmental officials would be held accountable, and the issue of corruption would be addressed.

TOTAL HERD AND TOTAL DEFORESTATION



SOURCE AMAZON

In the world as it is, rainforests are being destroyed for the sake of beef production. Cattle also emit methane because of their digestive systems.

In the world as it could be, it would be recognized that rainforests are essential for the health of our planet, both as centers of biodiversity and as carbon sinks. The consumption of beef would be recognized as being especially dangerous for the environment.



In the world as it is, more than 400,000 people participated in a People's Climate March in New York on September 21, 2014, in conjunction with the UN Climate Summit. The march was unique in its artistic brilliance and ethnic diversity. It was one of 2,600 events in 170 nations, held to mark the Climate Summit..

In the world as it could be, the will of the world's peoples would be geared by governments, and urgent action would be taken to save our earth from catastrophic climate change.



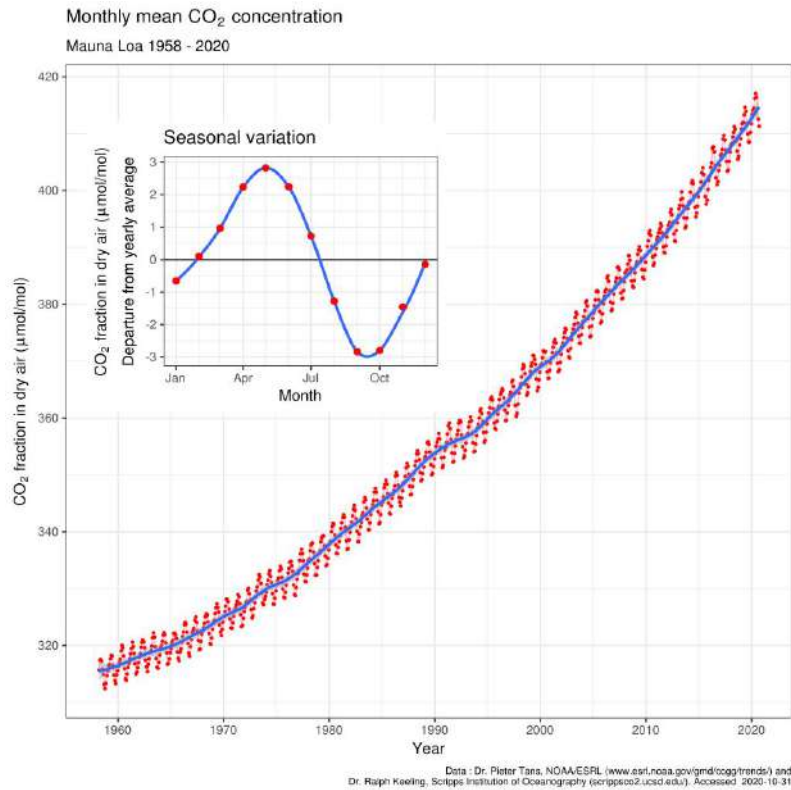
In the world as it is, we need a new economic system, a new society, a new social contract, a new way of life.

In the world as it could be, we must achieve a steady-state economic system. We must restore democracy. We must decrease economic inequality. We must break the power of corporate greed. We must leave fossil fuels in the ground. We must stabilize and ultimately reduce the global population. We must eliminate the institution of war. And finally, we must develop a more mature ethical system to match our new technology.



In the world as it is, reforestation projects can help the world to achieve sustainability, while simultaneously helping to solve problems of unemployment.

In the world as it could be, the Green New Deal (inspired by Franklin D. Roosevelt's New Deal programs that ended the Great Depression of the 1930's) would create much-needed renewable energy infrastructure, while simultaneously addressing the problem of unemployment.



In the world as it is, the Keeling Curve, which measures the atmospheric content of CO₂, continues to increase relentlessly, indicating that our actions to prevent catastrophic climate change are still too small.

In the world as it could be, both governments and ordinary people would take the warning of the Keeling Curve very seriously.



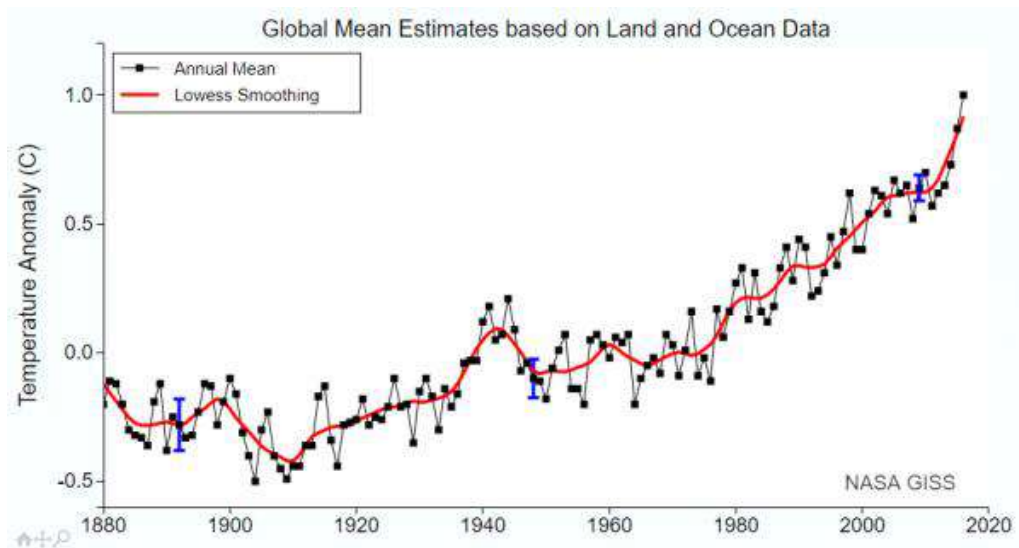
In the world as it is, climate change has led to drought, and to an unprecedented number of wildfires in Northwestern America, Australia and Siberia. One fears that the Amazon may also soon be threatened by wildfires.

In the world as it could be, drought and wildfires would be taken seriously as evidence of the effects of climate change.



In the world as it is, teenage Swedish climate activist Greta Thunberg has led a revolution by school-aged children all over the world, who realize that their futures are being threatened by climate change.

In the world as it could be, governments would listen to the voices of the many millions of children, who are calling on them to save the future.



In the world as it is, we can observe an alarming upward turn in global temperatures. It is estimated that by 2100, about 49% of the world's population would be subjected to deadly heat conditions under a scenario of drastic reduction of greenhouse gas emissions, and 74% under a scenario of growing emissions,

In the world as it could be, greenhouse gas emissions would be drastically reduced. The climate refugee crisis would be anticipated and addressed.



In the world as it is, UN Secretary General Antonio Guterres, seen here with Greta Thunberg, has stated that we are waging “a suicidal war against the natural world”.

In the world as it could be, we would realize that a war against nature is one that we cannot win, and humanity would declare a ceasefire in this suicidal war.



In the world as it is, US Senator Bernie Sanders and Representative Alexandria Ocasio-Cortez advocate the Green New Deal. “Faced with the global crisis of climate change, the United States must lead the world in transforming our energy system away from fossil fuel to sustainable energy. The Green New Deal is not just about climate change,” Sanders said, “It is an economic plan to create millions of good-paying jobs, strengthen our infrastructure, and invest in our country’s frontline and vulnerable communities.”

In the world as it could be, the wise words of Bernie Sanders would be heeded. Money for the Green New Deal could come from cuts in military budgets. The same is true in countries throughout the world.



In the world as it is, 94-year-old Sir David Attenborough has issued a stark warning in his television series, “Extinction: The facts”. The universally loved and respected naturalist has become increasingly concerned by the effects of human encroachments on nature, and increasingly outspoken in calling this emergency situation to the attention of the public.

In the world as it could be, all humans would accept their responsibility for protecting the natural world.



In the world as it is, many people are aware that climate change is an emergency, and that immediate and drastic action must be taken to avoid irreparable damage to the earth, our only home.

In the world as it could be, governments would declare a climate emergency, as many already have, and they would take strong action commensurate with the threats of catastrophic climate change.

WATER

Falling water tables in China may cause famine in Africa

After a lecture at the University of Copenhagen in the 1980's, Lester R. Brown of the Earth Policy Institute was asked which resource would be the first to become critically scarce. Everyone in the audience expected him to say "oil", but instead he said "fresh water". He went on to explain that falling water tables in China would soon make China unable to feed its population. This would not cause famine in China itself because of the strength of the Chinese economy, which would allow the Chinese to purchase grain on the world market. However, shortages of fresh water in China would indeed cause famine, for example in Africa, because Chinese demand for grain would raise prices on the world market beyond the ability of poor countries to pay.

Predictions of drought in the Stern Review

According to a report presented to the Oxford Institute of Economic Policy by Sir Nicholas Stern on 31 January, 2006, areas likely to lose up to 30% of their rainfall by the 2050's because of climate change include much of the United States, Brazil, the Mediterranean region, Eastern Russia and Belarus, the Middle East, Southern Africa and Southern Australia. Meanwhile rainfall is predicted to increase up to 30% in Central Africa, Pakistan, India, Bangladesh, Siberia, and much of China.

Stern and his team point out that "We can... expect to see changes in the Indian monsoon, which could have a huge impact on the lives of hundreds of millions of people in India, Pakistan and Bangladesh. Most climate models suggest that the monsoon will change, although there is still uncertainty about exactly how. Nevertheless, small changes in the monsoon could have a huge impact. Today, a fluctuation of just 10% in either direction from average monsoon rainfall is known to cause either severe flooding or drought. A weak summer monsoon, for example, can lead to poor harvests and food shortages among the rural population - two-thirds of India's almost 1.1 billion people. Heavier-than-usual monsoon downpours can also have devastating consequences..."

In some regions, melting of glaciers can be serious from the standpoint of dry-season water supplies. For example, melts from glaciers in the Hindu Kush and the Himalayas now supply much of Asia, including China and

India, with a dry-season water supply. Complete melting of these glacial systems would cause an exaggerated runoff for a few decades, after which there would be a drying out of some of the most densely populated regions of the world.

Ocean current changes and failure of monsoons

It is expected that climate change will affect ocean currents, and hence also affect monsoon rainfall. We are already experiencing a diversion of the Gulf Stream due to southward currents of cold water from melting ice in the Arctic. This has caused what is known as the *North Atlantic Anomaly*. While most regions of the world are experiencing rising temperatures, the North Atlantic and several northern European countries are exceptions to this rule, and have cooled. Complete failure of the Gulf Stream would lead to much colder temperatures in Europe.

Changes in ocean currents have already led to the failure of the West African Monsoon, and this has already produced severe food insecurity in West Africa.

In the future, climate-changed ocean currents may lead to failures of monsoons in South-east Asia, and thus damage the food supply of almost two billion people.

Falling water tables around the world

Under many desert areas of the world are deeply buried water tables formed during glacial periods when the climate of these regions was wetter. These regions include the Middle East and large parts of Africa. Water can be withdrawn from such ancient reservoirs by deep wells and pumping, but only for a limited amount of time.

In oil-rich Saudi Arabia, petroenergy is used to drill wells for ancient water and to bring it to the surface. Much of this water is used to irrigate wheat fields, and this is done to such an extent that Saudi Arabia exports wheat. The country is, in effect, exporting its ancient heritage of water, a policy that it may, in time, regret. A similarly short-sighted project is Muammar Qaddafi's enormous pipeline, which will bring water from ancient sub-desert reservoirs to coastal cities.

In the United States, the great Ogallala aquifer is being overdrawn. This aquifer is an enormous stratum of water-saturated sand and gravel under-

lying parts of northern Texas, Oklahoma, New Mexico, Kansas, Colorado, Nebraska, Wyoming and South Dakota. The average thickness of the aquifer is about 70 meters. The rate of water withdrawal from the aquifer exceeds the rate of recharge by a factor of eight.

Thus we can see that in many regions, the earth's present population is living on its inheritance of water, rather than its income. This fact, coupled with rapidly increasing populations and climate change, may contribute to a very serious food crisis partway through the 21st century.

Glacial melting and summer water supplies

The summer water supplies of both China and India are threatened by the melting of glaciers. The Gangotri glacier, which is the principle glacier feeding India's great Ganges River, is reported to be melting at an accelerating rate, and it could disappear within a few decades. If this happens, the Ganges could become seasonal, flowing only during the monsoon season. Chinese agriculture is also threatened by disappearing Himalayan glaciers, in this case those on the Tibet-Quinghai Plateau. The respected Chinese glaciologist Yao Tandong estimates that the glaciers feeding the Yangtze and Yellow Rivers are disappearing at the rate of 7% per year.¹

How many people are currently under stress?

It is estimated that two thirds of the world's peoples currently live under water stress for at least one month each year. Half a billion people now suffer from water shortages and stress for the entire year. Half of the world's large cities are currently plagued by water scarcity, and the situation is expected to get worse.

¹<http://www.commondreams.org/news/2015/08/04/global-glaciers-melting-three-times-rate-20th-century>



In the world as is, water is essential to humans, plants and animals. The civilization of ancient Egypt was entirely dependent on water from the Nile. The image is a view from space. The green is the ancient Egyptian “Black Land”, while everything else was called “Red Land”.

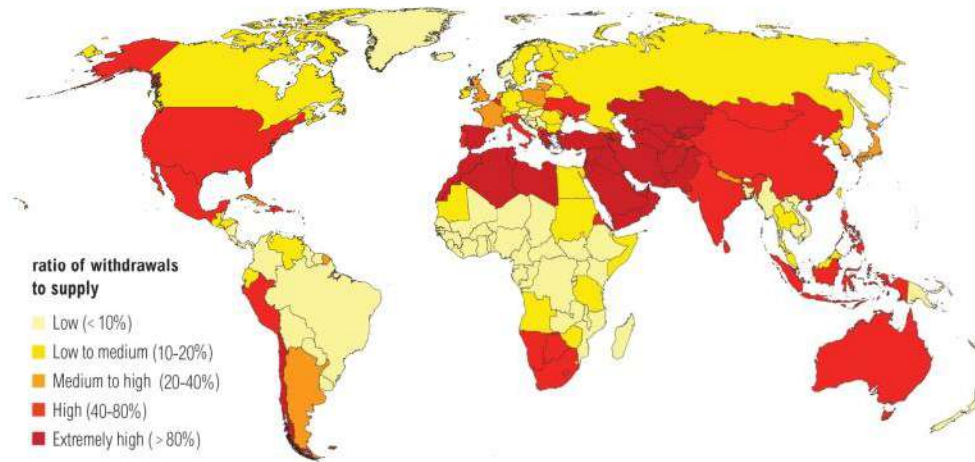
In the world as it could be, we would recognize the vital importance of fresh water, and make efforts to conserve it.



In the world as is, the civilization of Mesopotamia, like that of Egypt, was entirely dependent on fresh water. The map shows the Tigris-Euphrates river system, which surrounds ancient Mesopotamia. The word “Mesopotamia” means “between the rivers”.

In the world as it could be, water would be an important element in our teaching of history.

Water Stress by Country: 2040



NOTE: Projections are based on a business-as-usual scenario using SSP2 and RCP8.5.

For more: ow.ly/RiWop

 WORLD RESOURCES INSTITUTE

In the world as is, because of climate change, many of the world's countries will experience water stress by 2140.

In the world as it could be, future shortages of fresh water would be taken seriously. Research would be directed towards methods for water conservation and methods for desalination of salt water.



In the world as is, a water crisis in the Middle East has brought misery to many people, and has contributed to conflicts in the region.

In the world as it could be, attempts would be made to solve the crisis, and to distribute available fresh water resources fairly.



In the world as is, several parts of Africa are experiencing severe drought. The photograph shows carcasses of sheep and goats killed by drought in Wari daad in the Somaliland region.

In the world as it could be, all the countries of the world would declare a climate emergency, and would act with resolution to stop the extraction and use of fossil fuels. Climate change would be seen as the potential cause of an increasingly severe refugee crisis.



In the world as is, Cape Town's largest reservoir, Theewaterskloof, was at 11% capacity in March 2018.

In the world as it could be, shortages of fresh water in many countries would alert us to the need for water conservation and research on methods for desalinizing water.



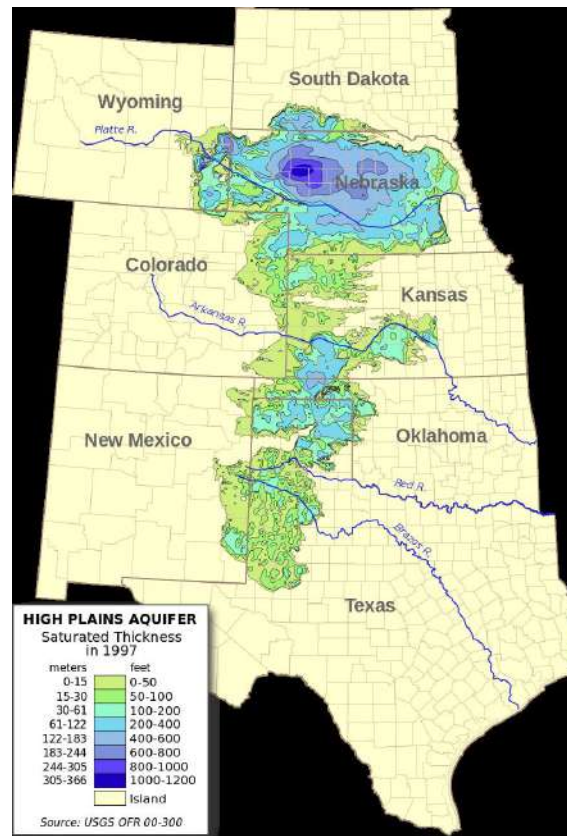
In the world as is, the plateau province of Yunnan in southwest China has encountered its worst drought in many years. As of April 15, 2020, 1.48 million people and 417,300 large domestic animals faced drinking water shortage, and 306,667 hectares of crops were damaged, according to the provincial water conservancy department.

In the world as it could be, droughts and falling water tables in China would be a cause for alarm, not only in China itself, but also internationally.



In the world as is, in 2019, India witnessed the second driest pre-monsoon season in the last 65 years. Last year, Chennai ran out of the water in the monsoon months of 2019, where temperature soared to 40 degrees Celsius. The photograph shows first time heavy drought condition of Vena Lake during summer: outskirts of Nagpur City in Maharashtra, India.

In the world as it could be, severe shortages of fresh water in India, like similar shortages in China, would cause international action to prevent catastrophic climate change, and to find new methods for water conservation and desalination.



In the world as is, the Ogallala Aquifer on the southwestern part of the United States has been overdrawn, and can no longer be relied on to irrigate states such as Oklahoma, New Mexico and Texas. The diagram shows the saturated thickness of the Ogallala Aquifer in 1997 after several decades of intensive withdrawals. The breadth and depth of the aquifer generally decrease from north to south.

In the world as it could be, researchers in the United States would turn their attention to water-related problems. This research would be supported by federal funding.



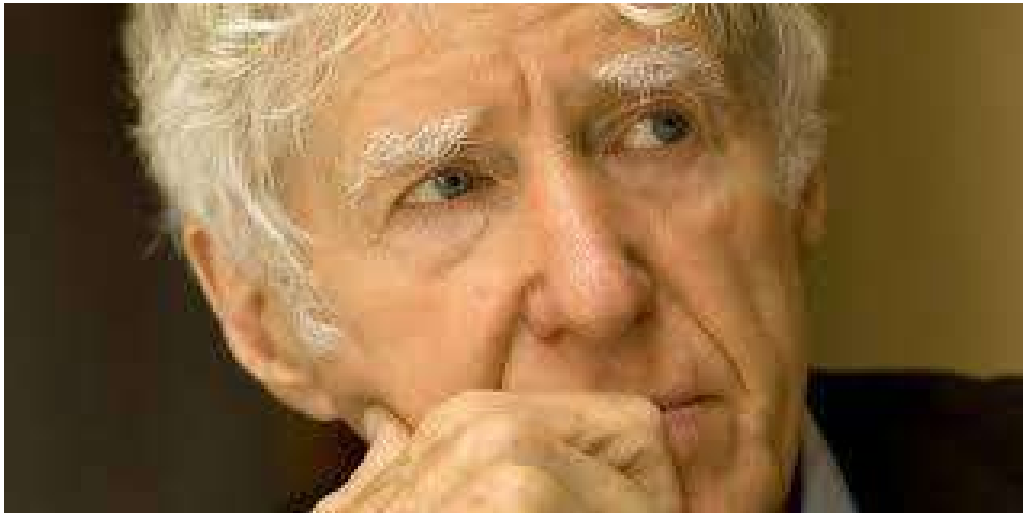
In the world as is, Mexico is enduring its worst drought in six decades. The photo shows a farmer in Tabasco State riding past the carcass of a cow which died in the drought. Crops are drying up in the fields and water is being rationed in the capital. Residents of poor neighborhoods have hijacked water trucks, and there are other signs of social tensions building.

In the world as it could be, the United States would help Central America to solve the problems that are currently producing streams of refugees from the region. This would be more humane than simply turning the refugees back at the border.



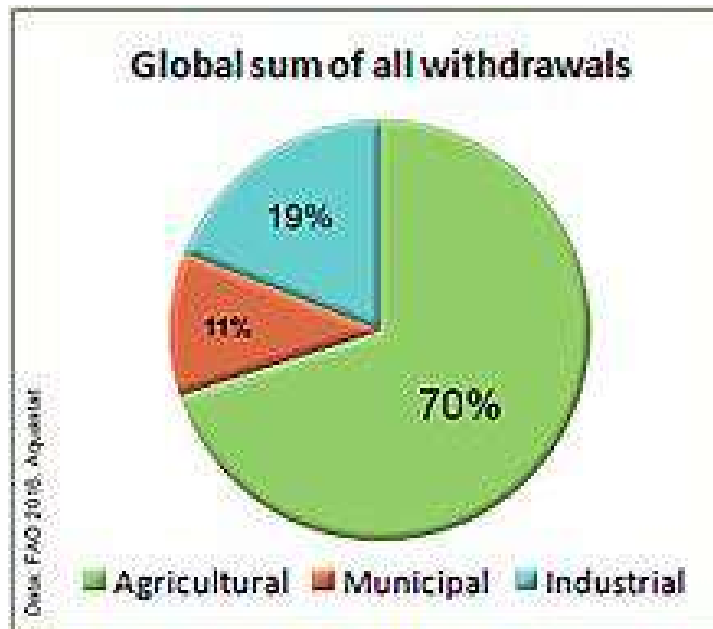
In the world as is, Maude Barlow (born 1947). served in 2008/2009 as Senior Advisor on Water to the 63rd President of the United Nations General Assembly and was a leader in the campaign to have water recognized as a human right by the UN.

In the world as it could be, water would be recognized throughout the world as a human right. The privatization of water services would be forbidden. Provision of adequate and affordable supplies of fresh water is a governmental responsibility.



In the world as is, in the question period after a lecture at the University of Copenhagen, Lester R. Brown was asked, “What will be the most critical resource in the future?”. He answered, “Water-”, explaining with a discussion of the link between shortages of fresh water and famine.

In the world as it could be, research on water conservation methods and on desalination would help to prevent a future famine.



In the world as is, about 70% of global fresh water resources are used for agriculture, according to the FAO,

In the world as it could be, improved methods for water conservation in agriculture would reduce the heavy drain on resources of fresh water.



In the world as is, in the Meatu district, Simiyu Region, Tanzania (Africa), water most often comes from open holes dug in the sand of dry riverbeds, and it is invariably contaminated. Many children are deprived of an education primarily due to this daily task.

In the world as it could be, the provision of safe water supplies near to people's homes throughout the world would be given a high priority. Children, freed from the task of getting water, would have a chance to become educated.



In the world as is, in 2012 in Sindh, Pakistan a shortage of clean water led people to queue to collect it where available. Many other countries, like Pakistan, are experiencing critical shortages of safe fresh drinking water.

**In the world as it could be, we would have “water on the brain”!
We would think more about problems related to water.**



In the world as is, water shortages could affect around five billion people worldwide by 2050, according to the UN. The photo shows Wall Street water traders making money by speculating on the future price of water.

In the world as it could be, water would be regarded as a human right, not as a means for the enrichment of exploiters and speculators.



In the world as is, water has now officially joined the likes of gold and oil in being traded on Wall Street as a Futures commodity.

In the world as it could be, speculation on the future price of water would be regarded as speculation on human lives and human rights. It would be universally condemned.



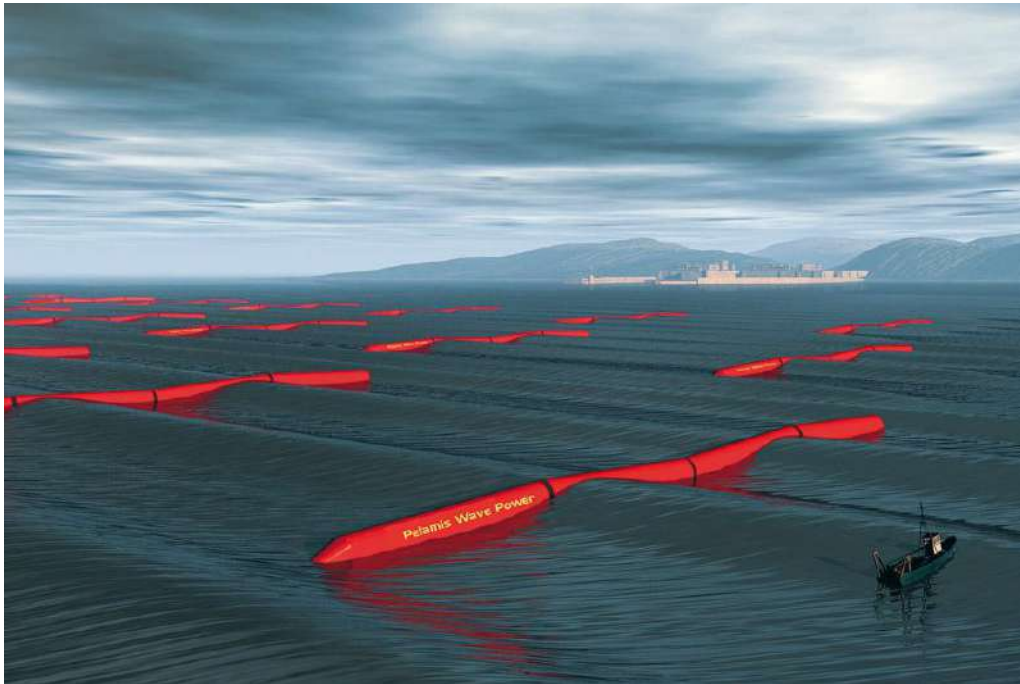
In the world as is, the unusually hot and dry weather of the summer of 2018 caused many large wildfires in California. The very dry weather also caused uncontrollable fires in the Arctic, in Sweden, Russia, Northern Canada and Alaska. Australia too has experienced dangerous and unconreollable wildfires in recent years. Our world is burning!

In the world as it could be, the recent plague of wildfires would be a wake-up call for climate action.



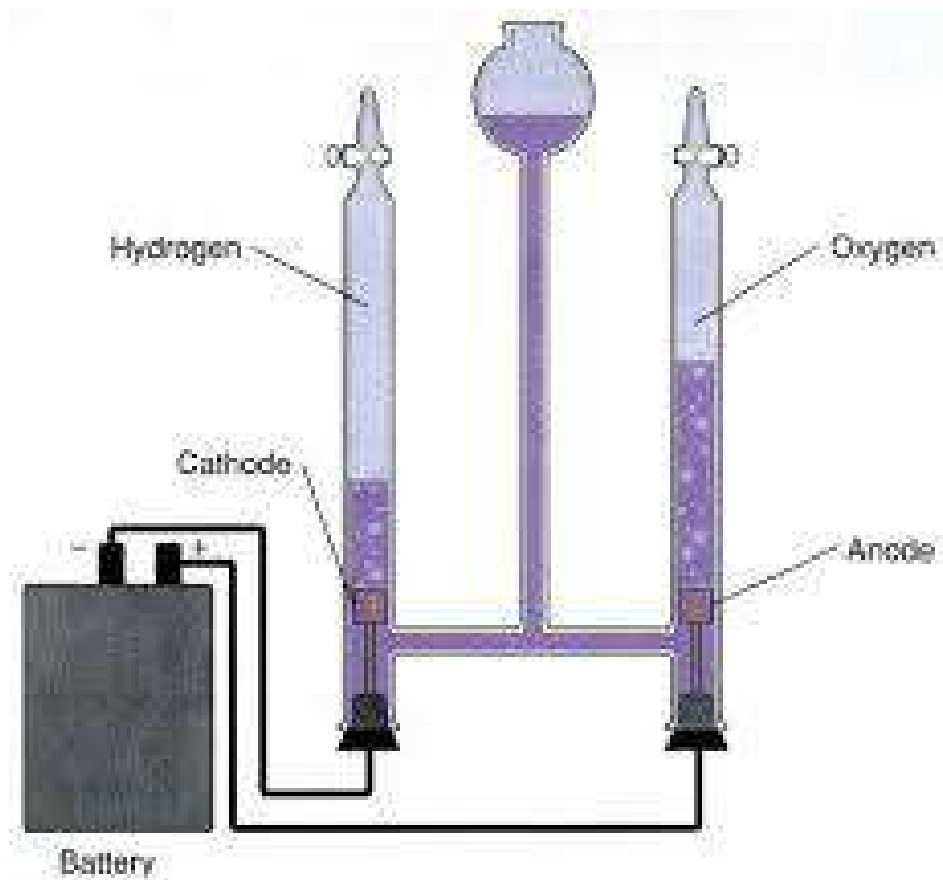
In the world as is, algae can be grown in desert areas in closed waterfilled containers, supplied with carbon dioxide. No water evaporates because the containers are closed, and the conversion of CO_2 into organic matter is an additional benefit. Protein-rich algae are already in baking mixes, cookies, milk, nondairy creamers, vegan eggs, salad dressing, ice-cream, smoothies, and protein powders, to name a few.

In the world as it could be, algae would be grown in closed containers supplied with CO_2 . This form of agriculture would require no continuous input of fresh water, and it would have the additional advantage of sequestering carbon.



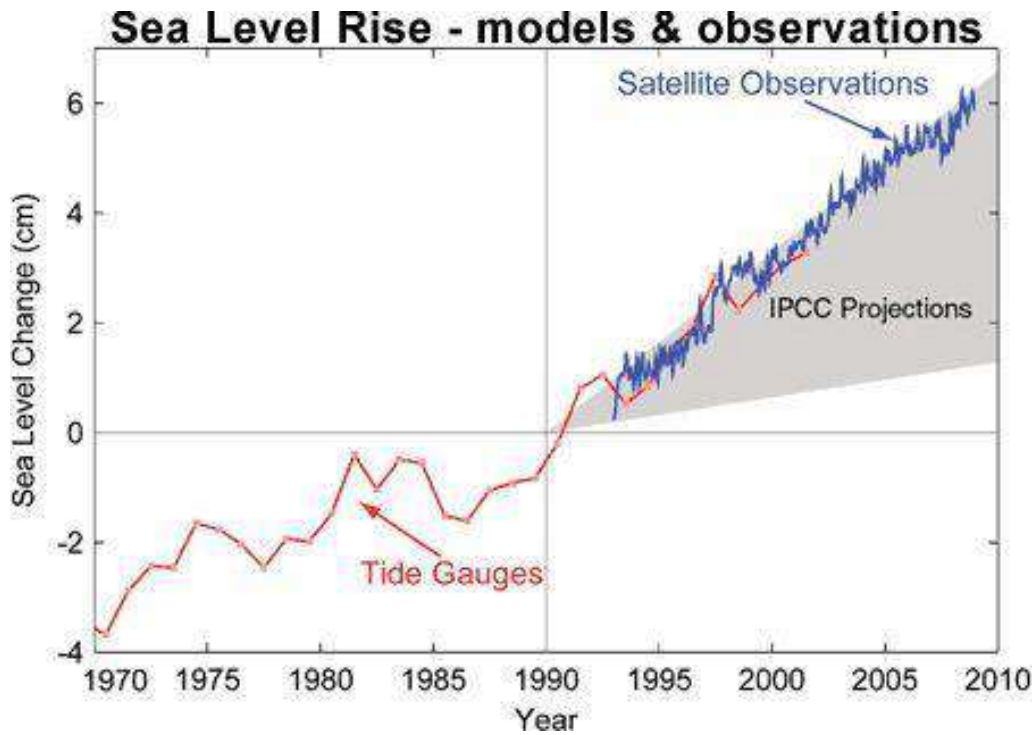
In the world as is, the Pelamis wave energy transformer floats on the ocean like a giant sea snake. It consists of several segments which move against each other and build up hydraulic pressure. This in turn drives a turbine. The energy potentially available from waves is very large, amounting to as much as 100 kilowatts per meter of wave front in the best locations.

In the world as it could be, wave energy, and energy derived from ocean currents and tides, would contribute to much-needed renewable energy.



In the world as is, the electrolysis of water produces hydrogen gas and oxygen gas. The two gases can be collected and liquefied separately. Later the electrolysis process can be reversed in a fuel cell, which produces electrical power with almost no energy loss. Hydrogen technology can be used to overcome the problem of intermittency, or to transport energy over large distances.

In the world as it could be, hydrogen technology would be widely used.



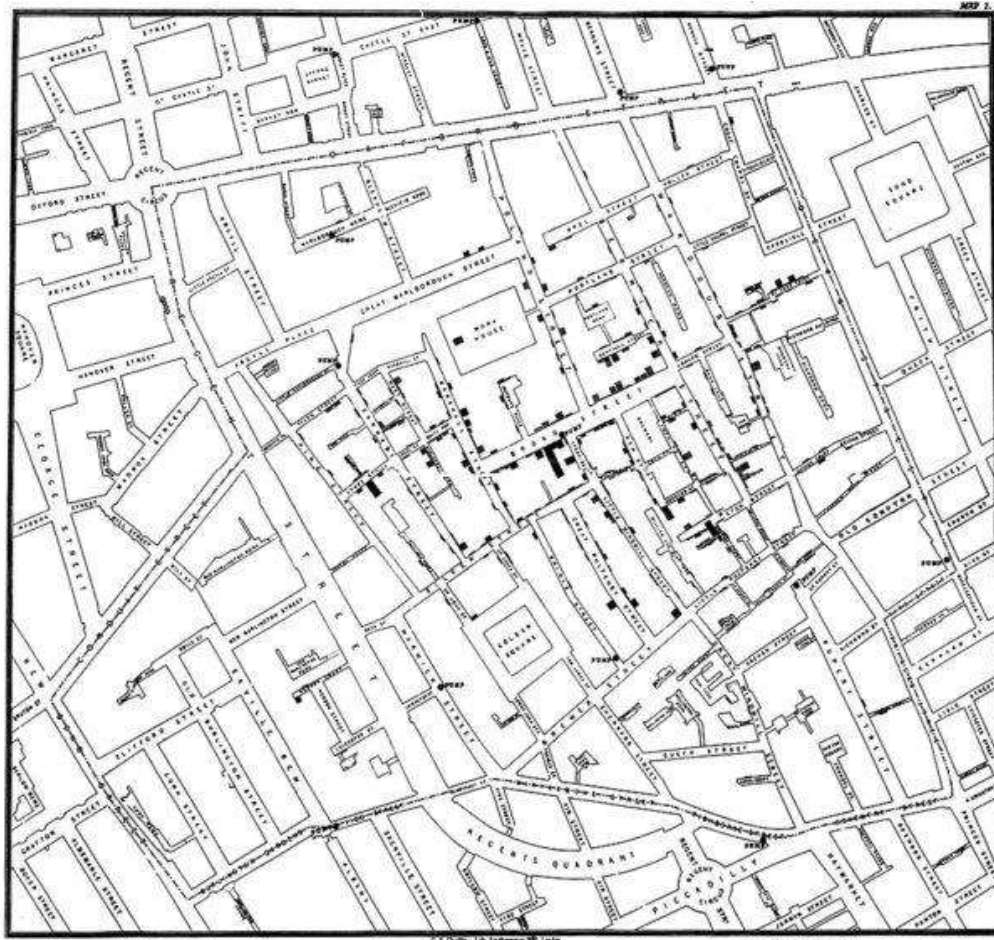
In the world as is, sea levels continue to rise. Rapid melting of the Greenland inland ice and Antarctic ice shelves may soon greatly accelerate the rate of rise. Coastal cities and low-lying countries will soon be at risk.

In the world as it could be, the threat of large sea level rise would be seen as another reason for urgent climate action.



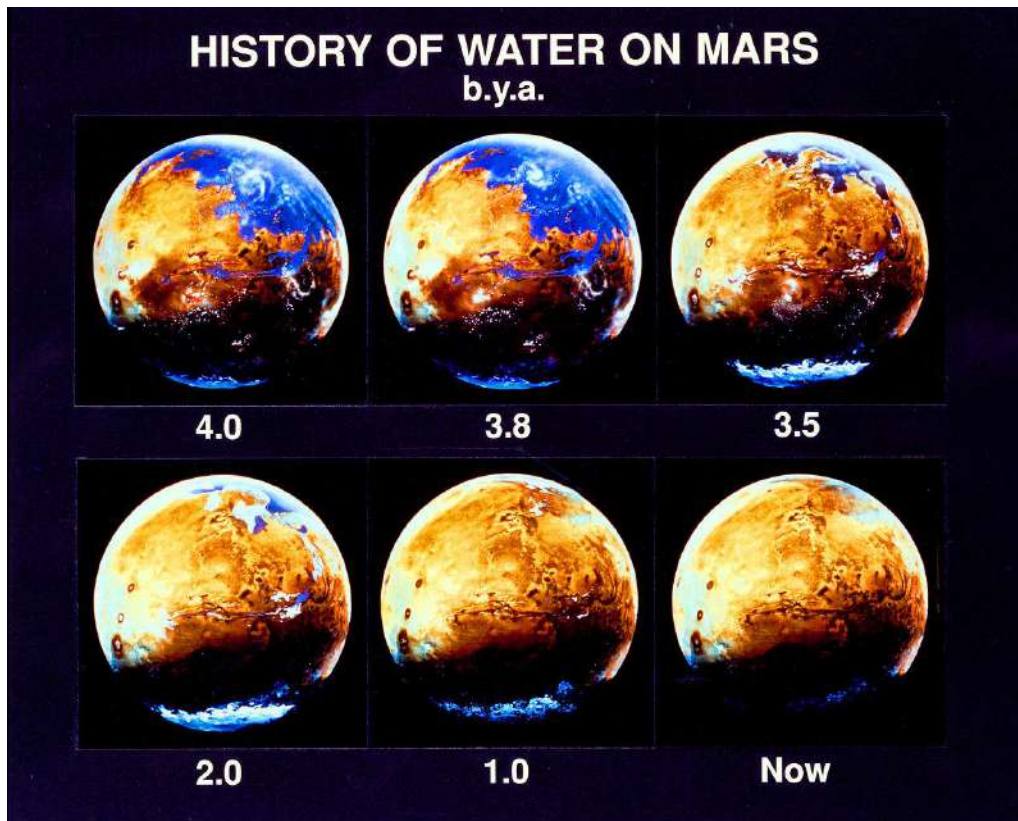
In the world as is, the “World Scientists’ Warning of a Climate Emergency” was published in Bioscience on 5 November, 2019. The article states that “Scientists have a moral obligation to clearly warn humanity of any catastrophic threat and to ‘tell it like it is.’ On the basis of this obligation and the graphical indicators presented below, we declare, with more than 11,000 scientist signatories from around the world, clearly and unequivocally that planet Earth is facing a climate emergency.”

In the world as it could be, governments would listen to scientists and would take rapid action to avoid catastrophic climate change.



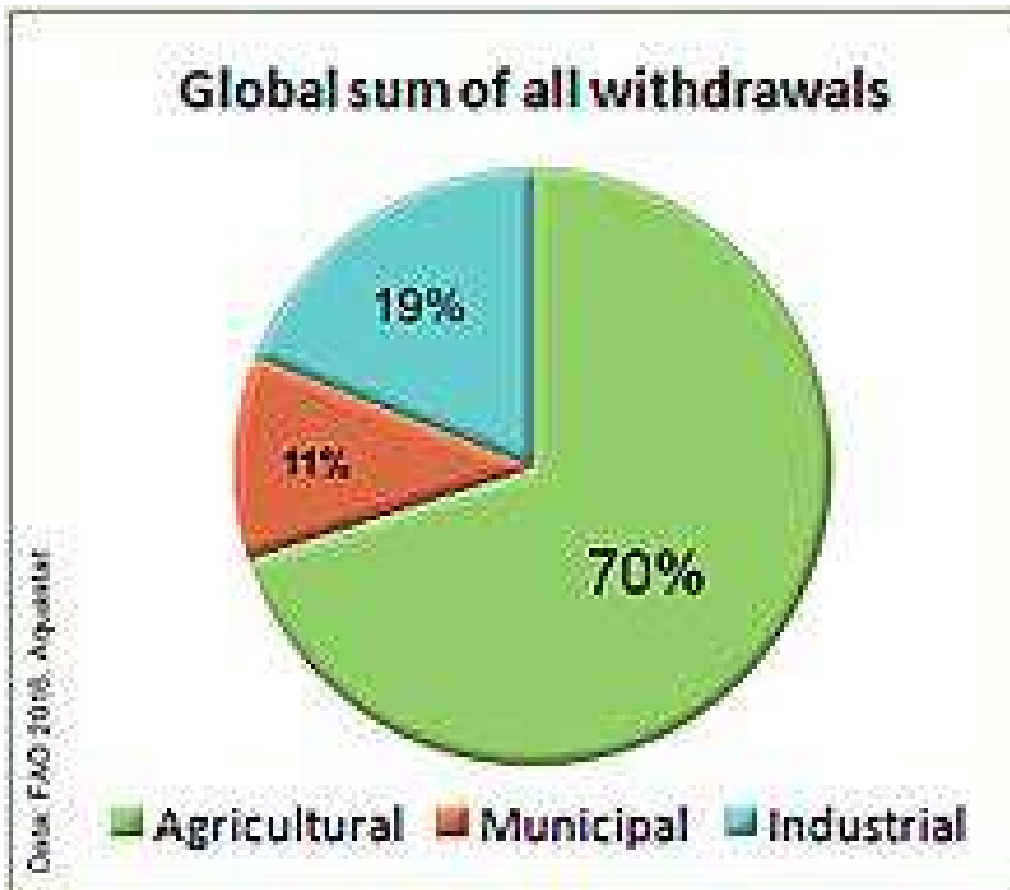
In the world as is, the physician, Dr. John Snow (1813-1858), made a map, showing that all of the cases of cholera in the Soho outbreak occurred near to a particular pump. He stopped the epidemic by removing the handle from the pump. It as a breakthrough in our understanding of water-borne diseases.

In the world as it could be, efforts would be made to ensure that safe drinking water is available to all the people of the world. The issue would be given a high priority and adequate funds.



In the world as is, scientists speculate on whether some form of life existed on Mars, or perhaps still exists. There is evidence that Mars once had abundant water, and that much water still exists as ice at the poles of the and under the surface. The strong link between water and life makes it probable that some form of life once existed on Mars.

In the world as it could be, we may soon know the answer!



In the world as is, agriculture uses 70% of our fresh water resources.

In the world as it could be, new agricultural methods would be found - methods that make less heavy use of fresh water.



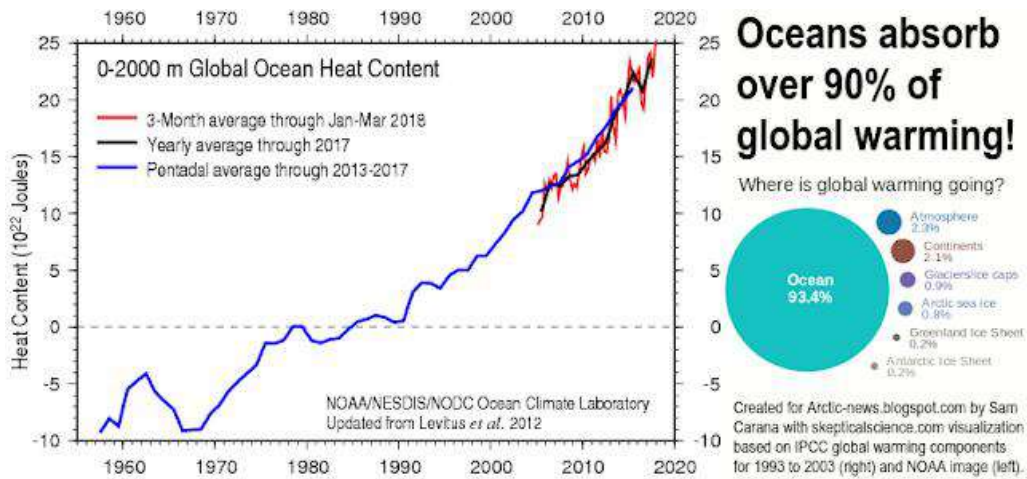
In the world as is, in Meatu district, Simiyu Region, Tanzania (Africa), water most often comes from open holes dug in the sand of dry riverbeds, and it is invariably contaminated. Many children are deprived of an education primarily due to this daily task.

In the world as it could be, since we know the link between unsanitary water and disease, a global program to supply clean water to everyone in the world would be given a high priority.



In the world as is, deforestation of the Madagascar Highland Plateau has led to extensive siltation and unstable flows of western rivers.

In the world as it could be, because of the link between forest cover and the stable flow of water from mountainous regions, forests on mountains would be protected. Forests also sequester carbon and therefore contribute importantly to climate action.



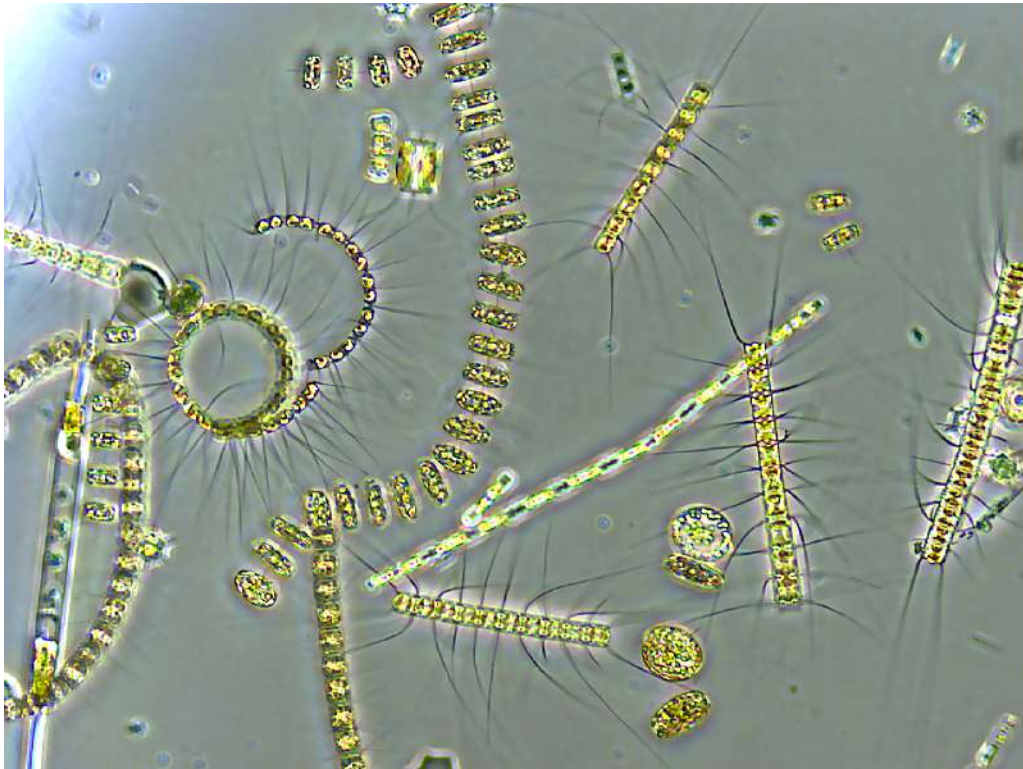
In the world as is, the heat content of the oceans is rapidly increasing. Because of the thermal inertia of the oceans, global warming seems to be progressing slowly, but once the oceans have warmed, the rate of warming of land areas will increase rapidly.

In the world as it could be, the role of oceans would be taken into account in discussions of climate change.



In the world as is, today the beautiful city of Venice is flooded. Tomorrow unless urgent climate action is taken, all coastal cities will be under water.

In the world as it could be, urgent action would be taken to avoid catastrophic climate change, and to preserve the priceless cultural heritage of our coastal cities.



In the world as is, phytoplankton are plant-like microorganisms that live in the sunlit upper layers of oceans and lakes. They form the base of marine and freshwater food webs and are key players in the global carbon cycle. They account for about half of global photosynthetic activity and about half of the oxygen production, despite amounting to only about 1% of the global plant biomass.

In the world as it could be, we would realize that the health of our oceans and lakes is vital for the health of our planet.

THE DANGER OF LARGE-SCALE FAMINE

The threat of a large-scale global famine by the middle of the 21st century

Unless efforts are made to stabilize and ultimately reduce global population, there is a serious threat that climate change, population growth, and the end of the fossil fuel era could combine to produce a large-scale famine by the middle of the 21st century.

As glaciers melt in the Himalayas and the Andes, depriving India, China and South America of summer water supplies; as sea levels rise, drowning fertile rice-growing regions of Southeast Asia; as droughts reduce the food production of North America and Southern Europe; as groundwater levels fall in China, India, the Middle East and the United States; and as high-yield modern agriculture becomes less possible because fossil fuel inputs are lacking, the 800 million people who are currently undernourished may not survive at all.

Energy inputs of agriculture

Modern agriculture has become highly dependent on fossil fuels, especially on petroleum and natural gas. This is especially true of production of the high-yield grain varieties introduced in the Green Revolution, since these require especially large inputs of fertilizers, pesticides and irrigation. Today, fertilizers are produced using oil and natural gas, while pesticides are synthesized from petroleum feedstocks, and irrigation is driven by fossil fuel energy. Thus agriculture in the developed countries has become a process where inputs of fossil fuel energy are converted into food calories.

Predictions of drought in the Stern Review

According to a report presented to the Oxford Institute of Economic Policy by Sir Nicholas Stern on 31 January, 2006, areas likely to lose up to 30% of their rainfall by the 2050's because of climate change include much of the United States, Brazil, the Mediterranean region, Eastern Russia and Belarus,

the Middle East, Southern Africa and Southern Australia. Meanwhile rainfall is predicted to increase up to 30% in Central Africa, Pakistan, India, Bangladesh, Siberia, and much of China.

Stern and his team point out that “We can... expect to see changes in the Indian monsoon, which could have a huge impact on the lives of hundreds of millions of people in India, Pakistan and Bangladesh. Most climate models suggest that the monsoon will change, although there is still uncertainty about exactly how. Nevertheless, small changes in the monsoon could have a huge impact. Today, a fluctuation of just 10% in either direction from average monsoon rainfall is known to cause either severe flooding or drought. A weak summer monsoon, for example, can lead to poor harvests and food shortages among the rural population - two-thirds of India’s almost 1.1 billion people. Heavier-than-usual monsoon downpours can also have devastating consequences...”

In some regions, melting of glaciers can be serious from the standpoint of dry-season water supplies. For example, melts from glaciers in the Hindu Kush and the Himalayas now supply much of Asia, including China and India, with a dry-season water supply. Complete melting of these glacial systems would cause an exaggerated runoff for a few decades, after which there would be a drying out of some of the most densely populated regions of the world.

Ocean current changes and failure of monsoons

It is expected that climate change will affect ocean currents, and hence also affect monsoon rainfall. We are already experiencing a diversion of the Gulf Stream due to southward currents of cold water from melting ice in the Arctic. This has caused what is known as the *North Atlantic Anomaly*. While most regions of the world are experiencing rising temperatures, the North Atlantic and several northern European countries are exceptions to this rule, and have cooled. Complete failure of the Gulf Stream would lead to much colder temperatures in Europe.

Changes in ocean currents have already lead to the failure of the West African Monsoon, and this has already produced severe food insecurity in West Africa.

In the future, climate-changed ocean currents may lead to failures of monsoons in South-east Asia, and thus damage the food supply of almost two billion people.

Falling water tables around the world

Under many desert areas of the world are deeply buried water tables formed during glacial periods when the climate of these regions was wetter. These regions include the Middle East and large parts of Africa. Water can be withdrawn from such ancient reservoirs by deep wells and pumping, but only for a limited amount of time.

In oil-rich Saudi Arabia, petroenergy is used to drill wells for ancient water and to bring it to the surface. Much of this water is used to irrigate wheat fields, and this is done to such an extent that Saudi Arabia exports wheat. The country is, in effect, exporting its ancient heritage of water, a policy that it may, in time, regret. A similarly short-sighted project is Muammar Qaddafi's enormous pipeline, which will bring water from ancient sub-desert reservoirs to coastal cities.

In the United States, the great Ogallala aquifer is being overdrawn. This aquifer is an enormous stratum of water-saturated sand and gravel underlying parts of northern Texas, Oklahoma, New Mexico, Kansas, Colorado, Nebraska, Wyoming and South Dakota. The average thickness of the aquifer is about 70 meters. The rate of water withdrawal from the aquifer exceeds the rate of recharge by a factor of eight.

Thus we can see that in many regions, the earth's present population is living on its inheritance of water, rather than its income. This fact, coupled with rapidly increasing populations and climate change, may contribute to a very serious food crisis partway through the 21st century.

Populations displaced by drought and famine

Climate change could produce a refugee crisis that is "unprecedented in human history", Barack Obama has warned as he stressed global warming was the most pressing issue of the age.

Speaking at an international food conference in Milan, the former US President said rising temperatures were already making it more difficult to grow crops and rising food prices were "leading to political instability".

If world leaders put aside "parochial interests" and took action to reduce greenhouse gas emissions by enough to restrict the rise to one or two degrees Celsius, then humanity would probably be able to cope.

Failing to do this, Mr Obama warned, increased the risk of "catastrophic"

effects in the future, “not only real threats to food security, but also increases in conflict as a consequence of scarcity and greater refugee and migration patterns”.

“If you think about monsoon patterns in the Indian subcontinent, maybe half a billion people rely on traditional rain patterns in those areas,”

Populations displaced by rising temperatures

A new study published in *Nature: Climate Change* has warned that up to 75% of the world’s population could face deadly heat waves by 2100 unless greenhouse gas emissions are rapidly controlled.¹ The following is an excerpt from the article:

“Here we conducted a global analysis of documented lethal heat events to identify the climatic conditions associated with human death and then quantified the current and projected occurrence of such deadly climatic conditions worldwide. We reviewed papers published between 1980 and 2014, and found 783 cases of excess human mortality associated with heat from 164 cities in 36 countries.

“Based on the climatic conditions of those lethal heat events, we identified a global threshold beyond which daily mean surface air temperature and relative humidity become deadly. Around 30% of the world’s population is currently exposed to climatic conditions exceeding this deadly threshold for at least 20 days a year.

“By 2100, this percentage is projected to increase to 48% under a scenario with drastic reductions of greenhouse gas emissions and 74% under a scenario of growing emissions. An increasing threat to human life from excess heat now seems almost inevitable, but will be greatly aggravated if greenhouse gases are not considerably reduced.”²

Conclusions

The subject of population stabilization is a highly sensitive and controversial one. Nevertheless it is an issue that must be confronted if a catastrophic global famine is to be avoided. The three terrible Malthusian forces, famine,

¹Mora, C. et al., *Global risk of deadly heat*, *Nature: Climate Change*, 19 June 2017

²See also <https://phys.org/news/2017-08-deadly-south-asia-century.html> and <https://cleantechnica.com/2017/09/28/extreme-heatwaves-like-recent-lucifer-heatwave-become-normal-europe-2050s/>

disease and war. in the end will cut down any population that exceeds its means of support.

In the first edition of his book on population, Malthus wrote: “That population cannot increase without the means of subsistence is a proposition so evident that it needs no illustration. That population does invariably increase, where there are means of subsistence, the history of every people who have ever existed will abundantly prove. And that the superior power cannot be checked without producing misery and vice, the ample portion of these two bitter ingredients in the cup of human life, and the continuance of the physical causes that seem to have produced them, bear too convincing a testimony.”

In later editions, he modified this opinion and made it less pessimistic by allowing for the effect of preventive checks such as late marriage. Malthus considered birth control to be a form of vice, but today it is accepted as the most humane method of avoiding the grim Malthusian forces, famine, disease and war.

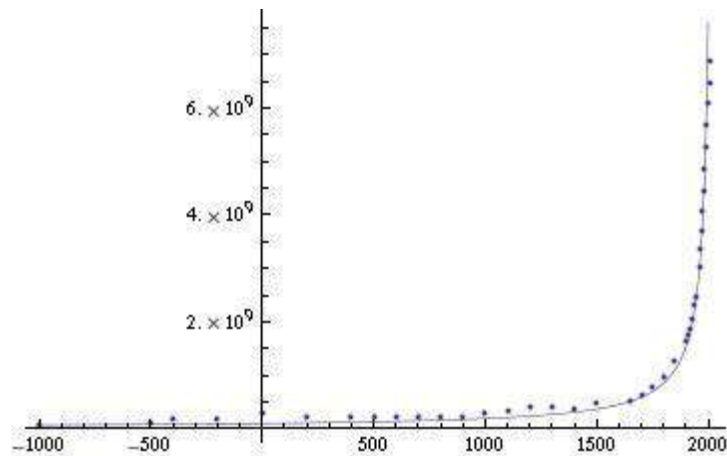
If we examine them in the light of current history, we can see that famine, disease and war are interlinked. War produces famine, and indeed famine has been used as an instrument of war, as we see in the conflicts now taking place in Somalia. Another link is the almost unbelievable economic cost of war. An estimated 1.7 trillion U.S. dollars were spent on armaments in 2017. Part of this colossal sum could instead have been used to provide primary health care to all the peoples of the world, and with it, access to the information and materials needed for family planning.

Let us work together to avoid the enormous suffering that would be involved if climate change and population growth combine to produce a catastrophic global famine.



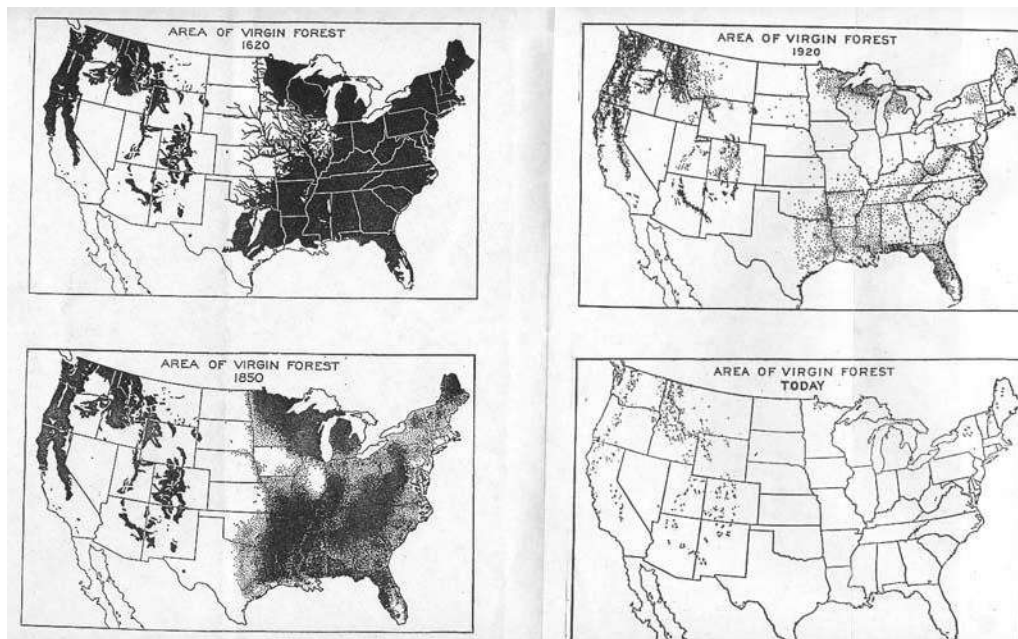
In the world as is, in his book on population, Thomas Robert Malthus (1766-1834) wrote, “That population cannot increase without the means of subsistence is a proposition so evident that it needs no illustration. That population does invariably increase, where there are means of subsistence, the history of every people who have ever existed will abundantly prove. And that the superior power cannot be checked without producing misery and vice, the ample portion of these two bitter ingredients in the cup of human life, and the continuance of the physical causes that seem to have produced them, bear too convincing a testimony.”

In the world as it could be, we would listen to the warning voice of Malthus.



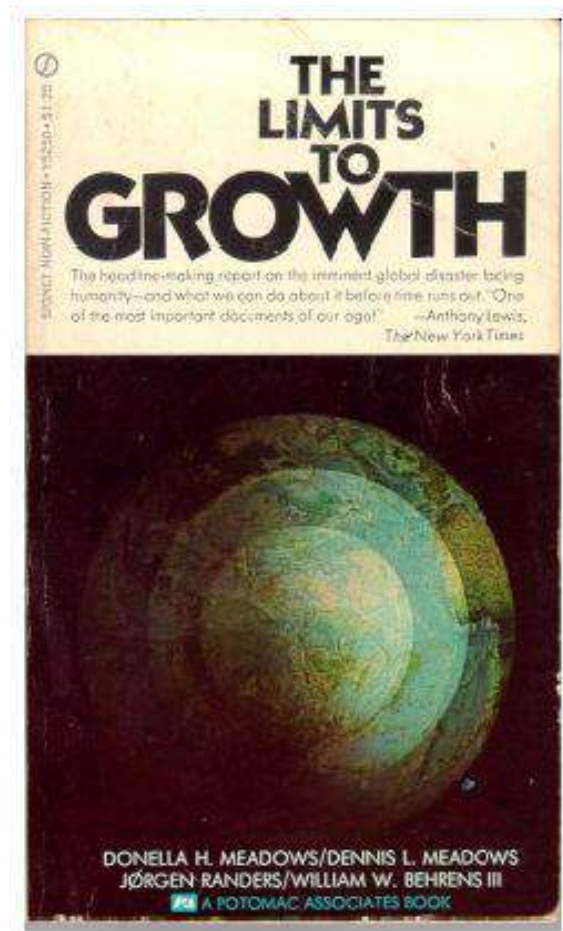
In the world as is, the growth of global population is increasing in a way that can be approximated by a curve that goes to infinity in the year 2025. Obviously this is impossible, and population is already falling away from the curve. The illustration shows the hyperbola $C/(2025-t)$ compared with global population estimates from the U.S. Census Bureau. Here we choose $C = 190,000,000,000$.

In the world as it could be, we would be concerned by the possibility of a global population crash produced by a large-scale famine. Such a famine might occur by the middle of the present century, caused by population growth, climate change and the end of the fossil fuel era.



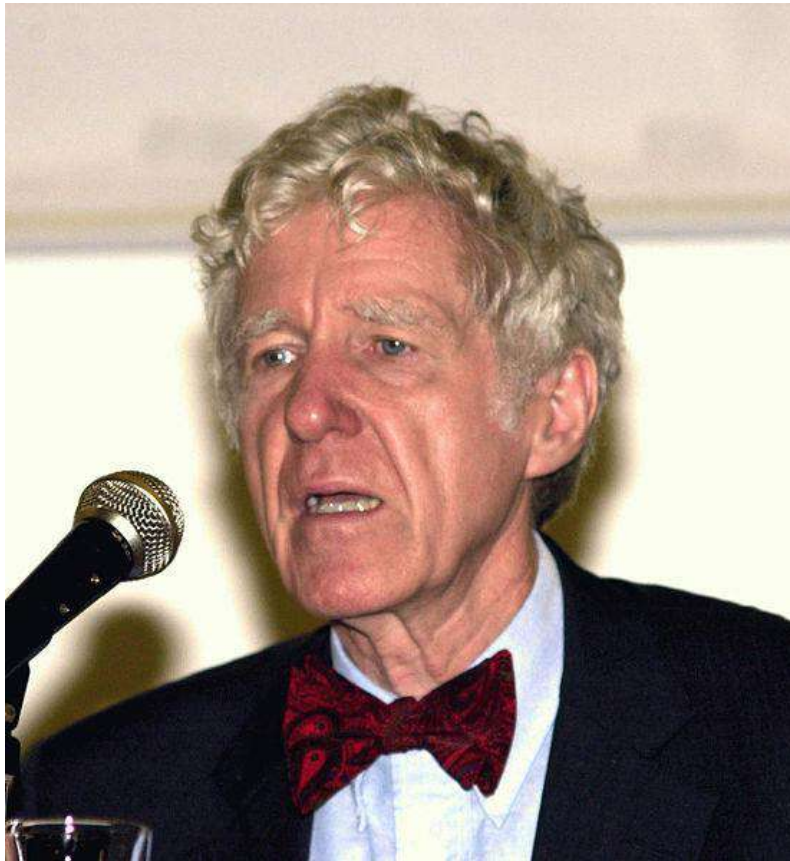
In the world as is, forest loss is driving climate change and aridity, factors that may reduce future agricultural output. The illustration shows deforestation in the United States between 1620 and the present.

In the world as it could be, we would be concerned by the threat that climate change poses to agriculture and food security. Forests would be protected everywhere in the world. Additional trees would be planted to sequester greenhouse gases, and thus to combat climate change.



In the world as is, “Limits to Growth”, a report to the Club of Rome, was published in 1972. From the outset the book was controversial, but it became a best-seller.

In the world as it could be, the pioneering work of the Club of Rome on the depletion of non-renewable resources would be valued by economists.



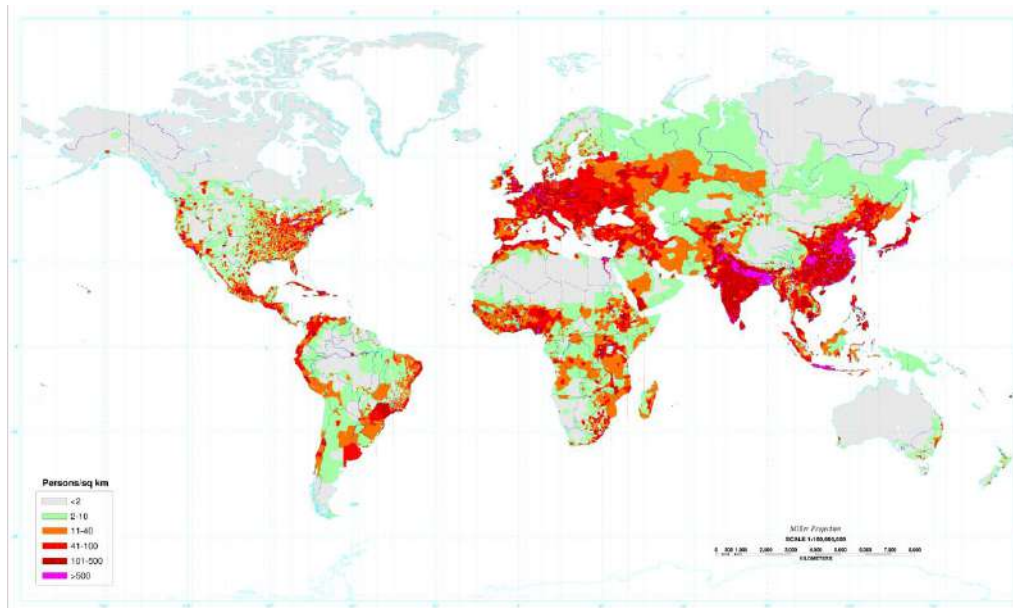
In the world as is, Lester R. Brown, was the founder of the Worldwatch Institute, and for many years its President. He is now the leader of the Earth Policy Institute. His recent book, Plan B, gives important information about the ecological crisis now facing the world. It may be downloaded free of charge from the website of the Earth Policy Institute.

In the world as it could be, we would recognize that saving human civilization and the biosphere is a multi-dimensional task, requiring a steady-state economic system, population stabilization, and a change to a more plant-based diet.



In the world as is, we are sawing off the branch on which we are sitting. The human economy is a small part of our total environment . a small part of the totality of nature, not the other way around.

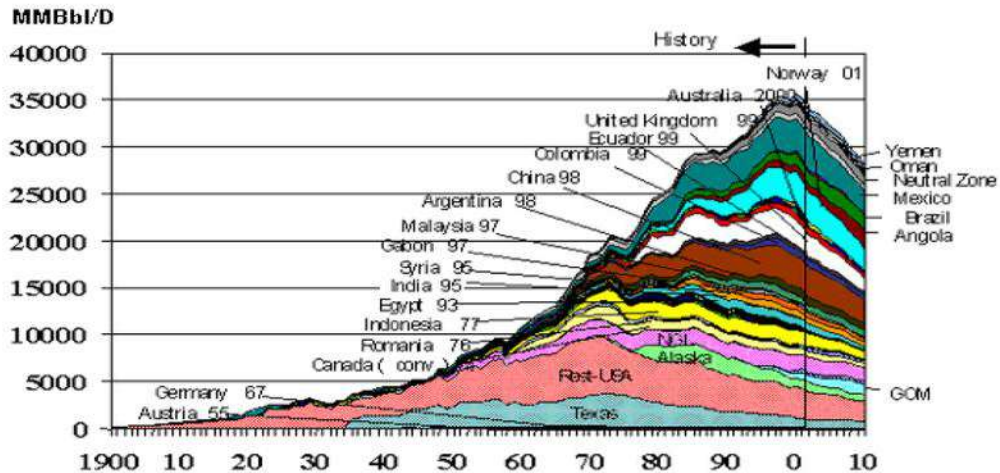
In the world as it could be, environmentalism would be incorporated into economic thinking. We would work for an environmentally sustainable steady-state economic system.



In the world as is, it is vitally important that all countries should pass quickly through the demographic transition from high birth and death rates to low birth and death rates. The illustration shows population density (people per km^2) map of the world in 1994.

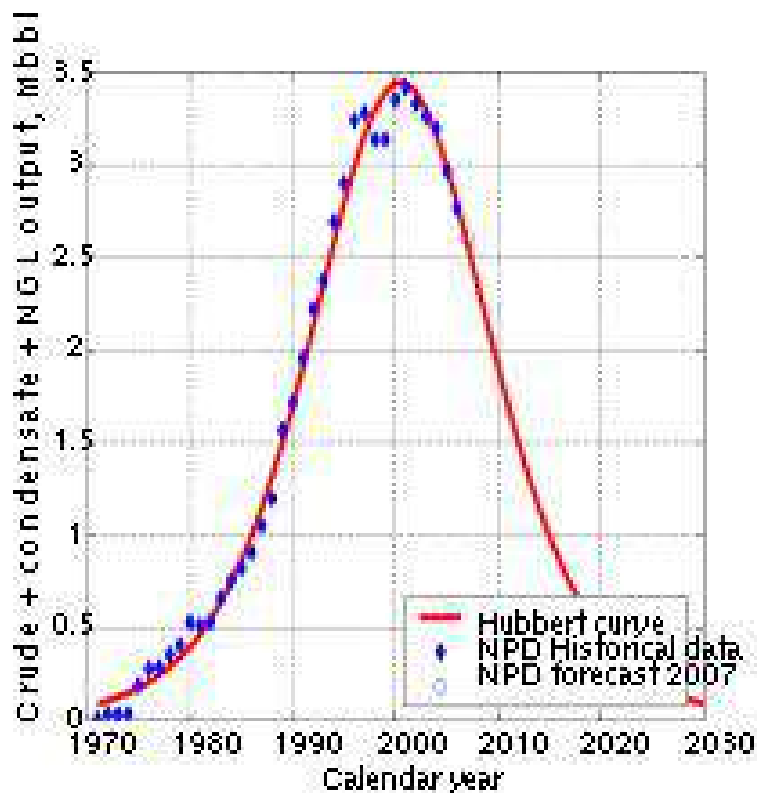
In the world as it could be, materials and information for birth control would be made universally available as part of a program to provide primary health care to all. Money for the program would come from reducing military spending.

Non-OPEC, non-FSU Oil Production Has Peaked and is Declining



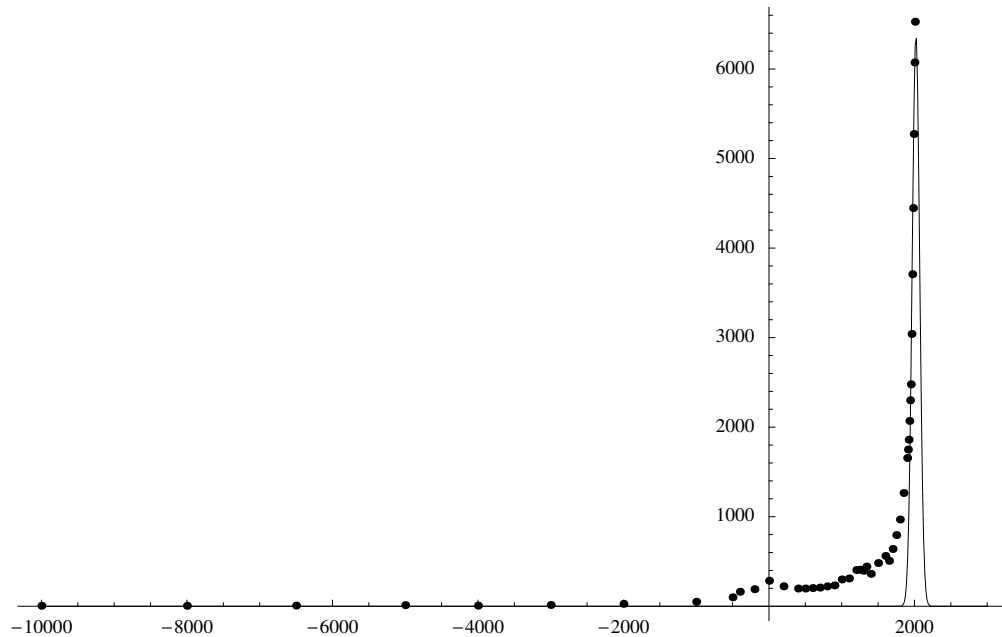
In the world as is, the Hubbert Peak model for the time-dependence of exhaustion of non-renewable resources is more accurate than the model used in the Club of Rome Study, "Limits to Growth". The illustration shows the Hubbert Peak for non-OPEC non-FSU oil.

In the world as it could be, the extraction of oil would be stopped immediately in order to avoid catastrophic climate change. Economists would acknowledge the limits to growth imposed by future exhaustion of other non-renewable resources.



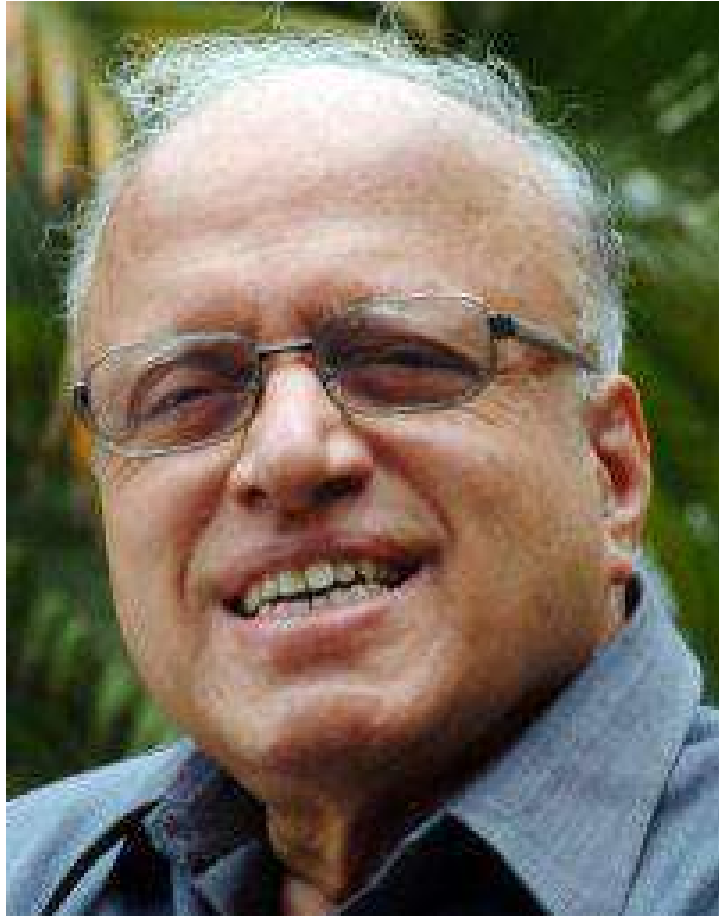
In the world as is, the data for oil production by Norway closely follow the Hubbert model. The Hubbert Peak occurred slightly before 2000.

In the world as it could be, we would move towards a sustainable system of economics - steady-state economics, ecological economics.



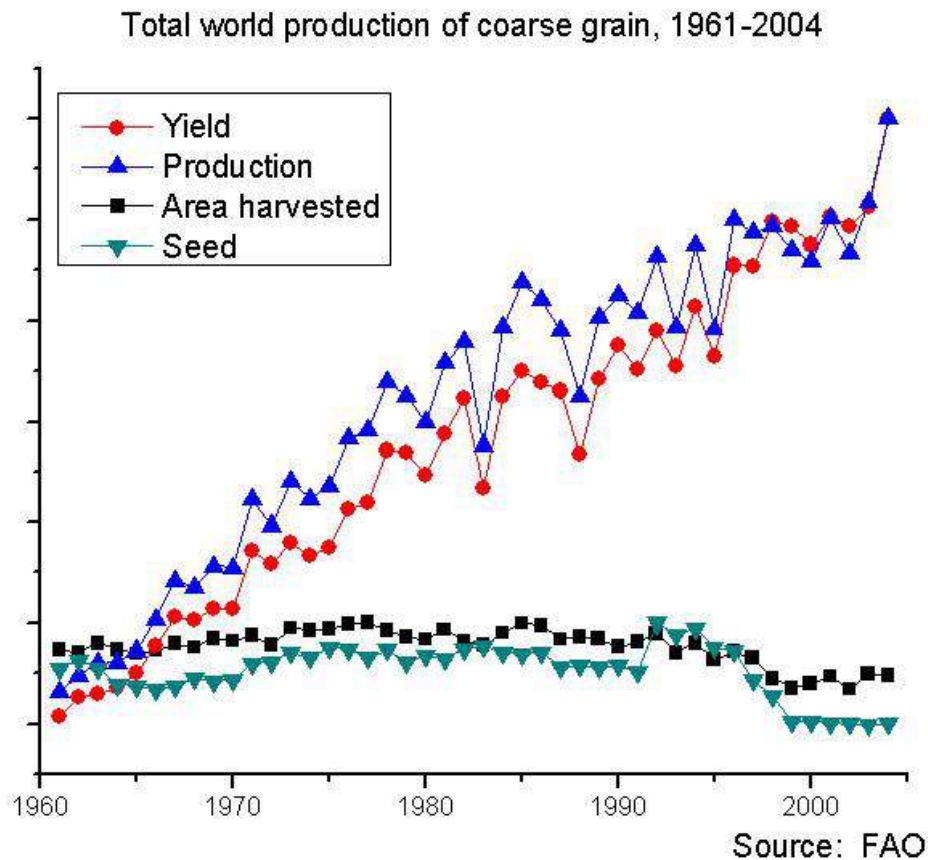
In the world as is, when population growth and fossil fuel use are seen on a time-scale of several thousand years, Fossil fuel use appears as a spike-like curve, rising from almost nothing to a high value, and then falling again to almost nothing in the space of a few centuries. The dots on the graph shown here are population estimates in millions from the US Census Bureau.

In the world as it could be, we would ask whether the inevitable end of the fossil fuel era will lead to a crash of global population,



In the world as is, Professor M.S. Swaminathan is known as the father of the Green Revolution in India. The high-yield crops that he introduced there have allowed the population to grow to 1,4 billion. However, these high-yield varieties require intensive irrigation and fertilization, and this may be difficult to maintain in the future because of climate change and the end of the fossil fuel era.

In the world as it could be, a state-sponsored birth control program would help India to stabilize its population, and thus avoid a future famine.



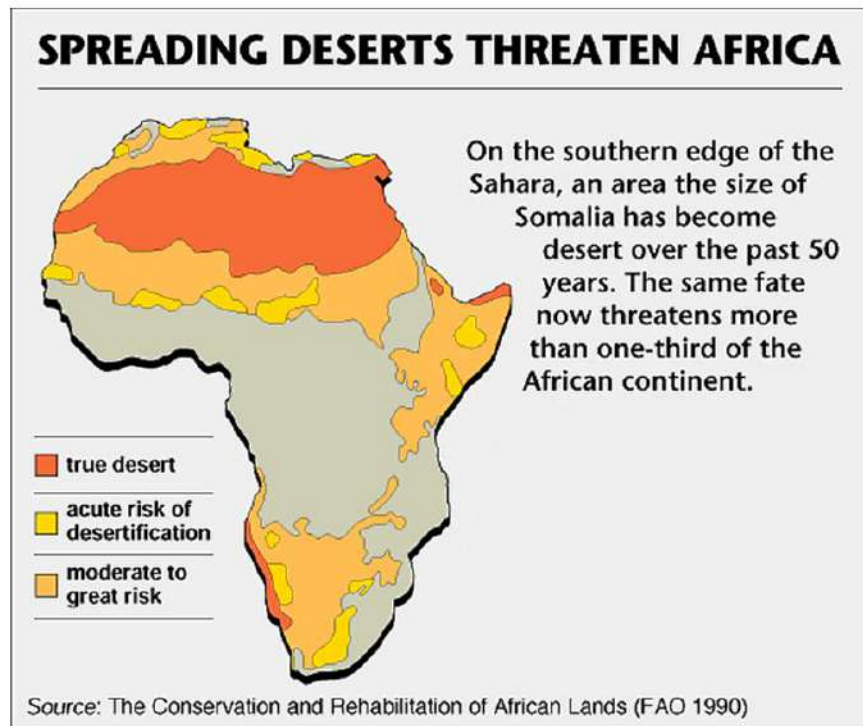
In the world as is, because of high-yield varieties, the yield of grain increased greatly. This graph shows the total world production of coarse grain between 1960 and 2004. Notice, however, that the land under cultivation remained almost constant. High-yield agriculture depends on large inputs of fossil fuel energy and irrigation, and may be difficult to maintain in the future.

In the world as it could be, traditional agriculture and traditional crops would also be valued, because they do not require such large inputs of irrigation and fertilizers.



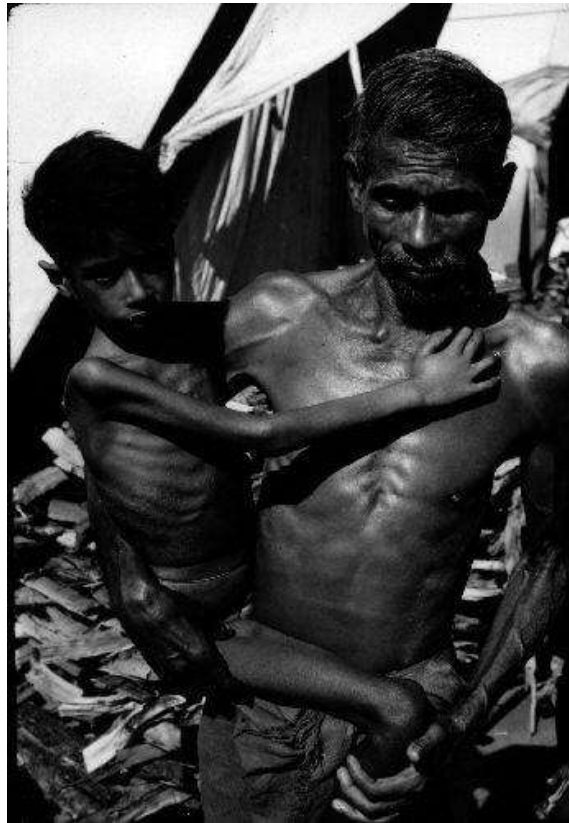
In the world as is, glaciers are melting rapidly throughout the world, threatening to deprive many countries of their summer water supplies. The illustrations show Whitechuck Glacier in the North Cascades National Park in 1973 (above) and in 2006 (below).

In the world as it could be, the threat of melting glaciers to the future agriculture of many countries, including China and India, would be recognized as an important part of the threat of a large-scale future famine.



In the world as is, desert regions of the Africa are in danger of spreading. The illustration shows some of these regions. The growth of human and cattle populations contribute to desertification by destroying existing trees. Africa is not the only continent where desertification is a threat.

In the world as it could be, famine, which can already be seen in many parts of the world, would be acknowledged as a very real threat. Attention would be given to agricultural reform, food security, and population stabilization.



In the world as is, 22% of children under five years are stunted. They are significantly shorter than the average for their age as a consequence of poor nutrition and repeated infection. 11% of the world's population are undernourished. The illustration shows a child suffering with the deficiency disease Marasmus in India.

In the world as it could be, the United Nations Food and Agricultural Organization (FAO) would be given greatly increased financial support for their work aimed at eliminating malnutrition.



In the world as is, education of women and higher status for women are vitally important measures, not only for their own sake, but also because these social reforms have proved to be the key to lower birth rates.

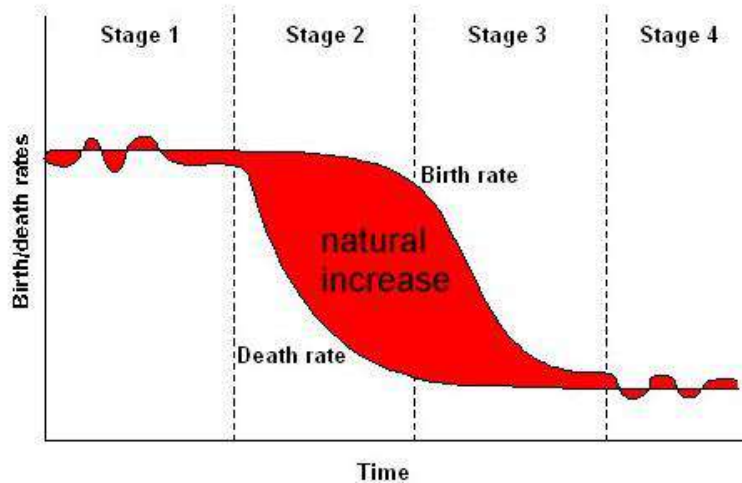
In the world as it could be, women would be given the same educational opportunities as men, as well as equal social, economic and legal rights. Women would take their places beside men in positions of authority.



In the world as is, Norman Borlaug's work on developing high-yield disease-resistant plant varieties won him a Nobel Peace Prize in 1970. Nevertheless he remained worried about a future famine, saying, "Unless progress with agricultural yields remains very strong, the next century will experience sheer human misery that, on a numerical scale, that will exceed the worst of everything that has come before."

In the world as it could be, Norman Borlaug's worries about a future very large-scale famine would be taken seriously.

The Stages of the Demographic Transition.



In the world as is, the demographic transition describes the transition of populations from a state with both high birth rates and high death rates to a state where both these rates are low. In order to avoid the threat of a large-scale future famine, it is vitally important that the populations of all countries of the world shoals rapidly complete the demographic transition..

In the world as it could be, governments throughout the world would help their populations to complete the demographic transition. They would set up state-supported birth control programs.



In the world as is, even today, the world's undernourished children are begging for food. What will the future be like? Because of the threat of widespread famine, it is vital that all countries should complete the demographic transition as quickly as possible.

In the world as it could be, hunger today would warn us about the danger of a much worse future famine.



In the world as is, Sir Partha Dasgupta of Cambridge University has pointed out that all the changes needed for population stabilization are desirable in themselves. These include education for women, higher status for women, state provision of old-age help for the poor, universal health care, and making safe drinking water available near to dwellings.

In the world as it could be, all of the reforms mentioned by Sir Partha would be put in place immediately, since they are intrinsically desirable.



In the world as is, an estimated 6.2 million children under the age of 15 die every year, mostly from preventable poverty-related causes. The photograph shows a starving child in Somalia.

In the world as it could be, we would protect the world's children as a matter of priority. We would work to reduce malnutrition, preventable disease and child mortality. The World Health Organization and the World Food Programme would be given greatly expanded funding to carry out this work.



In the world as is, laws prohibiting child labor are non-existent in many countries, or poorly enforced. In the absence of these laws, poor parents tend to regard their children as a source of work and income, and this is a driving force behind the population explosion. An undesirable side effect is that the children receive no education, thus perpetuating their poverty.

In the world as it could be, child labor would be effectively prohibited. Children would be educated rather than exploited, and populations stabilized, thus reducing the threat of famine.



In the world as is, more slaves exist today than ever before. More than a quarter of the world's slaves are children. These children are forced to commit commercial sex acts, forced into a system of domestic servitude or employed in occupations that are mentally, physically, socially and morally harmful.

In the world as it could be, children would be protected from child slavery. Businesses, for example chocolate companies, that knowingly make use of child slavery, would accept their responsibility for ridding the world of this terrible practice.



In the world as is, poverty often forces children into degrading and unhealthy work. The photograph shows children scavenging at a garbage dump.

In the world as it could be, we would aim at eliminating excessive economic inequality and poverty. This goal has been achieved in the Scandinavian countries, where sharply progressive tax systems have eliminated excessive economic inequality to the benefit of all.



In the world as is, the battle for birth control was not easily won. The photograph shows Marie Stopes (1880-1958). She founded the first birth control clinic in Britain, and authored the controversial sex manual Married Love. Stopes disapproved of abortion and believed that birth control methods should be used to make abortion unnecessary. She edited the newsletter Birth Control News, which gave explicit practical advice.

In the world as it could be, the pioneering work of Marie Stopes would be remembered and celebrated. We would ask ourselves what she would do if she were alive today.



In the world as is, Annie Besant (1847-1933) and the Liberal politician Charles Bradlaugh sent a polite letter to the magistrates announcing when and where they intended to sell Knowlton's book on birth control methods, and asking to be arrested. The result was a famous trial, at which the arguments of Malthus were quoted both by the judge and by the defense. The result of trial was inconclusive, however: Annie Besant and Charles Bradlaugh were acquitted, but Knowlton's book was held to be obscene.

In the world as it could be, birth control would be accepted as the most humane means of avoiding a future large-scale famine. Exploding global populations would thus be stabilized. This is necessary since they also threaten to produce an environmental mega-catastrophe.



In the world as is, Anthony Comstock (1844-1915) boasted that he was responsible for 4,000 arrests and claimed he drove fifteen persons to suicide. Through his various campaigns, he destroyed 15 tons of books, 284,000 pounds of plates for printing objectionable books, and nearly 4,000,000 pictures. The last of the Comstock Laws was finally repealed in 1936 in a case entitled "The United States Versis One Packet of Japanese Pessaries".

In the world as it could be, we would remember Comstock as a reactionary fanatic who did much to delay the acceptance of birth control in the United States..



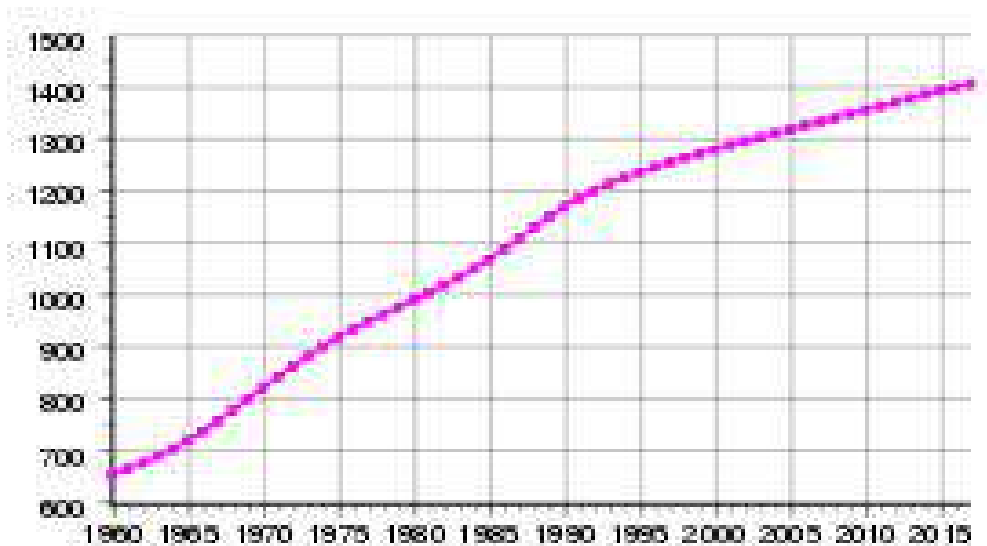
In the world as is, Emma Goldman (1869-1940) was arrested several times for illegally distributing information on birth control. Wikipedia states that “Her writing and lectures spanned a wide variety of issues, including prisons, atheism, freedom of speech, militarism, capitalism, marriage, free love, and homosexuality.”

In the world as it could be, the pioneering ideas of Emma Goldman would be remembered and celebrated. She was ahead of her time.



In the world as is, Margaret Sanger (1879-1966) is considered to be the founder of the modern birth control movement. Defying threats of arrest, she founded the first birth control clinic in America as well as an organization that developed into the Planned Parenthood Federation of America. In 1925 Sanger organized the Sixth International Neo-Malthusian Birth Control Conference. From 1952 to 1959, she served as President of the International Planned Parenthood Federation.

In the world as it could be, Margaret Samger and all other pioneers of the birth control movement would be remembered with gratitude for their work. It gives us hope of avoiding a large-scale future famine.



In the world as is, the population of China, currently 1.4 billion, continues to increase. This graph shows the population growth of China, in billions, since 1900. Despite China's one-child policy, the country's population continues to grow because of exceptions to the policy and because so many young people are now reaching reproductive age.

In the world as it could be, China's efforts to slow its population growth would be applauded, and other countries would make similar efforts.

WE NEED A NEW ECONOMIC SYSTEM

Our present economic system is not sustainable

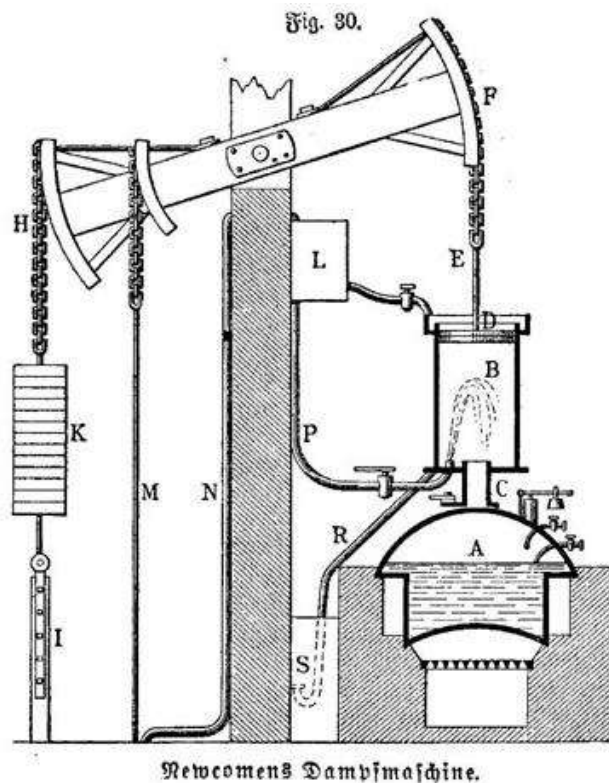
It is clear that our present economic system is unsustainable. It is based on fractional reserve banking, which is unjust at the best of times, and which fails entirely when economic growth falters. But never-ending exponential industrial growth on a finite planet is a logical absurdity. We are already using resources at a rate which it would take 1.6 planet earths to replace. We are already undermining the ecological systems which support all of life.

Our present economic system has led to an unbelievable degree of economic inequality. According to a recent Oxfam report, the 85 richest people in the world have as much as the poorest half of the global population. To to maintain this incredible degree of inequality, both between nations and within nations, military force is used, and democracy is replaced by oligarchy.

The future of human civilization is endangered both by the threat of thermonuclear war and by the threat of catastrophic climate change. It is not only humans that are threatened, but also the other organisms with which we share the gift of life; and both of the twin threats are results of our present economic system.

We live at a critical moment of history. Our duty to future generations is clear: We must achieve a steady-state economic system. We must restore democracy. We must decrease economic inequality. We must break the power of corporate greed. We must leave fossil fuels in the ground. We must stabilize and ultimately reduce the global population. We must eliminate the institution of war; and we must develop new ethics to match our advanced technology, ethics in which narrow selfishness, shortsightedness and nationalism will be replaced by loyalty to humanity as a whole, combined with respect for nature.

We need a new economic system, a new society, a new social contract, and a new way of life.



In the world as is, before the Industrial Revolution, humans lived in a more or less harmonious relationship with nature. The invention of the steam engine and the use of fossil fuels to drive the machinery of factories changed all that. The CO₂ produced by the burning of coal and other fossil fuels initiated an era of global warming and the threat of catastrophic climate change. The diagram shows Newcomen's steam engine.

In the world as it could be, the environmental dangers produced by the Industrial Revolution would be widely discussed. Action would be taken to reduce the massive human impact on the global environment and to avoid the danger of catastrophic climate change.



In the world as is, the Industrial Revolution produced great wealth for factory owners, but widespread misery for industrial workers. They were often paid starvation wages and forced to work inhumanly long hours. We see here a watercolor painting by Vincent van Gogh showing wives of Belgian miners carrying bags of coal.

In the world as it could be, we would remember the uneven way in which the early Industrial Revolution affected society. We would look for, and try to prevent, excessive economic inequality in today's world.



In the world as is, workers during the early Industrial Revolution often lived in unbelievably crowded and squalid conditions. Often the only accommodation for an entire family, or several families, was a single room. Sanitary facilities were minimal, and excrement was often thrown into the stinking streets. The image shows a street in London during the early 19th century.

In the world as it could be, we would remember the horrors of the early Industrial Revolution, especially the mistreatment of workers. We would ask ourselves whether similar exploitation and mistreatment exists today.



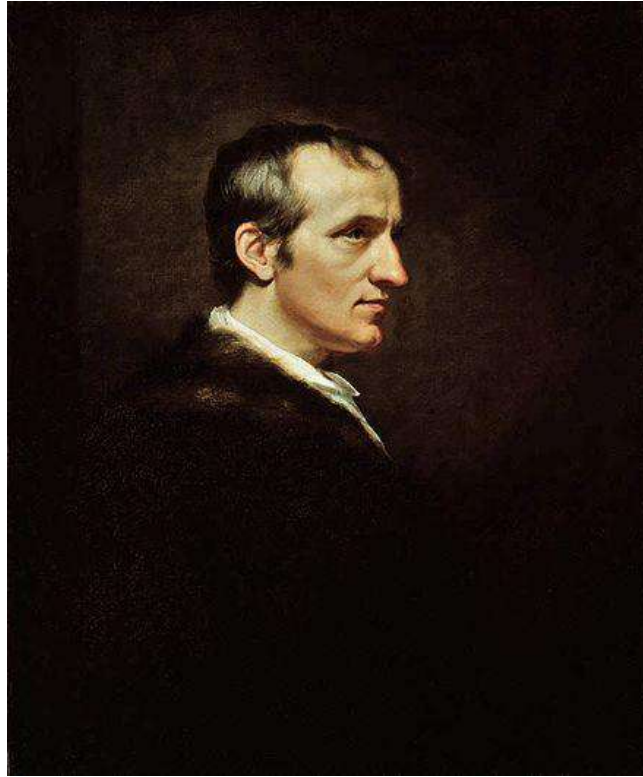
In the world as is, child labor was widespread during the early years of the Industrial Revolution. Children were frequently abused and tortured to produce more work, and even driven to commit suicide. The image shows a young girl pulling a coaltub through the narrow space left by removal of coal from a seam.

In the world as it could be, laws against child labor and child slavery would be enforced in every country throughout the world. This would help to stabilize global population by preventing parents from regarding their children as a source of income.



In the world as is, Adam Smith (1723-1790) originated the idea that individual self-interest, even greed, unmodified by governmental regulation, could be the guiding principle for a happy society. He also approved of industrial growth.

In the world as it could be, we would realize that individual self-interest alone cannot lead to a happy and just society. We would also realize that unlimited industrial growth on a finite planet is a logical impossibility. Today, Adam Smith's "invisible hand" is at our throats!



In the world as is, William Godwin (1756-1836) believed that at some future time, when education has lifted populations out of ignorance and vice, the draconian system of laws (which made trivial offenses punishable by hanging at the time when he was writing) would be unnecessary. He believed that the advance of science would make universal prosperity possible. He is seen here in a painting by James Northcote.

In the world as it could be, universal prosperity would be achieved today by a more even distribution of the wealth resulting from scientific and technological advances. We would re-read Godwin's books, and learn from his advanced and humane ideas.



In the world as is, the Marquis de Condorcet (1743-1794) was a French nobleman and mathematician. He was the author of a book whose English title is "Sketch for a Historical Picture of the Progress of the Human Spirit." He wrote this optimistic book while in hiding from Robespierre's reign of terror during the French revolution. Condorcet believed human progress to be both good and inevitable.

In the world as it could be, we would re-read Condorcet's writings on social problems and his book on progress. We would ask to what extent progress is inevitable and whether it is always good.



In the world as is, Thomas Robert Malthus (1766-1834) criticized both Godwin and Condorcet by pointing out that the utopian societies that they visualized would lead to an excessive growth of population. This would rapidly eat up all the benefits conferred by scientific and technological progress. The conflicting views of Godwin, Condorcet and Malthus led to a vigorous debate during Malthus' lifetime, and the debate continues today.

In the world as it could be, the problem of excessive population growth would be addressed. Primary health care, together with the materials and information needed for birth control, would be universally available.



In the world as is, the economist David Ricardo (1772-1823), was a close friend of Malthus. Ricardo's "Iron Law of Wages" maintained that the wages of workers must always be at the starvation level, because increasing wages would lead to the survival of more children, thus increasing the supply of laborers, and lowering the price, according to the laws of supply and demand. The joint pessimism of Ricardo and Malthus caused Carlyle to call economics "the dismal science".

In the world as it could be, laws favoring unions, birth control and minimum wages would ensure the invalidity of Ricardo's "Iron Law".



In the world as is, the Irish Potato Famine (1845-1852) caused the death of approximately a million people. Another million fled from the country. Irish small farmers had been living on a healthy diet of milk and potatoes, but the potato monoculture was hit by a blight and crops failed.

In the world as it could be, the threat of large-scale famine in today's world would be taken seriously. Monocultures can be destroyed by plant diseases. Climate change and the end of the fossil fuel era can greatly reduce agricultural output. The problem of feeding a constantly-growing global population is a serious one.



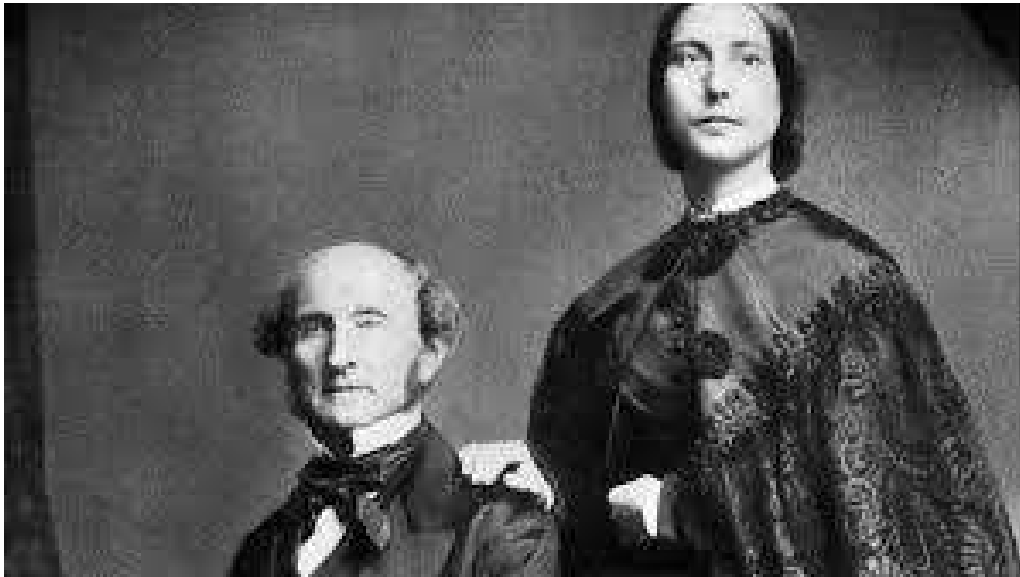
In the world as is, the Utilitarian philosopher and economist James Mill (1773-1836) was an early advocate of birth control. (He was the father of John Stuart Mill.) The battle for the acceptance of birth control was a long and bitter one.

In the world as it could be, the impact of exploding human populations on the global environment would be seen as very serious. Birth control programs would be supported by governmental funding in all countries.



In the world as is, Beatrice Webb (1858-1943) was an outstanding social reformer. Together with her husband Sidney Webb, Graham Wallace and George Bernard Shaw, she founded the London School of Economics using money left to the Fabian Society by Henry Hutchinson. The Fabians also founded the British Labour Party, and they lobbied for a minimum wage law and National Health Service.

In the world as it could be, the idealistic and enthusiastic Fabian movement would inspire us to continue their work for an improved society.



In the world as is, John Stuart Mill, the son of James Mill, continued his father's work for social reform. The photograph shows Mill and his stepdaughter Helen Taylor, with whom he worked for fifteen years after the death of his wife, Harriet Taylor Mill. He served in Parliament where he introduced an early bill that would have given the vote to women, had it been passed

In the world as it could be, equal rights for women would be guaranteed in every country.



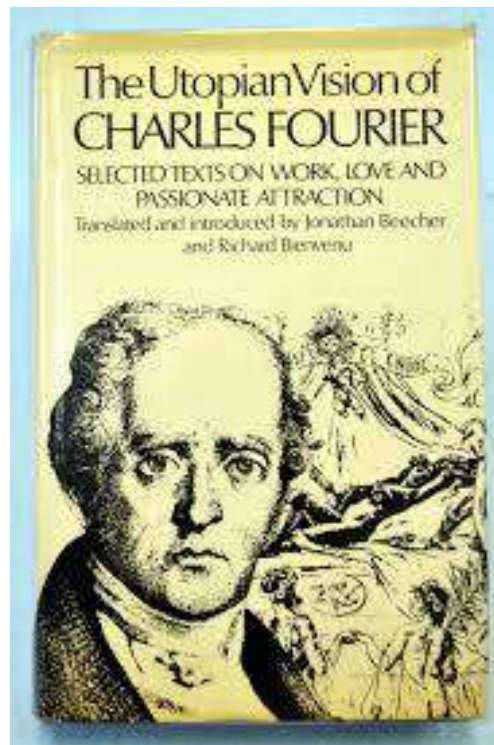
In the world as is, Francis Place (1771-1854), was a trade union leader and reformer who was anxious to improve the lives of workers. His political activities brought him into contact with William Godwin, James Mill, John Stuart Mill, Robert Owen and Jeremy Bentham. He courageously advocated birth control at a time when it was dangerous to do so.

In the world as it could be, access to birth control would be recognized as a human right. Birth control programs would be supported by governments.



In the world as is, Henri de Saint-Simon (1760-1825) was a pioneering utopian socialist, who believed that scientists should take the place of priests in the social order. He thought that property ownership could only be justified if the owners subsidized the increase of knowledge.

In the world as it could be, we would remember Saint-Simon as a pioneer of knowledge-based economics. The role of science and engineering would be a part of economic theory, and would be included in the education of economists.



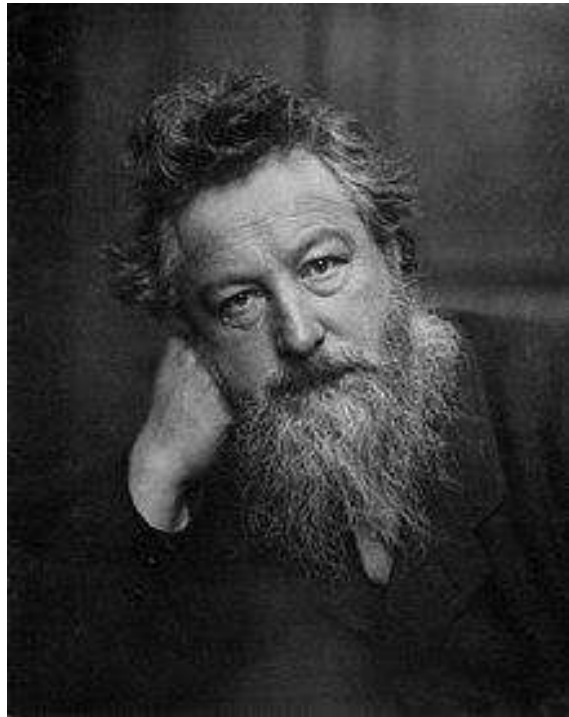
In the world as is, Charles Fourier, (1772-1837) said, “Philosophy was right to vaunt liberty; it is the foremost desire of all creatures. But philosophy forgot that in civilized societies liberty is illusory if the common people lack wealth. When the wage-earning classes are poor, their independence is as fragile as a house without foundations. The free man who lacks wealth immediately sinks back under the yoke of the rich.” .

In the world as it could be, economists would realize that excessive economic inequality leads to unhappiness and to poorly-functioning economies. The pioneering thought of Charles Fourier would be studied.



In the world as is, Robert Owen, (1771-1858), founder of the Cooperative Movement, said “What ideas individuals may attach to the term ‘Millennium’ I know not; but I know that society may be formed so as to exist without crime, without poverty, with health greatly improved, with little, if any, misery. and with intelligence and happiness increased a hundredfold; and no obstacle whatsoever intervenes at this moment except ignorance to prevent such a state of society from becoming universal.”

In the world as it could be, cooperatives would play a larger role in society and in economics. Robert Owen would be remembered as a pioneer of improved conditions for workers, national labor unions, and the cooperative movement.



In the world as is, William Morris (1834-1896) was the founder of the Arts and Crafts movement and author of the Utopian novel, "News From Nowhere". He criticized industrial societies for taking away the individual workman's pride and pleasure in craftsmanship and good design. He also thought that the comradeship of small communities was undervalued by economists.

In the world as it could be, pleasure derived from pride in workmanship and design would be valued by economists. Also pleasure derived from friendships within small communities would be taken into account in economic theory.



WHEN ADAM DELVED AND EVE SPAN,
WHO WAS THEN THE GENTLEMAN?

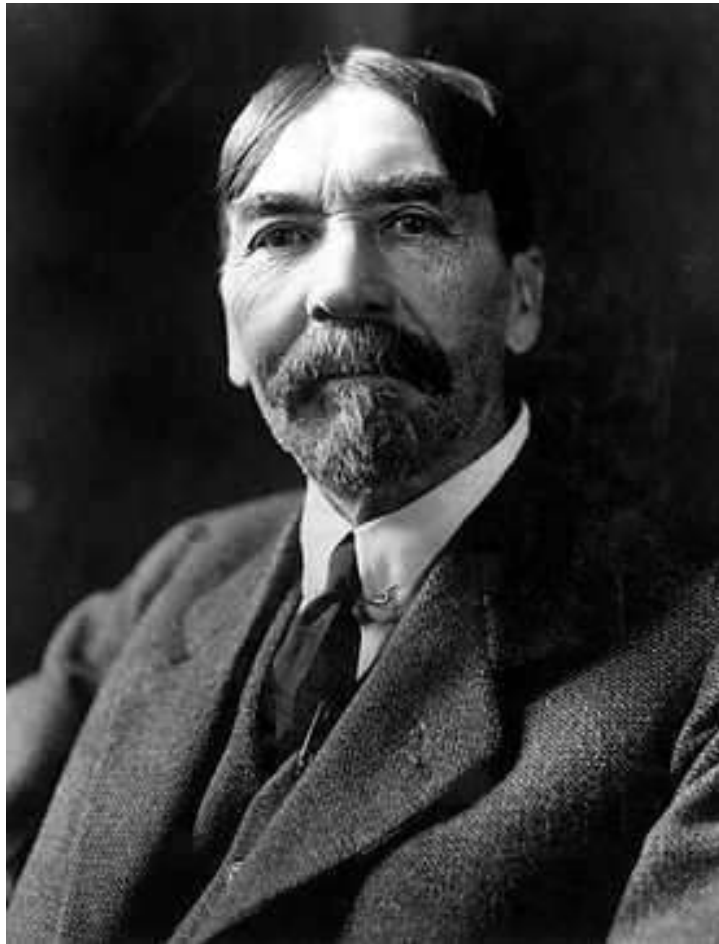
In the world as is, the image shown here is a design by William Morris (1834-1896). Together with John Ruskin (1819-1900) and others in the Arts and Crafts Movement, Morris criticized the Industrial Revolution and division of labor for destroying craftsmanship, traditions of design, traditional skills, and pride in work.

In the world as it could be, economists would realize that while division of labor has some advantages, it also destroys the individual worker's pride in craftsmanship, and may thus lead to a worse result.



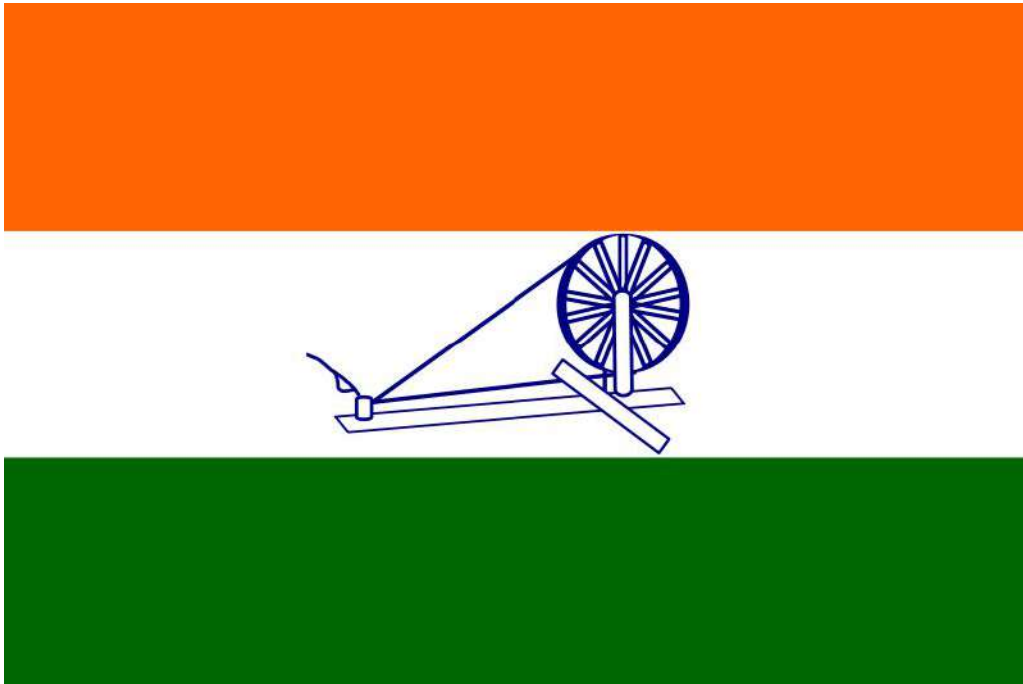
In the world as is, Transition Towns aim at local self-sufficiency. They produce their own food, thus reducing the need for fossil-fuel-consuming transportation. By 2013, there were 1130 Transition Towns registered in 43 countries.

In the world as it could be, the need to adapt to a future world without fossil fuels would be taken seriously. Local self-sufficiency and local food would be adopted as part of the necessary transition.



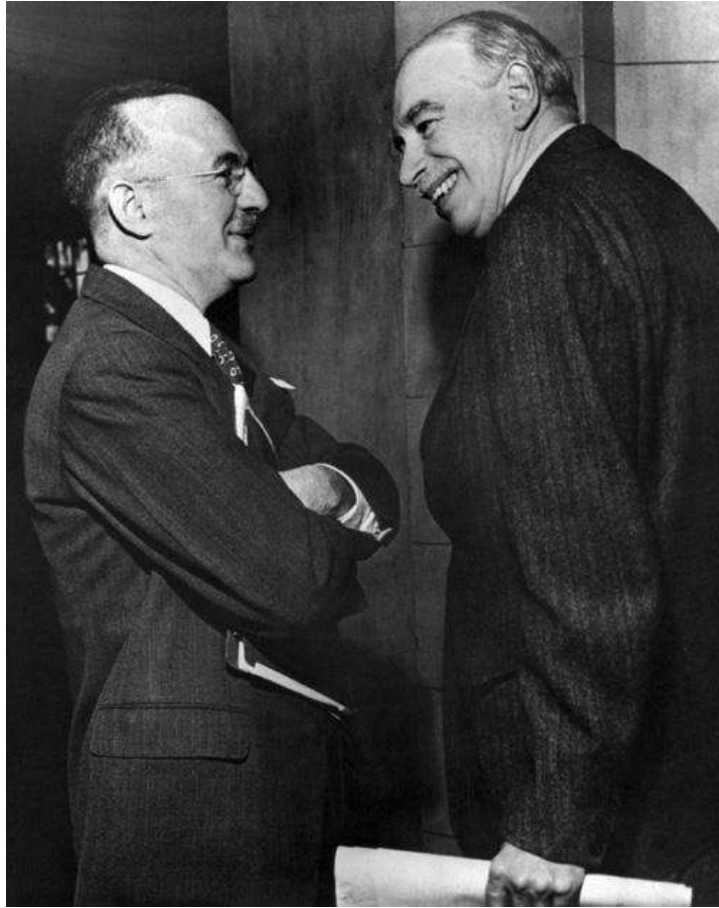
In the world as is, Thorstein Veblen (1857-1929) revolutionized economic thought by viewing the subject from the standpoint of anthropology. He introduced the term “conspicuous consumption” to describe the use of material goods as a means of social competition.

In the world as it could be, Veblen’s insights would warn us against our common practice of social competition by means of material goods. In today’s world of growing population and vanishing resources, we can no longer afford such behavior.



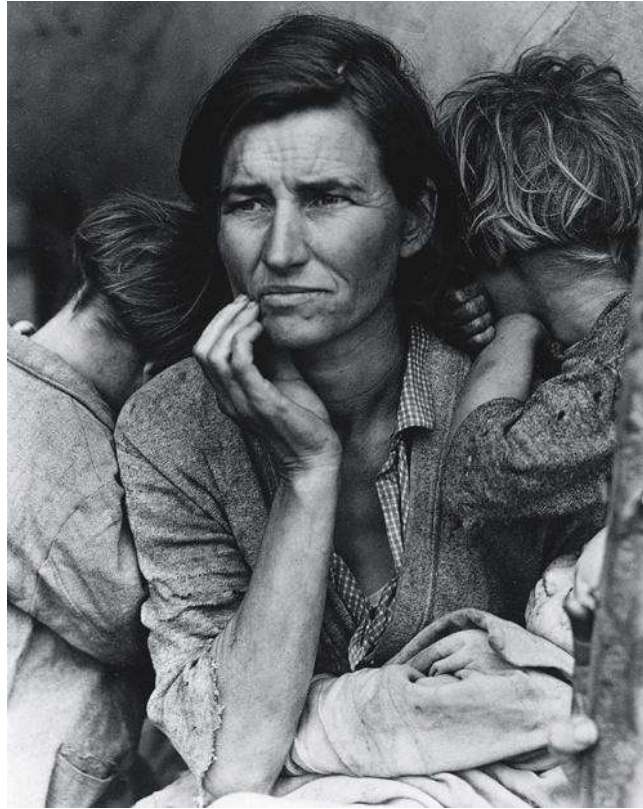
In the world as is, Gandhi's spinning wheel was incorporated into the flag of the Congress Party and later into the national flag of an independent India. Gandhi contributed to economic thought by pointing out that we do not need to maximize production and profits, if we do not wish to do so. We can, if we choose, maximize social justice and happiness,

In the world as it could be, Mahatma Gandhi would be recognized as a great thinker, not only in the field of ethics, but also in economics.



In the world as is, John Maynard Keynes urged Franklin D. Roosevelt to introduce the measures that ultimately ended the Great Depression of the 1930's. The photo shows Keynes (right) with Harry Dexter White at the Bretton Woods Conference. Keynes was an extremely tall man - 6 feet and 6 inches tall, i.e. 198 cm. Heart problems caused his early death.

In the world as it could be, Roosevelt's New Deal would become the inspiration for the much-needed global Green New Deal, aiming to simultaneously produce renewable energy infrastructure and good jobs.



In the world as is, the Great Depression of the 1930's was a particularly harsh reminder of the recurrent cycles of boom and bust that characterize capitalist economies, especially when adequate regulation of the financial sector is lacking. We see here "Migrant Mother", a photograph by Dorothea Lange, showing a destitute pea picker in California in 1936.

In the world as it could be, socialist systems of the type that can be observed in present-day Scandinavia would offer models for other countries. The Scandinavian nations have market economies, but steeply progressive rates of taxation insure against excessive economic inequality. Poverty has been virtually eradicated in Scandinavia.



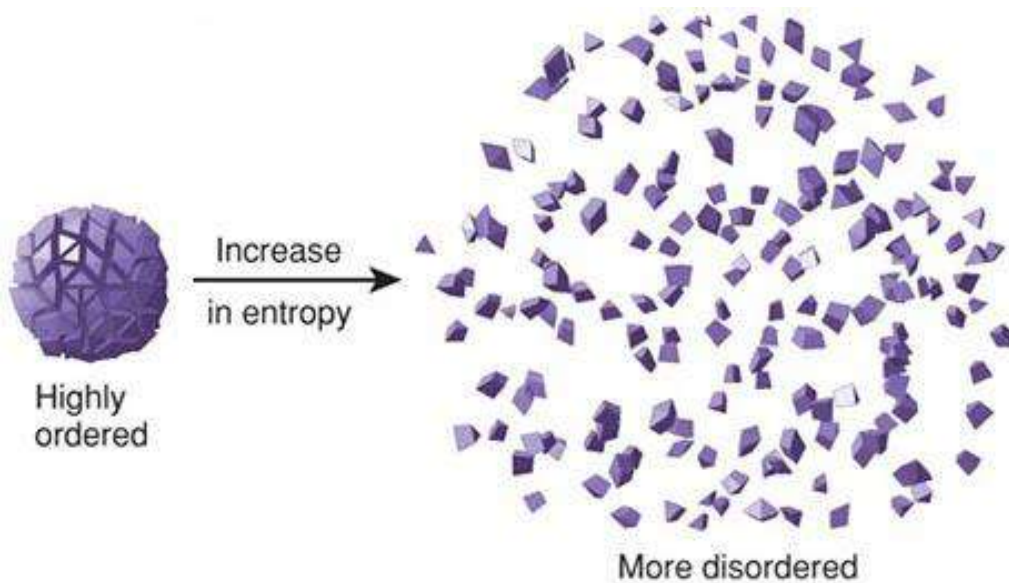
In the world as is, Kenneth E. Boulding (1910-1993) was the author of more than 36 books and 112 articles on the relationship of economics with social and philosophical questions. His influential book, “Economics of the Coming Spaceship Earth”, was published in 1966. Boulding said, “Anyone who believes in the perpetual growth of anything physical on a finite planet must be either a madman or an economist.”

In the world as it could be, we would listen to Boulding’s wise words. We would work to build a sustainable steady-state economic system.



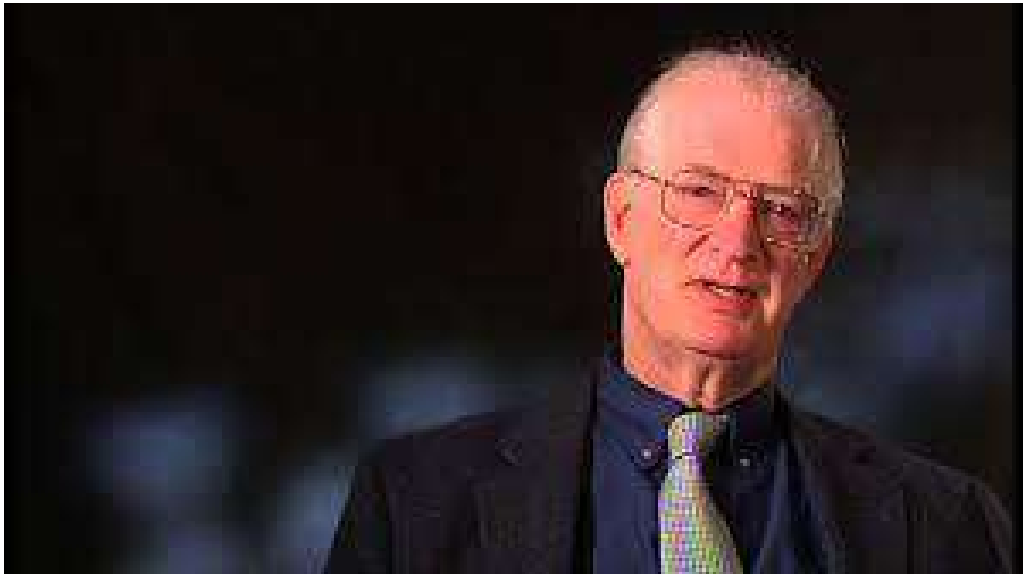
In the world as is, neoliberalism is defined as the belief that unregulated market forces can lead to a just and prosperous society. Neoliberalism, combined with the excessive power of corporations, together have eroded democracy and replaced it with oligarchy.

In the world as it could be, we must reject the false ideas of neoliberalism. We must break the power of corporate greed.



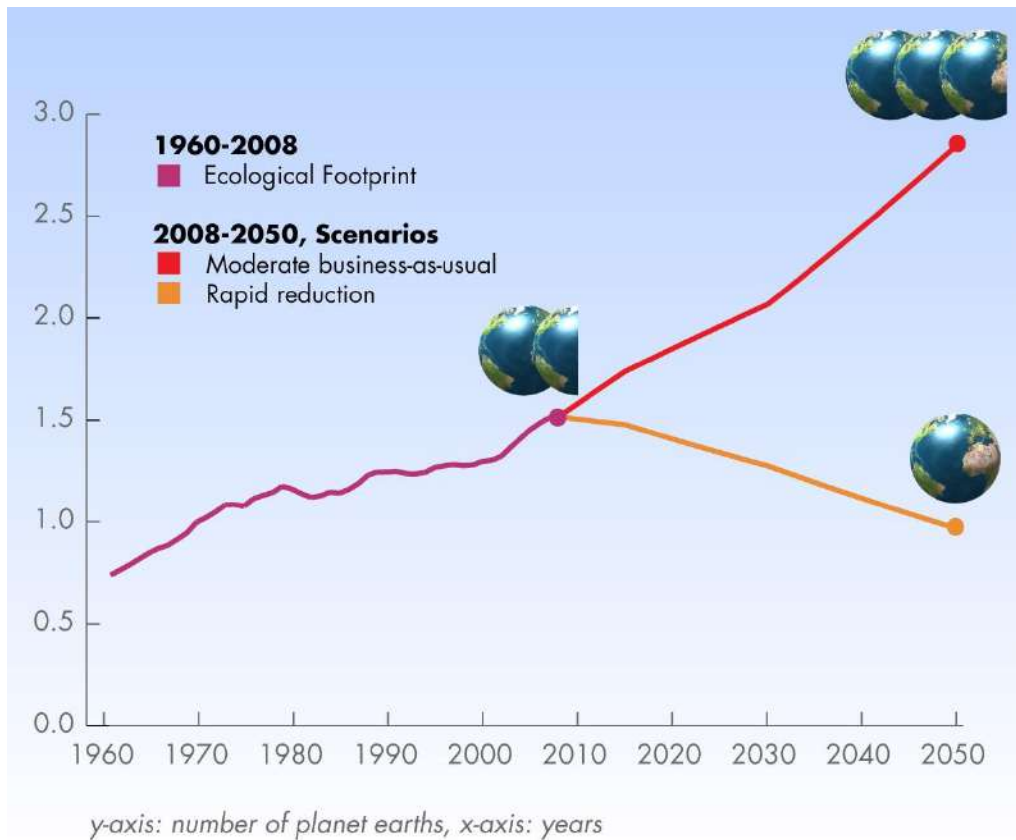
In the world as is, the second law of thermodynamics states that the entropy of the universe constantly increases. Increase of entropy corresponds to increase of disorder, and also to increase of statistical probability. Living organisms on the earth are able to achieve a high degree of order and highly improbable structures because the earth is not a closed system.

In the world as it could be, the concept of entropy, and the second law of thermodynamics, would be incorporated into economic theory.



In the world as is, the mathematician and economist Nicholas Georgescu-Roegen (1906-1994) pioneered the incorporation of entropy into economic theory. Today his work for a sustainable steady.state economic system is ably carried forward by his two distinguished students, Professors Herman E. Daly (above) and Kozo Mayumi

In the world as it could be, the attention of all economists would be concentrated on the problem of long-term sustainability and the achievement of a steady-state economic system.



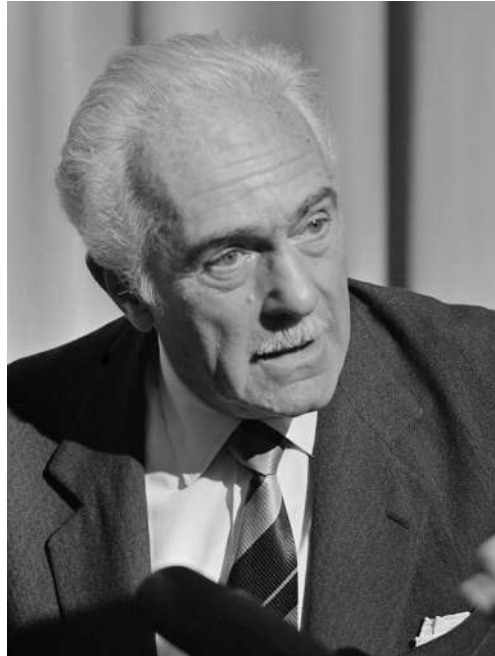
In the world as is, our present trajectory is completely unsustainable. If we follow it, then by 2050 it would take almost three earths to regenerate our demands on resources.

In the world as it could be, economists would abandon their almost-religious belief in perpetual growth. They would realize that growth of anything physical, whether it is population or industry, cannot be maintained.



In the world as is, Lester R. Brown has been a pioneer in the study of the future global food crisis. He has also called attention to predicted future shortages of fresh water. According to Brown, China will soon be unable to feed its growing population with its own agriculture, but their economy is so stony that the Chinese will be able to buy food internationally. This will cause a rise food prices and cause famine in Africa, Brown predicted.

In the world as it could be, attention would be given to the threat of a large-scale famine caused by growing populations, climate change, and the end of the fossil fuel era.



In the world as is, Aurelio Peccei (1908-1984) was the main founder of the Club of Rome. Concerning our present economic system, he wrote: “The only way we have devised to meet the surging waves of our rampant militarism and consumerism is to draw increasingly on the natural environment and to exploit, indiscriminately, the most accessible mineral and fuel deposits and all living resources we can lay our hands on. Such actions irreversibly impoverish our unique, irreplaceable, world, whose bounty and generosity are not infinite.”

In the world as it could be, ecology and economics would be united into a single discipline. The limits to growth, as discussed in the famous book commissioned by the Club of Rome, would be central to economic thinking.

WAR THREATENS OUR FUTURE

Against the Institution of War

As we start the 21st century and the new millennium, our scientific and technological civilization seems to be entering a period of crisis. Today, for the first time in history, science has given to humans the possibility of a life of comfort, free from hunger and cold, and free from the constant threat of infectious disease. At the same time, science has given us the power to destroy civilization through thermonuclear war, as well as the power to make our planet uninhabitable through pollution and overpopulation. The question of which of these alternatives we choose is a matter of life or death to ourselves and our children.

The crisis of civilization, which we face today, has been produced by the rapidity with which science and technology have developed. Our institutions and ideas adjust too slowly to the change. The great challenge which history has given to our generation is the task of building new international political structures, which will be in harmony with modern technology. At the same time, we must develop a new global ethic, which will replace our narrow loyalties by loyalty to humanity as a whole.

In the long run, because of the enormously destructive weapons, which have been produced through the misuse of science, the survival of civilization can only be insured if we are able to abolish the institution of war.

Because the world spends 1.8 trillion dollars each year on armaments, it follows that very many people make their living from war. This is the reason why it is correct to speak of war as a social institution, and also the reason why war persists, although everyone realizes that it is the cause of much of the suffering that inflicts humanity. We know that war is madness, but it persists. We know that it threatens the future survival of our species, but it persists, entrenched in the attitudes of historians, newspaper editors and television producers, entrenched in the methods by which politicians finance their campaigns, and entrenched in the financial power of arms manufacturers, entrenched also in the ponderous and costly hardware of war, the fleets of warships, bombers, tanks, nuclear missiles and so on.

Science cannot claim to be guiltless: In Eisenhower's farewell address, he warned of the increasing power of the industrial-military complex, a threat to democratic society. If he were making the same speech today, he might speak of the industrial-military-scientific complex. Since Hiroshima, we have

known that new knowledge is not always good. There is a grave danger that nuclear weapons will soon proliferate to such an extent that they will be available to terrorists and even to the Mafia. Chemical and biological weapons also constitute a grave threat.

Besides a humane, democratic and just framework of international law and governance, we urgently need a new global ethic, - an ethic where loyalty to family, community and nation will be supplemented by a strong sense of the brotherhood of all humans, regardless of race, religion or nationality. Schiller expressed this feeling in his “Ode to Joy”, the text of Beethoven’s Ninth Symphony. Hearing Beethoven’s music and Schiller’s words, most of us experience an emotion of resonance and unity with its message: All humans are brothers and sisters - not just some - all! It is almost a national anthem of humanity. The feelings which the music and words provoke are similar to patriotism, but broader. It is this sense of a universal human family, which we need to cultivate in education, in the mass media, and in religion.

No Warming, No War: How Militarism Fuels the Climate Crisis and Visa Versa

Here is a quotation from an article by Lorah Steichen and Lindsay Koshgarian¹:

“In this report, we’ll lay out how militarism and the climate crisis are deeply intertwined and mutually reinforcing. The military itself, we explain, is a huge polluter - and is often deployed to sustain the very extractive industries that destabilize our climate. This climate chaos, in turn, leads to massive displacement, militarized borders, and the prospect of further conflict.

“True climate solutions, we argue, must have antimilitarism at their core.

“In the face of both COVID-19 and the climate crisis, we urgently need to shift from a culture of war to a culture of care. Funneling trillions into the military to wage endless wars and project military dominance has prevented us from investing in true security

¹<https://ips-dc.org/climate-militarism-primer/>

and cooperation. If we don't transform our society and the way we confront crises, we will face even more unjust and inhumane realities in a climate-changed future."

Rebuilding after the pandemic

The COVID-19 pandemic has thrown light on the shortcomings of our militaristic concept of security. Our military establishments could not protect us from the virus. Indeed, even without the pandemic, our "defense departments" do not really defend us. This is most obvious when we think of a nuclear war, in which hundreds of millions of innocent civilians might be killed. At present, civilians are hostages in the power struggles of politicians. When we rebuild the world after the pandemic, it must not merely be "back to normal". The old normal was part of the problem. We must build a new world in which the climate emergency is addressed, and rapid action is taken to prevent it. The Green New Deal, in which jobs are created producing urgently-needed renewable energy infrastructure, offers the best model for the new world that we want. Those who say that there is not enough money to finance the Green New Deal, forget the unimaginable amounts of money wasted. or worse than wasted, on militarism. We must divert this vast river of money from its present evil use, to the constructive task of saving our planet from the existential threat of catastrophic climate change.



In the world as is, massive protests against the Vietnam War took place. Here we see protesters in Washington DC in 1967. Nevertheless, the government of the United States did not listen, but continued the war.

In the world as it could be, governments would obey the will of the people. In this way, war could be eliminated, since the vast majority of ordinary people do not want war.



In the world as is, student's antiwar protests are met with violence. Here we see John Filo's Pulitzer Prize-winning photograph of Mary Ann Vecchio kneeling over the body of Jeffrey Miller minutes after he was fatally shot by the Ohio National Guard, while protesting against the Vietnam War,

In the world as it could be, antiwar protests would be welcomed as part of the democratic process. Law enforcement officers would themselves obey the law.



In the world as is, ordinary people throughout the world hate war and protest against it. Here we see Vietnam War protesters in Vienna in 1968.

In the world as it could be, governments would listen to the voices of the people rather than the voices of corporate greed and the arms industry.



In the world as is, World Wars I and II took the lives of more than 65 million people and caused inestimable economic damage. Here we see one of a series of prints which the German artist Käthe Kollwitz (1867-1945) made as a protest against the atrocities of World War I.

In the world as it could be, the institution of war would be eliminated and the vast damage caused by wars would be stopped. Steps towards the elimination of war might include strengthening the United Nations by converting it into a federation with the power to arrest individual political leaders, and the power to raise money through taxes.



In the world as is, people express their hatred of war in many ways, including both the visual arts and music. Here we see another anti-war print by Käthe Kollwitz.

In the world as it could be, people all over the world would find ways to express their rejection of war as an institution, using all of their artistic and musical abilities, and whatever literary eloquence they might have.



In the world as is, nuclear weapons are a threat to the survival of human civilization. Here we see the logo of the Woman's Peace Camp at Greenham Common, England, protesting the use of the commons for a US nuclear weapons base.

In the world as it could be, nuclear weapons states would not be allowed to oppose the international laws which have made these antihuman weapons illegal.



In the world as is, every war is a war against children. Children are often the main victims of war, They have a right to be alive, a right to a future. Here we see children among the protesters at Greenham Commons.

In the world as it could be, we would express love for our children by eliminating the institution of war. At present, war threatens the future of all our children.



In the world as is, the women of Greenham Common were ultimately successful in having the nuclear weapons base removed.

In the world as it could be, we would remember their dedicated and ultimately successful effort, and we would be inspired by it.



In the world as is, soldiers are trained to kill, so we should not be surprised when their killing exceeds “proper bounds”. Here we see victims of the Mai Lai Massacre, which occurred during the Vietnam War. A US patrol massacred an entire civilian village, including women, children and even babies.

In the world as it could be, murder in war would be seen as no different from other forms of murder. The institution of war would be abolished. Soldiers should not be trained to kill. No one should be trained to kill.



In the world as is, every war is a war against children. Besides the millions of children who have been killed in wars, there are others who have been seriously injured and who suffer terrible pain. Here we see Napalm burn victims during the war being treated at the 67th Combat Support Hospital. 1967-1968 Innocent children become burn victims in the Vietnam War.

In the world as it could be, the suffering of the world's children would move us to antiwar action.



In the world as is, the effects of war on children are illustrated by this famous photograph showing frightened children fleeing from an air attack in Vietnam.

In the world as it could be, the institution of war would be recognized as causing immeasurable damage to children, not only directly, but also indirectly by taking away money that could be used for food, education and welfare for children.



In the world as is, massive amounts of the highly toxic defoliant Agent Orange were released over Vietnam's forests by US forces. The ecological effects were terrible, and the human effects even worse. Today, many decades later, thousands of children are still being born with congenital birth defects caused by Agent Orange. Here we see Nguyen Xuan Minh, who lies in a crib at the Tu Du Hospital May 2, 2005 in Ho Chi Minh City, Vietnam, a victim of Agent Orange.

In the world as it could be, chemical warfare would be ended in practice as well as in principle. The United States would pay reparations to Vietnam for its use of Agent Orange.



In the world as is, victims of Agent Orange are so malformed that they are forced to beg for a living, like this terribly deformed man who begs on the streets of Saigon.

In the world as it could be, reparations for the use of Agent Orange would be used to aid its victims.



In the world as is, Nixon was elected because he promised to end the Vietnam War, but instead he ordered massive bombing of Vietnam. Cambodia and Laos. More bombs were dropped on these three countries than were dropped on all countries during World War II.

In the world as it could be, politicians would be punished for their large-scale war crimes. Nixon was threatened with impeachment because of dirty tricks at home, but this pales to insignificance compared with his war crimes abroad.

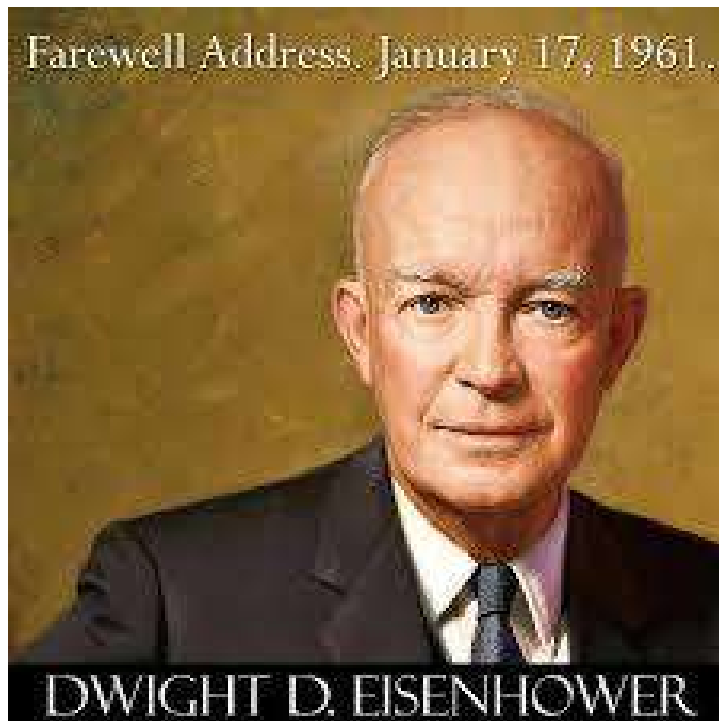


What is Air War?

From a handbook published under the name of Project Air War and the Indochina Resources Center in 1972: "Air war, by its very nature, means destroying everything below: homes, schools, gardens, pagodas, rice fields forests, animal life, and of course, any people caught in the open."

In the world as is, the destructive effects of the massive bombing of Vietnam, Cambodia and Laos were known to those who ordered the bombings and carried them out.

In the world as it could be, the bombing of civilian populations would be seen as a war crime. But war itself is a crime!



In the world as is, President Dwight D. Eisenhower's Farewell Address warned against the dangers of the military-industrial complex with the words: "In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist"

In the world as it could be, Eisenhower's wise words would be remembered. In fact it is the vast river of money involved in the the military-industrial complexes of the world that drives and perpetuates the institution of war.



In the world as is, one speaks of the “US Empire”, meaning United States hegemony through military force.

In the world as it could be, the idea of empire through the use of military force would be recognized as criminal.



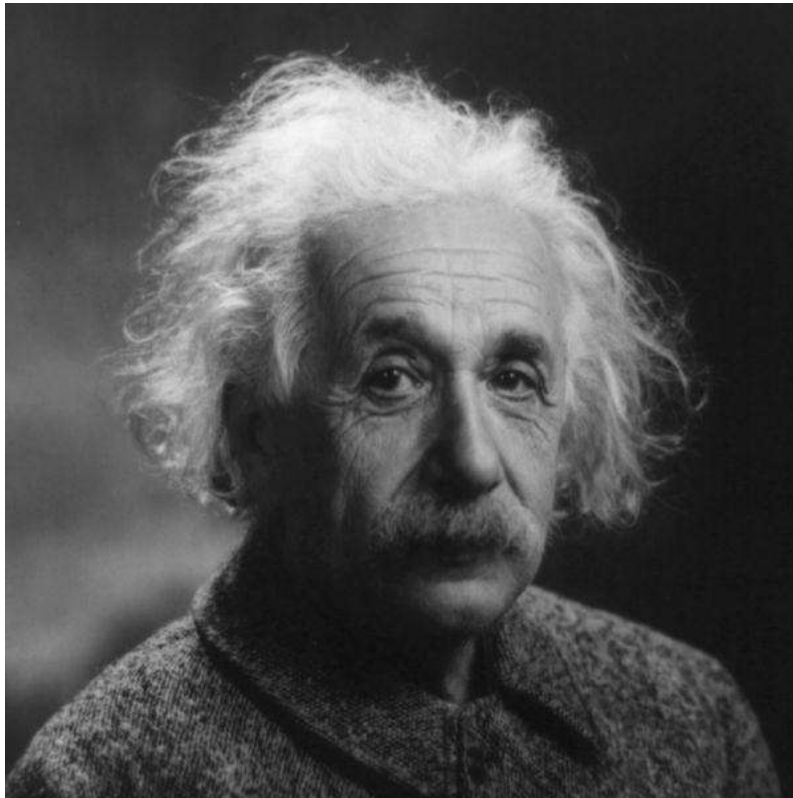
In the world as is, the United States exploded a hydrogen bomb near the island of Enewetak in the South Pacific in 1952. The explosive force of the bomb was 500 times greater than the bombs that destroyed Hiroshima and Nagasaki. The Soviet Union tested its first hydrogen bomb in 1953. In March, 1954, the US tested another hydrogen bomb at the Bikini Atoll in the Pacific Ocean. It was 1000 times more powerful than the Hiroshima bomb. The Japanese fishing boat, Lucky Dragon, was 130 kilometers from the Bikini explosion, but radioactive fallout from the test killed one crew member and made all the others seriously ill.

In the world as it could be, the qualitative difference between hydrogen bombs and ordinary Hiroshima-type bombs would be recognized as a serious threat to human civilization.



In the world as is, after discussing the Bikini test and its radioactive fallout with Joseph Rotblat, Lord Russell became concerned for the future of the human gene pool if large numbers of such bombs should ever be used in a war. To warn humanity of the danger, he wrote what came to be known as the Russell-Einstein Manifesto. Lord Russell devoted much of the remainder of his life to working for the abolition of nuclear weapons. Here he is seen in 1962 in Trafalgar Square, London, addressing a meeting of the Campaign for Nuclear Disarmament.

In the world as it could be, we would follow Bertrand Russell's wise example. We would work with dedication for the complete abolition of nuclear weapons.



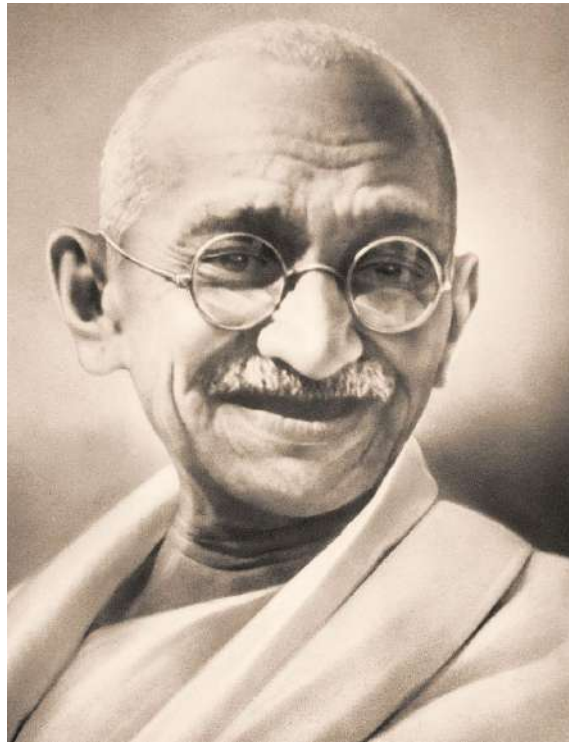
In the world as is, Albert Einstein wrote: “The unleashed power of the atom has changed everything save our modes of thinking, and we thus drift toward unparalleled catastrophes.” He also said, “I don’t know what will be used in the next world war, but the 4th will be fought with stones.”

In the world as it could be, Einstein’s genius, integrity and wisdom would be respected and his warning against the great dangers of nuclear weapons would be heeded. The concept of nuclear deterrence is fatally flawed. An all-destroying nuclear war could occur through accident, miscalculation or through a technical or human failure.



In the world as is, Sir Joseph Rotblat was the only scientist who withdrew from the Manhattan Project when it became apparent that Germany would not acquire nuclear weapons. He devoted the remainder of his life to working for peace and for the abolition of nuclear weapons. Joseph Rotblat became the president and guiding spirit of the Pugwash Conferences on Science and World Affairs, an organization of scientists and other scholars devoted to these goals.

In the world as it could be, scientists and engineers would follow their consciences and deny their services to the institution of war. Modern war could not function without them.



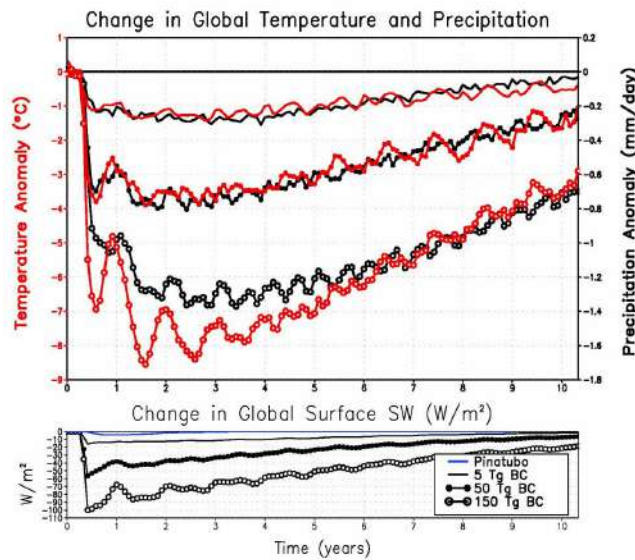
In the world as is, Gandhi said, “Means and end are convertible terms in my philosophy of life.” In other words, if evil means are used, the end achieved will be contaminated by the means used to achieve it. Gandhi’s insight can be applied to the argument that the nuclear bombings that destroyed Hiroshima and Nagasaki helped to end World War II and were therefore justified. In fact, these terrible events lead to a nuclear arms race that still casts an extremely dark shadow over the future of human civilization.

In the world as it could be, it would be universally recognized that ends do not justify means. Nuclear weapons are clearly genocidal, and no argument can justify their existence.



In the world as is, babies with severe birth defects are still being born on the Marshall Islands, 60 years after the Bikini test. The Marshall Islands have sued the nuclear nations for this damage and for failing to comply with Article VI of the Nuclear Nonproliferation Treaty.

In the world as it could be, the nuclear weapons states would not be allowed to evade their responsibilities under the NPT and the Treaty on the Prohibition of Nuclear Weapons (TPNW).



In the world as is, recent studies by atmospheric scientists have shown that the smoke from burning cities produced by even a limited nuclear war would have a devastating effect on global agriculture. The studies show that the smoke would rise to the stratosphere, where it would spread globally and remain for a decade, blocking sunlight and destroying the ozone layer. Because of the devastating effect on global agriculture, darkness from even a small nuclear war (e.g. between India and Pakistan) would result in an estimated billion deaths from famine.

In the world as it could be, scientific data on the nuclear winter effect would be seen as a warning that a nuclear war would be a catastrophe, both for belligerent nations and for neutral ones.



In the world as is, the world came extremely near to a large-scale nuclear war during the Cuban Missile Crisis. Here we see women on strike for peace during the crisis. In fact the Cuban Missile crisis is not the only occasion on which the world came very close to an all-destroying nuclear war. We cannot continue to be lucky forever.

In the world as it could be, the continued existence of nuclear weapons would be seen as a threat to civilization.



In the world as is, fission-fusion-fission bombs of almost unlimited power can be constructed by adding a layer of inexpensive ordinary uranium outside a core containing a fission-fusion bomb. Such a bomb would completely destroy a city even if it missed the target by 50 kilometers. Here we see the fireball of the Tsar Bomba (RDS-220), the largest weapon ever detonated (1961).

In the world as it could be, it would be recognized that there can be no possible defense against nuclear weapons, since arbitrarily large fission-fusion-fission bombs can be constructed by adding a layer of ordinary unenriched uranium to a hydrogen bomb.



In the world as is, nearly 70,000 persons packed in Trafalgar Square, London on April 18, 1960, in demonstration that climaxed four-day “Ban the Bomb” march from Aldermaston to the British capital.

In the world as it could be, governments would listen to the voices of their peoples. Ordinary people detest war and they long to be free from the curse of nuclear weapons.



In the world as is, one million people gathered in New York City's Central Park in support of the nuclear freeze movement. It was the largest anti-war demonstration in history.

In the world as it could be, the million voices of concerned citizens would be heard. Governments have no right to gamble with the lives of their citizens.



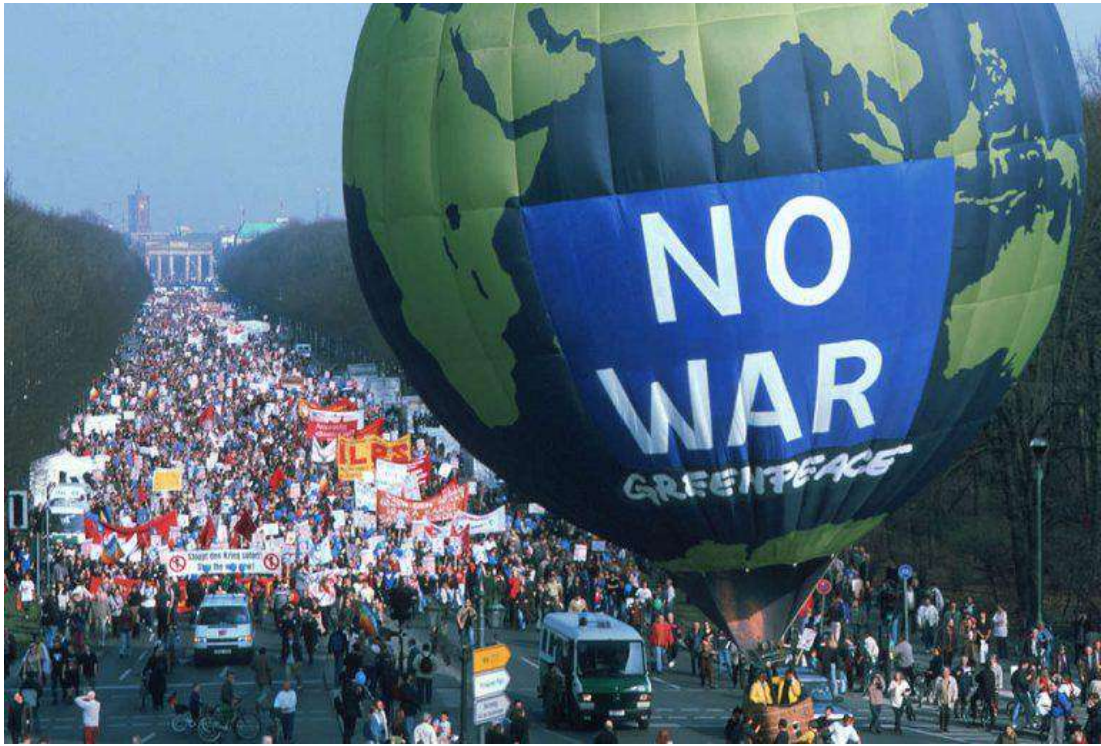
In the world as is, Picasso's famous painting, "Guernica", was a protest against the fascist bombing of civilians during the Spanish Civil War. During World War II, both sides mounted enormous bombing campaigns against civilians.

In the world as it could be, the bombing of civilians, an act of state terrorism, would be recognized as a crime. War itself is a crime.



In the world as is, military-industrial complexes want war. Ordinary people do not want it. According to the Stockholm International Peace Research Institute, global military expenses in 2018 amounted to 1.8 trillion dollars. This almost unimaginable river of money is the basic reason why the terrible suffering and waste of war is inflicted on the worlds people.

In the world as it could be, the peoples of the world would not allow their governments to gamble with their lives and those of their children. The flow of money from the armament industries to politicians, who then vote for obscenely bloated “defense” budgets would be recognized and stopped.



In the world as is, the peoples of the world must revolt against the endless wars of their governments. All-destroying modern weapons have made the institution of war prohibitively dangerous.

In the world as it could be, we must learn to think in a new way. In our small but beautiful world, made small by technology, made beautiful by nature, there is room for one group only - the family of humankind.

RACISM

Racism, colonialism and exceptionalism

It seems to be possible for nations, and the majority of their citizens, to commit the worst imaginable atrocities, including torture, murder and genocide, while feeling that what they are doing is both noble and good. Some understanding of how this is possible can be gained by watching the 3-part BBC documentary, “The History of Racism”.¹

The series was broadcast by BBC Four in March 2007, and videos of the broadcasts are available on the Internet. Watching this eye-opening documentary can give us much insight into the link between racism and colonialism. We can also begin to see how both racism and colonialism are linked to US exceptionalism and neocolonialism.

Leopold II and Atrocities in Belgian Congo

Looking at the BBC documentary we can see how often in human history economic greed and colonial exploitation have been justified by racist theories. The documentary describes almost unbelievable cruelties committed against the peoples of the Americas and Africa by Europeans. For example, in the Congo, a vast region which King Leopold II of Belgium claimed as his private property, the women of villages were held as hostages while the men were forced to gather rubber in the forests. Since neither the men nor the women could produce food under these circumstances, starvation was the result.

Leopold’s private army of 90,000 men were issued ammunition, and to make sure that they used it in the proper way, the army was ordered to cut off the hands of their victims and send them back as proof that the bullets had not been wasted. Human hands became a kind of currency, and hands were cut off from men, women and children when rubber quotas were not fulfilled. Sometimes more than a thousand human hands were gathered in a single day. During the rule of Leopold, roughly 10,000,000 Congolese were killed, which was approximately half the population of the region.

¹<https://www.youtube.com/watch?v=efI6T8lovqY>
<https://www.youtube.com/watch?v=IdBDRbjx9jo>
<https://www.youtube.com/watch?v=oCJHJWaNL-g>

According to the racist theories that supported these atrocities, it was the duty of philanthropic Europeans like Leopold to bring civilization and the Christian religion to Africa. Similar theories were used to justify the genocides committed by Europeans against the native inhabitants of the Americas.

Racist theories were also used to justify enormous cruelties committed by the British colonial government in India. For example, during the great famine of 1876-1878, in which ten million people died, the Viceroy, Lord Lytton, oversaw the export to England of a record 6.4 million hundredweight of wheat.

Meanwhile, in Europe, almost everyone was proud of the role which they were playing in the world. All that they read in newspapers and in books or heard from the pulpits of their churches supported the idea that they were serving the non-Europeans by bringing them the benefits of civilization and Christianity. On the whole, the mood of Europe during this orgy of external cruelty and exploitation, was self-congratulatory.

Can we not see a parallel with the self-congratulatory mood of the American people and their allies, who export violence, murder, torture and neo-colonialism to the whole world, and who justify it by thinking of themselves as “exceptional”?



In the world as is, Nazi genocides during World War II killed more than six million innocent Jewish men, women and children. Innumerable innocent people in Poland and the Soviet Union were also killed. The photo shows a pile of corpses in the Buchenwald extermination camp.

In the world as it could be, all racism today would be condemned, just as we condemn the Nazi atrocities, committed in the belief that one race is superior to others.

Nazi Ideology #1:

**Survival depends
on racial purity.**



“Anti-Semitism is the same as de-lousing: getting rid of lice is not a question of ideology, it is a matter of cleanliness.” —Heinrich Himmler

In the world as is, the idea of the superiority of one race over another was at the root of Nazi atrocities. But who is to decide? Will not each ethnic group think itself to be superior to all others?

In the world as it could be, it would be recognized that individual abilities far outweigh any differences that might be found between races as a whole. It would also be recognized that widespread intermarriage has made the concept of race obsolete, if it ever had a meaning.



In the world as is, Nazi racism was built on the idea that Aryans are superior to all other races. But who is to decide? Will not each ethnic group or nation always decide that they themselves are the “chosen people”, loved by God and superior to all others?

In the world as it could be, neither Aryans nor Jews would claim to be superior or the “chosen people”, especially loved by God. White supremacists in the United States would be seen as the modern version of Nazi racists. The rights of Palestinians would be respected by the government of Israel.



In the world as is, vast numbers of innocent Soviet citizens were slaughtered by the Nazis during World War II. The photo shows a pile of bodies after the massacre at Baba Yar.

In the world as it could be, we would remember the atrocities committed by the Nazi's in the Soviet Union during World War II. The Soviet Union suffered 20 million deaths during the war, more than any other country.



In the world as is, Poland was also the scene of Nazi racist atrocities. The photo shows Polish farmers killed by German forces, German-occupied Poland, 1943. Historically, Poland has suffered greatly because of its geographical position between Germany and Russia.

In the world as it could be, the suffering and bravery of the Polish people would be remembered.



In the world as is, women and children were not spared by Nazi mass murders. The photo shows German police shooting women and children from the Mizocz Ghetto, 14 October 1942.

In the world as it could be, women, and especially children, would be protected.



In the world as is, racism is popular. Here we see crowds of Germans applauding Adolf Hitler at a rally in Nuremberg.

In the world as it could be, we would realize that human nature contains an element of tribalism to which unscrupulous politicians often appeal. This tribal element in human nature is one reason why both racism and war continue.



In the world as is, another photo from Nuremberg demonstrates the popularity of racism. The American poet, Edna St. Vincent Millay, wrote, "Alas for man. so stealthily betrayed, bearing the bad cell in him from the start, pumping and feeding on a healthy heart, that wild disorder never to be stayed, when once established, destined to invade, with angry horde the true and proper part, 'til reason joggles in the headsmen's cart, and mania spits from every balustrade."

In the world as it could be, racism would be recognized as a cancer of the human soul.



In the world as is, racism was a central issue in the apartheid system of South Africa. The illustration shows a South African sign designating a public space as “for use by white persons”. The international community reacted by boycotting South Africa.

In the world as it could be, racism and apartheid would be universally condemned today, wherever they are found, also in Israel.



In the world as is, the Sharpsville Massacre occurred in Transvaal in 1960, when a group of 7,000 people came to a police station to protest against pass laws. Policemen fired into the crowd, killing 69 people. There were 249 casualties in total, including 29 children. Many were shot in the back as they fled. The painting in the illustration commemorates the massacre.

In the world as it could be, the many atrocities committed under South Africa's apartheid system would be remembered as warnings against racism.



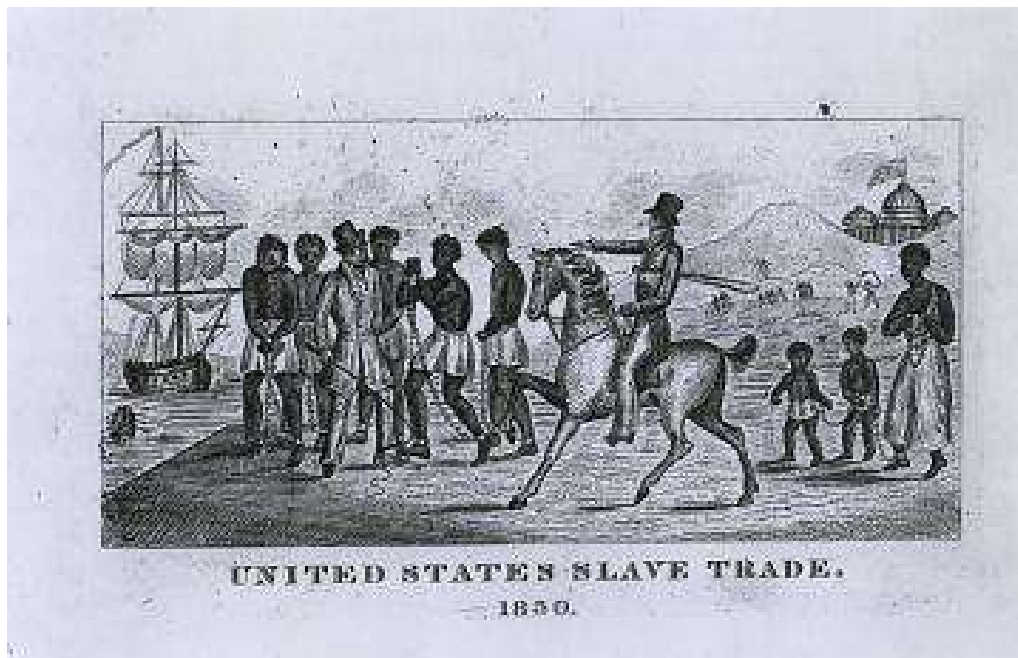
In the world as is, Nelson Mandela was finally released by De Klerk's government after being imprisoned for 27 years on Robins Island. Mandela became the president of a post-apartheid South Africa. Remembering Gandhi's principles of non-violence, Mandela worked for reconciliation between the black and white communities. The photograph shows De Klerk and Mandela in Davos, 1992.

In the world as it could be, the tradition of non-violent resistance to tyranny, initiated by Tolstoy, Gandhi, Mandela, and Martin Luther King Jr., would help us to overcome racism.



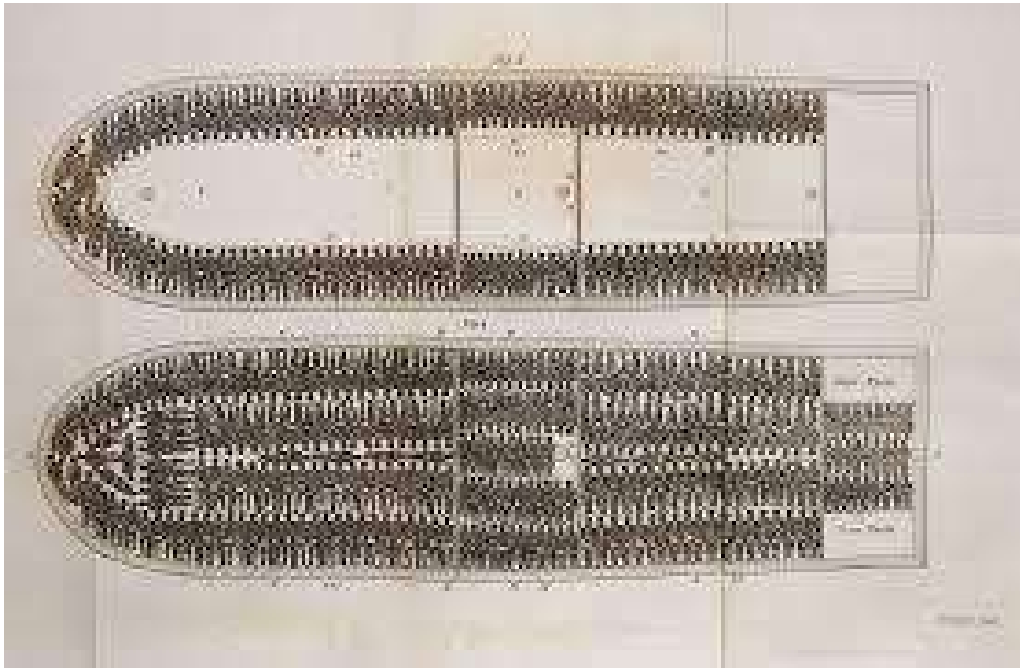
In the world as is, a new multicolored flag of South Africa adopted in 1994 to mark the end of apartheid.

In the world as it could be, the beautiful new South African flag would make us realize that diversity enriches a society.



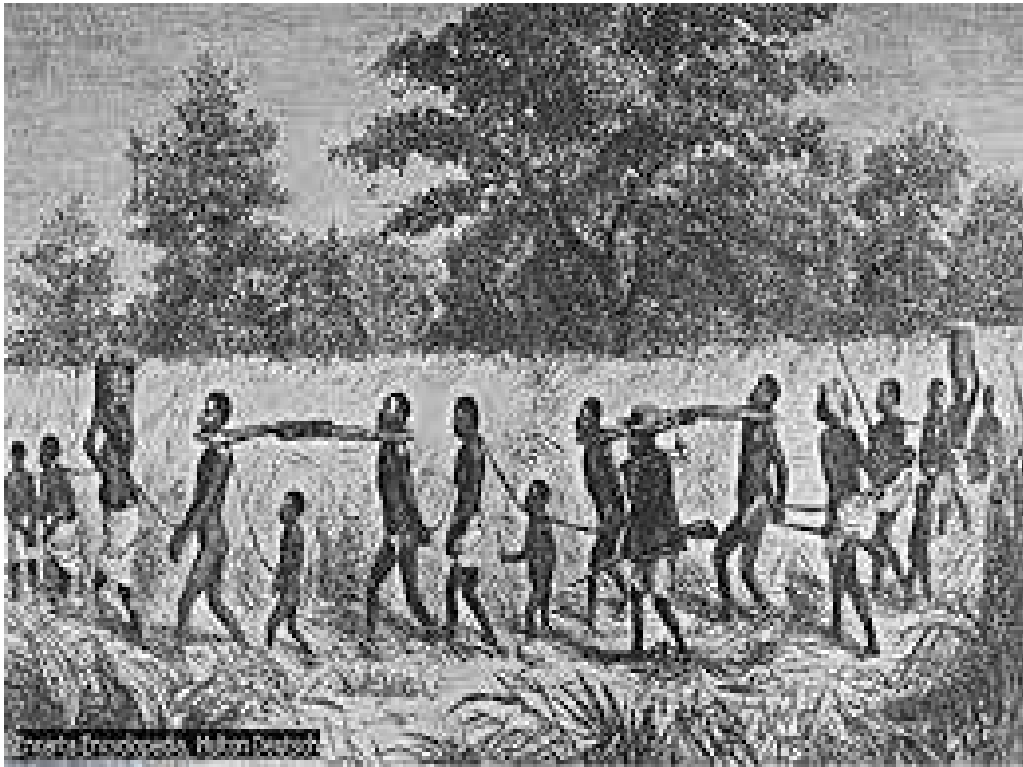
In the world as is, an estimated 600,000 enslaved African Americans were bought and sold in the United States in the decades before the Civil War. More than half of those sales separated parents and children.

In the world as it could be, the almost unimaginable cruelties of the slave trade would be remembered as a warning against racism today.



In the world as is, slaves were transported from Africa to America, packed together like cordwood in ships like the one shown in this diagram. A considerable proportion of the slaves being transported in this way, died during the voyage, and their bodies were thrown overboard.

In the world as it could be, the suffering of slaves would be remembered and, as a belated apology, consideration would be shown to their descendants.



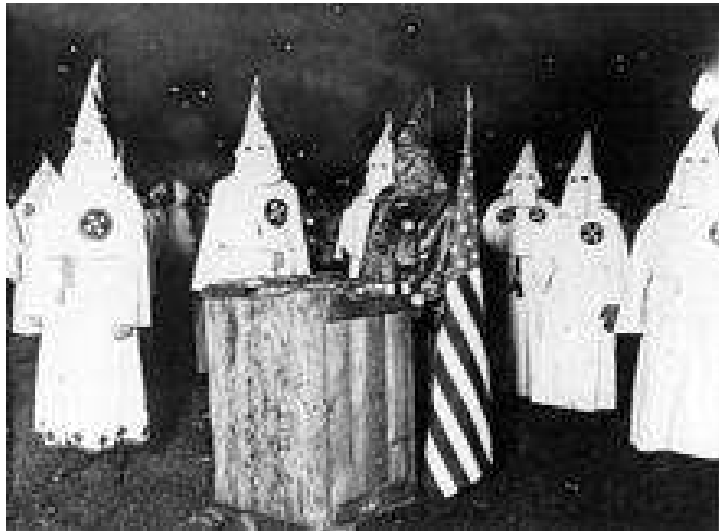
In the world as is, innocent people were captured in Africa, and sold to slavers, The illustration shows captured Africans being marched towards slave ships. Slavery still exists today in many countries. Estimates of the number of slaves today range between 38 million and 46 million.

In the world as it could be, strong measures would be taken by the international community to eliminate present-day slavery in all its forms.



In the world as is, slaves were sold at auctions, a practice that often separated children from their parents.

In the world as it could be, human rights would be respected, particularly those of children.



In the world as is, Wikipedia states that the Ku Klux Klan “is an American white supremacist terrorist hate group whose primary targets are African Americans as well as Jews, immigrants, leftists, homosexuals, Catholics, and Muslims.” The illustration shows a KKK rally in Chicago, c. 1920.

In the world as it could be, love, tolerance and inclusiveness would take the place of hate. We would learn to value the richness and diversity of our present-day multiethnic societies.



In the world as is, the Klan has existed in three distinct eras at different points in time during the history of the United States. Each has advocated extremist reactionary positions such as white nationalism, anti-immigration and - especially in later iterations - Nordicism, antisemitism, anti-Catholicism, prohibition, right-wing populism, anti-communism, homophobia, Islamophobia, and anti-atheism.

In the world as it could be, all right-wing extremism would be rejected and replaced by tolerance and exclusiveness.



In the world as is, cross burning was introduced by William J. Simmons, the founder of the second Klan in 1915.

In the world as it could be, Christians would remember the Parable of the Good Samaritan, in which Jesus answered the question, "Who is my neighbor?" by saying that our neighbor may belong to an entirely different ethnic group, He or she still deserves our love and protection.



In the world as is, the Ku Klux Klan has historically been responsible for innumerable lynchings.

In the world as it could be, the murders committed by the Klan would be enough to make it illegal and to repel any prospective members.



In the world as is, Rosa Parks initiated the Civil Rights Movement of the 1960's by refusing to give up her seat on a bus to a white man. We see her here with 26-year-old Dr. Martin Luther King Jr. in the background.

In the world as it could be, the Civil Rights Movement of the 1960's would be remembered for the heroism and non-violence of the protesters and the great victories that they won despite the violence with which they were opposed.



In the world as is, Rev. Martin Luther King Jr. made history during the March on Washington, where he delivered his famous “I have a dream” speech, August 28, 1963.

In the world as it could be, all of Dr- King’s speeches would be read and re-read. We would remember and respect his great humanity and wisdom. particularly his opposition to the Vietnam War and all other wars.



In the world as is, Donald Trump was elected on a platform of racism. He has not yet disappeared from the American political scene, where racism is as popular as it was in Nazi Germany.

In the world as it could be, the close analogy between Nazi racism and the white supremacist movement in the United States would warn people against the continued influence of Donald Trump. He would be prosecuted for his many crimes, and prohibited from running for public office.



In the world as is, Heather Heyer was murdered in 2017 by a white nationalist rally participant in Charlottesville. Since then, mass shootings in Poway, Gilroy, and El Paso and elsewhere have been each linked to white nationalist beliefs.

In the world as it could be, white nationalism would be universally condemned.



In the world as is, George Floyd was murdered by a policeman whose knee on his neck prevented him from breathing for nine minutes. This was only one in a series of many murders of black citizens by policemen, but it provoked a worldwide uprising against racism, of which the Black Lives Matter movement was a part.

In the world as it could be, black lives would really matter. It would also matter that poverty is also linked to racial discrimination. Gender equality would also matter.



In the world as is, Black Lives Matter protested on September 20, 2015, against police brutality in St. Paul, Minnesota.

In the world as it could be, white people would join in protests against racism, as hundreds of thousands have already done. Black lives should matter to everyone.



In the world as is, protesters made a makeshift memorial outside the store where Floyd was killed. In fact, his place in history is secure. It will be a very long time before his name is forgotten.

In the world as it could be, the murder of George Floyd would continue to remind us of the evils of racism.



In the world as is, protesters in Portland, Oregon created the George Floyd mural shown here.

In the world as it could be, the murder of George Floyd would stand for the much larger issue of racism in general. We would work together to achieve societies with equal rights for all, in every country of the world. In the United States, people would remember the words of the Declaration of Independence: “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain inalienable rights, and that among these are life, liberty and the pursuit of happiness...”



In the world as is, a video was taken by an onlooker with a mobile phone. It showed police officer Derek Chauvin staring into the camera as he kneeled on the neck of George Floyd, who was lying on his stomach on the street. Floyd's strangled voice pleaded, "I can't breath".

In the world as it could be, Chauven's aparent enjoyment of cruelty and Floyd's words, "I can't breath", would symbolize racist societies, where none of us can breath.



In the world as is, the murder of George Floyd aroused world-wide protests. Donald Trump was correctly associated with racism in the United States, as is shown in this cartoon.

In the world as it could be, the Statue of Liberty, which welcomed ethnically diverse immigrants to the United States, would symbolize the harmonious multiethnic society that we wish to achieve.

COLONIALISM

The Devil's Dynamo

A military-industrial complex involves a circular flow of money. The money flows like the electrical current in a dynamo, driving a diabolical machine. Money from immensely rich corporate oligarchs buys the votes of politicians and the propaganda of the mainstream media. Numbed by the propaganda, citizens allow the politicians to vote for obscenely bloated military budgets, which further enrich the corporate oligarchs, and the circular flow continues.

The Industrial Revolution and Colonialism

The Devil's Dynamo of today has led to a modern version of colonialism and empire. It is therefore interesting to look at the first global era of colonialism: In the 18th and 19th centuries, the continually accelerating development of science and science-based industry began to affect the whole world. As the factories of Europe poured out cheap manufactured goods, a change took place in the patterns of world trade: Before the Industrial Revolution, trade routes to Asia had brought Asian spices, textiles and luxury goods to Europe. For example, cotton cloth and fine textiles, woven in India, were imported to England. With the invention of spinning and weaving machines, the trade was reversed. Cheap cotton cloth, manufactured in England, began to be sold in India, and the Indian textile industry withered, just as the hand-loom industry in England itself had done a century before.

As Europe became industrialized, European armaments allowed colonial expansion, until ultimately as much as 85% of the world's land surface fell under the colonial domination of the industrialized nations. Colonialism can be thought of as an early example military-industrial complexes. At this early stage of industrialism, we can already see wars conducted for the sake of resources. We can already see a circular flow of money from the profits of arms manufacturers to politicians and their newspaper supporters, and back to the arms manufacturers. We can already see the Devil's Dynamo at work.

Chapter 2 reviews the history of these events.

Outlawing war

Industrial and colonial rivalry contributed to the outbreak of the First World War, to which the Second World War can be seen as a sequel. The Second World War was terrible enough to make world leaders resolve to end the institution of war once and for all, and the United Nations was set up for this purpose. Article 2 of the UN Charter requires that “All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state.”

The Nuremberg principles, which were used in the trial of Nazi leaders after World War II, explicitly outlawed “Crimes against peace: (i) Planning, preparation, initiation or waging of war of aggression or a war in violation of international treaties, agreements or assurances; (ii) Participation in a common plan or conspiracy for the accomplishment of any of the acts mentioned under (i).”

With the founding of the United Nations at the end of the Second World War, a system of international law was set up to replace the rule of military force. Law is a mechanism for equality. Under law, the weak and the powerful are in principle equal. The basic purpose of the United Nations is to make war illegal, and if war is illegal, the powerful and weak are on equal footing, much to the chagrin of the powerful. How can one can one construct or maintain an empire if war is not allowed? It is only natural that powerful nations should be opposed to international law, since it is a curb on their power. However, despite opposition, the United Nations was quite successful in ending the original era of colonialism, perhaps because of the balance of power between East and West during the Cold War. One by one, former colonies regained their independence. But it was not to last. The original era of colonialism was soon replaced by neocolonialism and by “The American Empire”.

The military-industrial complex

The two world wars of the 20th Century involved a complete reordering of the economies of the belligerent countries, and a dangerous modern phenomenon was created - the military-industrial complex.

In his farewell address (January 17, 1961) US President Dwight David Eisenhower warned of the dangers of the war-based economy that World War II had forced his nation to build: “...We have been compelled to create

an armaments industry of vast proportions”, Eisenhower said, “...Now this conjunction of an immense military establishment and a large arms industry is new in American experience. The total influence - economic, political, even spiritual - is felt in every city, every state house, every office in the federal government. ...We must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society. ... We must stand guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist. We must never let the weight of this combination endanger our democratic processes. We should take nothing for granted.”

This farsighted speech by Eisenhower deserves to be studied by everyone who is concerned about the future of human civilization and the biosphere. As the retiring president pointed out, the military-industrial complex is a threat both to peace and to democracy. It is not unique to the United States but exists in many countries. The world today spends roughly 1.7 trillion (i.e. 1.7 million million) US dollars each year on armaments. It is obvious that very many people make their living from war, and therefore it is correct to speak of war as a social, political and economic institution. The military-industrial complex is one of the main reasons why war persists, although everyone realizes that war is the cause of much of the suffering of humanity.

The “New American Century”

The military-industrial complex needs enemies. Without them it would wither. Thus at the end of the Second World War, this vast power complex was faced with a crisis, but it was saved by the discovery of a new enemy: communism. The United States emerged from the two global wars as the world’s dominant industrial power, taking over the position that Britain had held during the 19th century. The economies of its rivals had been destroyed by the two wars, but no fighting had taken place on American soil. Because of its unique position as the only large country whose economy was completely intact in 1945, the United States found itself suddenly thrust, almost unwillingly, into the center of the world’s political stage.

The new role as “leader of the free world” was accepted by the United States with a certain amount of nervousness. America’s previous attitude had been isolationism, a wish to be “free from the wars and quarrels of Europe”. After the Second World War, however, this was replaced by a much more

active international role. Perhaps the new US interest in the rest of the world reflected the country's powerful and rapidly growing industrial economy and its need for raw materials and markets (the classical motive for empires). Publicly, however, it was the threat of Communism that was presented to American voters as the justification for interference in the internal affairs of other countries. (Today, after the end of the Cold War, it has become necessary to find another respectable motivation that can be used to justify foreign intervention, and the "Crusade Against Communism" has now been replaced by the "War on Terror".)

Despite the fact that initiating a war is a violation of the United Nations Charter and the Nuremberg Principles, the United States now maintains roughly 1000 military bases in 150 countries, According to Iraklis Tsavdaridis, Secretary of the World Peace Council, "The establishment of US bases should not of course be seen simply in terms of direct military ends. They are always used to promote the economic and political goals of US capitalism. For example, US corporations and the US government have been eager for some time to build a secure corridor for US controlled oil and natural gas pipelines from the Caspian Sea in Central Asia through Afghanistan and Pakistan to the Arabian Sea. This region has more than 6 percent of the world's proven oil reserves, and almost 40 percent of its gas reserves. The war in Afghanistan and the creation of US military bases in Central Asia are viewed as a key opportunity to make such pipelines a reality."

When the Cold War ended with the collapse of the Soviet Union, a Washington-based think tank called "Project for a New American Century" maintained that a strategic moment had arrived: The United States was now the sole superpower, and it ought to use military force to dominate and reshape the rest of the world. Many PNAC members occupied key positions in the administration of George W. Bush. These included Dick Cheney, I. Lewis Libby, Donald Rumsfeld, Paul Wulfowitz, Eliot Abrams, John Bolton and Richard Perle.

Today, the US government is taking actions that seem almost insane, risking a nuclear war with Russia and simultaneously alienating China. In the long run, such hubris cannot succeed. Overspending on war will lead to economic collapse.

Ironically the military sells itself as the protector of the security of the population, but it does no such thing. On the contrary, it threatens to kill hundreds of millions of ordinary people in a nuclear war.

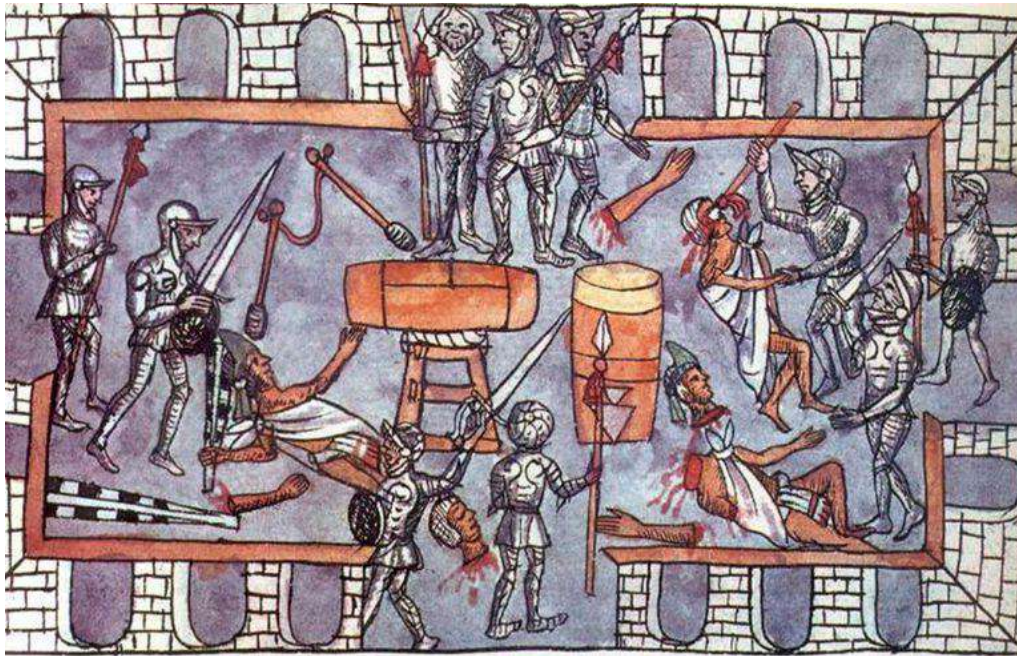
Against the institution of war

As we start the 21st century and the new millennium, our scientific and technological civilization seems to be entering a period of crisis. Today, for the first time in history, science has given to humans the possibility of a life of comfort, free from hunger and cold, and free from the constant threat of infectious disease. At the same time, science has given us the power to destroy civilization through thermonuclear war, as well as the power to make our planet uninhabitable through pollution and overpopulation. The question of which of these alternatives we choose is a matter of life or death to ourselves and our children.

Science and technology have shown themselves to be double-edged, capable of doing great good or of producing great harm, depending on the way in which we use the enormous power over nature, which science has given to us. For this reason, ethical thought is needed now more than ever before. The wisdom of the world's religions, the traditional wisdom of humankind, can help us as we try to insure that our overwhelming material progress will be beneficial rather than disastrous.

The crisis of civilization, which we face today, has been produced by the rapidity with which science and technology have developed. Our institutions and ideas adjust too slowly to the change. The great challenge which history has given to our generation is the task of building new international political structures, which will be in harmony with modern technology. At the same time, we must develop a new global ethic, which will replace our narrow loyalties by loyalty to humanity as a whole.

In the long run, because of the enormously destructive weapons, which have been produced through the misuse of science, the survival of civilization can only be insured if we are able to abolish the institution of war.



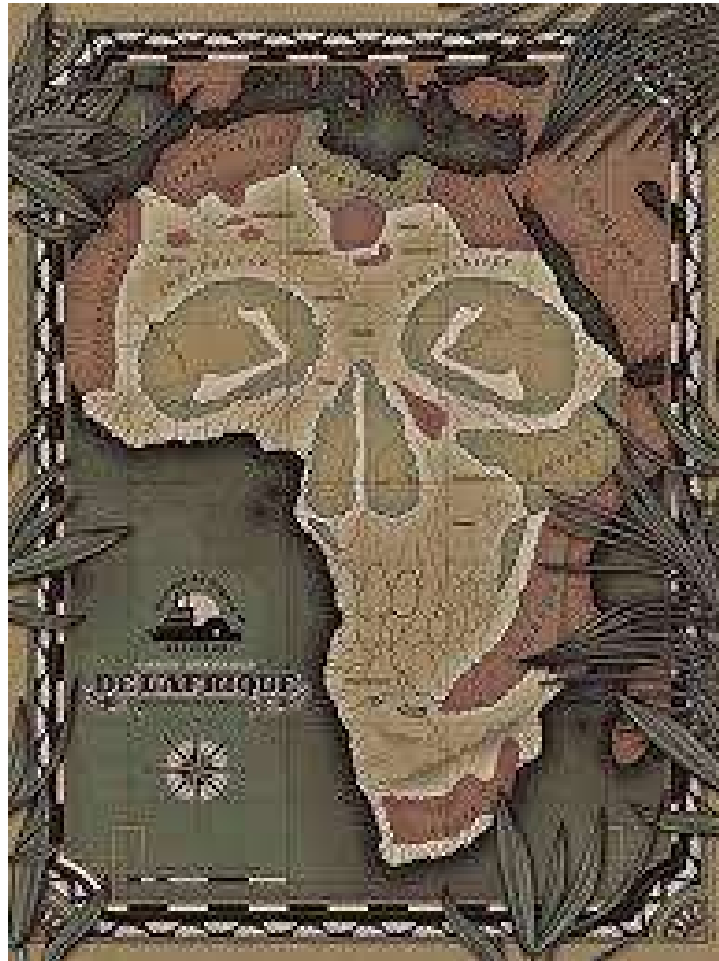
In the world as is, the atrocities they committed by the conquistadors over the course of three centuries were far too many to be listed here, but there are some that stand out. In the Caribbean, most of the native populations were completely wiped out due to Spanish rapine and diseases. Atrocities against indigenous populations in Latin America continue today.

In the world as it could be, the indigenous population of the Caribbean region and Latin America would be respected, and their right to their ancestral homelands guaranteed.



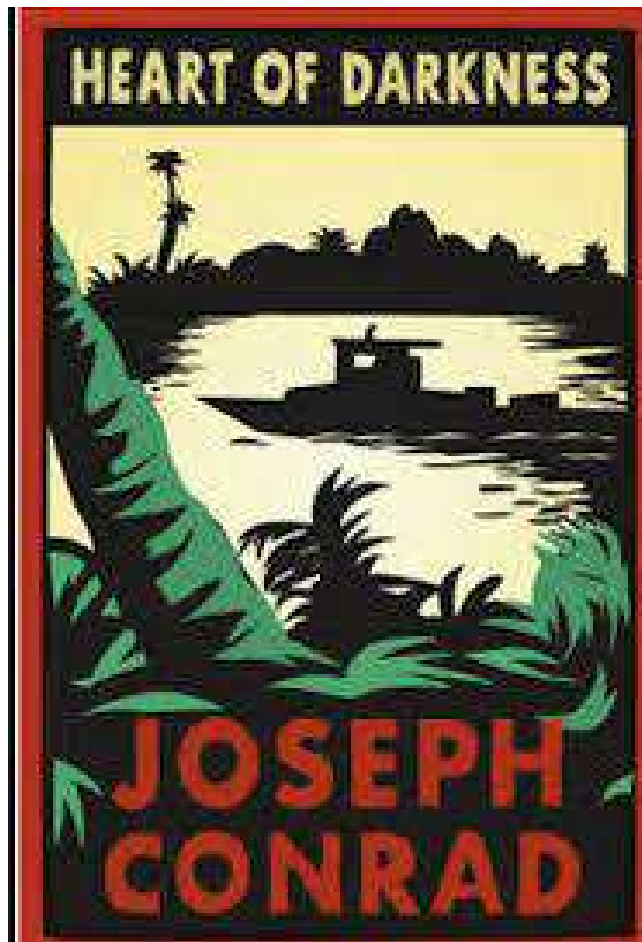
In the world as is, the industrialized countries of Europe used weapons like the Maxim gun to assert their military dominance over the remainder of the world, which they rapidly carved up into colonies. Hence Hillare Belloc's cynical couplet, "Whatever happens, we have got The Maxim gun, and they have not."

In the world as it could be, the complete independence of former colonies be guaranteed, and neo-colonialism in its forms would also be abolished.



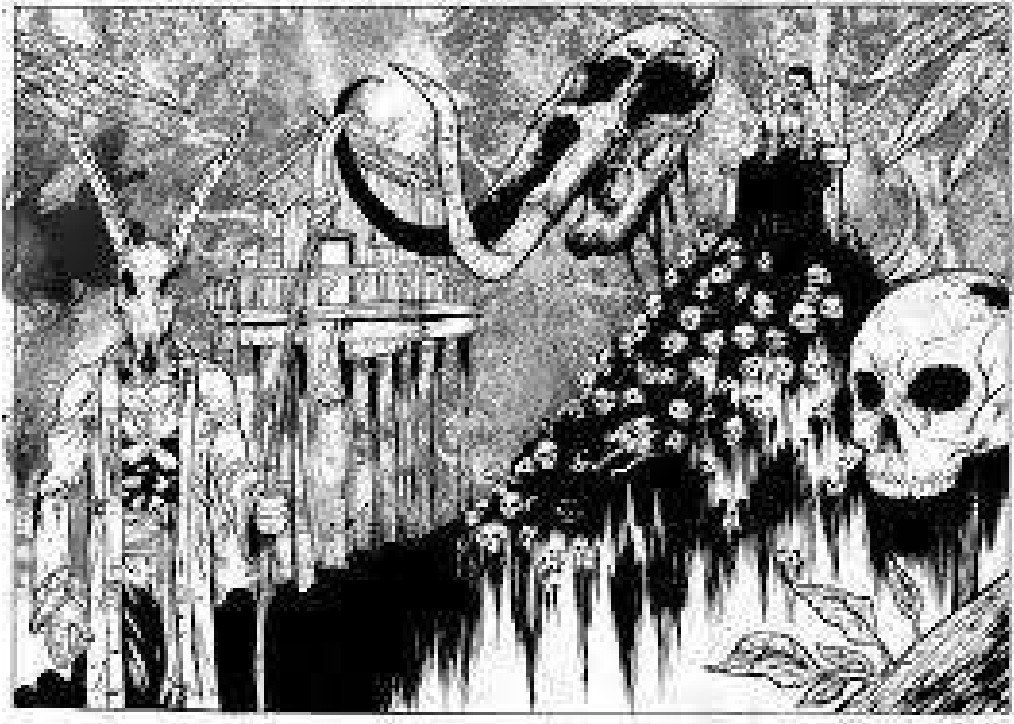
In the world as is, half of the population of Belgian Congo died during the genocidal rule of Leopold II (1825-1909), the king of Belgium who claimed the Congo as his personal property.

In the world as it could be, we would remember the genocidal atrocities committed by Leopold as examples of the horrors of racism, exceptionalism and colonialism.



In the world as is, Joseph Conrad's famous book, "Heart of Darkness", was written against the background of Leopold's atrocities.

In the world as it could be, the name, "Heart of Darkness", might be used to characterize all forms of colonialism.



In the world as is, we see here an illustration for Joseph Conrads book, "Heart of Darkness". The darkness is moral rather than physical.

In the world as it could be, the deep immorality of racism, colonialism and exceptionalism, in all their forms, would be recognized.



In the world as is, the soldiers in Leopold's private army were ordered to conserve ammunition. They were instructed to cut off their victim's hands, and to present them as evidence that they had used cartridges for killing people rather than for hunting. Human hands became a sort of currency in the Congo. The image shows Leopold and some of his victims.

In the world as it could be, the extreme moral darkness of Leopold's genocidal actions in the Congo would be remembered as a warning against neo-colonial attempts by militarily strong nations to 'bring democracy' to other countries. Leopold claimed that he was a great benefactor because he was bringing Christianity to darkest Africa.



In the world as is, we see here a drawing used in the campaign to end Leopold's personal ownership of the Congo.

In the world as it could be, this drawing might easily represent all forms of colonialism.



In the world as is, the image shows more of Leopold's victims. Large numbers of Congolese people also died of starvation because they were forced to work in rubber plantations instead of growing food.

In the world as it could be, attempts by developed countries to profit from the labor and natural resources of the less developed parts of the world would be recognized as atrocious.



In the world as is, Leopold II portrayed himself as a 'humanitarian'. The image shows Part of a palace that he built to glorify his "humanitarian" activities in the Congo.

In the world as it could be, we would see through the hypocrpy and lies of those who act for personal profit but claim that their motives are idealistic.



In the world as is, the competition for colonies between European powers was part of the reason for the outbreak of World War I. All the major European powers had colonies, including Germany. The image shows bones left by the German Kaiser's African genocide.

In the world as it could be, competition for colonies would be remembered as one of the causes of World War I, Europe's most tragic blunder.



In the world as is, almost the entire continent of Africa was carved up into colonies by European powers. The map shows European colonies in Africa in 1914, just before the First World War.

In the world as it could be, the exploitation of Africa, which continues today, would be ended.



In the world as is, competition for colonies contributed to the start of World War I. It was called “The War to End All Wars”. Today it seems more like The War that Began All Wars. World War II was essentially a continuation of World War I. The huge military-industrial complexes built up during World War II have been the driving force behind more recent wars. The threat of an all-destroying nuclear war originated in the development of nuclear weapons during World War II.

In the world as it could be, the connection between colonialism and war would be recognized. We would work with dedication to abolish the institution of war, since modern weapons have made war prohibitively dangerous.



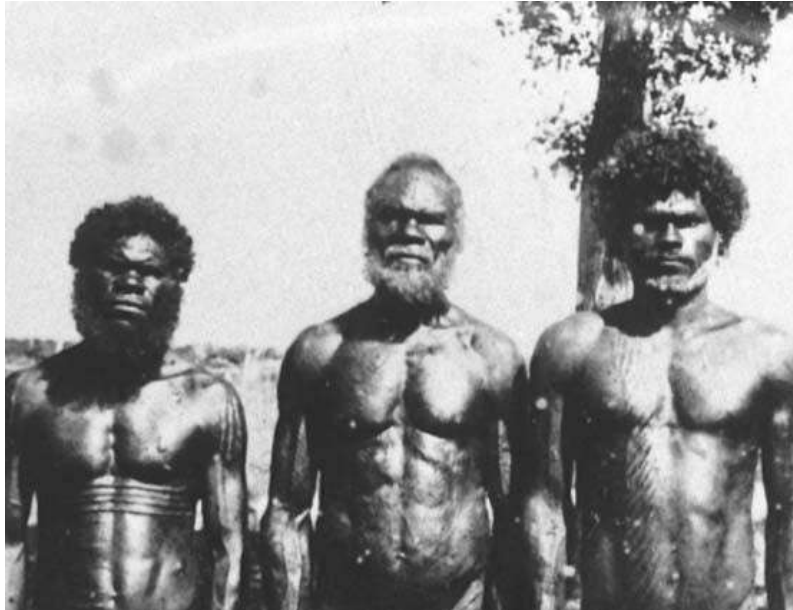
In the world as is, England, Germany, Russia, France and Japan all participated in slicing up the pie of China, as is shown in this late 19th century French cartoon. Imitating the colonialism of the European powers, Japan tried to establish its own colonial empire in Asia, leading to Japanese participation in World War II.

In the world as it could be, colonialism would be recognized as one of the greatest causes of war.



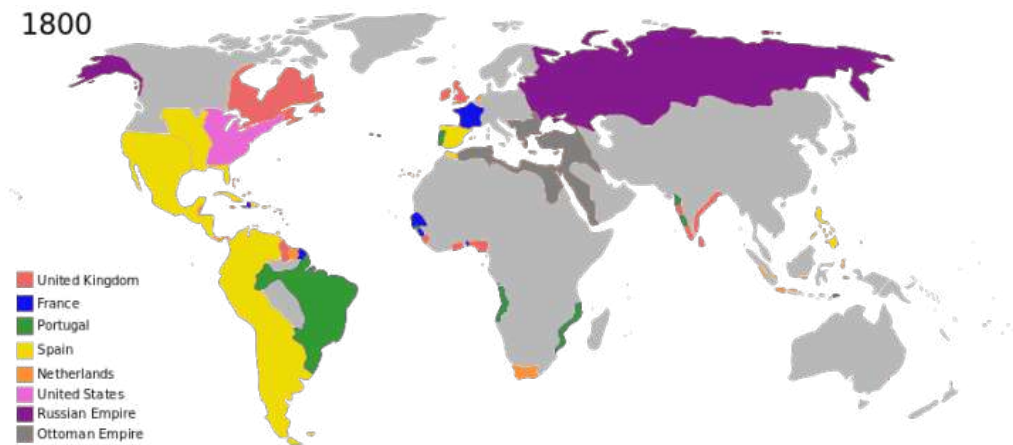
In the world as is, Cecil Rhodes had almost unlimited colonial ambitions for Africa, as is illustrated in this cartoon. The thread in his hands represents a proposed Cape-Town-to-Cairo telegraph line. He wanted to “paint the map British red”, and declared, “If I could, I would annex other planets.” In his will, Rhodes left money for the “establishment, promotion and development of a Secret Society, the true aim and object whereof shall be for the extension of British rule throughout the world.”

In the world as it could be, Rhodes would be remembered less for the scholarship that he established than for his imperialism, racism, greed and cruelty to indigenous people.



In the world as is, indigenous people everywhere in the world are under great pressure from those who desire their land. Indigenous cultures and languages are in danger of being lost. The illustration shows men from Bathurst Island in Australia's Northern Territories.

In the world as it could be, the rights of indigenous peoples everywhere in the world would be protected from the greed of commercial interests anxious to seize their ancestral lands in order to exploit their resources. Indigenous peoples would be recognized as protectors of the global environment.



In the world as is, some colonial empires existed in 1800, as is shown on this map of the world at that time. Portugal, Spain and England had large colonial possessions in North and South America, and the Russian Empire was also very extensive. However, Africa was largely uncolonized.

In the world as it could be, the teaching of history would be reformed, and the atrocities associated with colonization would be remembered in history textbooks.



In the world as is, the Portuguese and Spanish colonies in South America had gained their independence by 1914, as is shown in this map of the colonial world at that time. On the other hand, the British Empire was very greatly extended, and Africa was almost completely colonized.

In the world as it could be, the evils of colonialism would be remembered and we would recognize and guard against neo-colonialism in all its forms.



In the world as is, people in France glorify Napoleon's conquests, ignoring the trail of death, destruction and human tragedy that he left in his wake. The image shown Napoleon as he liked to imagine himself.

In the world as it could be, aggression and conquest would be recognized as being morally wrong in all circumstances. Nationalism would be seen as a dangerous anachronism.



In the world as is, Napoleon succeeded in conquering much of Europe, but failed to conquer England and Russia. After his failed Russian campaign, Napoleon himself fled back to France, leaving his troops to die in the snow.

In the world as it could be, all forms of conquest and aggression would be recognized as crimes against humanity.



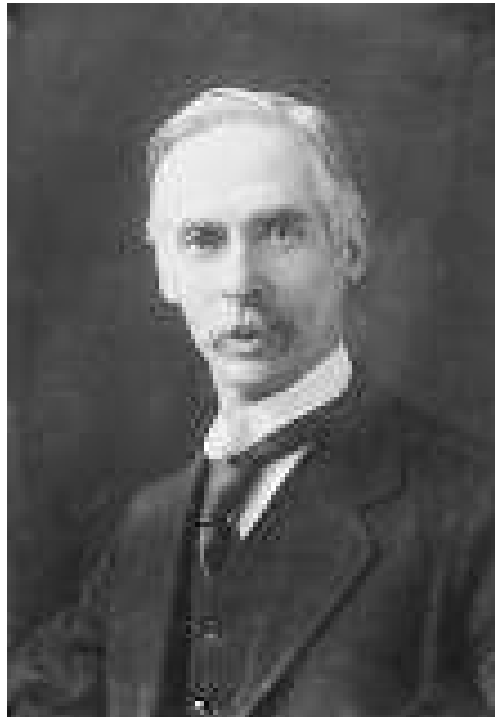
In the world as is, neoliberalism is defined as the belief that unregulated market forces will always lead to benefits for the public. Although this belief is demonstrably untrue, it dominates much of present-day economic thinking. The twin evils of neoliberalism and corporate rule have led to a new kind of colonialism, as is shown in the illustration.

In the world as it could be, we would free ourselves from both neoliberalism and corporate rule. These steps are needed to combat excessive inequality, and to restore democracy in countries where it has been replaced by oligarchy.



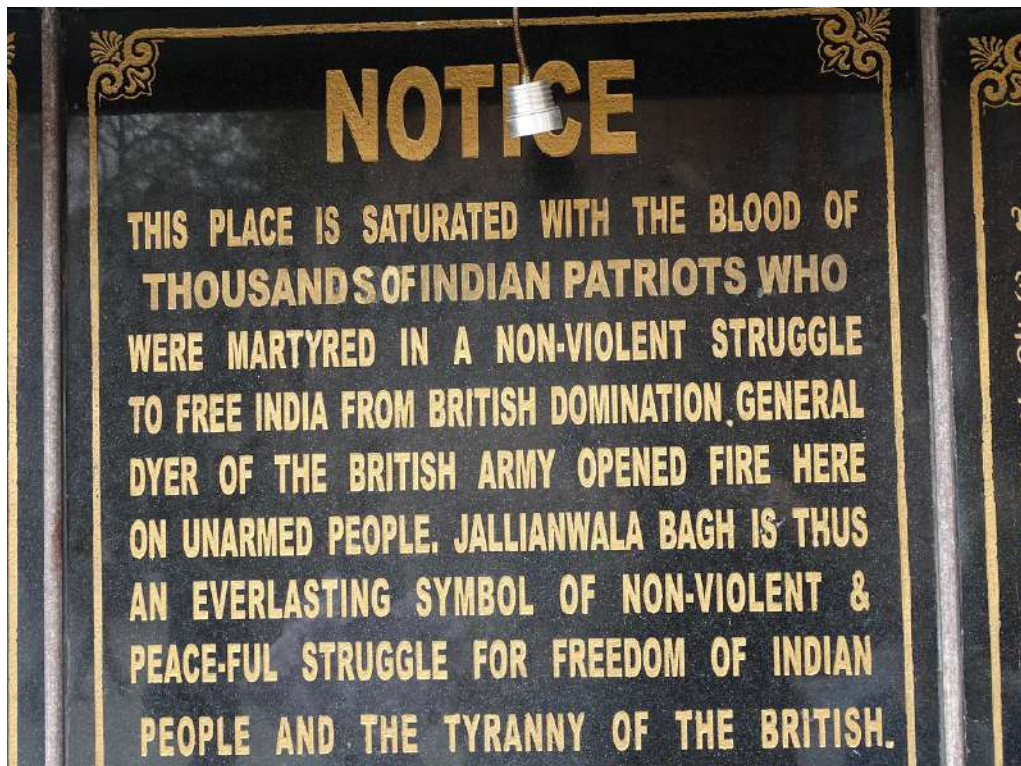
In the world as is, a book by John Perkins, “Confessions of an Economic Hit-Man”, can give us an idea of the way in which our economic system operates to further enrich wealthy nations and impoverish poor ones. In the cartoon shown in the illustration, the man taking the oath is drawn so as to closely resemble John Perkins.

In the world as it could be, the book by John Perkins would be very widely read, and the lessons that it contains would be taken to heart.



In the world as is, the English economist and Fabian, John Atkinson Hobson (1858-1940), offered a famous explanation of the colonial era in his book “Imperialism: A Study” (1902). According to Hobson, the basic problem that led to colonialism was that overseas markets had to be found.

In the world as it could be, Hobson’s ideas would be seen as relevant to our own times. When there is excessive economic inequality, economies do not function well.



In the world as is, the Amritsar Massacre was a part of India's struggle for independence. The non-violent struggle, led by Mahatma Gandhi, had a high cost in lives and suffering, but it was ultimately successful.

In the world as it could be, Gandhi's non-violent methods would be used to rebel against the tyrannies that still oppress us.



In the world as is, Columbus Day is celebrated as a US school holiday, and many places in the United States are named after Columbus.

In the world as it could be, Christopher Columbus would be unmasked and revealed to have been a homicidal tyrant who initiated the two greatest crimes in the history of the Western Hemisphere, the Atlantic slave trade, and the American Indian genocide.

FASCISM, THEN AND NOW

Parallels between fascism then and now

There are many extremely worrying similarities between fascism in Europe in the 1930's and the neo-fascism that we can see around us today. For example Donald Trump, according to his first wife, kept a book of Hitler's speeches beside his bedside, and studied it thoroughly. Today, he imitates Hitler's rhetoric. The white supremacist supporters of Trump have revived Nazi ideology, language and symbols. Neo-fascism and Neo-Nazism are not confined to the United States, but exist in many countries.

Why was Germany allowed to rearm during the period before World War II?

We can review the history of Hitler's rise to power, and discuss the question of why Germany was allowed to rearm during the period prior to the Second World War. The answer that emerges is the elites and decision-makers in Britain regarded Hitler as a "bulwark against communism". A revolution had occurred in Russia, and they feared that it might spread elsewhere. What members of the the upper class feared most was the loss of their own privileged positions.

Are there parallels today? In the United States, members of the Republican Party are often relatively wealthy people who fear that socialism would endanger their privileged financial position. Like Hitler and Mussolini, Donald Trump uses rhetoric addressed to the mob to guarantee the privileges of the elite. In return, he is supported by wealthy patrons and corporate oligarchs. Like Hitler, Trump appeals to racism and ultranationalism to gain support.

The climate emergency

Today human civilization and the biosphere are faced with two existential dangers. The first of these is the danger that the activities of the constantly-increasing global population will lead to uncontrollable and catastrophic climate change. The Intergovernmental Panel on Climate Change has warned that greenhouse gas emissions must be cut in half within 12 years and reduced to net zero by 2050 if we are to avoid the most disastrous effects of

climate change. However, measurements at the Mount Loa Observatory in Hawaii show that atmospheric CO₂ concentrations are continuing to increase, unaffected by the warnings of the scientific community.

One of the major problems in mobilizing political will to take action is a contrast between two time scales: Rapid and resolute action is needed immediately, but the worst effects of rising global temperatures and sea levels lie in the long-term future. Hopefully the wildfires burning in northern Russia, which have produced a blanket of smoke the size of the European Union, will be enough to wake us up. As 16-year-old climate activist Greta Thunberg says, “Our house is on fire!”.

In the United States, Donald Trump maintains that climate change is a hoax. He has withdrawn the US from the Paris Agreement, sabotaged the Environmental Protection Agency, fired and insulted scientists, and enacted numerous measures supporting the fossil fuel giants. The greed of these enormous corporations weighs present profits so highly as to disregard the threatened collapse of civilization in a future burning world. Trump is their agent.

The Green New Deal concept takes its inspiration from the measures that Franklin D. Roosevelt used to bring the United States out of the Great Depression in the 1930’s. In Roosevelt’s New Deal, the Federal government initiated massive programs to provide the US with much-needed infrastructure, and these programs simultaneously addressed unemployment by creating jobs. Similarly, the Green New Deal would support the creation of the infrastructure needed for a complete transition to renewable energy. This large-scale project would simultaneously provide jobs.

The newly-elected congresswoman, Alexandria Ocasio-Cortez, has been one of the most active and eloquent leaders promoting the Green New Deal. She was one of the four non-white congresswomen recently demonized by Donald Trump, who tweeted, “Why don’t they go back and help fix the totally broken and crime infested places from which they came?” It was another example of the racism that Trump’s supporters love. In fact, three of the four, including Ocasio-Cortez, were born in the United States.

The fact that leaders of the US Republican Party have adopted a stance of climate change denial and support for the fossil fuel industries is the reason that Professor Noam Chomsky has called the party “the most dangerous organization in history”.

The threat of an all-destroying thermonuclear war

The second existential threat facing human civilization and the biosphere is the threat of a thermonuclear war. Such a war might produce wide-spread famine because of the nuclear winter effect, and it could make large regions of the world permanently uninhabitable through radioactive contamination.

Despite the Treaty on the Prohibition of Nuclear Weapons which was passed by a large majority vote at the UN General Assembly on 7 July, 2017, the nuclear weapon states have not changed their world-threatening policies. They continue to consecrate trillions of dollars to the modernization and maintenance of nuclear weapons. They continue to rely on the doctrine of nuclear deterrence, or “mutually assured destruction”, whose very appropriate acronym is MAD.

The concepts of nuclear deterrence and “massive retaliation” have several flaws. First of all, the obliteration of entire populations, including old people, young adults, children and babies, is genocide, and is forbidden not only by international law, but also by the ethics of all major religions. Secondly, a thermonuclear war could occur through accident, through mechanical failure or human error, or through the uncontrollable escalation of a conflict. There are very many instances when this type of disaster has been narrowly avoided. We cannot continue to be lucky forever. Thirdly, existing nuclear weapons could fall into the hands of terrorists or organized criminals.

Finally, we must remember that even if the danger that a catastrophic nuclear war will occur in any given year is small, over a long period of time the danger builds up into a certainty. If the dangers for any given year are 1%, 2% or 3%, the probabilities of survival until 2100 are respectively 43%, 18% and 8%. If the period for which we must survive is extended to the year 2200, the chances of survival in the three cases are respectively .16%, .025%, and .0039%.

Donald Trump’s withdrawal from the INF Treaty, and his nuclear threats against Iran and North Korea, have increased the danger of a world-destroying nuclear war.

Betrayal by the mainstream media

Humanity is being betrayed by the mainstream media (with a few notable exceptions such as *The Guardian*). Our predicament today has been called “a race between education and catastrophe”: How do the media fulfil this

life-or-death responsibility? Do they give us insight? No, they give us pop music. Do they give us an understanding of the sweep of evolution and history? No, they give us sport. Do they give us an understanding of the ecological catastrophes that threaten our planet because of unrestricted growth of population and industries? No, they give us sit-coms and soap operas. Do they give us unbiased news? No, they give us news that has been edited to conform with the interests of powerful lobbys. Do they present us with the urgent need to leave fossil fuels in the ground? No, they do not, because this would offend the powerholders. Do they tell of the danger of passing tipping points after which human efforts to prevent catastrophic climate change will be useless? No, they give us programs about gardening and making food.

In general, the mass media behave as though their role is to prevent the peoples of the world from joining hands and working to change the world and to save it from thermonuclear war, environmental catastrophes and threatened global famine. The television viewer sits slumped in a chair, passive, isolated, disempowered and stupefied. The future of the world hangs in the balance, the fate of children and grandchildren hangs in the balance, but the television viewer feels no impulse to work actively to change the world or to save it. The Roman emperors gave their people bread and circuses to numb them into political inactivity. The modern mass media seem to be playing a similar role.

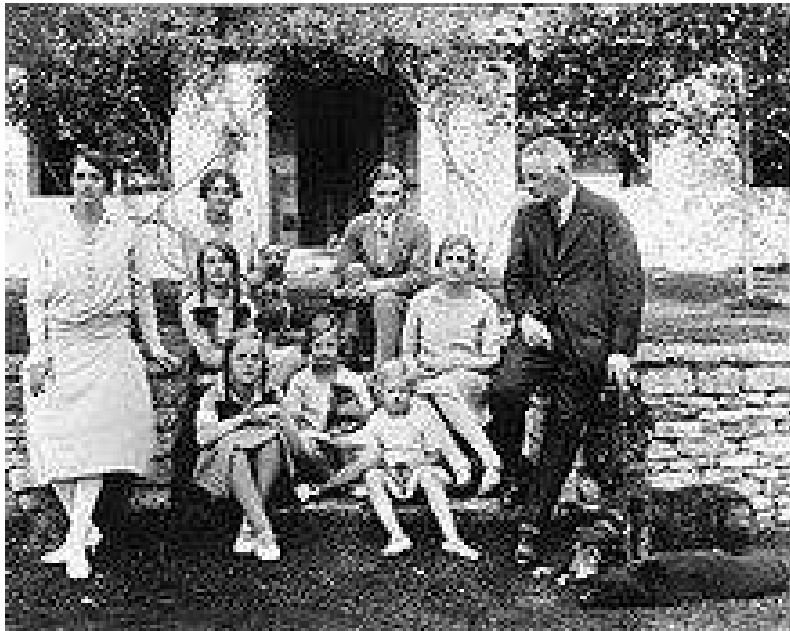
The importance of alternative media

The failure of the mass media to mobilize us to action against neo-fascism, decay of democracy, and the existential threats of uncontrollable climate change and thermonuclear war, increases the importance of the alternative media. We owe a debt of gratitude to the editors of independent on-line news websites, who give us news that has not been distorted by corporate greed. We owe them not only thanks, but also financial support.



In the world as is, Prescott Bush, the father of George H.W. Bush and grandfather of George W. Bush, supported Hitler's rise to power with large financial contributions to the Nazi Party. The photo shows them together. All the members of the Bush dynasty have contributed to far-right politics and to the initiation of wars.

In the world as it could be, the lies that almost invariably preceded wars would be questioned by the media and by the public.



In the world as is, David Bertram Ogilvy Freeman-Mitford, 2nd Baron Redesdale (1878-1958), with his family in 1928. He was a fascist and anti-semitic, like his daughters, Unity and Diana.

In the world as it could be, we would try to answer the question: Why was Germany allowed to rearm during the interval between World Wars I and II? The answer appears to be that power-holders in England saw a strongly-armed Germany as a “bulwark against communism”. They feared that a communist revolution in England, like the one that had recently occurred in Russia, would deprive them of their privileged positions.



In the world as is, Unity Mitford was very close to Hitler. The photo shows them together. Hitler. When Britain declared war on Germany in September 1939, a distraught Unity went to the Englischer Garten park in Munich (the English Garden) and shot herself in the head.

In the world as it could be, the fascism of the English aristocracy prior to World War II would be remembered. We would look for signs of neo-fascism in today's world.



In the world as is, Unity Mitford's sister Diana married Sir Oswald Mosley, leader of the British Union of Fascists. The photo shows the two sisters together.

In the world as it could be, we would learn from the fascism of the British upper class prior to World War II. We would fight against neo-fascism today throughout the world. The far right is on the rise, as was demonstrated by the January 6, 2021 assault on the US capital.



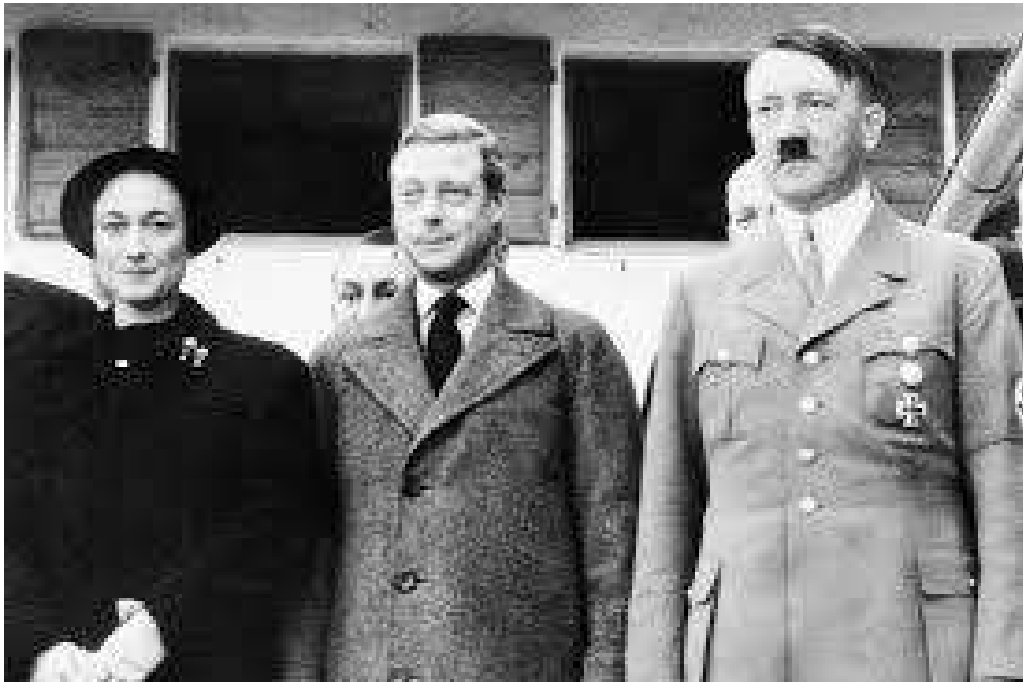
In the world as is, the British Union of Fascists and its leader, Sir Oswald Mosley, played an important role in the political movement that allowed Hitler's Germany to rearm. The photo shows Mosley reviewing his followers, who respond by giving him a Nazi salute.

In the world as it could be, we would ask, Who are the Moseley's of today? Who are the neo-Nazi's of today? Are there dangerous analogies between the 1930's and what is happening in today's world?



In the world as is, Benito Mussolini defined fascism as “corporatism”. He saw it as a union of the masses and corporate rule. The photo shows Italy’s “Duce” Benito Mussolini (left) with Leader Oswald Mosley (right) during Mosley’s visit to Italy in 1936.

In the world as it could be, rule by corporations would be recognized as dangerous and anti-democratic, since it leads to oligarchy, excessive economic inequality, strong military-industrial complexes and endless wars.



In the world as is, Hitler received the Duke and Duchess of Windsor with all the ceremony that would have been due to royalty.

In the world as it could be, the near-treasonous behavior of the Duke and Duchess of Windsor would serve as a warning against neo-Nazism.



In the world as is, Hitler hoped to make the Windsors into a pro-Nazi King and Queen of England. Churchill recognized how dangerous the pro-Nazi Windsors were, and arranged for them to be sent to the Bahamas, where the Duke would be Governor. Churchill hoped that this would keep them from causing trouble.

In the world as it could be, we would remember the Windsors as an example of the fascism of the British upper class prior to World War II.



In the world as is, a bloody civil war was fought in Spain during the years just before World War II. The duly-elected Republican government was opposed by the fascists under Franco. The photo shows a Republican banner in Madrid reading "Fascism wants to conquer Madrid. Madrid shall be fascisms grave." during the siege of 1936-39. They shall not pass!

In the world as it could be, we would remember the courage of the defenders of democratic government, who opposed the fascists during the Spanish Civil War. They shall not pass!



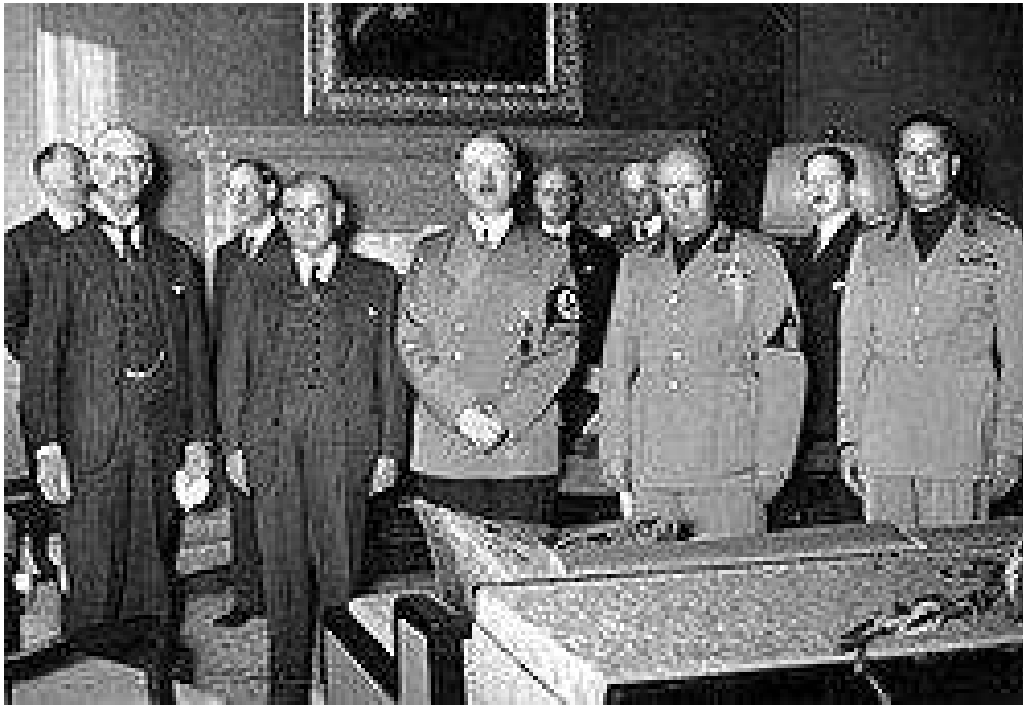
In the world as is, every war is a war against children. The photo shows children taking refuge during the Francoist bombing over Madrid (1936-1937). In spite of the bombings Republicans managed to repulse this siege.

In the world as it could be, for the sake of the world's children, we would work to abolish the institution of war.



In the world as is, Benito Mussolini began as a socialist, but his ideas gradually became less and less democratic, and he finally became a right-wing authoritarian and the definer of fascism. The photo shows him in 1920.

In the world as it could be, we would be on guard against Mussolini's legacy of fascism, wherever we find it.



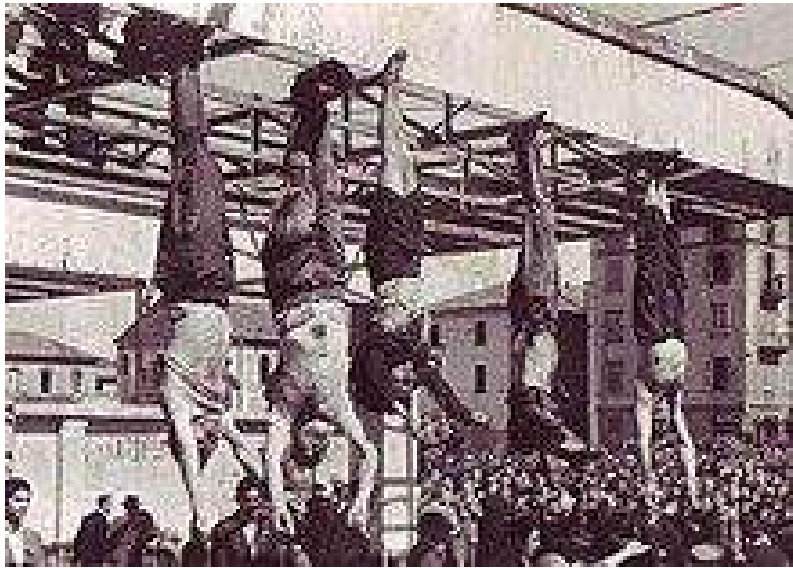
In the world as is, Hitler and Mussolini formed an alliance. The photo shows (from left to right) Chamberlain, Daladier, Hitler, Mussolini, and Italian Foreign Minister Count Ciano, as they prepare to sign the Munich Agreement.

In the world as it could be, the events of the 1930's, and the Second World War which followed from them, would serve as a serious warning against the rise of racism and right-wing authoritarianism in our own time.



In the world as is, on 25 October 1936, an alliance was declared between Italy and Germany, which came to be known as the Rome-Berlin Axis. Hitler promised Germans “Lebensraum”, new territories into which their population could expand. Mussolini promised to restore Italy to the glories that it had experienced in the days of the Roman Empire.

In the world as it could be, we would see the close similarities between right-wing movements of the 1930’s and those of today, similarities between Hitler’s racism and the racism of white supremacists; similarities between Mussolini’s promise to restore the glories of the Roman Empire, and Trump’s slogan, “Make America Great Again.”



In the world as is, Mussolini came to a bad end. He and other fascists were killed by Italian partisans, and their bodies were hung upside down in a public place. the photo shows (from left to right) the dead bodies of Nicola Bombacci, Mussolini, Petacci, Pavolini and Starace in Piazzale Loreto, 1945.

In the world as it could be, the ignominious death of Mussolini would serve as a warning for tyrants and dictators.



In the world as is, Mussolini defined fascism as “corporatism”. It unites the corporate state and the mob. As President of the United States, Donald Trump derived political support from the mob, but his policies benefited large and wealthy corporations, rather than ordinary people.

In the world as it could be, ordinary working people would not be fooled by politicians whose policies actually benefit and enrich already-rich corporations. We would guard ourselves against the corporate state, and the corporate-controlled mass media.



In the world as is, there is so much wrong with Donald Trump that one hardly knows where to start. He is a bully, braggart, narcissist, racist, misogynist, habitual liar, and tax evader, in addition to being demonstrably ignorant. He has contempt for both domestic and international law, as well as for the US Constitution. However, it is Trump's climate change denial, withdrawal from the Paris agreement, and sponsorship of fossil fuels that pose the greatest threats to the future of human society and the biosphere. The general support of the Republican Party for the fossil fuel industry is the reason why Prof. Noam Chomsky has called the party the most dangerous organization in history.

In the world as it could be, the threat of catastrophic climate change would be recognized as the most serious challenge that the world is facing today.



In the world as is, Donald Trump's cruel racist policies resulted in the separation of young children, even babies, from their parents. The children were often kept in cages, as is shown in the photo, in cold and unsanitary conditions. Many of these unfortunate children have still not been reunited with their parents.

In the world as it could be, both racism and cruelty to children would be universally condemned.



In the world as is, the general support of the Republican Party for the fossil fuel industry is the reason why Prof. Noam Chomsky has called the party “the most dangerous organization in history”. Among the many challenges that humanity faces today, the threat of catastrophic climate change is undoubtedly the most serious.

In the world as it could be, the United States would become a leader in climate action and in the reduction of greenhouse gas emission. The Republican Party would either change its stance on climate, or loose elections.



In the world as is, Jair Bolsonaro, President of Brazil, has been called “the Trump of the Tropics”. The photo shows Bolsonaro visiting Donald Trump in Washington. Like Trump, he is a neo-fascist, but (again like Trump) his worst crime is against the future of human civilization and the biosphere. Under Bolsonaro, the vitally important Amazon rainforests are being destroyed, a terrible blow to our efforts to avoid catastrophic climate change.

In the world as it could be, the international community would act to prevent the destruction of the Amazon rainforest. Its importance comes not only from the carbon sequestered in the trees and plants, but also from the region’s great biodiversity.



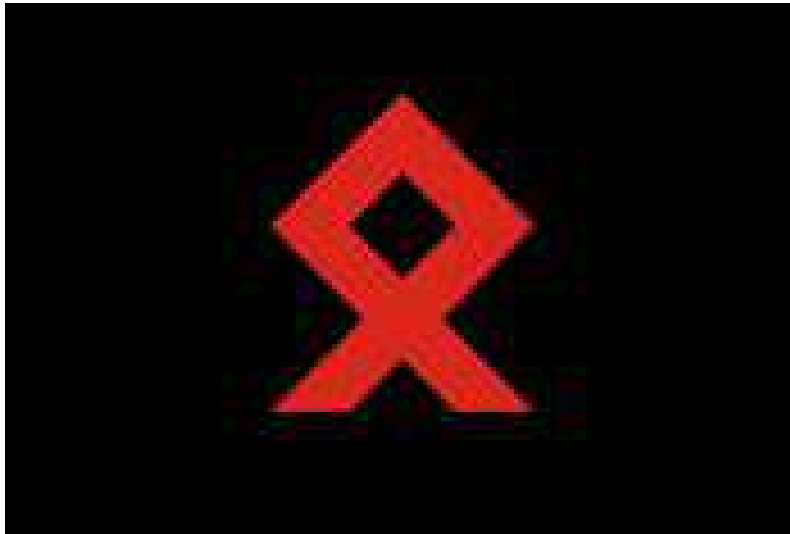
In the world as is, In the world as is, even after the defeat of Hitler's Germany in World War II, Nazi ideology is alive and well in the region, In the photo, we see Otto Ernst Remer, leader of the postwar Socialist Reich Party, a neo-Nazi organization.

In the world as it could be, the terrible crimes against humanity committed by Nazi Germany would be burned into our collective memory. We would remember the murder of six million innocent Jewish people and the murder of innumerable Russians. We would be appalled by the mere thought of reviving Nazi ideology.



In the world as it is, neo-Nazi ideology exists in the United States. The photo shows George Lincoln Rockwell, founder of the American Nazi Party and progenitor of subsequent uniformed neo-Nazi groups.

In the world as it could be, we would guard against all extreme-right groups in the United States and elsewhere. We would learn from the unspeakable atrocities committed by Nazi Germany. Never again!



In the world as is, neo-Nazi ideology exists in many countries. The radicalisation of Flemish activist group the Vlaamse Militanten Orde in the 1970s, energized international neo-Nazism. The image shows the insignia of the organization.

In the world as it could be, the rise of far-right groups in Europe would alarm us. Since neo-fascism and neo-Nazi ideology stem from the refugee crisis, attention would be given to solving this problem in a just and humane way.



In the world as is, prominent alt-rightists were instrumental in organizing the Unite the Right rally in Charlottesville, Virginia in August 2017. Here, rally participants carry Confederate battle flags, Gadsden flags and a Nazi flag.

In the world as it could be, the signs of Nazi ideology and Nazi symbolism in the United States would horrify us. What is happening to this supposedly democratic country?



In the world as is, the Proud Boys is an organization that participated in the January 6, 2021 insurrection at the US Capitol. The photo shows Proud Boys founder Gavin McInnes. The fact that the intentions of the attackers were known well in advance, but Capitol Hill was nevertheless inadequately guarded is evidence of high-level complicity.

In the world as it could be, legal action would be taken against everyone associated with or complicit with the January 6 insurrection, no matter what governmental positions they might hold.



In the world as is, Fox News and other right-wing media give young people a warped picture of reality. Contact with the truth is entirely lost. The photo shows a young member of Proud Boys.

In the world as it could be, media would be held responsible for their content. Broadcasting licences would be revoked in cases where massive outright lying can be demonstrated.



In the world as is, apparently insanity rules the United States today. The Evangelical Right believes that Trump was sent by God to be King, despite the fact that, according to Glenn Kessler, author of the Washington Posts Fact Checker column, Trump told an average of 15 lies per day in 2018.

In the world as it could be, Christians in the United States would recognize the glaring inconsistency between Christian ethics and Donald Trump's behavior.



In the world as is, followers of Donald Trump stormed Capitol Hill in an attempt to overthrow the results of the November 2020 election. Despite all evidence to the contrary, they believed the lie spread by Trump, maintaining that he had actually won the election. Over 400 of the insurrectionists are now being prosecuted. Donald Trump was impeached for a record second time but a two-thirds majority in the Senate was unobtainable.

In the world as it could be, Trump would be prosecuted in civil courts for his many crimes, which include tax fraud and misuse of government funds, as well as complicity in the January 6 events. Action would also be taken under the 14th Amendment to prevent him from ever running for office again.

A WORLD FEDERATION

The present United Nations Charter

After the unspeakable horrors of World War II, delegates from 50 Allied nations met in San Francisco California. The purpose of the conference, which took place between 25 April and 26 June, 1945, was to set up an international organization that would be able to abolish the institution of war. However, the Charter which the delegates produced was too weak to achieve this goal.

In many respects the United Nations has been highly successful. During the 73 years that have passed since its establishment, a world war has been avoided. The agencies of the United Nations, such as the World Health Organization, the Food and Agricultural Organization, UNESCO and the IPCC, have provided urgently-needed services to the international community. The Universal Declaration of Human Rights, and the Millennium Development Goals have set up norms towards which we can and should aim. Furthermore, the UN has provided a place where representatives from many nations can meet for informal diplomacy, through which many dangerous conflicts have been avoided.

Nevertheless, the United Nations, with its present Charter, has proved to be too weak to achieve the purpose for which it was established - the complete abolition of the institution of war. If civil wars are included, there are, on any given day, an average of 12 wars somewhere in the world. The task of abolishing war has become extremely urgent since the advent of thermonuclear weapons. The danger that these weapons will be used, through accident, technical or human error, or through uncontrollable escalation of a war with conventional weapons, poses an existential threat to human civilization and the biosphere. The Russell-Einstein Manifesto of 1955 described our present situation in the following words:

“Here then is the problem that we present to you, stark and dreadful and inescapable: Shall we put an end to the human race, or shall mankind renounce war?... There lies before us, if we choose, continual progress in happiness, knowledge and wisdom. Shall we, instead, choose death because we cannot forget our quarrels? We appeal as human beings to human beings: Remember your humanity, and forget the rest. If you can do so, the way lies open to a new Paradise; if you cannot, there lies before you the risk of universal death.”

Why call war an “institution”?

Because the world spends almost two thousand billion dollars each year on armaments, it follows that very many people make their living from war. This is the reason why it is correct to speak of war as a social institution, and also the reason why war persists, although everyone realizes that it is the cause of much of the suffering that inflicts humanity. We know that war is madness, but it persists. We know that it threatens the future survival of our species, but it persists, entrenched in the attitudes of historians, newspaper editors and television producers, entrenched in the methods by which politicians finance their campaigns, and entrenched in the financial power of arms manufacturers, entrenched also in the ponderous and costly hardware of war, the fleets of warships, bombers, tanks, nuclear missiles and so on.

Military-industrial complexes, throughout the world, drive and perpetuate the institution of war. Each military-industrial complex involves a circular flow of money. The money flows like the electrical current in a dynamo, driving a diabolical machine. Money from immensely rich corporate oligarchs buys the votes of politicians and the propaganda of the mainstream media. Numbed by the propaganda, citizens allow the politicians to vote for obscenely bloated military budgets, which further enrich the corporate oligarchs, and the circular flow continues.

A World Federation

In order to save the world from destruction in a thermonuclear World War III, the United Nations Charter must be reformed and strengthened. At present, the UN is a confederation of absolutely sovereign nation-states. But in a world of all-destroying modern weapons, instantaneous global communication, and economic interdependence, the absolutely sovereign nation-state has become a dangerous anachronism.

Furthermore, history has shown confederations to be fatally weak. For example, the original United States Constitution was a confederation; but it soon became apparent that this form of governance was too weak. Instead, a federation was needed. In his *Federalist Papers*, Alexander Hamilton wrote: “To coerce the states is one of the maddest projects that was ever devised... Can any reasonable man be well disposed towards a government which makes war and carnage the only means of supporting itself, a government that can exist only by the sword? Every such war must involve the innocent

with the guilty. The single consideration should be enough to dispose every peaceable citizen against such government... What is the cure for this great evil? Nothing, but to enable the... laws to operate on individuals, in the same manner as those of states do.”

George Mason, one of the drafters of the Federal Constitution, believed that “such a government was necessary as could directly operate on individuals, and would punish those only whose guilt required it”, while another drafter, James Madison, wrote that the more he reflected on the use of force, the more he doubted “the practicality, the justice and the efficacy of it when applied to people collectively, and not individually.”

At present, the United Nations attempts to coerce states through sanctions; but sanctions are a form of collective punishment, and collective punishment is expressly forbidden by the Geneva Conventions. The worst effects of sanctions are usually felt by the weakest and least guilty of the citizens, while the guilty leaders are usually unaffected. Besides being a violation of the Geneva Conventions, sanctions are ineffective, their only effect being to unite the people of a country behind its guilty leaders.

The success of federations

A federation is a union of organizations to which specific powers are granted, all other powers being retained by the subunits. Historically, federations have proved to be highly successful and durable.

Besides political federations, many other kinds exist, examples being Universal Postal Union, established by the Treaty of Bern in 1874, and the International Tennis Federation (ITF), founded in 1913.

Examples of political federations include the European Union, the Federal Republic of Germany, the Swiss Federation, the Russian Federation, the Federal Government of the United States, and the governments of Australia and Brazil.

Laws binding on individuals

In general, political federations have the power to make laws which are binding on individuals, thus avoiding the need to coerce their member states. An effective World Federation would need to have the power to make laws that act on individuals. The International Criminal Court is an important step towards the establishment of a system of international law that acts on

individuals rather than on states, and the ICC deserves our wholehearted support.

Greatly increased financial support for the UN

An very important step towards strengthening the United Nations would be to give it at least 50 times the financial support that it has today. At present the entire yearly budget of the UN is only 2.7 billion US dollars, a ridiculously low figure, considering the organization's duty to ensure peace, law, human rights, social justice, respect for the environment, human health, and a safe food supply for the entire world. If the financial support of the United Nations could be greatly increased, its agencies could perform their vitally important duties much more effectively. This would give the UN increased prestige and authority, and the UN would thus be better able to resolve political disputes.

Various method for increasing the money available to the UN have been proposed. For example, James Tobin, who was Sterling Professor of Economics at Yale University, and Nobel Laureate in Economics, proposed that international currency transactions be taxed at a small fraction of a percent. He believed that even this extremely small tax would make exchange rates much more stable. When asked what should be done with the proceeds of the tax, Tobin added, almost as an afterthought, "Give it to the United Nations". In fact, the volume of international currency transactions is so enormous that even the tiny tax proposed by Tobin would be sufficient to solve all the UN's financial problems.

A standing UN Emergency Force

The United Nations is often called on to act quickly in emergency situations, and example being the call for the UN to stop the Rwandan genocide. It would be helpful if the UN had a standing armed force which could act quickly in such emergency situations. The force could consist of volunteers from around the world, pledged to loyalty to humanity as a whole, rather than loyalty to any nation.

A reformed voting system

In the present UN General Assembly, each nation is given one vote regardless of size. This means that Monaco, Liechtenstein, Malta and Andorra have as much voting power as China, India, the United States and Russia combined. For this reason, UN resolutions are often ignored.

The voting system of the General Assembly should be reformed. One possible plan would be for final votes to be cast by regional blocks, each block having one vote. The blocks might be. 1) Latin America 2) Africa 3) Europe 4) North America 5) Russia and Central Asia 6) China 7) India and Southeast Asia 8) The Middle East and 9) Japan, Korea and Oceania.

In a reformed, democratized and possibly renamed Security Council, the veto power would be absent, and final votes would be taken between regions of roughly equal populations.



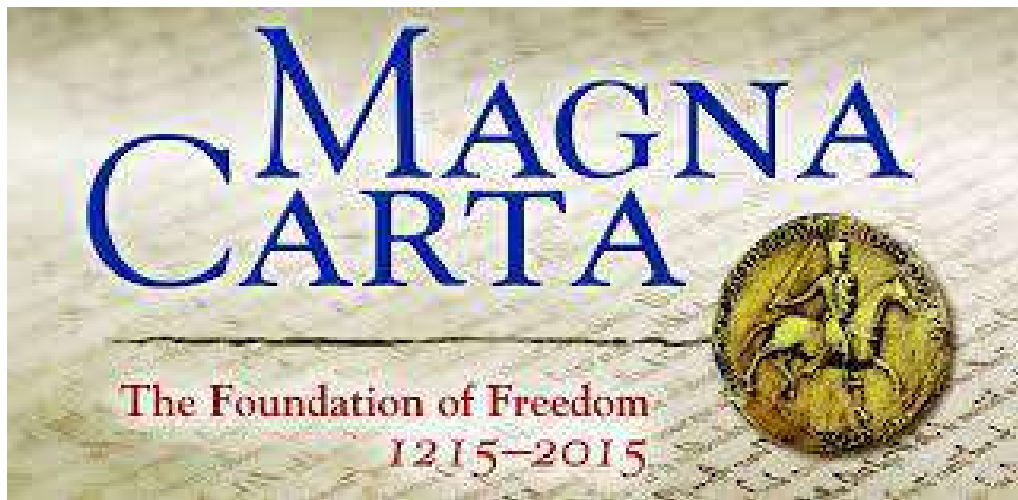
In the world as is, a just an enforceable system of international law is lacking, even though instantaneous global communication and worldwide commerce make the need for international law and governance very urgent. The image shows Hammurabi's Code, c. 1754 BC, carved onto a stone stela.

In the world as it could be, international law and governance would be achieved by strengthening the United Nations. and converting it into a federation, with the power to make laws that are binding in individuals, and the power to impose taxes.



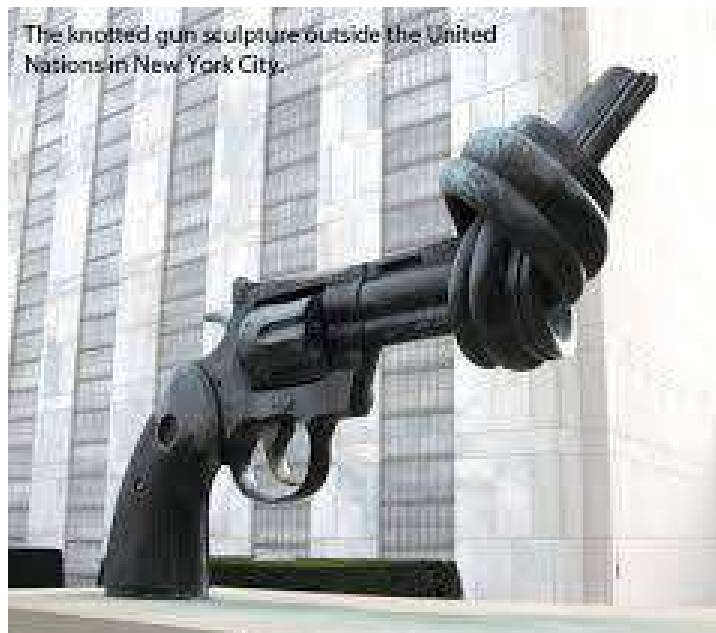
In the world as is, the Magna Carta was an early guarantee of human rights. Nevertheless, human rights continue to be violated in the majority of countries in today's world.

In the world as it could be, we would derive inspiration from the Magna Carta, and we would work to guarantee human rights in all countries.



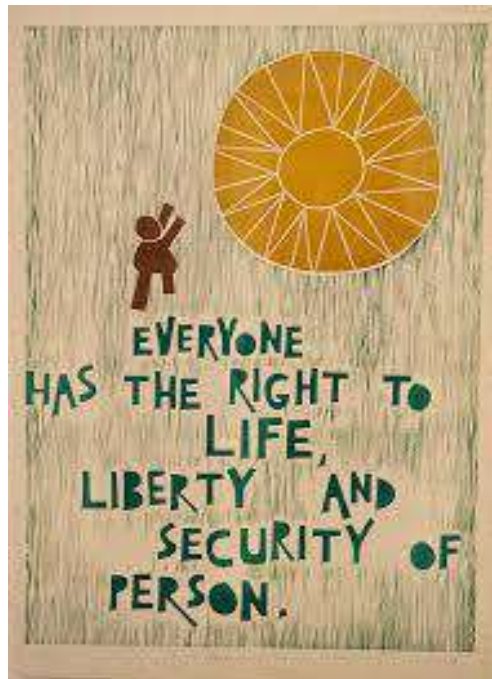
In the world as is, Lord Denning described the Magna Carta as “the greatest constitutional document of all times: the foundation of the freedom of the individual against the arbitrary authority of the despot”. But are we free today from the arbitrary authority of our current despots?

In the world as it could be, people throughout the world would refuse to accept the tyranny of despotic political leaders.



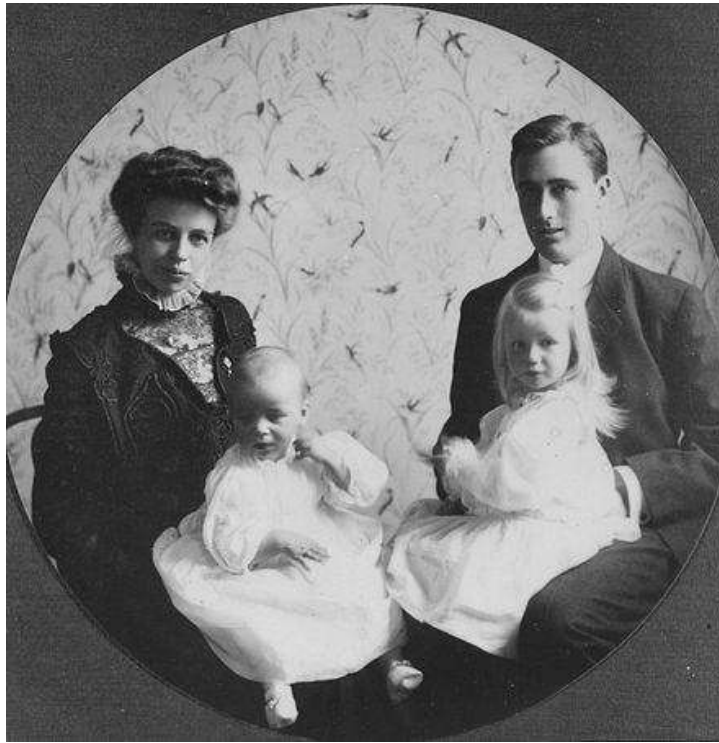
In the world as is, the United Nations Charter clearly aims at abolishing the institution of war once and for all. However, the United Nations had proved to be too weak to perform this important task because it is a confederation rather than a federation. At present, the UN tries to coerce nations by imposing sanctions on them, a practice that is both unjust and ineffective.

In the world as it could be, the United Nations would be converted into a federation, with the power to arrest individual political leaders for violations of international law.



In the world as is, the Universal Declaration of Human Rights was described by Jeanne Kirkpatrick, Ronald Reagan's ambassador to the United Nations, as "a letter to Santa Claus".

In the world as it could be, it would be recognized that the Universal Declaration of Human Rights has great value in defining the norms towards which the world ought to be striving.



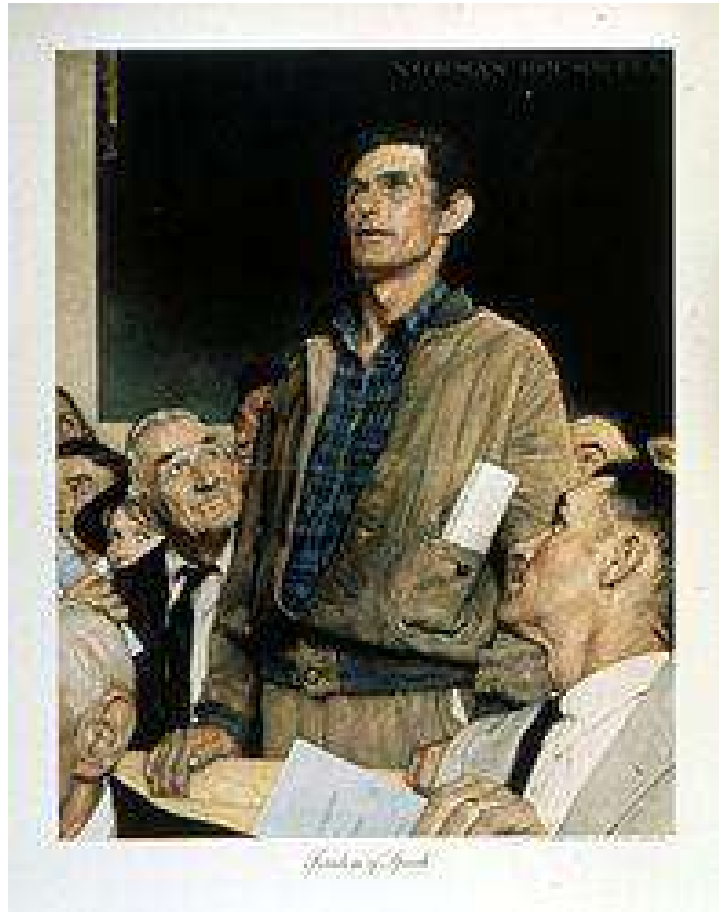
In the world as is, Eleanor Roosevelt (1884-1962) served as the first chair of the UN Commission on Human Rights and oversaw the drafting of the Universal Declaration of Human Rights. The photo shows Eleanor and Franklin Roosevelt with their first two children.

In the world as it could be, Eleanor Roosevelt would be remembered for her untiring work against racism, poverty, and human rights violations. She was her husband's social conscience.



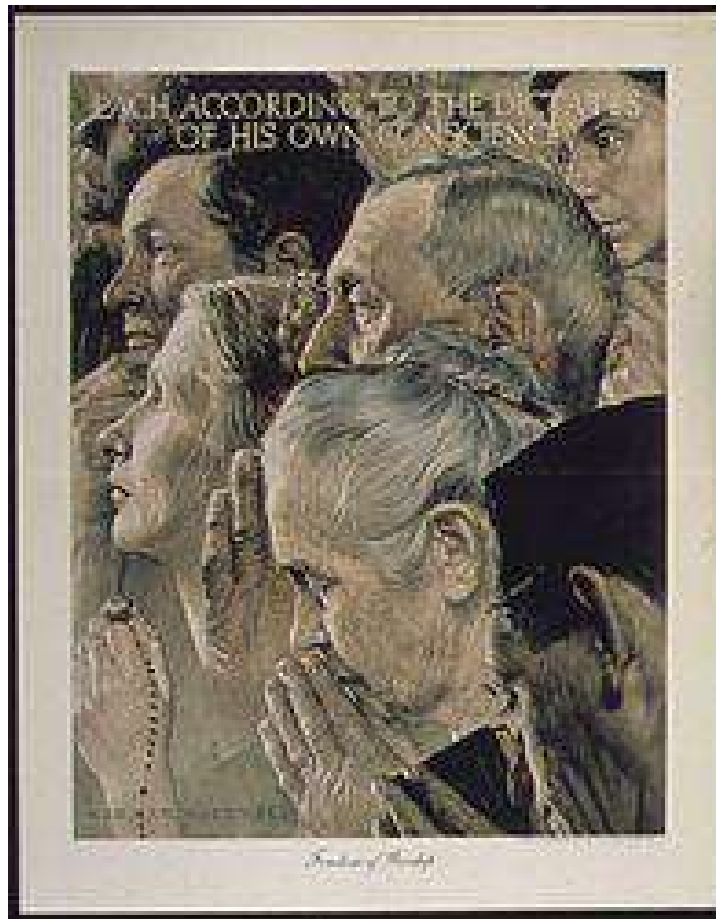
In the world as is, Dr. Charles Malik also participated in the drafting of the Universal Declaration of Human rights, He was a professor of philosophy from Lebanon, who later presided over the UN General Assembly. The photo shows Charles Malik and Eleanor Roosevelt, with whom he worked to draft the Universal Declaration of Human Rights. The children in the photo are their grandchildren,

In the world as it could be, Charles Malik's contributions would also be remembered.



In the world as is, President Franklin D. Roosevelt called attention to what he called “the Four Freedoms”. The image is a painting by Norman Rockwell illustrating Freedom of Speech. In many countries of today’s world, this freedom is frequently violated.

In the world as it could be, freedom of speech would be valued and protected.



In the world as is, there are many countries in which religious freedom does not exist. The image shows Freedom of Worship, one of the Norman Rockwell paintings illustrating Franklin D Roosevelt's January 1941 speech on the Four Freedoms.

In the world as it could be, religious freedom would be guaranteed by both national and international law.



In the world as is, food insecurity plagues many countries. Roughly two billion people suffer from chronic undernourishment, and there is a danger that this number will greatly increase because of climate change and population growth. The image shows Norman Rockwell's painting, Freedom From Want.

In the world as it could be, attention would be given to the problem of preventing hunger today, and the threat of a future large-scale famine.



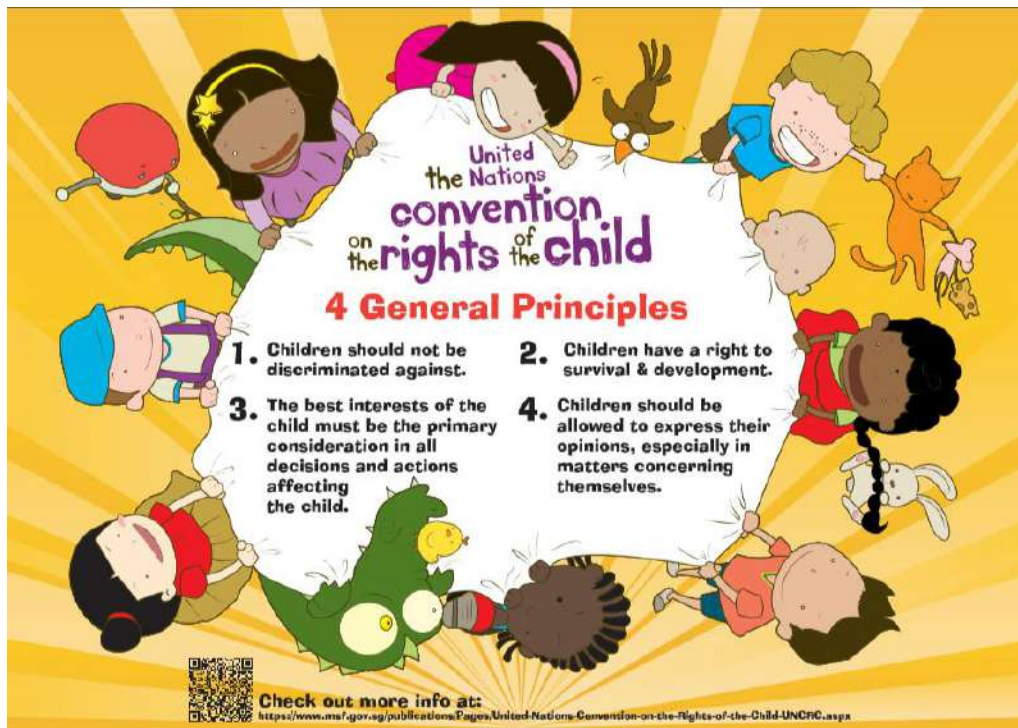
In the world as is, the peoples of the world face many threats. Among these are catastrophic climate change, pandemics, an all-destroying nuclear war, and large-scale famine. People rightly fear these threats.

In the world as it could be, steps would be taken to prevent the disasters that threaten the future of human civilization and the biosphere. The image shows Norman Rockwell's painting, Freedom From Fear,

BECAUSE
EVERY CHILD
IN THE WORLD
HAS ONE THING
IN COMMON.
THEIR RIGHTS.

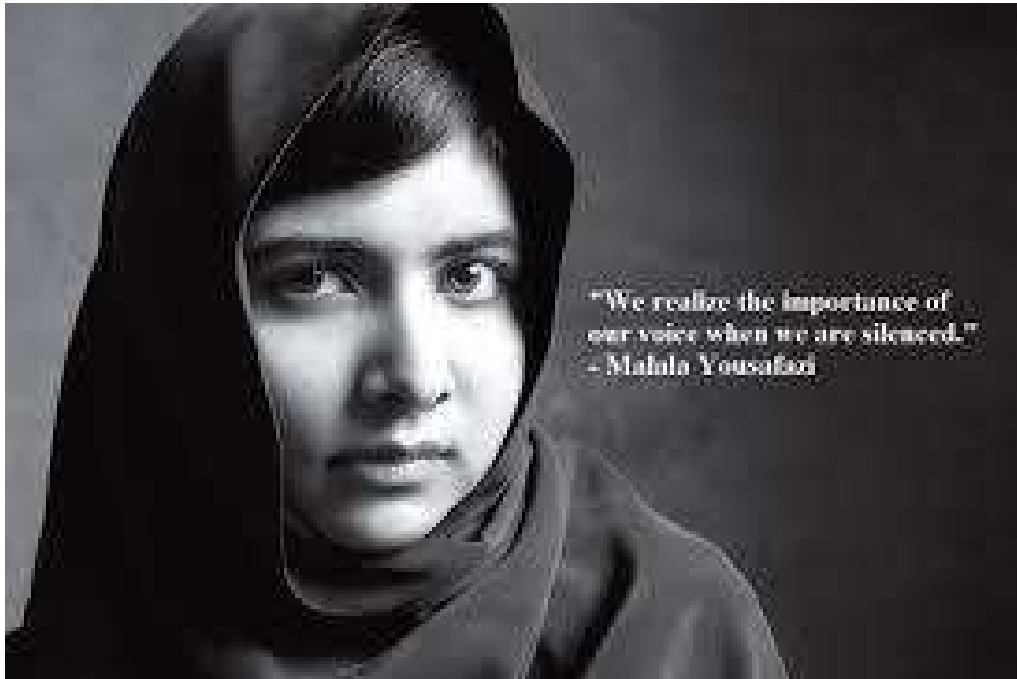
In the world as is, The Convention on the Rights of the Child was a special section added to the Universal Declaration of Human Rights. It became effective on 2 September, 1990. Nevertheless, there are many countries in which child slavery, child labor, and forced early marriage exist. For example, the production of chocolate currently involves child slaves.

In the world as it could be, the rights of children would be protected by effective laws, both national and international. Children have the right to an education and to a childhood.



In the world as is, some of the general principles of the Rights of the Child are illustrated in the figure. The Convention on the Rights of the Child has great normative value, but the rights listed in the Convention are frequently denied to children.

In the world as it could be, the Rights of the Child would not just be a set of normative principles, but would instead be practical achievements.



In the world as is, Malala Yousafzai was shot in the head by Taliban gunmen because she advocated education for girls. She survived, and later was awarded the Nobel Peace Prize for her efforts to ensure the worldwide education of girls.

In the world as it could be, it would be recognized that higher education for women and higher status for women are vitally important reforms, not only for their own sake, but also because it has been shown that these steps contribute to the stabilization of global population.



In the world as is, when he was Sweden's Prime Minister, Olaf Palme declared that his administration's goal was to ensure that "neither in education, nor in opportunities for employment, nor in law, nor in social custom, should there be any difference whatever between men and women".

In the world as it could be, Olaf Palme's goals would be adopted not only in Sweden but also in all countries throughout the world.



In the world as is, suffragettes were arrested, imprisoned, and badly mistreated in prison as they campaigned for votes for women.

In the world as it could be, women's rights would be universally recognized and valued. The right to vote is important, but other rights that need to be ensured include complete legal and educational equality, as well as equal representation in decision-making positions.



In the world as is, women have shown themselves to be the equals of men in every field of endeavor. Experts agree that educational and legal equality for women are vitally important steps towards stabilizing, and ultimately reducing, global population.

In the world as it could be, these reforms would be recognized as extremely important for their own sake, and for the sake of the uniquely life-oriented insights that women can give to the world.



In the world as is, water is a human right: We all need clean water to survive. However, it is predicted that a large portion of the world's population will suffer shortages of fresh water by 2150.

In the world as it could be, research would be directed towards solving the world's predicted future water crisis.



In the world as is, Maude Barlow (born 1947) was a leader in the campaign to have water recognized as a human right by the UN. She has called attention to the problem of privatization of water services, a practice that often places water prices out of reach for poor people.

In the world as it could be, it would be recognized that governments have a duty to provide water to their peoples at prices all can afford.



In the world as is, in the Amazon rainforest and elsewhere, the rights of indigenous peoples continue to be violated. Their ancestral lands are seized by greedy corporations for mining, cattle ranches and soy production. The Amazon rainforest is being destroyed, and similar rainforest destruction is also occurring in Africa.

In the world as it could be, indigenous peoples would be valued as protectors of our environment. Their traditional ecological wisdom would be especially valued, and their rights would be respected.



In the world as is, Tibet has been claimed by China, The Dalai Lama has been exiled, and Tibetans are being “re-educated”. The Chinese takeover of Tibet was no doubt motivated by the region’s mineral resources, especially uranium ores.

In the world as it could be, the unique traditional culture and independence of Tibet would be respected by China. The Dalai Lama would be allowed to return to Tibet. The rights of all indigenous people to their own ancestral lands would be respected.



In the world as is, the government of Jair Bolsonaro (the ‘Trump of the Tropics’”) has opened the Amazon rainforest to destruction by mining, cattle ranches and soy production in the name of “economic progress”. Vast tracts of rainforest are being destroyed, There is a danger that a tipping point will be reached, after which wildfires caused by lightning will destroy the remaining forest. The homelands of the indigenous peoples, the natural protectors of the forest, are being seized and destroyed.

In the world as it could be, Bolsonaro’s catastrophic neo-fascist government would be replaced by a democratic government. The Amazon rainforest would be protected, and the lands of indigenous peoples restored to them.



In the world as is, the Nuremberg Principles, which have been adopted by the United Nations, establish the responsibility of individuals for war crimes of other crimes against humanity. You cannot just say “I was acting under orders”. The photo shows Nazi war criminals awaiting judgement at the Nuremberg trials.

In the world as it could be, the Nuremberg Principles would be widely recognized as an important first step towards the establishment of a federal system of global governance with the power to make and enforce international laws that are binding on individuals.

JUDGMENT AT NUREMBERG

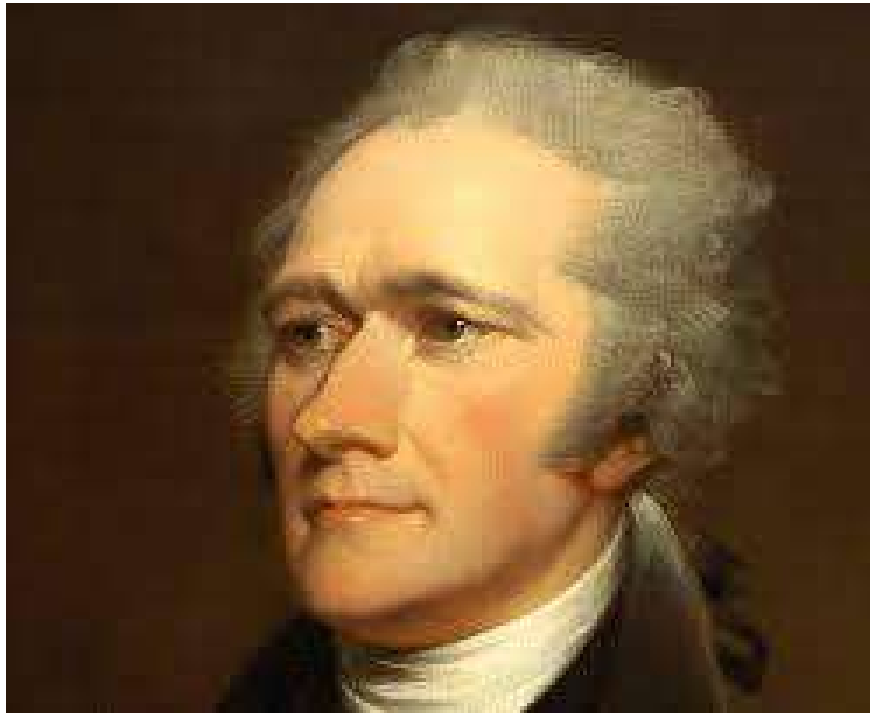
by ABBY MANN

TOURING 2016-2017



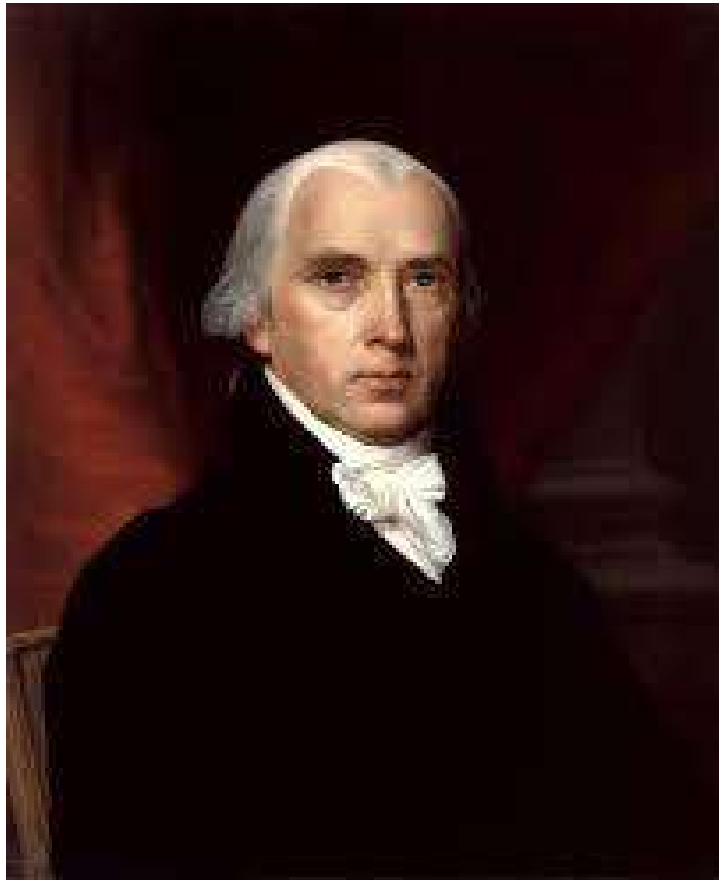
In the world as is, you cannot just say “I was acting under orders”. Judgment at Nuremberg is a 1961 American courtroom drama film directed by Stanley Kramer, written by Abby Mann and starring Spencer Tracy, Burt Lancaster, Richard Widmark, Maximilian Schell, Werner Klemperer, Marlene Dietrich, Judy Garland, William Shatner, and Montgomery Clift. The film did much to make the public aware of individual responsibility in international law.

In the world as it could be, it would be recognized that to be effective, international laws must act on individuals. The Nuremberg Principles are an important step in this direction, and the establishment of the International Criminal Court, another important step.



In the world as is, Alexander Hamilton, whose portrait is shown here, believed that “To coerce the states is one of the maddest projects that was ever devised.” At present. the United Nations attempts to coerce nation states by imposing economic sanctions. These sanctions punish the people as a whole, rather than their guilty political leaders. They are thus both unjust and ineffective.

In the world as it could be, it would be universally recognized that to be effective and just, international laws must act on individuals. Federations have exactly this power. The United Nations must be strengthened, reformed, and converted into a federation.



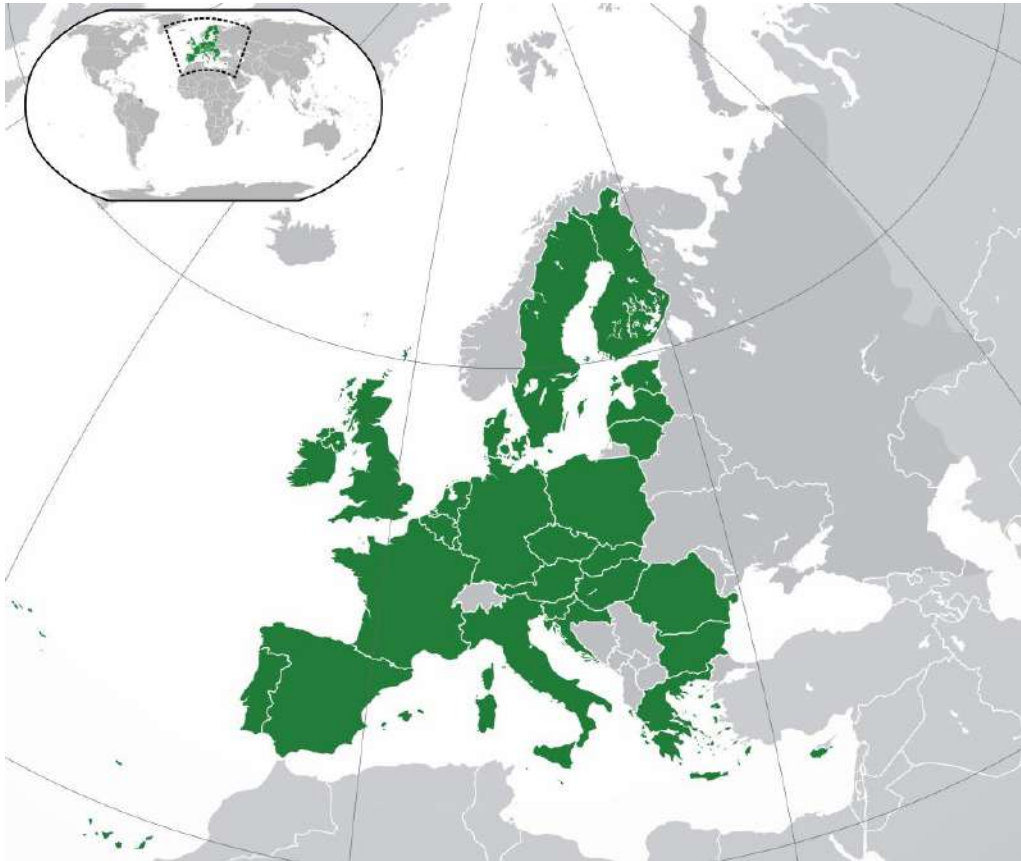
In the world as is, James Madison, wrote that the more he reflected on the use of force, the more he doubted the practicality, the justice and the efficacy of it when applied to people collectively, and not individually. He later introduced the Constitutional amendments that became the U.S. Bill of Rights.

In the world as it could be, a reformed United Nations Charter would give the UN the power to make laws that would be binding on individuals. Such laws would also make the Universal Declaration of Human Rights more enforceable.



In the world as is, the Nobel Laureate economist James Tobin proposed an extremely small tax on currency exchange transactions in order to damp excessive speculation and to stabilize exchange rates.. When asked what should be done with the proceeds of the tax, Tobin said, almost as an afterthought, "Let the United Nations have it." Although the proposed Tobin Tax would be very small, the volume of currency exchange transactions is so enormous that the tax could give the United Nations a greatly expanded and more reliable source of income.

In the world as it could be, the Tobin Tax would be adopted and would provide financial resources for UN agencies such as the Food and Agricultural Organization and the World Health Organization. The greatly expanded services provided by these organizations would give the United Nations valuable prestige and authority which would be helpful in solving political conflicts.



In the world as is, existing federations like the EU can give us insights as we work to develop the United Nations into a federation. The figure shows map of the European Union (before Brexit). The EU can be criticized for often ignoring the principle of subsidiarity, which requires that all local issues be settled locally, and that only interstate issues be settled at the federal level.

In the world as it could be, we would learn from both the successes and the shortcomings of existing federations. This would help us as we act to reform and strengthen the United Nations, and as we work to convert it into a federation.

ETHICS FOR THE FUTURE

Cultural evolution

In all terrestrial organisms, information is transmitted between generations by means of the genetic code; and genetic evolution takes place through natural selection acting on modifications of this code. In human cultural evolution, information is also transmitted between generations by means of language and writing. This second mode of evolution gave our species enormous adaptive advantages. While genetic changes are random and slow, cultural changes are purposeful and rapid. For example, when our ancestors moved out of Africa and spread over Europe and Asia, they did not adapt to the colder climate by growing long fur, but instead invented clothing.

Anachronistic human emotions

Our emotions have an extremely long evolutionary history. Both lust and rage are emotions that we share with many animals. However, with the rapid advance of human cultural evolution, our ancestors began to live together in progressively larger groups, and in these new societies, our inherited emotional nature was often inappropriate. What once was a survival trait became a sin which needed to be suppressed by morality and law.

After the invention of agriculture, roughly 10,000 years ago, humans began to live in societies which were sometimes multi-ethnic. In order to make towns, cities and finally nations function without excessive injustice and violence, both ethical and legal systems were needed.

The very long childhood of humans allows learned behavior to overwrite instinctive behavior.

Humans are capable of tribalistic inter-group atrocities such as genocides and wars, but they also have a genius for cooperation. Cultural evolution implies inter-group exchange of ideas and techniques. It is a cooperative enterprise in which all humans participate. It is cultural evolution that has given our special dominance. But cultural evolution depends on overwriting destructive tribalism with the principles of law, ethics, politeness and kindness. The success of human cultural evolution demonstrates that this is possible. Ethics can overwrite tribalism!

It is no accident that the great historical pioneers of ethics lived at a time when the agricultural revolution had made it possible for humans to

abandon their hunter-gather lifestyle and to live in settled communities. Neolithic villages appeared in Europe, India, Egypt, China, and Mesoamerica. As agricultural civilization progresses, the political units that had to be held together by ethics and laws became still larger - cities, and then nations. Our early hunter-gatherer ancestors had long practiced fierce inter-tribal warfare as they competed for territory on the grasslands of Africa. However, after the neolithic agricultural revolution, the settlement of multi-ethnic communities required new ethics to overwrite our anachronistic tribal emotions and behavior patterns. Thus we see the appearance of great social philosophers and religious leaders who developed ethical principles at precisely the time when they were needed.

Science and technology have changed our world

During the initial stages of human cultural evolution, the rate of change was slow enough for genetic adaptation to keep pace. The co-evolution of speech, tool use, and an enlarged brain in hominids took place over a period of several million years, and there was ample time for cultural evolution and genetic adaptation to follow each other. The prolonged childhood that characterizes our species, and the behavior patterns of familial and tribal solidarity, were built into the genomes of our ancestors during the era of slow change, when cultural and genetic evolution moved together in equilibrium. However, as the pace of cultural information accumulation quickened, genetic change could no longer keep up.

Genetically we are almost identical with our Neolithic ancestors; but their world has been replaced by a world of quantum theory, relativity, supercomputers, antibiotics, genetic engineering and space telescopes - unfortunately also a world of nuclear weapons and nerve-gas. Because of the slowness of genetic evolution in comparison to the rapid and constantly-accelerating rate of cultural change, our bodies and emotions are not adapted to our new way of life. They still reflect the way of life of our hunter-gatherer ancestors. Luckily, education in ethical principles is able to overwrite our anachronistic emotions and behavior patterns.

Global ethics

Today we live in a society where global communication is instantaneous, and where countries throughout the world interact economically. We need

a global ethical system to match our technologically advanced global society. A society that is technologically advanced, but ethically primitive, will destroy itself. To avert the twin threats of catastrophic climate change and an all-destroying nuclear war, our economic system must be given both an ecological conscience and a social conscience. We must construct a system of international law and governance that is appropriate for a united world. And finally, we need an ethical system in which loyalty to our own family and nation is broadened into loyalty to the large human family that includes all nations and all ethnic groups.

On our small but beautiful earth - made small by technology, made beautiful by nature - there is room for one group only: the family of humankind.



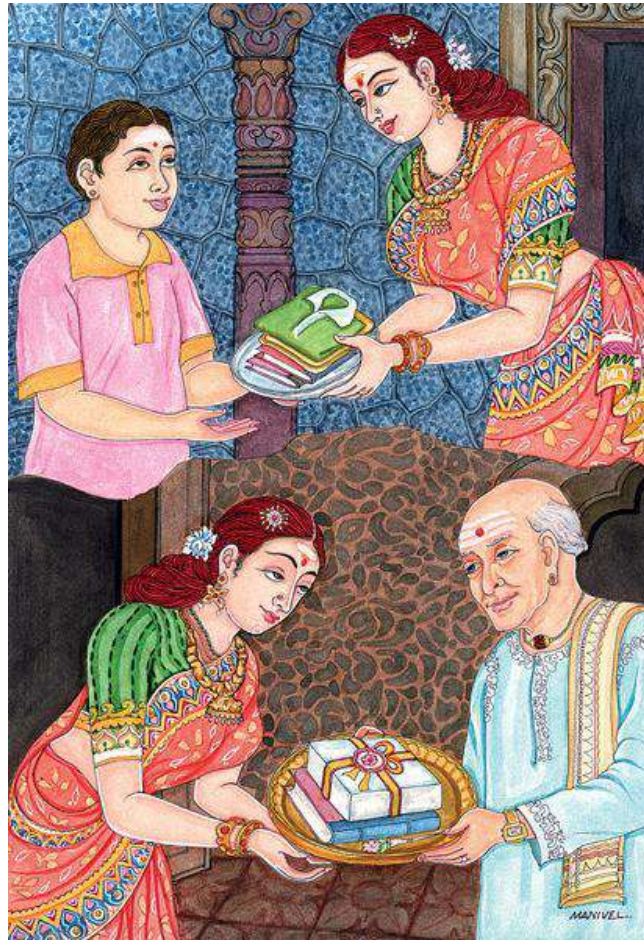
In the world as is, Pythagoras was both a religious reformer and a scientist. His ethical ideal was harmony, and he found a kinship between social harmony and harmony in the physical and mathematical world. In Raphael's fresco "The School of Athens", Pythagoras is shown writing in a book as a young man presents him with a tablet showing a diagrammatic representation of a lyre above a drawing of the sacred tetractys.

In the world as it could be, we would learn from Pythagorean ethics and strive for social harmony.



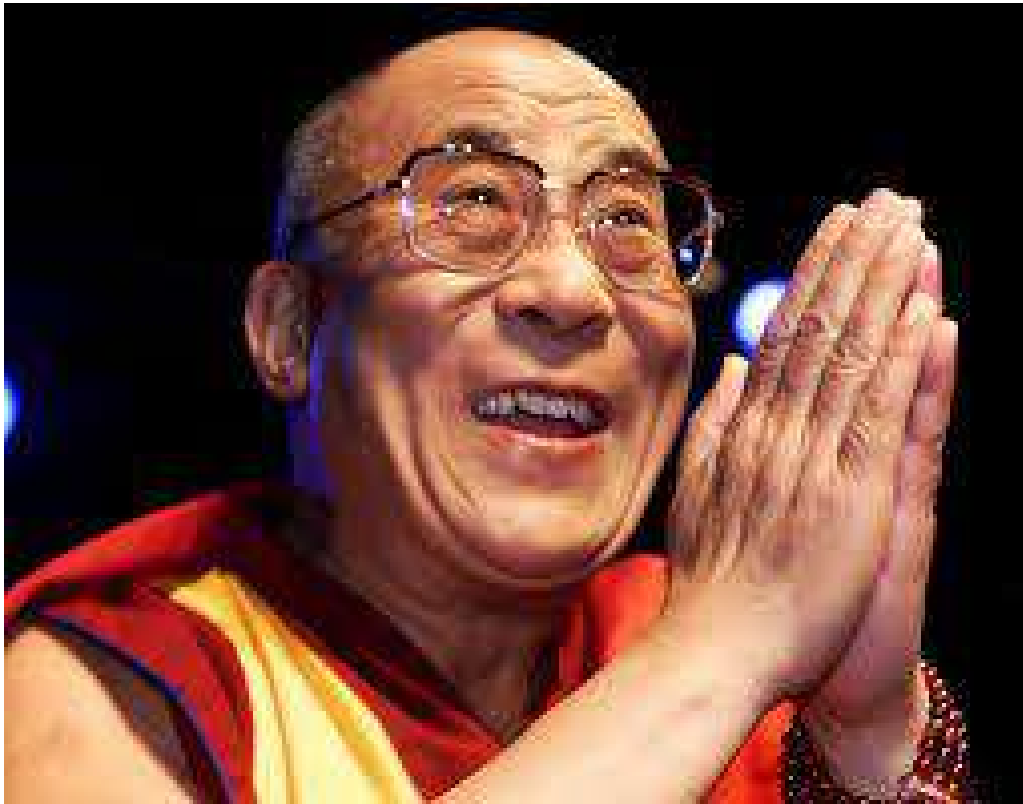
In the world as is, Jesus said “Thou shalt love thy neighbor as thyself.” When asked “Who is my neighbor?”, he answered with the Parable of the Good Samaritan. Our neighbor may belong to an ethnic group to which we are traditionally hostile, or be separated from us by geographical distance. He or she is still our neighbor, and deserves our love and protection.

In the world as it could be, Jesus’ answer to the question, “Who is my neighbor?” would make war impossible for Christians. Quakers already acknowledge this fact.



In the world as is, the concept of karma is a useful ethical idea. In this painting illustrating the concept of karma, lady gives books and clothing to a poor student. Later she receives a gift from a neighbor. There may sometimes be a direct causal connection between such events, but often they are connected only by the fact that each act of kindness makes the world a better place.

In the world as it could be, the idea of karma, given to us by eastern civilizations, would also be adopted in the west.



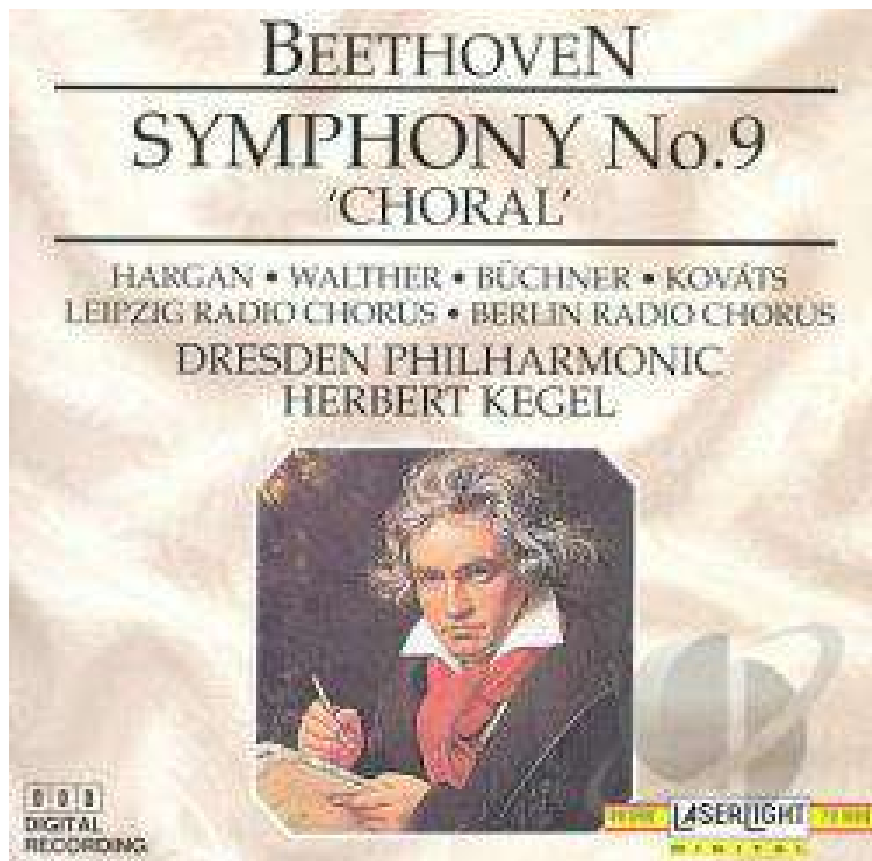
In the world as is, His Holiness the 14th Dalai Lama of Tibet tells us that we need two hands for our tasks in life, the right hand and the left hand. Without both hands, we cannot cope properly with the problems of life. These two hands, both of which we need, are science and ethics. He has also pointed out that it is a characteristic of human nature that we cannot be truly happy if our actions are selfish. True happiness comes from service to others.

In the world as it could be, we would learn from the Dalai Lama's wise words.



In the world as is, the International Campaign to Abolish Nuclear Weapons receiver the 2017 Nobel Peace Prize for its successful efforts to achieve a treaty banning nuclear weapons. From left to right in the photograph: Berit Reiss-Andersen, Chairman of the Norwegian Nobel Committee, Setsuko Thurlow, an 85-year-old survivor of the 1945 atomic bombing of Hiroshima, and ICAN Executive Director Beatrice Fihn

In the world as it could be, all nations would support and ratify the Treaty on the Prohibition of Nuclear Weapons (TPNW). World public opinion would force nuclear weapons states to conform to the treaty-



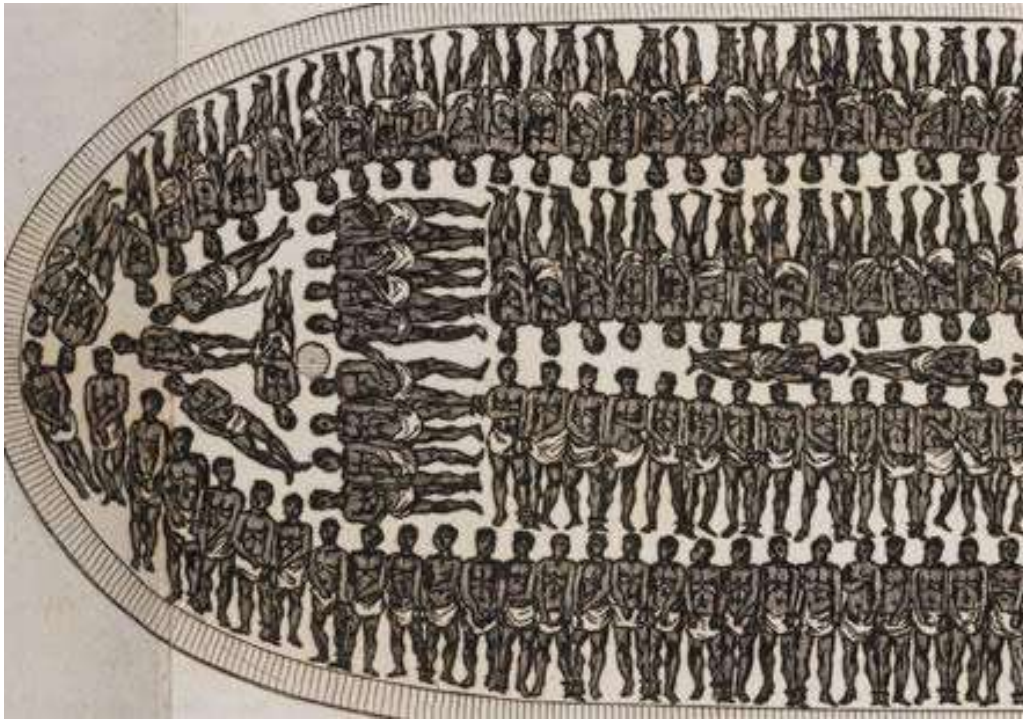
In the world as is, Beethoven's 9th symphony is almost a national anthem of humanity, All people belong to a great family. Not just some. ALL!

In the world as it could be, Beethoven's great music and Schiller's words would inspire us to forge a new global ethic in which loyalty to humanity as a whole supersedes narrow loyalties.



In the world as is, Count Leo Tolstoy said “The sharpest of all contradictions can be seen between the government’s professed faith in the Christian law of the brotherhood of all humankind, and the military laws of the state, which force each young man to prepare himself for enmity and murder, so that each must be simultaneously a Christian and a gladiator.”

In the world as it could be, we would be inspired by the books on ethical problems which Tolstoy wrote in his old age.



In the world as is, we can hope and work for a time when war, like slavery, will exist only as a dark memory, fading into the past. The illustration shows a diagram of a slave ship. Many slaves died while being transported in this way, and their bodies were thrown overboard.

In the world as it could be, the courage and tenacity of the men and women who worked to rid the world of slavery would inspire us as we work to abolish an even greater evil, the institution of war.



In the world as is, child labor should be forbidden. The photo shows a young girl working on a loom in Ait Benhaddou, Morocco in May, 2008.

In the world as it could be, child labor, child slavery, forced early marriage and all other abuses of children would be combatted by effective international laws. Better education for all the world's children would have a high priority.



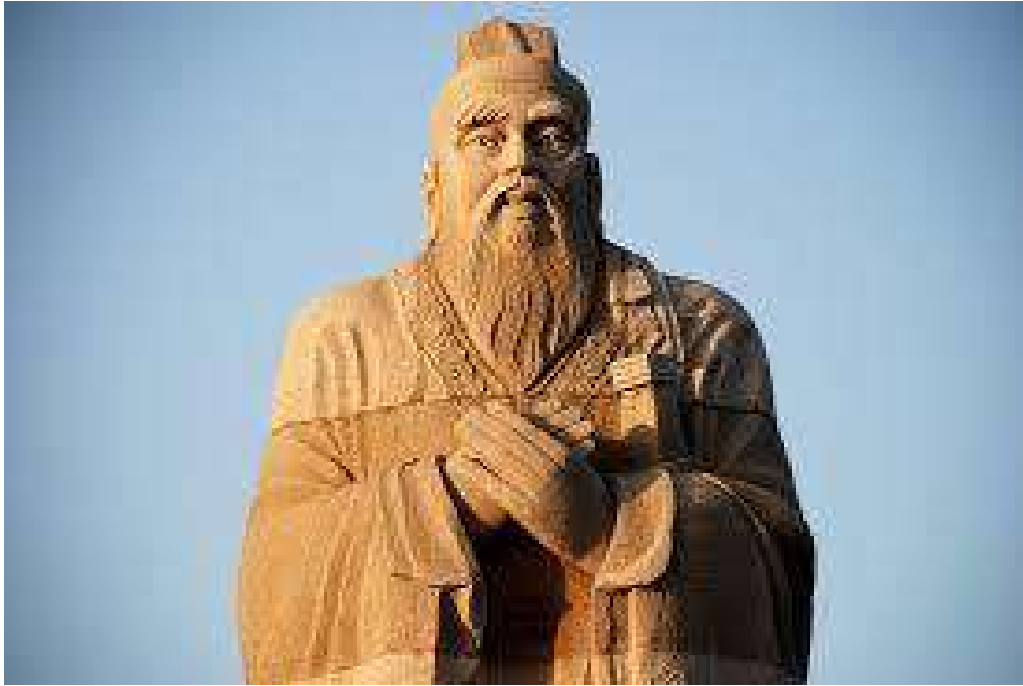
In the world as is, on Friday, November 15, 2019, in a speech at the Vatican, Pope Francis issued a warning against the rise of fascist forces worldwide that remind him of the Nazis of the 20th Century as he also railed against corporate crimes and announced consideration of adding “sins against ecology” to the church’s official teachings. “The principle of profit maximization, isolated from any other consideration, leads to a model of exclusion which violently attacks those who now suffer its social and economic costs, while future generations are condemned to pay the environmental costs”, he said.

In the world as it could be, the principle of profit maximization would be replaced by an economic system with both a social conscience and an ecological conscience. Corporations would be held responsible for their sins against the global environment.



In the world as is, as expressed in the Buddha's Four Noble Truths, the goal of Buddhism is to overcome suffering caused by desire or craving, attachment to a static self, and ignorance of the true nature of reality. The Buddhist concept of the unity of all things, especially the unity of human society and nature, is lacking in the three Abrahamic religions, Christianity, Judaism and Islam.

In the world as it could be, the best features if Buddhism would influence the followers of other religions. The concept of unity with nature is especially important.



In the world as is, Confucius (551 BC - 479 BC) taught his followers personal and governmental morality, correctness of social relationships, justice, kindness, and sincerity. Confucianism has been an important part of Chinese society during most of China's history.

In the world as it could be, the wisdom of Confucius would be recognized, not only in China, but also in all other countries.



In the world as is, Lao Tzu, meaning “old master”, was a semi mythological figure who may have lived in China in the 4th century BC. He is said to have founded Taoism, a philosophy or religion that emphasizes unity with the unplanned rhythms of the universe, which are called “the way”, or “tao”. Taoist ethics emphasize naturalness, simplicity and spontaneity, and the “three treasures”, compassion, frugality and humility.

In the world as it could be, the wisdom of Taoism would also be valued.



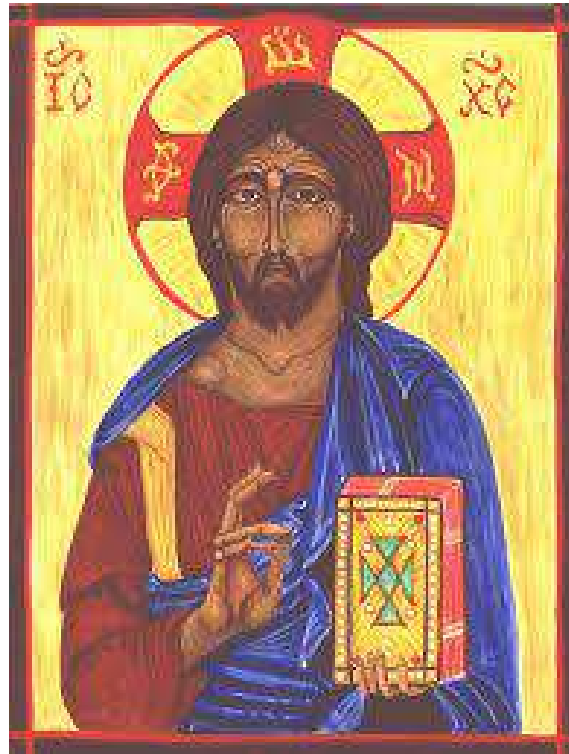
In the world as is, Socrates (c. 470 BC - 399 BC) considered virtuousness to require or consist of “thought, sense, judgement, practical wisdom, and prudence.” Therefore, he believed that wrongdoing and behavior that was not virtuous resulted from ignorance, and that those who did wrong knew no better.

In the world as it could be, we would combat ignorance, which Socrates believed to be the source of wrongdoing. Good education would be seen as contributing to moral virtue.



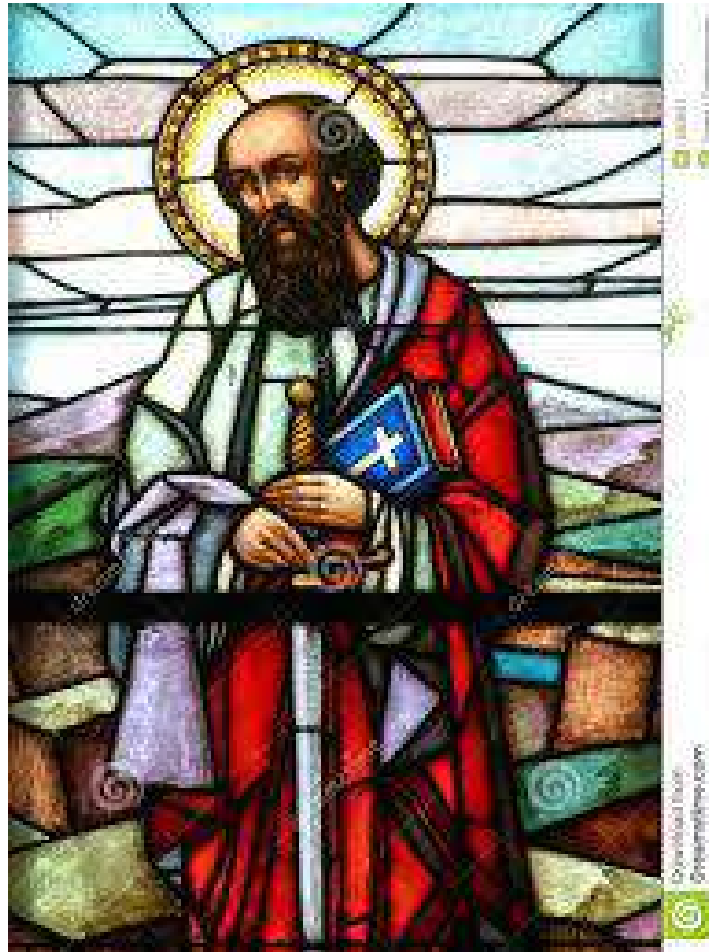
In the world as is, Plato (428 BC - 348 BC) was the student of Socrates, the teacher of Aristotle and the founder of the Academy. Regarding politics, he wrote (putting the words in the mouth of Socrates), "Until philosophers rule as kings or those who are now called kings and leading men genuinely and adequately philosophize, that is, until political power and philosophy entirely coincide, while the many natures who at present pursue either one exclusively are forcibly prevented from doing so, cities will have no rest from evils, nor, I think, will the human race."

In the world as it could be, our politicians would be philosophers, and our philosophers, politicians.



In the world as is, Jesus said, “Ye have heard that it hath been said, Thou shalt love thy neighbor, and hate thine enemy. But I say unto you, Love your enemies, bless them that curse you, do good to them that hate you, and pray for them which despitefully use you, and persecute you. For if ye love them which love you, what reward have ye? do not even the publicans the same? And if ye salute your brethren only, what do ye more than others? do not even the publicans so? Be ye therefore perfect, even as your Father which is in heaven is perfect.”

In the world as it could be, the commandment that we should love our enemies would make war impossible for Christians.



In the world as is, Saint Paul said, “And now these three remain: faith, hope and love. But the greatest of these is love.”

In the world as it could be, love would be the central principle of society - not selfish love, but unselfish love.



In the world as is, Pope Francis I carries to us the message of Saint Francis. Pope Francis tells us that the true interpretation of Christianity includes respect for nature, social justice and opposition to the institution of war. The image shows Saint Francis, in a painting by Giotto, preaching to the birds.

In the world as it could be, the interpretation of Christianity shared by Saint Francis and Pope Francis, would be shared by all Christians.



In the world as is, the wisdom and writings of the classical Greek philosophers survived in the Islamic world during the dark ages that followed the fall of Rome. These texts were translated from Arabic and Persian into Latin during a period when the three Abrahamic religions lived together in harmony in Spain, thus leading to the European Renaissance. The image shows mosaics in the Alhambra.

In the world as it could be, the Islamic world would be thanked for preserving the texts of classical philosophers.



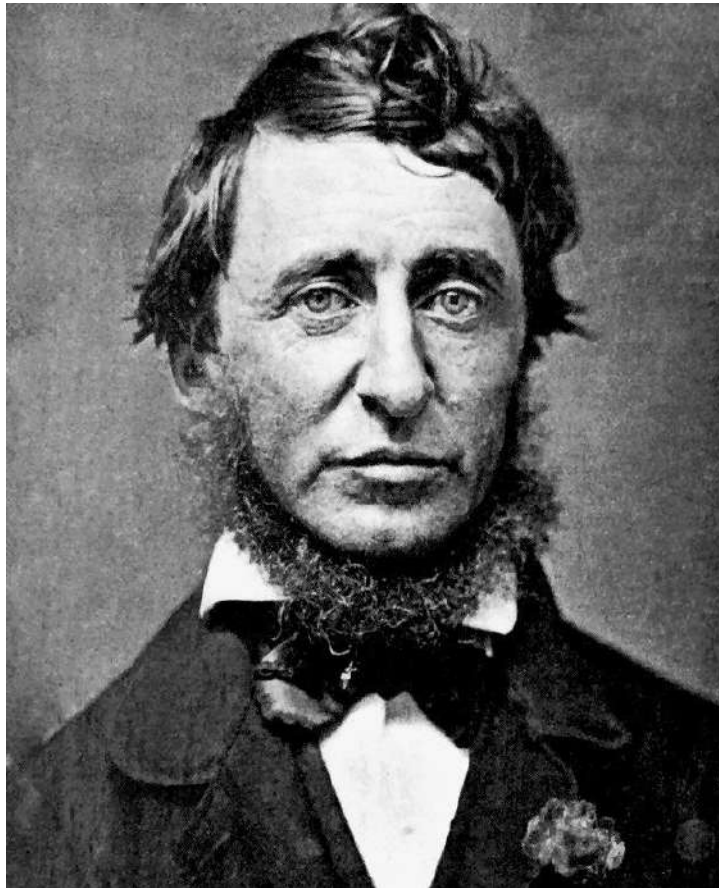
In the world as is, Christian scholars remained in Toledo, Spain, after the Muslim conquest, and the city became a center for the translation of classical manuscripts from Arabic into Latin and Hebrew. For a long period, the three Abrahamic religions lived in harmony together in Toledo, each making cultural contributions. Islamic workmen and artists helped to build and decorate the city's beautiful cathedral.

In the world as it could be, the example of Toledo's long period of tolerance and cultural exchanges would inspire us to work for harmony between religions.



In the world as is, Mahatma Gandhi firmly rejected the pernicious doctrine that “the end justifies the means”. Gandhi said: “They say means are after all means. I would say means are after all everything. As the means so the end. Indeed, the Creator has given us limited power over means, none over end... The means may be likened to a seed, and the end to a tree; and there is the same inviolable connection between the means and the end as there is between the seed and the tree. Means and end are convertible terms in my philosophy of life.”

In the world as it could be, we would learn from Gandhi and always reject the false doctrine that “the end justifies the means”.



In the world as is, Henry David Thoreau said, “Simplify your life. Don’t waste the years struggling for things that are unimportant. Don’t burden yourself with possessions. Keep your needs and wants simple and enjoy what you have. Don’t destroy your peace of mind by looking back, worrying about the past. Live in the present. Simplify!”

In the world as it could be, we would read Thoreau’s enormous literary output, and learn from his thoughts on simplicity, harmony with nature, and non-violent civil disobedience as a means of resisting injustice.



In the world as is, Bertha von Suttner was a friend of Alfred Nobel, and she persuaded him to set up the Nobel Peace Prize. She herself was an early recipient of the award. She said, "Strange how blind people are! They are horrified by the torture chambers of the Middle Ages, but their arsenals fill them with pride!"

In the world as it could be, Bertha von Suttner's lifelong work for peace and internationalism would inspire our efforts to abolish the insanity of war.



In the world as is, Helen Keller overcame a double handicap and became a popular lecturer and writer who brought a moral message to her audiences: Although blind, she could see injustice. Although deaf, she could hear the cries of the oppressed, and the voices of victims of war.

In the world as it could be, Helen Keller's life would inspire us to overcome all difficulties and to make our maximum contribution to social justice and peace.



In the world as is, Eleanor Roosevelt was instrumental in drafting the Universal Declaration of Human Rights. During her husband's many terms as President of the United States, she became his social conscience, reminding him of the need for racial equality, relief of poverty, and freedom of the press.

In the world as it could be, we would remember, and be inspired by, Eleanor Roosevelt's work for human rights, racial equality, and social justice. She would act as our social conscience.



In the world as is, Dr. Martin Luther King Jr. said, "Wisdom born of experience should tell us that war is obsolete. There may have been a time when war served a negative good by preventing the spread of an evil force, but the power of modern weapons eliminates even the possibility that war may serve as a negative good. If we assume that life is worth living, and that man has a right to survival, then we must find an alternative to war."

In the world as it could be, we would remember Rev. King not only as a hero of the civil rights movement, but also as an opponent of the Vietnam War and all other wars.



In the world as is, the thin layer of atmosphere covering the earth is vulnerable to the greenhouse gases that can cause catastrophic climate change. At night we can see the massive energy use that produces these greenhouse gases. The image shows the earth at night, seen from space.

In the world as it could be, we would protect and care for the earth. It is our only home.



In the world as is, the final speech from Chaplin's film "The Great Dictator" can give us hope: "Look up, Hannah!. Let us fight to free the world, to do away with national barriers, to do away with greed, with hate and intolerance. Let us fight for a world of reason, a world where science and progress will lead to all men's happiness... Look up, Hannah. The soul of man has been given wings, and at last he is beginning to fly. He is flying into the rainbow - into the light of hope, into the future, the glorious future that belongs to you, to me, and to all of us. Look up, Hannah. Look up!"

In the world as it could be, hope, which was also one of the three enduring things mentioned by Saint Paul, would give us courage to work for a better future.



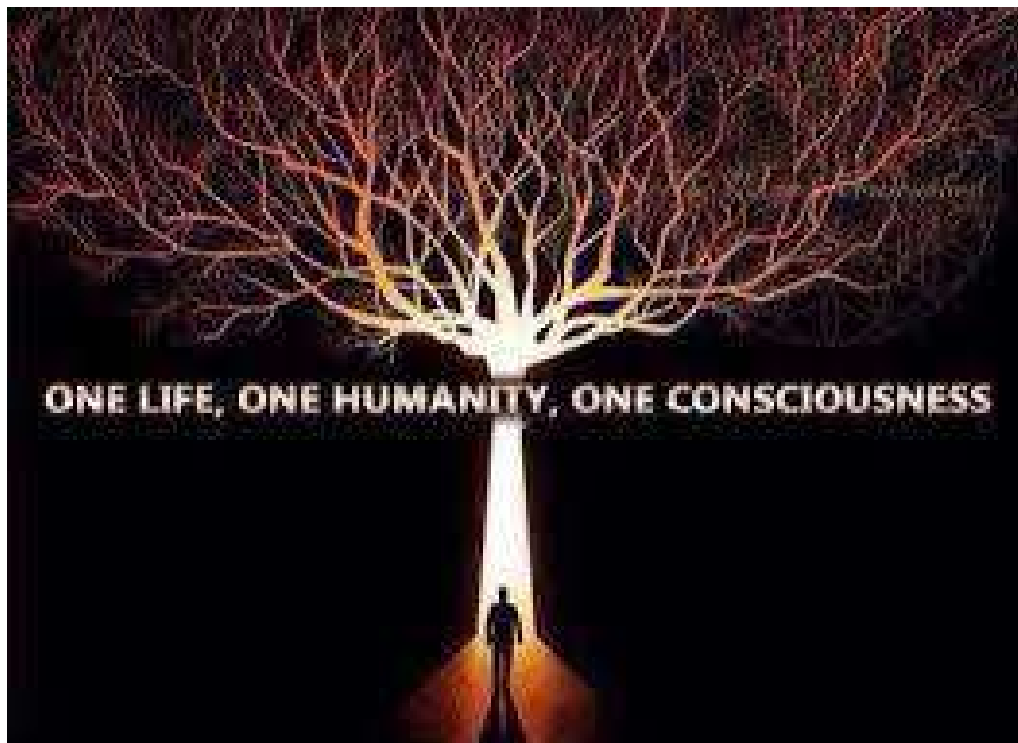
In the world as is, we can do little alone, but together we can do so much! All nations, races and religions must join hands. We can create a better world, not the world as it is, but the world as it could be.

In the world as it could be, we must join hands. On our small but beautiful earth, made small by technology, made beautiful by nature, there is room for one group only: the family of humankind.



In the world as is, Gauguin's famous painting, "Where do we come from? What are we? Where are we going?" expresses the riddle of human life. Are humans good or evil? What will be our collective fate? What are we? Where are we going?

In the world as it could be, we would work with dedication to save the future of human civilization and the biosphere.



In the world as is, each human being is a part of the collective human consciousness. The interdependence of our society is particularly apparent today. No single person has any idea of how the objects that we use every day are produced, but this knowledge constitutes the collective human consciousness to which every person contributes.

In the world as it could be, we would acknowledge our interdependence, and join hands to produce a better world.

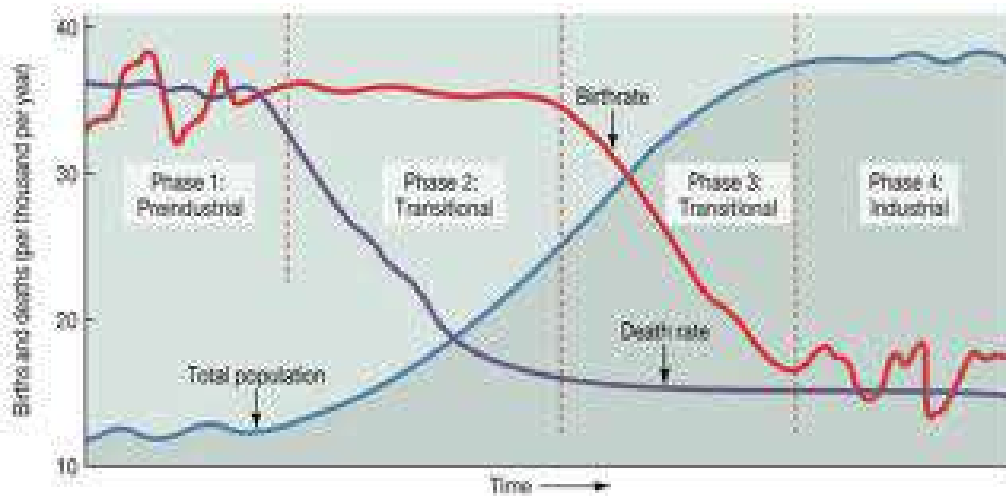


**THE WORLD AS IT IS
AND THE WORLD AS IT COULD BE**



In the world as it is, 1.7 trillion US dollars are spent each year on armaments.

In the world as it could be, the enormous sums now wasted on war would be used to combat famine, poverty, illiteracy, and preventable disease.



In the world as it is, population is increasing so fast that it doubles every thirty-nine years. Most of this increase is in the developing countries, and in many of these, the doubling time is less than twenty-five years. Famine is already present, and it threatens to become more severe and widespread in the future.

In the world as it could be, population would be stabilized at a level that could be sustained comfortably by the world's food and energy resources. Each country would be responsible for stabilizing its own population.



In the world as it is, the nuclear weapons now stockpiled are sufficient to kill everyone on earth several times over. Nuclear technology is spreading, and many politically unstable countries have recently acquired nuclear weapons or may acquire them soon. Even terrorist groups or organized criminals may acquire such weapons, and there is an increasing danger that they will be used.

In the world as it could be, both the manufacture and the possession of nuclear weapons would be prohibited. The same would hold for other weapons of mass destruction.



In the world as it is, 40% of all research funds are used for projects related to armaments.

In the world as it could be, research in science and engineering would be redirected towards solving the urgent problems now facing humanity, such as the development of better methods for treating tropical diseases, new energy sources, and new agricultural methods. An expanded UNESCO would replace national military establishments as the patron of science and engineering.



In the world as it is, gross violations of human rights are common. These include genocide, torture, summary execution, and imprisonment without trial.

In the world as it could be, the International Human Rights Commission would have far greater power to protect individuals against violations of human rights.



In the world as it is, armaments exported from the industrial countries to the Third World amount to a value of roughly 17 billion dollars per year. This trade in arms increases the seriousness and danger of conflicts in the less developed countries, and diverts scarce funds from their urgent needs.

In the world as it could be, international trade in arms would be strictly limited by enforceable laws.



In the world as it is, an estimated 10 million children die each year from starvation or from diseases related to malnutrition.

In the world as it could be, the international community would support programs for agricultural development and famine relief on a much larger scale than at present.



In the world as it is, diarrhoea spread by unsafe drinking water kills an estimated 6 million children every year.

In the world as it could be, the installation of safe and adequate water systems and proper sanitation in all parts of the world would have a high priority and would be supported by ample international funds.



In the world as it is, malaria, tuberculosis, AIDS, cholera, schistosomiasis, typhoid fever, typhus, trachoma, sleeping sickness and river blindness cause the illness and death of millions of people each year. For example, it is estimated that 200 million people now suffer from schistosomiasis and that 500 million suffer from trachoma, which often causes blindness. In Africa alone, malaria kills more than a million children every year.

In the world as it could be, these preventable diseases would be controlled by a concerted international effort. The World Health Organization would be given sufficient funds to carry out this project.



In the world as it is, the rate of illiteracy in the 25 least developed countries is 80%. The total number of illiterates in the world is estimated to be 800 million.

In the world as it could be, the international community would aim at giving all children at least an elementary education. Laws against child labour would prevent parents from regarding very young children as a source of income, thus removing one of the driving forces behind the population explosion. The money invested in education would pay economic dividends after a few years.



In the world as it is, there is no generally enforceable system of international law, although the International Criminal Court is a step in the right direction.

In the world as it could be, the General Assembly of the United Nations would have the power to make international laws. These laws would be binding for all citizens of the world community, and the United Nations would enforce its laws by arresting or fining individual violators, even if they were heads of states. However, the laws of the United Nations would be restricted to international matters, and each nation would run its own internal affairs according to its own laws.



In the world as it is, each nation considers itself to be “sovereign”. In other words, every country considers that it can do whatever it likes, without regard for the welfare of the world community. This means that at the international level we have anarchy.

In the world as it could be, the concept of national sovereignty would be limited by the needs of the world community. Each nation would decide most issues within its own boundaries, but would yield some of its sovereignty in international matters.



In the world as it is, the system of giving “one nation one vote” in the United Nations General Assembly means that Monaco, Liechtenstein, Malta and Andorra have as much voting power as China, India, the United States and Russia combined. For this reason, UN resolutions are often ignored.

In the world as it could be, the voting system of the General Assembly would be reformed. One possible plan would be for final votes to be cast by regional blocks, each block having one vote. The blocks might be. 1) Latin America 2) Africa 3) Europe 4) North America 5) Russia and Central Asia 6) China 7) India and Southeast Asia 8) The Middle East and 9) Japan, Korea and Oceania.



In the world as it is, the United Nations has no reliable means of raising revenues.

In the world as it could be, the United Nations would have the power to tax international business transactions, such as exchange of currencies. Each member state would also pay a yearly contribution, and failure to pay would mean loss of voting rights.



In the world as it is, young men are forced to join national armies, where they are trained to kill their fellow humans. Often, if they refuse for reasons of conscience, they are thrown into prison.

In the world as it could be, national armies would be very much reduced in size. A larger force of volunteers would be maintained by the United Nations to enforce international laws. The United Nations would have a monopoly on heavy armaments, and the manufacture or possession of nuclear weapons would be prohibited.



In the world as it is, young people are indoctrinated with nationalism. History is taught in such a way that one's own nation is seen as heroic and in the right, while other nations are seen as inferior or as enemies.

In the world as it could be, young people would be taught to feel loyalty to humanity as a whole. History would be taught in such a way as to emphasize the contributions that all nations and all races have made to the common cultural heritage of humanity.



In the world as it is, young people are often faced with the prospect of unemployment. This is true both in the developed countries, where automation and recession produce unemployment, and in the developing countries, where unemployment is produced by overpopulation and by lack of capital.

In the world as it could be, the idealism and energy of youth would be fully utilized by the world community to combat illiteracy and disease, and to develop agriculture and industry in the Third World. These projects would be financed by the UN using revenues derived from taxing international currency transactions.



In the world as it is, women form more than half of the population, but they are not proportionately represented in positions of political and economic power or in the arts and sciences. In many societies, women are confined to the traditional roles of childbearing and housekeeping.

In the world as it could be, women in all cultures would take their place beside men in positions of importance in government and industry, and in the arts and sciences. The reduced emphasis on childbearing would help to slow the population explosion.



In the world as it is, pollutants are dumped into our rivers, oceans and atmosphere. Some progress has been made in controlling pollution, but far from enough.

In the world as it could be, a stabilized and perhaps reduced population would put less pressure on the environment. Strict international laws would prohibit the dumping of pollutants into our common rivers, oceans and atmosphere. The production of greenhouse gasses would also be limited by international laws.



In the world as it is, there are no enforceable laws to prevent threatened species from being hunted to extinction. Many indigenous human cultures are also threatened.

In the world as it could be, an enforceable system of international laws would protect threatened species. Indigenous human cultures would also be protected.



In the world as it is, large areas of tropical rain forest are being destroyed by excessive timber cutting. The cleared land is generally unsuitable for farming.

In the world as it could be, it would be recognized that the conversion of carbon dioxide into oxygen by tropical forests is necessary for the earth's climatic stability. Tropical forests would also be highly valued because of their enormous diversity of plant and animal life, and large remaining areas of forest would be protected.



In the world as it is, opium poppies and other drug-producing plants are grown with little official hindrance in certain parts of Asia, the Middle East, and Latin America. Hard drugs refined from these plants are imported illegally into the developed countries, where they become a major source of high crime rates and human tragedy.

In the world as it could be, all nations would work together in a coordinated world-wide program to prevent the growing, refinement and distribution of harmful drugs,



In the world as it is, modern communications media, such as television, films and newspapers, have an enormous influence on public opinion. However, this influence is only rarely used to build up international understanding and mutual respect.

In the world as it could be, mass communications media would be more fully used to bridge human differences. Emphasis would be shifted from the sensational portrayal of conflicts to programs that widen our range of sympathy and understanding.



In the world as it is, international understanding is blocked by language barriers.

In the world as it could be, an international language would be selected, and every child would be taught it as a second language.



In the world as it is, power and material goods are valued more highly than they deserve to be. "Civilized" life often degenerates into a struggle of all against all for power and possessions. However, the industrial complex on which the production of goods depends cannot be made to run faster and faster, because we will soon encounter shortages of energy and raw materials.

In the world as it could be, nonmaterial human qualities, such as kindness, politeness, and knowledge, and musical, artistic or literary ability would be valued more highly, and people would derive a larger part of their pleasure from conversation, and from the appreciation of unspoiled nature.



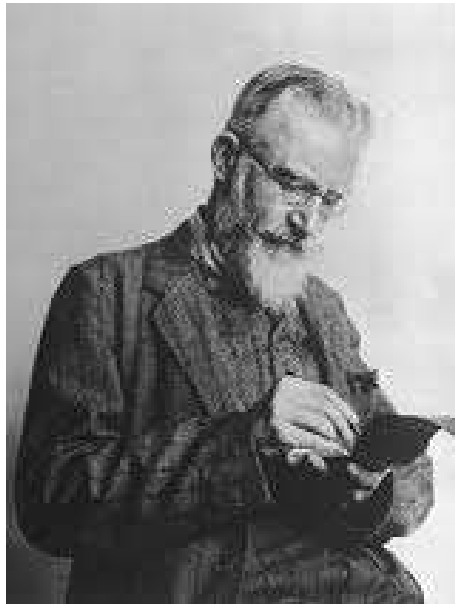
In the world as it is, the institution of slavery existed for so many millennia that it seemed to be a permanent part of human society. Slavery has now been abolished in almost every part of the world. However war, an even greater evil than slavery, still exists as an established human institution.

In the world as it could be, we would take courage from the abolition of slavery, and we would turn with energy and resolution to the great task of abolishing war.



In the world as it is, people feel anxious about the future, but unable to influence it. They feel that as individuals they have no influence on the large-scale course of events.

In the world as it could be, ordinary citizens would realize that collectively they can shape the future. They would join hands and work together for a better world. They would give as much of themselves to peace as peace is worth.



As George Bernard Shaw once said, “Most people look at the world as it is and ask ‘Why?’. We should look at the world as it could be and ask, ‘Why not?’”





