

## **Global Warming and Judaism- a Yom Kippur Call to Action**

By Ellie M. Cohen<sup>1</sup>

Congregation Shaar Zahav, San Francisco, California, October 2, 2006

My 4 year old daughter Leah and I were fortunate to spend a few days in August on a beautiful high Sierra lake. One morning we decided to attempt her first fishing lesson. The early morning air was pine-resin, mountain fresh as we sat down at the edge of the small dock. The lake was quite still at first—a mirror reflecting the rising sun and the forests that lined the shores.

We carefully cast out our line, trying hard to avoid getting hooked ourselves. Together we very gradually pulled the line in, with the lightweight reel clicking and ratcheting each step. We had no bait — our biggest catch was some “lakeweed.” After a few castings, Leah took off her shoes and socks, happily dangling her feet in the still-ice-cold snow-melted water.

Suddenly a brisk wind picked up and we snuggled closer. She dodged the chill by laying flat on her back on the sun-warmed dock and I joined her. The new view was enchanting. We found ourselves looking straight up into the most magnificent blue sky -- that clarity you can only see when you are a mile and a half above sea level. Wisps of clouds moved in from the south—enormous feathers of the whitest whites as Leah described them. Then she asked, is that God? I hesitated, then with great parental authority, asked.... what do you think? She replied, “I think God is everywhere-- in the clouds, in the wind, in the trees, in the birds and in the ground.” God was definitely present in that very special moment.

The High Holidays are a time to contemplate the meaning of ‘the clouds and the ground’ –of heaven and earth, as we celebrate the creation of the world, its incredible diversity of inhabitants and the powerful forces that shape it every day. On *Yom Kippur* especially—as we explore repentance and forgiveness on this holiest of days, this final day of the *Yamim Noraim*, the Days of Awe—we refrain from earthly pleasures, abstain from food, even abstain from colorful clothing as our thoughts are focused towards heaven. Yet paradoxically, *Yom Kippur* prayers constantly bring us back to earth by urging us to reflect on our mundane routines and behaviors to reach the lofty goals of reconciliation and renewal.

Rabbi Eleazar son of Rabbi Simeon observed almost 2,000 years ago, ‘Why does Scripture at times put earth before heaven and at other times heaven before earth? To teach that the two are of equal value.’<sup>2</sup>

What better day than today to contemplate heaven and earth, the oneness of our world, our role as stewards of God’s creation and our commitment as Jews to preserving it.

Judaism teaches us again and again the importance of passing along our values and knowledge to the next generation—inching our way *l’dor va dor* [from generation to generation] towards a greater collective capacity to repair the world- towards tikkun olam. This is perhaps most profoundly presented in a prayer we traditionally repeat multiple times daily, in every Jewish service and throughout the High Holidays – the *Shema*.<sup>3</sup>

If you accept my daughter's insights and my own beliefs- that God is everywhere and everything—the Shema transforms into a meditation about the unity of heaven and earth, a commandment to respect the oneness of our world and a clarion call to preserve it from one generation to the next, with dire consequences if we do not.

“*Shema Yisrael Adonai Eloheinu Adonai Echad.*” “Hear O Israel, Adonai our God Adonai is one.”<sup>4</sup> We are to keep God's commandments and teach them to our children and children's children, when we get up and when we lie down, sitting or walking, on our doorposts and all the days of our lives, all the time and everywhere.

Are we capable of hearkening to this ancient teaching of our people?

There are 2 other paragraphs of the *Shema*<sup>5</sup> that are less commonly read - at least in Reform congregations. The 2<sup>nd</sup> provides a shockingly prescient view into our world today.

After extolling the many wonders that will be bestowed upon us if we follow God's commandments, the prayer reads:

“Take-you-care, lest your heart be seduced, so that you turn-aside and serve other gods and prostrate yourselves to them, and the anger of Adonai flare up against you so that God shuts up the heavens, and there is no rain, and the earth does not give forth its yield and you perish quickly from off the good land that Adonai is giving you.”

After this severe warning, we are reminded again of our obligations to God's creation and the need to teach them to our children, "in order that your days may be many, along with the days of your children ... to give them as long as the days of the heavens over the earth."

*"To give them as long as the days of the heavens over the earth."* Can we do that today for our children in a world that is fouled by waste you and I constantly produce in our fossil-fuel driven opulence? Can we possibly provide the next generation with the hope that they will inherit anything like the world in which we grew up?

*"To give them as long as the days of the heavens over the earth."* What time frame is this referring to? Geologic time scales are mind boggling.<sup>6</sup> If you put earth's geologic history into a calendar year, the earth was formed on January 1st, multi-cellular life appears in mid-summer, dinosaurs around Chanukah and humans arrive on the scene at about 10 minutes before midnight on New Year's Eve.

The development of civilization that began with the retreat of the last massive ice sheets from the northern Hemisphere, when humans found a *Gan Eden* [Garden of Eden] climate around the world, when culture, arts, music, science, and religion germinated and blossomed, that truly remarkable time in the history of our planet occurred within the very last minute of this entire geologic year of earth's history.

And in this last minute of time, we, individually and collectively, have brought upon ourselves a pervasive cancer that threatens to become terminal— not in our children’s or their children’s generations—but NOW.

*“To give them as long as the days of the heavens over the earth.”* This verse takes on a new and truly urgent meaning in the context of global warming. Indeed, Rabbi Eleazar’s teaching that heaven and earth are of equal value is now being proven. Scientists are beginning to decipher the complex interplay of chemicals in the ocean, in the atmosphere and on land which together supports life on earth.

In the simplest terms, when the sun’s energy reaches the earth, it warms the atmosphere. Water vapor, carbon dioxide, methane and other gases prevent the heat from escaping back into space by trapping it like a huge blanket or greenhouse.<sup>7</sup> It is what makes life on our planet possible.

But our insatiable appetite for coal, gas, oil and timber<sup>8</sup> threatens to permanently tip the scales against human society and the wild animal kingdom.

A new study by the British Antarctic Survey found that we humans have increased carbon dioxide in the atmosphere to the highest levels of any time in the past 800,000 years. And the fastest significant increase occurred in just the past 17 years.<sup>9</sup>

The ocean drives our weather day to day but it takes a few decades to absorb extra heat in the atmosphere. The deadly hurricanes, droughts and heat waves we've experienced recently actually reflect the atmosphere of the 1970s—not any of the major increases in our carbon pollution since then!<sup>10</sup>

The combination of a warming ocean with dramatic sea level rise<sup>11</sup> from rapidly melting ice in Antarctica, Greenland and the Arctic<sup>12</sup>...where ice is now melting even in the winter<sup>13</sup>... will be devastating. Imagine Hurricane Katrina times a thousand. Increasingly unpredictable and violent weather by mid-century will likely kill millions of people each year.<sup>14</sup> Even more will become global warming refugees putting catastrophic pressure on what remains of society's infrastructure.

I am the Executive Director of a conservation science nonprofit that studies birds and ecosystems. During the past 2 years, our staff biologists witnessed something that's never happened before off our coast out at the Farallon Islands.<sup>15</sup> Cassin's Auklets—small seabirds related to Puffins—abandoned their nests en masse. Not a single chick survived. At the height of the breeding season, the parents couldn't find any of their sole food source—the shrimp-like krill that is also the food of whales, salmon and other marine wildlife. Our scientists are seeing this same sort of breakdown—of the long-evolved timing between animals and their environment—from Alaska to Antarctica.<sup>16</sup>

Over the next 2 decades, one fifth of all animal and plant species on Earth are expected to become extinct...irreversible, gone forever.

Species are like rivets on an airplane. Lose a few rivets here and there and the plane will still fly perfectly well. The problem is when that one particular rivet falls out that causes the entire plane to come crashing down.<sup>17</sup> Global warming gravely threatens the biodiversity that keeps our plane flying.<sup>18</sup>

*Shema Yisrael* --are we listening or have we been lulled into a fatal complacency?

In 1989, oil companies, automakers and others formed a powerful coalition to cast doubt on human-caused climate change,<sup>19</sup> knowingly perpetuating what I call “global biocide.”<sup>20</sup> The group disbanded in 2002 after many of its members tacitly acknowledged the reality of global warming. Yet as reported in the news just last week, ExxonMobil continues to fund groups that promote this unconscionable agenda.<sup>21</sup>

The evidence is undeniable. We’ve received our diagnosis. The cancer has spread. If we don’t take daily remedial actions now- even though the pills might be hard to swallow and the treatments might make us sick—the diagnosis will likely become terminal within the next 10 years.<sup>22</sup>

The sages teach us that taking a life is as if you have destroyed the entire world and equally, that to save one life is to save the entire world.<sup>23</sup> Judaism also prohibits taking one’s own life. The planetary crisis of global warming obliges us to save our own lives and literally save the entire world.

It sounds almost impossible. It is. *Shema Yisrael*- listening is not enough. To cut worldwide carbon emissions by the 70 percent needed just to stabilize the cancer, we must change our lifestyles now.

As we prepare for the final hours of *Yom Kippur*, let us heed the call of the *shofar*, the symbol of our covenant with God, with all Creation. The *shofar* blast cries out to us and demands of us—the world’s wealthiest society and the world’s largest carbon polluter—to commit to taking action every day, when we get up and when we lie down, sitting or walking, all the time and everywhere, to do more than is comfortable,<sup>24</sup> imploring us: Choose life.<sup>25</sup> Take action now.

- Borrow money if you have to, but if you need to drive a car, buy or lease a hybrid or a car that gets more than 40 miles to the gallon.<sup>26</sup>

THIS IS NOT ENOUGH – WE MUST DO MORE.

- Reduce emissions at your home and workplace.<sup>27</sup> Get an energy audit. Replace all your light bulbs with compact fluorescents. Weather strip your doorways and windows. Recycle, reuse and compost. Plant some trees.

THIS IS NOT ENOUGH—WE MUST DO MORE.

- Call, write and organize delegations to your elected officials. The solutions exist but the political will is woefully lacking. Demand legislation that requires kicking the fossil fuel habit<sup>28</sup> entirely by 2020 as Sweden has committed to.<sup>29</sup>

THIS IS NOT ENOUGH-WE MUST DO MORE.

- Support Congregation Shaar Zahav to reduce our carbon pollution and go solar as soon as is practical. My partner Miki and I pledge \$500 today. Let’s be an example for the country!<sup>30</sup>

THIS IS NOT ENOUGH-WE MUST DO MORE.

When Leah and I sat in awe of God's creation on that lake up in the Sierras in August, I thought about how very lucky I am to be here on earth at this moment in time with 2 amazing children, an incredible partner, and wonderful family, friends and community. I contemplated the future of our planet and how we might change the outcome of this last minute on the timeline of creation. And I thought of the wise words of a highly respected doctor, at least in our family, Dr. Seuss.

“And all that the Lorax left here in this mess was a small pile of rocks,  
with the one word... ‘UNLESS.’  
Whatever that meant, well, I couldn't guess.  
But now...now that YOU'RE here,  
the word of the Lorax seems perfectly clear.  
UNLESS someone like you cares a whole awful lot,  
Nothing is going to get better. It's not.”<sup>31</sup>

As we stand before the gates of the heavens over the earth, reflecting on the choices before us, and we chant the *Shema*, do not allow it to be the *Shema* as recited before death, but the *Shema* of awakening.<sup>32</sup> Let us start our lives anew. Let us find the enduring strength for tikkun olam, to give our children and children's children, and all God's creations “as long as all the days of the heavens over the earth.”

*Tekiyah g'dolah*—the final great blast of the *shofar* grows louder and louder, renewing our fortitude, reaffirming our covenant with the oneness of creation, unifying our spirits into an unstoppable force that can change the world.<sup>33</sup> Commit to action today, tomorrow, next week, the rest of this year and the rest of your days. Choose life. The time is now and we have no time to lose.

*G'mar chatimah tovah*—may we all be written into the book of life.

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I encourage the use of any or all of the ideas presented in this document to engage more people in stopping global warming. Please acknowledge Ellie M. Cohen and Congregation Shaar Zahav (San Francisco, CA) in any written documents or publications.

**Acknowledgements:**

I offer special thanks to Rabbi Camille Angel (Congregation Shaar Zahav, San Francisco, CA) for having the vision to ask me to do this sermon in March 2006 and for sharing her wisdom and insights with me in this process. I have been humbled and honored by the experience. I am grateful to Andrew Ramer for his expert editing assistance and encouragement. And many thanks to Jay Wolf Schlossberg-Cohen, Helen Mae Schlossberg Cohen, Gil Cohen and especially Miki Goralsky for suggestions, encouragement and love.

**Annotations and footnotes:**

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<sup>1</sup> Ellie M. Cohen is Executive Director of PRBO Conservation Science. Her views reflected in this document are hers alone and are not those of PRBO ([www.prbo.org](http://www.prbo.org)).

Born and raised in Baltimore, Maryland, Ellie received her undergraduate degree in Botany (focus on ecology) with honors from Duke University. Field studies in butterfly ecology brought her to California in 1979. She later received a Master in Public Policy degree from Harvard University's Kennedy School of Government, where she was honored with the Policy Analysis Exercise Award for highly distinguished performance and the first annual Robert F. Kennedy Public Service Award. In 2001, she was honored with a fellowship to Stanford University's Executive Program for Non-Profit Leaders at the Graduate School of Business. Ellie serves on the boards of the San Francisco Bay Joint Venture and the Central Valley Joint Venture as well as the US Fish and Wildlife Service's Refuge Bird Team and the Governing Board of NOAA's Pacific Coast Ocean Observing System (PaCOOS).

Ellie and her family are members of Congregation *Sha'ar Zahav* (San Francisco, CA) where she served on the *Va'ad* (Board) from 1994-1998. She also chaired the congregation's *Mishkan Dolores* capital campaign.

<sup>2</sup> (Genesis *Rabbah* 1:15) *Book of Legends, Sefer Ha-Aggadah*. Edited by Hayim Nahman Bialik and Yehoshua Hana Ravnitzky. Translated by William G. Braude. Schocken Books Inc. (1992). p. 8:14. A religious text holy to classical Judaism- a *Midrash* comprising a collection of ancient rabbinical interpretations of the book of Genesis (*Bereshit*); this text was compiled in the 4th or 5th centuries of the Common Era.

<sup>3</sup> The Shema is one of the most central prayers to Judaism. Today, it incorporates 3 sections from the Tanach (Torah, Five Books of Moses): Deuteronomy 6:4-9, Deuteronomy 11:13-21 and Numbers 15:37-41. In this sermon, all Tanach quotes in English are from The Five Books of Moses, Everett Foxx translation, The Schocken Bible: Volume 1. (1995). See full text of the Shema in Hebrew and English on line at <http://www.jewfaq.org/prayer/shema.htm>. There are many other writings on the Shema on line for further study. Interestingly, the Shema was once used as a battle cry by the High Priest (Kohen) against the enemies of the Jewish people (Israel) (Deuteronomy 20:3). Today the single most powerful "enemy" we face is global warming, already contributing to the 6<sup>th</sup> great planetary extinction and rapidly progressing toward destroying life on earth as we know it if we don't heed the battle cry for action now.

<sup>4</sup> Deuteronomy 6:4-9—full text of the 1<sup>st</sup> paragraph.

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<sup>5</sup> Deuteronomy 11:13-21-- the full text of the 2<sup>nd</sup> paragraph.

The 3<sup>rd</sup> and final paragraph of the *Shema*, Numbers 15:37-41 states: “make tassels on the corners of their garments and put a threat of blue-violet to remember to keep the commandments!” The thread of blue-violet reminds us of our link to the heavens over the earth every day. The color symbolizes the awe of creation, what is beyond the blue violet heavens, the ultra violet at the end of the light spectrum which we cannot see, the mystery of Creation and the universe, and our humble place in it. Rabbi Camille Shira Angel explained that the shellfish from which this color was extracted in ancient times is now extinct.

<sup>6</sup> The solar system and the earth were formed in Hadean Time about 3.6-4.8 billion years ago. The first multi-cellular organisms came into being about 2.5 billion years ago. It took another 2 billion years before fish and reptiles populated the earth. Birds started flying only 80 million years ago and dinosaurs were extinguished 65 million years ago. Modern humans (*homo sapiens sapiens*) entered the equation maybe 50 thousand years ago. And it was only 10,000 years ago that climate conditions were stable enough to support the development of civilization as humans discovered the ability to cultivate and store food, domesticate wild animals, build permanent settlements and develop written language. Since the last ice age ended about 10-12,000 years ago, huge ice sheets melted off the northern latitudes that we now call temperate zones, vast and rich habitats opened up for human cultivation leading to expansion of human centers around the globe. This period is called the Holocene. For more on this period and global ecological change, see <http://www.ucmp.berkeley.edu/quatarnary/hol.html>.

<sup>7</sup> Stix, Gary. *A Climate Repair Manual*, Scientific American, September 2006. An excellent overview of where we stand today on climate change, non-greenhouse gas emitting energy sources and world politics. <http://www.sciam.com/article.cfm?chanID=sa006&colID=1&articleID=000EABE4-BDFF-14E5-BDFF83414B7F0000> From the article: “No one knows exactly what will happen if things are left unchecked--the exact date when a polar ice sheet will complete a phase change from solid to liquid cannot be foreseen with precision...But no climatologist wants to test what will arise if carbon dioxide levels drift much higher than 500 ppm. Preventing the transformation of the earth's atmosphere from greenhouse to unconstrained hothouse represents arguably the most imposing scientific and technical challenge that humanity has ever faced. Sustained marshaling of cross-border engineering and political resources over the course of a century or more to check the rise of carbon emissions makes a moon mission or a Manhattan Project appear comparatively straightforward...Climate change compels a massive restructuring of the world's energy economy..... But the consequences of inaction could be worse than the feared economic damage that has bred overcaution. If we wait for an ice cap to vanish, it will simply be too late.”

<sup>8</sup> Flannery, Tim (2005) *The Weather Makers, How Man is Changing the Climate and What it Means for Life on Earth*, (Atlantic Monthly Press, NY), Chapter 7. *Making the Long Summer*. Some scientists now call the period of the rise of human civilization or the Holocene, the Anthropocene to reflect the impact of human activities and date those impacts not just to the beginning of the industrial revolution but as far back as 8,000 years ago as indicated by a slow rise in methane from the beginnings of agriculture, unlike any previous periods in geologic history as revealed through ice cores.

The earth has warmed by 1.4 degrees Fahrenheit (F) during the past century. Greenhouse gas emissions are expected to heat up the world by another 2.5 -12 degrees F or more this century. The US, with 4% of the world's population, spews ~1/4 of the planet's greenhouse gas pollution.

Deforestation is the second major contributor to atmospheric CO<sub>2</sub> globally. Felled timber releases CO<sub>2</sub> as it burns or decays and disturbed soils produce CO<sub>2</sub> from burned organic matter. Forests give way largely to annual crops that store CO<sub>2</sub> for only a season or to cities with little vegetation at all. [http://www.gsfc.nasa.gov/gsfcservice/gallery/fact\\_sheets/earthsci/green.htm](http://www.gsfc.nasa.gov/gsfcservice/gallery/fact_sheets/earthsci/green.htm)

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<sup>9</sup> *Deep Ice Reveals Still Longer Climate Story*. By Jonathan Amos, BBC News, September 4, 2006. and Reuters. [Dr. Eric Wolff of the British Antarctic Survey, said], “The scary thing was the rate of change now occurring in CO<sub>2</sub> concentrations. In the core, the fastest increase seen was of the order of 30 parts per million (ppm) by volume over a period of roughly 1,000 years. The last 30 ppm of increase has occurred in just 17 years. We really are in the situation where we don’t have an analogue in our records.” *Reuters*: “The natural level of CO<sub>2</sub> over most of the past 800,000 years has been 180-300 parts per million by volume (ppmv) of air. But today it is at 380 ppmv.”

Author’s note: gases trapped in ice cores from Antarctica and Greenland provide an amazingly precise accounting of the atmosphere’s composition through the ages.

<sup>10</sup> Flannery, Tim (2005) *The Weather Makers, How Man is Changing the Climate and What it Means for Life on Earth*, (Atlantic Monthly Press, NY), P. 146.

From, Root, Terry, PhD, *Climate Change and Ocean pH*, encyclopedia entry, personal communication, September 2006 (contact [ellie18@comcast.net](mailto:ellie18@comcast.net) for a full copy): “Besides increasing the average global temperature, the added CO<sub>2</sub> in the atmosphere is discernibly changing the pH balance of the oceans. The carbonic acid that forms in the water has already discernibly changed the oceans pH from 8.0 - 8.3 (before the industrial revolution) to 7.9 – 8.2. If we do not change away from how we currently use fossil fuels, The Royal Society of the United Kingdom has estimated by 2100 the pH range could be 7.5 – 7.8. Coral reefs and other structure built by animals using calcium carbonate (e.g., shells) will not only be difficult to build, but those that are built will dissolve. Scientists in The Royal Society warn that even if we curtailed our CO<sub>2</sub> emissions in 2010, the pH change already evident in the oceans will take tens of thousands of years to return to pre-industrial levels. What we are doing today will truly impact the lives of people over 500 generations from now.”

See also: Changing ocean chemistry threatens to harm marine life 091506 San Diego Union Tribune <http://www.signonsandiego.com/news/science/20060914-9999-lz1c14acid.html>

<sup>11</sup> <http://yosemite.epa.gov/oar/globalwarming.nsf/content/ClimateFutureClimateSeaLevel.html> EPA Sea Level Rise and <http://www.climatecrisis.net/thescience/>

<sup>12</sup> *Greenland’s Ice cap may be melting at triple speed*, Kelly Young, August 10, 2006 NewScientist.com news service; *Greenland’s ice cap is melting at a frighteningly fast rate*, David Perlman, San Francisco Chronicle, August 11, 2006; *Antarctica ice melting faster than can be replenished, satellites show* Robert Lee Hotz, Los Angeles Times, March 3, 2006

<sup>13</sup> Even in Winter, Arctic Ice Melting: Alarmed scientists warn that polar thawing threatens wildlife and is ‘strongest evidence yet of global warming’ in region, Jane Kay, SF Chronicle, September 14, 2006.

<sup>14</sup> Some estimates project annual human deaths from global warming at 300,000 a year by 2030. <http://www.climatecrisis.net/thescience/>. Dr. James Lovelock, originator of the theory that earth is a single living entity or Gaia, predicts a much more grim scenario of billions dead by the end of the century. *The Earth is about to catch a morbid fever that may last as long as 100,000 years*. January 16, 2006. <http://comment.independent.co.uk/commentators/article338830.ece>.

<sup>15</sup> The Farallon National Wildlife Refuge is 27 miles west of San Francisco at the edge of the continental shelf, home to over 250,000 breeding seabirds, the largest seabird breeding colony south of Alaska in the continental US. PRBO Conservation Science has conducted research on and stewarded the island’s natural resources since 1968 in partnership with US Fish and Wildlife Service. For more information, see [www.prbo.org](http://www.prbo.org) and <http://www.fws.gov/refuges/profiles/index.cfm?id=11641>.

<sup>16</sup> PRBO ([www.prbo.org](http://www.prbo.org)) scientists are seeing climate-related impacts on other birds and ecosystems—in addition to the impacts on seabirds and fisheries off our coast where the typically rich food web is breaking down as the ocean warms, ocean currents change and weather patterns change. We are seeing increased

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nest parasitism on riparian (streamside) songbirds in California's Central Valley related to climate change. High-elevation sagebrush habitats in Wyoming have been hit with unusually intense summer snowfall the past few breeding seasons making insect prey unavailable to chicks at their most vulnerable. Songbirds in the Sonoran desert faced the most severe drought conditions on record this year causing dramatically reduced breeding. Wildlife dependent on San Francisco Bay wetlands are facing reductions in habitat and population decline with sea level rise and changing salinities. Shorebird breeding habitat in Alaska is being reduced by rising tides combined with more extreme weather events, and the timing of the peak of insect production, a key food source for chicks, appears to be increasingly out of sync with the peak of breeding. We are also witnessing Adelie Penguins in Antarctica expending increased energy as enormous new icebergs break off the Ross Ice Shelf then block the penguins' access to their food in the ocean, forcing them to take much longer routes to find food for their chicks.

<sup>17</sup> This concept comes from: Ehrlich, P. R. & Ehrlich, A. H. (1981) *Extinction: The Causes and Consequences of the Disappearance of Species* (Random House, New York)

<sup>18</sup> Root, Terry, PhD, *The Effects of Global Warming on Animals*, encyclopedia entry, personal communication, September 2006. Email [ellie18@comcast.net](mailto:ellie18@comcast.net) for a copy. Global warming is disrupting the timing that has evolved over millennia between animals and the species around them. We are causing the 6<sup>th</sup> mass extinction in the history of the earth, with 20% or more of all species projected to be lost by 2030. Yet, biodiversity, the diversity and abundance of life, is essential to our existence for clean air, clean water, crop pollination, soil health, flood control and much more. The biological diversity of life that has evolved over the eons is fundamental to our well being- ecologically, economically and spiritually.

<sup>19</sup> Linden, Eugene. (2006) *The Winds of Change, Climate, Weather and the Destruction of Civilizations*, (Simon and Schuster). See esp. pp. 270-288 for a chronology of scientific discover and public action.

<sup>20</sup> "Global biocide" is a term I have coined to describe the horrific results that will befall us all if we continue to allow ourselves to be duped by oil interests and fail to take action immediately.

<sup>21</sup> *British Science Group Says Exxon Misrepresents Climate Issues*, Heather Timmons, New York Times, September 21, 2006.

<sup>22</sup> Dr. James Hansen, head climatologist of NASA and one of the most respected voices in climate change science, predicts we have less than 10 years before global warm becomes irreversible, as quoted in Bill McKibben's *A Deeper Shade of Green*, National Geographic, August, 2006, p.33. <http://www9.nationalgeographic.com/ngm/0608/voices.html>.

ALSO for an audio of Dr. James Hansen's September 2006 talk on what we can do to solve this planetary crisis by 2015, go to: [http://www.climatechange.ca.gov/events/2006\\_conference/audio.html](http://www.climatechange.ca.gov/events/2006_conference/audio.html) and then choose Sept 13 and go to 1:01 into the presentations for that day for his talk.

<sup>23</sup> *Book of Legends, Sefer Ha-Aggadah*. Edited by Hayim Nahman Bialik and Yehoshua Hana Ravnitzky. Translated by William G. Braude. Schocken Books Inc. (1992).

<sup>24</sup> Traditionally we read from the Book of Jonah on Yom Kippur, a time of deep personal reflection about our actions and motives. In the context of global warming, we are all the prophet Jonah, comfortable in our lives, upstanding members of our community, doing our mitzvot [good deeds]. Yet we are unwilling to do what it takes to save the sinning city of Nineveh, now our entire planet. We are thrown from our life boat into the raging ocean tempest that we brought upon ourselves. We sit in the darkness of the whale's belly with full knowledge of what is required of us, but resentful that we are being asked to change our daily routines and pleasures. But change we must.

<sup>25</sup> Deuteronomy 30:19.

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<sup>26</sup> See [www.stopglobalwarming.org](http://www.stopglobalwarming.org) and [www.climatecrisis.net](http://www.climatecrisis.net) (An Inconvenient Truth) for numerous suggested action steps and other resources; see also the excellent resource [www.climatecrisiscoalition.org](http://www.climatecrisiscoalition.org) for free daily or weekly global warming news updates (and news archives); Contact [www.climateprotectioncampaign.org](http://www.climateprotectioncampaign.org) for local government, business and community action support; see also [www.fightglobalwarming.com](http://www.fightglobalwarming.com) of Environmental Defense including a personal carbon calculator and action alerts; and <http://www.environmentaldefense.org/article.cfm?contentid=5235> for a new report on how global warming with impact California and what we can about it. See also [www.environmentcalifornia.org/global-warming](http://www.environmentcalifornia.org/global-warming) for state action alerts and excellent background information. See [www.terrapass.com](http://www.terrapass.com) for ways to offset carbon output when driving, flying or at home.

<sup>27</sup> See [www.green-e.org](http://www.green-e.org) for ways to green your power and other useful information. Residential and commercial buildings account for 70% of electricity demand in the US (60% worldwide) so making our homes and offices more energy efficient can contribute significantly to reducing CO2 pollution (see Footnote 6, Scientific American special issue, September, 2006).

<sup>28</sup> Energy demand continues to grow worldwide, making investing in alternative non-carbon polluting electricity production urgent. For example, coal is the worst global warming polluter but the cheapest of the fossil fuels. About 850 coal fired electric plants are to be built in the US, China and India. By 2012 their emissions will outweigh Kyoto accord reductions by several times if new carbon capture technologies are not installed now (see Footnote 6, Scientific American special issue, September, 2006).

Greatly reducing our use of fossil fuels will also cut off the funding to oil producing nations such as Iran that sponsor terrorism and threaten innocent civilians across the world. See various recent writings by Thomas Friedman of the New York Times, summer 2006.

An excellent resource on climate change solutions is the Pew Center on Global Climate Change <http://www.pewclimate.org>. See especially the *Agenda for Climate Action*, February 2006. The full report as well as excerpts are available for free download at [http://www.pewclimate.org/global-warming-in-depth/all\\_reports/agenda\\_for\\_climate\\_action/index.cfm](http://www.pewclimate.org/global-warming-in-depth/all_reports/agenda_for_climate_action/index.cfm). From their February 8, 2006 press release: “[The report] identifies both broad and specific policies, combining recommendations on economy-wide mandatory emissions cuts, technology development, scientific research, energy supply, and adaptation with critical steps that can be taken in key sectors. ....The report concludes that there is no single technology fix, no single policy instrument, and no single sector that can solve this problem on its own. Rather, a combination of technology investment and market development will provide for the most cost-effective reductions in greenhouse gases, and will create a thriving market for GHG-reducing technologies.”

<sup>29</sup> *Al Gore Praises Swedish Premier for Environmental Leadership*, The Associated Press, September 7, 2006, The International Herald Tribune, Europe. [http://www.iht.com/articles/ap/2006/09/07/europe/EU\\_GEN\\_Sweden\\_Gore.php](http://www.iht.com/articles/ap/2006/09/07/europe/EU_GEN_Sweden_Gore.php)

<sup>30</sup> To further explore Jewish perspectives and the Reform movement’s “A Light among the Nations” campaign to stop global warming, see [www.urj.org/csa](http://www.urj.org/csa), the Religious Action Center for Reform Judaism [www.rac.org/](http://www.rac.org/), and the Coalition on Environment and Jewish Learning [www.coejl.org](http://www.coejl.org). For interfaith action on global warming, see CA Interfaith Power and Light: [www.interfaithpowerandlight.org](http://www.interfaithpowerandlight.org) and nationally, [www.theregenerationproject.org](http://www.theregenerationproject.org).

<sup>31</sup> *The Lorax*, by Dr. Seuss, 1971, Random House.

<sup>32</sup> “Rabbi Akiva patiently endured while his flesh was being torn with iron combs, and died reciting the Shema. He pronounced the last word of the sentence, *Echad* (“one”) with his last breath (Talmud Berachot 61b). Since then, it has been traditional for Jews to say the Shema as their last words.” From: [http://en.wikipedia.org/wiki/Shema\\_Yisrael](http://en.wikipedia.org/wiki/Shema_Yisrael)

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<sup>33</sup> A mix of energy conservation, innovative technologies and new policies can stabilize greenhouse gas pollution worldwide (see the September 2006 issue of Scientific American, footnote 6, as well as Pew's Agenda for Climate Action, footnote 26) but we must act now, individually and communally, before it is too late.

In considering the urgent imperative to solve global warming, it is inspiring to recall what Robert F. Kennedy said so eloquently in 1966 addressing the seemingly insoluble persecution of South Africans of color under apartheid: "Thousands of unknown men and women in Europe resisted the occupation of the Nazis and many died, but all added to the ultimate strength and freedom of their countries. It is from numberless diverse acts of courage and belief that human history is shaped. Each time a man stands up for an ideal, or acts to improve the lot of others, or strikes out against injustice, he sends forth a tiny ripple of hope, and crossing each other from a million different centers of energy and daring those ripples build a current which can sweep down the mightiest walls of oppression and resistance."