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מעשי ידי להתפאר: בגדרי מצות יישוב העולם
Ma'asei Yadai L'hitpa-er: On the Mitzvah of Sustainability

Approved on December 13, 2019, by a vote of 21-0-0. Voting in favor: Rabbis Elliot Dorff (Chair), Pamela Barmash (Co-Chair), Aaron Alexander, David Booth, Baruch Frydman-Kohl, Susan Grossman, Judith Hauptman, Joshua Heller, Steven Kane, Jan Kaufman, Gail Labovitz, Amy Levin, Daniel Nevins, Micah Peltz, Avram Reisner, Robert Scheinberg, David Schuck, Deborah Silver, Ariel Stofenmacher, Iscah Waldman, and Ellen Wolintz-Fields. None voting against. None abstaining.

לעולם יירשו ארץ, נצר מטעי, מעשי ידי להתפאר.
They shall forever inhabit this earth,
the result of My planting, the work of My hands
in which I glory. [2]
(Isaiah 60:21)

"ראה את מעשה הא-להים, כי מי יוכל לתקן את אשר עותו".
בשעה שברא הקדוש ברוך הוא את האדם הראשון,
נטלו והחזירו על כל אילני גן עדן ואמר לו:
ראה מעשי, כמה נאים ומשובחין הן.
וכל מה שבראתי, בשבילך בראתי.
תן דעתך שלא תקלקל ותחריב את עולמי,
שאם קלקלת, אין מי שיתקן אחריך.
"Consider God's work. Who can set right that which he has degraded."
When the Holy One created the first human,
He took him around to all the trees of the Garden of Eden
and said to him: See how beautiful and wonderful My works are.
Everything I have created, I have created for you.
Be mindful that you do not ruin and devastate My world,
for if you ruin it there is no one to repair it after you.
(Kohelet Rabbah 7:13 on Kohelet 7:13)

שאלה (She'elah: Query) –

In a world facing the urgent challenges of climate change and environmental degradation, how should a Jew live? What does Jewish Law (Halakhah) teach and require in the matter of sustainability?[3]

[1] This paragraph of Shulhan Arukh deals with a land use issue, labeling it a matter of *yishuv ha-aretz*, though it intends thereby the concept of *yishuv ha-olam*, for it applies everywhere, not only in Israel. Though quite specific, it hints at the broader issues we relate to here.

[2] Translations herein, both of biblical and rabbinic sources, are those of the authors.

[3] The landscape of environmental concerns today is vast. It runs from pharmaceutical disposal to mountain-top removal, from lead paint to agricultural fertilizers, from landfills to stormwater management. No one teshuvah can address the full

תשובה (Teshuvah:Response) – ***Yishuv Ha'olam***

Humanity's first mission upon being created is variously described in what are recognized as two distinct creation stories. In Genesis 1:28 God creates humans and says:

> פרו ורבו ומלאו את הארץ וכבשוה ורדו בדגת הים ובעוף השמים ובכל חיה הרומשת על הארץ.
> Be fruitful and multiply. Fill the world and subdue it. Gain control over the fish of the sea, the birds of the sky and every animal that roams on the earth.

This is characterized by our sages as יישובו של עולם (*yishuvo shel olam*), the inhabiting (or more broadly, the establishment) of the civilized world, a concept based on a verse in Isaiah,

> ד' בורא השמים הוא הא-להים, יוצר הארץ ועֹשֶׂהָ. הוא כוננה, לא תהו בראה, לשבת יצרה.
> The Lord who creates the heavens, he is God, He who fashions the earth and makes it, He prepares it. He did not create it to be chaos, He fashioned it to be inhabited. (Isaiah 45:18) [4]

In the second version of creation the primary mission is described in Genesis 2:15.

> ויקח ד' א-להים את האדם וינחהו בגן-עדן לעבדה ולשמרה.
> God took the human and placed him in the Garden of Eden to work and protect it.

This, too, that is, attending to the fecundity of the earth, is described as יישובו של עולם (*yishuvo shel olam*) in a midrash in Bereshit Rabbah 13.1 to Genesis 2:5 and 2:9:

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array of these issues. Many issues relating to pollution and environmental degradation fall under the categories of nezikin/damages and hilkhot shekhenim/neighbors' rights. The focus of this teshuvah, however, is on "sustainability," which we define as human behavior that manages the earth's resources in harmony with the carrying capacity of the Earth's supporting eco-systems in a healthy and just manner for us and future generations. More specifically, sustainability is achieved by avoiding or severely limiting the consumption of non-renewables; extracting and consuming renewables in a manner and timeframe that allows natural replenishment/regeneration; minimizing and ultimately eliminating waste through a circular economy; returning to the environment the detritus of our consumption only in a manner and at a pace that the earth can safely absorb; limiting greenhouse gas emissions so as to preserve and prolong the climate of the Holocene era (the last 10,000 years in which all of human civilization flourished).

[4] Thus Mishnah Gittin 4.5 (= Mishnah Eduyot 1.13) -- לא נברא העולם אלא לפריה ורביה שנאמר: לא תהו בראה לשבת יצרה (The world was not created save for procreation, as it says: "He did not create it to be chaos, He fashioned it to be inhabited"), and see Rashi to Yevamot 62a who explains לשבת - להיות עסוקים ביישובו של עולם (*lashevet* -- means to participate in the [ongoing] establishment of the world) . Making the same point, utilizing Isaiah 45:8, another verse in that same chapter, Yerushalmi Berakhot 9.2 (= Yerushalmi Taanit 1.3) says: אמר ר' לוי... "ויפרו ישע" - זו פריה ורבייה... "כי אני ד' בראתיו" - לכך בראתיה לתיקונו וליישובו של עולם (R. Levi said… "Let increase be their salvation" – this refers to procreation… "For I, the Lord, have created it" – that is why I created it, for the founding and establishment of the world). Furthermore, the concept of *yishuvo shel olam* encompasses not only procreation but also gainful work and striving for the betterment of the world. The invalidation of gamblers as witnesses is predicated on their not participating in gainful work, characterized as *yishuvo shel olam* (Sanhedrin 24b). Or consider Pesikta Zutarta (also known as Midrash Lekah Tov) to Kohelet 10:16: אי לך ארץ שמלכך נער -- אינם מתעסקים בישובו של עולם (Woe to you, country, whose king is a boor -- they do not engage in the betterment of the world (*yishuvo shel olam*)).

"כל שיח השדה טרם יהיה בארץ" -- הבא את אמר "וכל שיח השדה", ולהלן את אמר "ויצמח ד' א-להים מן האדמה" -- א"ר חנינא: להלן לגן עדן ובאן לישובו של עולם.

"Every plant of the field was not yet upon the earth… [since God had not caused rain to fall upon the earth, and there was no human to till it]" – Here you say "every plant of the field" and later "God caused to grow from the earth"? – Said R. Hanina: The latter verse refers to the Garden of Eden, the former to the establishment of the world (*yishuvo shel olam*).[5]

Thus in both stories, in different ways, the first mission of humankind is to establish the world as a hospitable place for humankind. The question is: how? In Genesis One, the Earth is a bounty of ever-renewing life to which we may help ourselves[6]; in Genesis Two, the Earth is a partner that responds to and is deeply affected by our touch. We are tasked to take care of it *(l'ovdah u-l'shomrah[7])* so that it may take care of us. It is that verse (Genesis 2:15) about tending God's plantings upon which the midrash comments in the epigraph above from Kohelet Rabbah.

This, together with the realization that "the earth is the Lord's and all that is in it" (Psalms 24:1 – לד' הארץ ומלואה) and that "the Lord formed the earth with wisdom" (Proverbs 3:19 – ד' בחכמה יסד ארץ), suffice to ground a basic Jewish concern to protect the earth and maintain it. This is more than a theological statement.[8]

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[5] The midrash here is obscure and needs some interpretation. You will recall that in Genesis One, God created plants on the third day, yet here, in verse 5, it says that they did not grow until a human was created. Presumably then, the plants would begin to grow upon the creation of humankind and the initiation of the cycle of precipitation. Yet in verse 9, the verse has God plant anew. Why? Hanina's answer is that the context of verse 9 is exclusively about planting the trees of the Garden of Eden, whereas the general plants referenced in verse 5, growing elsewhere, were intended for the proper functioning of the world, *yishuvo shel olam*.

[6] Which is not to say that we could approach the world with gluttony and abandon, as we note below, but we are given no explicit responsibility for its welfare either, nor does the realization of its fullness rely on us.

[7] In discussing this verse, Jeremy Benstein asks poignantly, "[F]rom what exactly are we meant to protect or guard the Garden?" And he ultimately concludes "that the main threat to the Garden, and by extension, the world, is precisely the other pair of the dyad – the cultivation, the human work." As a contemporary definition of *l'ovdah u-l'shomrah* he suggests *"sustainable development."* (*The Way into Judaism and the Environment* ,Woodstock, VT: Jewish Lights. 2006. Pp. 48, 49)

[8] Speaking of the society that Israel will form, the Torah translates this belief into ritual and legal expressions. The laws of the first fruits, tithes, pe'ah, leket (Leviticus 19:9-10), shikh'hah (Deuteronomy 24:19), shemittah (Exodus 23:10-11) and yovel (Leviticus 25:11-12) all remind us that the land itself, as well as what it produces, belong to God and we are but the temporary beneficiaries. Even when property rights are transferred, it is not the land that is sold but the right to work it and harvest it. Until the Jubilee. As Leviticus 25:15-16 states: בְּמִסְפַּ֥ר שָׁנִ֖ים אַחַ֣ר הַיּוֹבֵ֑ל תִּקְנֶ֥ה מֵאֶ֛ת עֲמִיתֶ֖ךָ ... בְּי מִסְפַּ֥ר תְּבוּאֹ֖ת הוּא מֹכֵ֥ר לָֽךְ׃ (In buying from your neighbor, you shall consider the number of years since the jubilee for what he is selling you is a number of harvests.) Thus the ultimate thrust of those laws is: וְהָאָ֖רֶץ לֹ֣א תִמָּכֵ֑ר כִּֽי־לִ֥י הָאָ֖רֶץ כִּֽי־גֵרִ֥ים וְתוֹשָׁבִ֖ים אַתֶּ֥ם עִמָּדִֽי (The land must not be sold beyond reclaim, for the land is Mine; you are but strangers resident with Me) (Leviticus 25:23). Though "land" in these verses refers only to eretz Yisrael, the land of Israel, the moral and practical message of these laws have application to the diaspora as well. As we indicate below in the Future Agenda appendix, we believe it is time for a reassessment of the geographical boundaries of these laws.

Protecting the earth is presented as a basic, overarching, fundamental purpose of humankind, both for the well-being of earth itself and for the well-being of humanity and all the creatures that depend on the earth.[9] Taken together, these teachings - and many more - create a "land ethic"[10] that should guide the ways we engage with the earth.[11]

And yet, the Torah is no stranger to the degradation of nature on account of human behavior. Early on the Torah considered the possibility that human lawlessness might lead God to destroy the earth with the story of Noah's flood. But God's covenant with Noah provided the assurance that such wholesale destruction would not occur again at God's hand. Still, our misbehavior was seen as a trigger that might cause the earth to become sick, out of balance and dangerously malfunctioning – be it due to hubris (Pharaoh and the plagues in Exodus), sexual misbehavior (Leviticus 18) or idolatry (Deuteronomy 11). What the ancients did not imagine, indeed could not have imagined, is that such destructive forces would affect not only discrete geographic areas or seasons, but the operating mechanisms of the entire globe, disrupting the flow and cycles of nature,[12] beyond any imaginable human time-frame.

If such grand scale environmental degradation – including the wholesale loss of species, the disruption of hydrological cycles, the pollution and warming of the atmosphere, the rupture of the contours of the earth and the end of its ten thousand year Holocene era – had ever entered the rabbinic discourse, if they had ever imagined that the actions of the human race could be so powerful so as to upset geophysical[13] systems and all living beings, they surely would have spoken in terms that would have more clearly guided our right relationship with the earth.

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[9] Commenting on the verse השמים שמים לד' והארץ נתן לבני אדם (Psalms 115:16 – "the heavens are the heavens of God, but the earth he gave to humankind"), Ibn Ezra describes the human as God's manager on earth (פקיד א-להים בארץ). On the verse מגיד דבריו ליעקב (Psalms 147:19 – "he speaks His words to Jacob") Shemot Rabbah 30:9 records: אמר רבי אבהו בשם רבי יוסי בר רבי חנינא: משל למלך שהיה לו פרדס והיה נוטע בו כל מיני אילן ולא היה נכנס לתוכו אלא הוא שהיה משמרו. כשעמדו בניו על פרקן אמר להם: בני, הפרדס הזה אני הייתי משמרו... אתם תהיו משמרין אותו כדרך שהייתי אני משמרו.
Rabbi Abahu said in the name of Rabbi Yosi bar Hanina :This is a parable of a king who had a garden in which he would plant all manner of trees but which he did not enter but which he would guard. When his children came of age, he said to them: My children, I used to guard this garden… [Now,] you guard it as I used to guard it.

[10] Biblically resonant, this phrase was brought to popular attention by Aldo Leopold in his monumental work, *A Sand County Almanac.*

[11] Several environmental activists, most notably Jeremy Benstein, have suggested that we add a third category of *mitzvot bein adam la'olam* (commandments concerning humans and the earth) to the clusters of mitzvot *bein adam la'makom* (commandments between individuals and God) and *bein adam la'adam* (interpersonal commandments). Indeed, that would highlight, guide and make sacred this essential part of human existence.

[12] We see this as well in the Neilah for Yom Kippur where, in that ultimate moment, we ask God's compassion כי לא תחפוץ בהשחתת עולם (for You do not desire the destruction of the world).

[13] E.O. Wilson has described humans as a newly emerged geophysical force, in 'Is Humanity Suicidal?', *In Search of Nature* (1996), 184.

But they did not foresee what we now know. It is therefore up to us to respond to our critical condition.[14]

The human charge: the understanding that grounds this teshuvah

Let us begin again with the opening chapters of Genesis. The Jewish sacred story, like so many other narratives of faith, begins with an account of Creation. Genesis 1:1 - 2:3 and Genesis 2:4 - 3:24[15] set the stage for what is to come. God, these opening words of Torah tell us, is the one and only Creator. God, with great intention and deliberation, made all that there is. God, on the one side, is the sole source of all: land, water, air, animals, vegetation, sun, moon, heavens. Humanity, on the other, is a singular, distinguished part of God's desired vision of Creation.

But Genesis One and Genesis Two offer two distinct presentations of humanity and the way to יישובו של עולם (*yishuvo shel olam*)

Genesis One tells the story, step by step, of how the world was made: light emerging from the dark, the heavens from the earth, dry land from the waters; then, with the stage all set, the emergence of vegetation, animals of all kinds, and ultimately, man and woman. A refrain throughout creation, along with the unfolding of life's goodness, is life's self-generating continuity.

Life, all life, was born with the capacity of self-renewal in an environment that was created to support and sustain it. Each generation was born with the seeds that promise to bring forth the next generation. If left undisturbed, if allowed to live out the plan of the Creator, life would continue, one generation cascading into another, forever.

In the words of Nahmanides:

> ד' ברא המינים בעולם... ונתן בהם כח התולדה, שיתקיימו המינים בהם לעד, כל זמן שירצה הוא יתברך בקיום העולם.
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> God created species in the world… giving them the power to give birth so that those species should continue forever, as long as He wished the world to continue.[16]

[14] A book length musing on this change and the need to respond is Hans Jonas' The Imperative of Responsibility (Univ. of Chicago, 1984). In his first chapter he writes (pp. 3 and 6): "[B]efore our time man's inroads into nature, as seen by himself, were essentially superficial and powerless to upset its appointed balance…. All this has decisively changed." Our thanks to Rabbi Danny Nevins for calling this book to our attention.

[15] We will refer to these two stories henceforth as Genesis One and Genesis Two

[16] Nahmanides' Commentary to Leviticus 19:19.

Everything was assigned its place. The waters and air were made ready to receive the creatures of the seas and skies. The dry land was made ready for plants and animals, each after their own kind, in their domain.

Yet for humans, the depiction was a bit different. The human arena was not so constrained. It transcended the boundaries of land and water and air. "God blessed them and God said to them, 'Be fertile and increase, fill the earth[17] and master it; and rule the fish of the sea, the birds of the sky, and all the living things that creep on earth."[18]

And no wonder. That expansiveness was essential to our survival. We were in our infancy: weak and few and naïve. Our footprint was small and our vulnerability great. Thus, in Genesis One, humankind was blessed with the capacity, even the mandate, to explore, push beyond boundaries, be curious, experiment, use all the gifts of inspiration with which we were endowed (being made in the image of God) to thrive in this God-given world.

This does not mean we were given unrestrained access to the world. Our curiosity and appetite were reined in by the limitation that plants and trees alone were to be the source of our food. And the work-free zone of Shabbat, following immediately after our creation, reminded us to Whom the earth truly belongs. These constraints limited our disruptions and manipulation of nature and re-oriented our sense of awe and appreciation for all that lay before us. Earth was not just a panoply of resources for our use but God's glorious creation to be appreciated in and of itself.
Still, the big take-away from Genesis One over the generations seems to have been that given the puniness of humanity in relation to the grandeur and potential dangers of the earth, and the blessing of God along with the indefatigable, self-regenerative capacity of the world, that humankind had great latitude to work the earth as we saw fit.

So we did, for thousands of years. We tamed the rivers and felled the trees; distilled potions from the plants to reduce our fevers and ease our pains; we built cities, roads and museums. We planted and

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[17] The number of humans on the earth, as well as our individual and collective habits of consumption, are issues to be considered. The November 2019 World Scientists' Warming of a Climate Emergency offers the following information and guidance: "Still increasing by roughly 80 million people per year, or more than 200,000 per day, the world population must be stabilized—and, ideally, gradually reduced—within a framework that ensures social integrity. There are proven and effective policies that strengthen human rights while lowering fertility rates and lessening the impacts of population growth on GHG (greenhouse gas) emissions and biodiversity loss. These policies make family-planning services available to all people, remove barriers to their access and achieve full gender equity, including primary and secondary education as a global norm for all, especially girls and young women (Bongaarts and O'Neill 2018). https://academic.oup.com/bioscience/advance-article/doi/10.1093/biosci/biz088/5610806 (retrieved 11.15.19) See also https://www.drawdown.org/solutions/women-and-girls

[18] Genesis 1:28

harvested and gathered in, changing the land, flora and watercourses as we went. We were fruitful and multiplied, and burst the bounds of God's blessing. In short, Genesis One is an anthropocentric vision of creation, where humans are beneficiaries seeking to flourish in an eternally self-regenerating world. And we lived into those blessings.

But that was then. We are, in many ways, past that now. Though we are still individually small and at the mercy of nature's power (storms, illness, earthquakes, infections still plague us), collectively we are neither few nor insignificant nor innocent. Our footprint is larger than it ever was. Over the last 150 years we have already profoundly altered elements of the world's operating systems in ways that are irreparable in any meaningful human timeframe. Genesis One was the story for the first era of human development. But having fulfilled that promise, that mandate, we need another story to guide our next steps. And we have that story in the very next verses of the Torah: Genesis Two.

While Genesis One is anthropocentric, Genesis Two places humans deeply embedded within, and as an essential contributing part of, earth's complex operating system. Our job in Genesis Two is not to consume and subdue the world's goodness so that we may thrive, but to bring the earth into its own full fecundity and manage its richness and resources wisely. We were created for the Earth's sake; humanity and earth are meant to be a dyad, mutually reinforcing the well-being of each other, and all the creatures who depend upon Creation. This yields not just a different literary reading but a different theological charge.

Genesis Two begins with an explanation of the condition of the earth, which immediately speaks to humanity's purpose in God's design. "No plant of the field was yet upon the earth and the grass of the field had not yet grown, since God had not caused rain to fall upon the earth, and there was no human to till it."[19]

Here, unlike in Genesis One, the world is not presented to humanity as a smorgasbord set out for our use and hegemony. Whereas in Genesis One the bounty of the earth predates the arrival of man and woman, in Genesis Two the bounty of the earth awaits the contributions of the human whose presence is necessary for the development of earthly goodness.

Earth begins as a place of desolation, awaiting humanity's input and efforts, so that it may be brought to its fullness and fertility. In Genesis Two we are not the unconditional beneficiaries of the earth's pre-existing bounty but its nurturers and co-creators. We are not sovereigns as we seem to be in Genesis One but caretakers; concerned for the needs of the place in which we live and upon which we depend. We are active partners in God's design.[20] And the animals, brought into being in

[19] Genesis 2:5

[20] Thanks to Rabbi Pamela Barmash who pushed us to expand this vision.

response to Adam's perceived loneliness, were meant to be integral to that fabric, both as essential to creation (Genesis One) and as humankind's spiritual companions (Genesis Two), a role they fulfill to this very day.

From the very start, we humans were instructed that there were limits to our reach, which, if breached (as they were) would cause devastating consequences. "And the Lord God commanded the human saying: You may eat from every tree of the garden, save for the tree of the knowledge of good and evil; do not eat from it, for if you do, on that very day, you shall die."[21] Of course we did not die on that day, at that moment, but violating the operating rules that nature puts forth does endanger, and even destroy, creation.

Humanity no longer lives in the era of Genesis One. We abide in the era of Genesis Two. We must come to terms with the geophysical powers we wield and must develop an ethic that can honor, restrain and guide those powers so we and future generations can live in a thriving world.[22]

Defining the problems

The breadth of the question of sustainability is almost inexhaustible. To provide a manageable framework in which we could begin to craft a usable teshuvah and assess appropriate behavior, we chose to focus on the following areas that threaten the functioning of the world as we know it:

- Resource Depletion
- Climate disruption
- Species extinction

Resource Depletion. Resources are depleted when they are extracted or consumed at a faster pace than the earth is able to replenish them. Some resources, like fossil fuels and rare earth elements , require timeframes for renewal that are so vast they are essentially considered non-renewable. Still

[21] Genesis 2:16-17

[22] This analysis of Genesis One vs. Genesis Two is strongly similar to the thesis of Kenneth E. Boulding's 1966 book, The Economics of the Coming Spaceship Earth around which Jeremy Benstein structured a lecture that I [AIR] attended several years ago. In the Wikipedia article on the concept of "Spaceship Earth" (accessed June 2016), the following: Boulding described the past open economy of apparently illimitable resources, which he said he was tempted to call the "cowboy economy", and continued: "The closed economy of the future might similarly be called the 'spaceman' economy, in which the earth has become a single spaceship, without unlimited reservoirs of anything, either for extraction or for pollution, and in which, therefore, man must find his place in a cyclical ecological system".

other resources, like water and soil, or wild fish and forests are renewable but are being consumed or otherwise depleted faster than they can be restored. Every year since 1969, the Global Footprint Network has calculated the Earth Overshoot Date, that is, the calendar date each year when humanity's consumption exceeds nature's capacity for annual renewal. Through the 1960's, overall human consumption did not outstrip earth's capacity for renewal. That changed over the past few decades so that in 2018 (the latest year for which we have data), the overshoot date advanced to August 1, the earliest since the count began.[23] We now use up more than 1.7 times earth's renewal capacity each year. That deficit is, of course, unsustainable.

Climate Disruption. This hardly needs explanation. We have known since the mid-20th century that greenhouse gases, especially but not exclusively CO2 and methane, are causing the atmosphere to retain heat and thus warm the planet beyond the temperature ranges that brought forth and sustain civilization. "Before the 18th century, when humans in the industrial west began to burn coal, oil and gas, our atmosphere typically contained about 280 parts per million of carbon dioxide. Those are the conditions in which civilization developed and to which life on earth is adapted." [24] Our urgent task is to reduce greenhouse gas emissions before they cause an ever-accelerating feedback loop that defies our ability to arrest climate disruption.[25]

Species Extinction.[26] In 2019, the United Nations' "Global Assessment Report on Biodiversity and Ecosystem Services" reported that the earth is on track to prematurely lose one million species due to human impact on the environment - mostly land use. The effects of such massive die-offs are dire,

[23] https://msutoday.msu.edu/news/2018/depleting-earths-resources/, accessed July 2019.

[24] https://350.org/science/, accessed July 2019.

[25] https://climate.nasa.gov/nasa_science/science/ accessed July 2019

[26] Our concern about species extinction flows from the general case here that it is a consequence and marker of the unsustainability of our behavior. Beyond that, however, the imperative to prevent species extinction should be self-evident from the emphasis on the continuity of species expressed in the Creation story. In and of themselves, species are valuable. Creation was understood to carry the weight of God's will and God's genius, every detail of meaning and value (Bereshit Rabbah 10.7, Shemot Rabbah 10.1, Shabbat 77b and more), such that courting extinction is, as Nahmanides suggests there, similar to "denying Creation."

But even more, they may have undiscovered value, as evidenced in the midrash of David being protected from Saul by a spider's web spun across the entrance of the cave in which he is hiding.

> היה דוד מלך ישראל יושב בגנו וראה... עכביש... אמר דוד לפני הקדוש ברוך הוא: רבונו של עולם, מה הנאה באלה שבראת בעולמך?... עכביש יארוג כל השנה ולא ילבשנו! ... א"ל הקב"ה: דוד, מלעיג אתה על הבריות? תבוא שעה ותצטרך להם ותדע למה נבראו.
>
> David was sitting in his garden and saw a spider. David said to the Holy One: Master of the Universe, what value is there to these things that You have created in Your world? A spider weaves all year and does not wear it! Said the Holy One to him: David, are you belittling the creatures? There will come a time when you will have need of them and know why they were created. (Alphabeta d'Ben Sira, Krakow 1896, p. 7b)

jeopardizing the "very foundations of our economies, livelihoods, food security, health, and quality of life worldwide,"[27] Such species-loss presents as great a challenge to global well-being as climate change. And climate change is likely to be a prime cause of species loss. "An estimated 5% of all species would be threatened with extinction by 2 °C of warming above pre-industrial levels — a threshold that the world could breach in the next few decades."[28]

These three crises affect all living beings on the earth and demand immediate attention and remedy. They are largely the consequences of three activities by humanity that demand our response:

- Resource extraction
- Resource consumption
- Waste management

Resource extraction entails all the ways we get the material goods we use. It encompasses agriculture, fishing, mining, logging, water sources, energy sources and more. Currently, most of our methods of resource extraction contribute to the eventual destruction and depletion of the very resources we seek, as well as to the degradation of the environment that sustains them. Sustainable resource extraction and development requires that we obtain these resources in ways that do not disrupt, and ideally enhance, the regenerative functioning of the earth.

Resource consumption refers to the manner, rapidity and volume with which we use, and use up, the materials we extract. This is both a matter of appetite (of which there is often too much) and efficiency (of which there is often too little) in everything from fertilizer and irrigation application to inefficient appliances to excess packaging. It is estimated that up to 40% of food produced in the United States, and 1.6 billion tons of food world-wide[29] goes to waste somewhere between field and fork.[30] Much of it is wasted by the end users. Which means that all the resources that went into producing, harvesting, packaging, transporting, refrigerating the food is also wasted. This at the same time that one in eight Americans struggle to have enough to eat.[31] Here too, we must consciously

[27] https://www.nationalgeographic.com/environment/2019/05/ipbes-un-biodiversity-report-warns-one-million-species-at-risk/, accessed July 2019.

[28] https://www.nature.com/articles/d41586-019-01448-4, accessed July 2019.

[29] https://www.bcg.com/publications/2018/tackling-1.6-billion-ton-food-loss-and-waste-crisis.aspx Without the pursuit of alternate strategies, the Boston Consulting Group estimates that by 2030, annual food loss and waste will hit 2.1 billion tons worth $1.5 trillion.

[30] https://www.nrdc.org/issues/food-waste accessed July 2019

[31] https://hungerandhealth.feedingamerica.org/understand-food-insecurity/ accessed July 2019

consume in ways that do not disrupt, and ideally enhance, the regenerative functioning of the earth.[32]

Waste management refers to how we dispose of the material goods we use. This includes both the goods themselves and the detritus that is created in the process of making those goods. But waste is something of a misnomer. Nature knows no waste. All that nature creates is somehow recycled, reclaimed and reused. This is zero waste - which is also the goal of sustainability. Zero waste requires a circular (instead of linear) flow of goods and materials. "Instead of discarding resources, we create a system where all resources can be resumed fully back into the system."[33]

Seeking Judaism's instruction in these fundamental matters, we turn to the classic halakhic categories of harm. While instructive, most of these sources deal with the more incident-specific concerns of individual damages, not collective disruption of global systems. Still, we will extrapolate from them where we can regarding the overarching issue of sustainability. One great distinction: while the halakhot seek to establish guilt and assess proper compensation of damages, we do not. We are rather interested in creating a halakhic framework for a comprehensive approach to the value of sustainability; one that can guide the behavior of Jews and the Jewish community.

The quest for sustainability is immediate and urgent. The best of science is telling us that we are running out of time[34]. Yet sustainability does not demand that we leave no mark upon the earth. All life leaves traces. Humans are no different. We eat, build, consume, discard. Our very breath and the heat of our bodies change the environment around us. Sustainability rather asks, are the traces we leave behind beneficial? Do they enhance the ability of the earth to support more life ? To what degree and in what time frame? Expressed in Jewish terms, are we truly behaving as the *adam* we are created to be, the human that God placed in the Garden to work and tend well to the earth?

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[32] A newly published and highly readable book making this point by Jonathan Safran Foer, is titled *We Are The Weather: Saving the Planet Begins at Breakfast.*

No discussion of sustainability is complete without including the question of Environmental Justice. (For a brief history of and introduction to Environmental Justice see http://www.columbia.edu/cu/EJ/definitions.html .) Protecting and enhancing the earth's regenerative capacity is an incomplete goal if it does not include equitable access to earth's blessings and eliminate the inequitable burden of environmental degradation suffered by minority and marginal populations. https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2017GH000119 accessed July 2019. We would suggest that the treatment of this important issue be the subject of a separate teshuvah which would also include treatment of a just transition from our current fossil fuel economy to a sustainable energy economy.

[33] https://www.goingzerowaste.com/zero-waste-1, accessed July 2019.

[34] https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf accessed July 2019. And see the newest report published on-line in Bio-science on November 5, 2019: *BioScience*, biz088, https://doi.org/10.1093/biosci/biz088.

הרחקת נזיקין (*Harḥakat Nezikin* / Precautions to Prevent Damages)

Chapter Two of Bava Batra offers some guidance. It discusses all sorts of practices neighbors must either employ or avoid in compliance with one over-arching legal and moral guide: *harḥakat nezikin* – refrain from harming others [35]. That is, the work we do, the things we build and the ways we alter our immediate environment may not bring harm to our neighbor's property, health or overall well-being. The examples wherein damages may be assessed in court speak to immediate harm. It goes without saying that one is liable for a damage one has directly caused (בידים / *b'yadayim*, with one's own hands), but one is also liable for damage caused by a force one has unleashed that causes immediate damage (חציו / *ḥitzav*, or in Aramaic גירי דידיה / *gerei dideih*, his arrows). In Talmud Bava Batra 22b, the gemara questions the Mishnah's concept that the use of your own property can be constrained by the damage that its use may cause one's neighbor. Rav Ashi explains that such damage would be considered his arrows (*gerei dideih)*, because one is liable for damage caused at a distance by an arrow one has fired. Thus Maimonides, Hilkhot Shekheinim (the Laws of Neighbors) 10:5

> אם היו מעשיו של זה שעושה ברשותו מזיקין את חבירו בשעת עשייתו הרי זה כמי שמזיק בידו. הא למה זה דומה? למי שעומד ברשותו ויורה חצים לחצר חבירו ואמר ברשותי אני עושה, שמונעים אותו.
> If the actions of one person [conducted] in his own property cause damage to another when he does them, it is as if he caused damage with his own hands. To what does this compare? To one who stands in his own property and shoots arrows into his neighbor's property, saying: I'm doing [this] in my own property! – we prevent him [from doing so].

But this category extends only to direct and immediate damage. Maimonides there specifies "when he does them" and explains that he is not liable "when the damage arises of its own after the actions of the causer of the damage have ceased" (כשהיה הנזק בא מאליו אחר שיפסקו מעשיו של מזיק). All would agree that the type of damage caused by over-consuming a scarce resource (both non-renewable resources and depleting renewable resources such as soil and fresh water at non-renewable rates) or creating waste in excess of what the environment (air, land or water) can reasonably absorb or resource extraction methods that degrade both their immediate environment and the ecosystem downstream, cumulatively causing damage to both current and future generations, cannot reasonably be classed as *gerei dideih* as Rambam defines it.

There is, however, a more distant damage classed as גרמא / *gerama*, that is, damage caused indirectly and at a distance.[36] The classic example of such *gerama* is a person threshing

[35] *Entziklopedia Talmudit* vol 10 p 628 ff.

[36] This is actually a very difficult, nuanced discussion. Some indirect damage for which one might be liable is given the name of "geramei" or "garmei," as opposed to "gerama," and rishonim and aḥaronim argue about the distinctions between that for which one is liable and that sufficiently distant that one is not. [See the article "Gerama b'Nizkin; Gramei" in Entziklopedia Talmudit 6.461-497]. Again, the type of damage of which we speak is sufficiently removed from

whose chaff is carried by the wind and causes damage. The ruling is simultaneously that this is *gerama* and he is not liable to pay, but that he is obligated to avoid causing such damage.[37] The rabbis realized that despite the extensive literature about specific situations, there would be other situations where specific instructions about how to avoid such harm would be in doubt, so they ruled "all damages wherein the means of avoiding harm are not specified should follow the opinion of the experts".[38]

Gerama, like *gerei dideih*, classically refers to private damage caused by an individual's action. And one is only liable for damages that one clearly causes. So, too, one is not liable for damage that is caused by the action of many, none of whom can be specified as the cause of the damage.[39] All the more so if the contribution of any one would not cause the stated damage, but only the cumulative contribution of all.[40] That is certainly the case with regard to carbon overload in the atmosphere, and the other matters we are considering here. No single person's contribution alone causes the environmental damages we are experiencing. But such diffused damage is itself a form of gerama for which one is not liable. One is, however, obligated to avoid it.[41] We each remain obligated to refrain from contributing to such damage, in accordance with the opinion of experts. For we always have a general obligation to avoid causing harm. Consider the language of Shulhan Arukh in the final summary paragraphs of Hoshen Mishpat (when discussing the biblical command to build a parapet on one's roof (Deuteronomy 22:8):

כל מכשול שיש בו סכנת נפשות מצות עשה להסירו ולהשמר ממנו ולהזהר בדבר יפה.

Any obstacle which carries potentially lethal danger, it is a positive requirement to remove it, to protect against it and to be exceedingly careful concerning it.[42]

איסור והיתר **(Issur v'heter / Prohibition and permission)**

The language of the halakhah is often binary in its formulations. It is often described, correctly, as a system of *issur v'heter* (prohibition and permission), determining if behavior is *mutar or asur*,

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the direct agency of the damager and the specific damage caused to an identifiable damagee as to be clearly beyond the scope of simple liability.

[37] Maimonides, Hilkhot Shekhenim (Laws of Neighbors), ch. 11.1-2 and Joseph Caro, Shulhan Arukh, Hoshen Mishpat 155.34. The authority behind the requirement to avoid distant damage for which one would not be liable is *derabbanan*, that is rabbinic in origin. Some hold, specifically, that is "*din hasidut*," a rabbinic ruling based on a demand of pious behavior -- see the commentaries of Nahmanides and Rashba (Rabbi Solomon ibn Adret / Aderet) to Bava Batra 26a. On this matter, see our discussion below.

[38] Moses Isserles note to Shulhan Arukh, Hoshen Mishpat 155.20.

[39] Maimonides, Hilkhot Rotzeah (Laws of a Murderer), ch. 4.6 and see Shabbat 93a.

[40] Mishnah Orlah 2.11 with the halakhah following the sages, see Bartenura and Maimonides, there.

[41] Bet haBehirah Bava Kama 56b

[42] Shulhan Arukh, Hoshen Mishpat 427.8. Our thanks to Rabbi Danny Nevins for pointing us to this source.

obligatory or not, kosher or not. That same binary categorization scheme is used in matters of purity and impurity, judging an item *tahor* or *tamei*, and in matters of holiness, distinguishing between *kodesh* and *hol*. Indeed that is at the heart of the concept of *havdalah*, the concept for which the end of Shabbat prayer is named, the binary distinction between *kodesh l'hol* (holy and secular), between *or l'hoshekh* (light and dark), between *yisrael la-amim* (Jews and gentiles). In its origins this binary distinction is Biblical: להבדיל בין הטמא ובין הטהר, ובין החיה הנאכלת ובין החיה אשר לא תאכל (Distinguishing between the impure and the pure, between the animal that may be eaten and the one that may not)[43]. As the case of the *koi*, not recognized as either *b'heimah or hayah* (domesticated beast or wild animal), illustrates, some things do not fit into that binary, and they pose a challenge to halakhic categorization[44].

In seeking halakhic guidance for the matter of sustainability, it will often not be possible to formulate such clear binary halakhic rulings. Once we determine that the use of fossil fuels contributes to climate change and is not sustainable, are we to determine that all use of such fuels must stop immediately because it is prohibited to use them, despite whatever dislocation might follow? Can we reasonably, in short order, demand that we change the vehicles we drive, the ways that we heat our homes and the manner in which industry and our economy function? What should our position be with regard to knowingly benefiting from the use of such fuel, by, say, flying on a common carrier, summoning an Uber that is still using it, or investing in its stock? To require that everyone immediately switch to electric vehicles powered by sustainably generated electricity might seem to be the very definition of a *gezeirah she-ein hatzibbur yakhol la'amod bah* (a decree that the public is unable to abide by) which we are bidden not to enact[45].

So while in this transitional era decreeing certain acts as permitted or forbidden may not be realistic, there is nonetheless, a compelling halakhic model that is capable of guiding our proper choices and our actions.

בל תשחית (*Bal Tash-hit*: Do not destroy)

The most often cited halakhic principle regarding environmentalism is also the principle that offers the most comprehensive response to questions of sustainability. That is the law of בל תשחית (*Bal*

[43] Leviticus 11:47.

[44] Koi is discussed many times as an archetype of an entity that exists between categories. Among these, Hullin 79b-80a and 132a, Kiddushin 3a, Nazir 34a, Nedarim 18b, Keritut 21a and Yoma 74a-b. See Maimonides, Mishneh Torah, *Hilkhot Nezirut* 2:10-11.

[45] And which halakhah permits annulling after the fact, even by a lesser authority – see Menahem Elon, HaMishpat HaIvri, pp. 441-3 (H), (E) Jewish Law, pp. 538-541. Technically this principle applies only to new decrees promulgated by the rabbis and not legislative deductions from extant law. It is rare that current rabbinic decisors utilize the power of enacting new law, but the core principle that one should not legislate that which the public cannot abide can reasonably be applied to far-reaching changes in application of extant law, such as this would be.

Tash-ḥit: Do not destroy)[46], the principle alluded to in the midrash of Kohelet introducing this teshuvah. In a pair of verses about the proper method of waging war, the Torah declares that in preparing a siege, one should not destroy fruit-bearing trees, which are defenseless non-combatants. They are not your enemies, and will prove valuable in the future.[47] Based upon that minimal foundation, halakhah establishes an all-inclusive prohibition. In Maimonides' Sefer haMitzvot, Negative Commandment #57, he writes:

> והמצוה הנ"ז היא שהזהירנו מהשחית האילנות כשנצור על עיר... והוא אמרו יתעלה (ס"פ שופטי') "לא תשחית את עצה כי ממנו תאכל ואותו לא תכרות". וכן כל הפסד נכנס תחת לאו זה ... הנה הוא עובר משום לא תשחית ולוקה.
>
> The 57th commandment is to warn us against destroying trees when besieging a town… which is the meaning of God's statement (Deuteronomy 20:19): "Do not destroy its tree, for you benefit from it; you may not cut it down." So every destruction is included under this prohibition… One is liable for "do not destroy" and punished with lashes therefor.

But this principle, in its classic halakhic formulation, can take us only so far. It prohibits wanton waste of things of inherent value,[48] but permits broad use of those same resources if they benefit their human users, even simply as a matter of taste. In his halakhic statement in *Mishneh Torah* Maimonides attempts to clarify the parameters of the prohibition:

> אין קוצצין אילני מאכל... ואין מונעין מהם אמת המים כדי שייבשו, שנאמר "לא תשחית את עצה", וכל הקוצץ לוקה. ולא במצור בלבד אלא בכל מקום כל הקוצץ אילן מאכל דרך השחתה לוקה, אבל קוצצין אותו אם היה מזיק אילנות אחרים, או מפני שמזיק בשדה אחרים, או מפני שדמיו יקרים. לא אסרה תורה אלא דרך השחתה.
>
> כל אילן סרק מותר לקוץ אותו ואפילו אינו צריך לו, וכן אילן מאכל שהזקין ואינו עושה אלא דבר מועט שאינו ראוי לטרוח בו, מותר לקוץ אותו...
>
> ולא האילנות בלבד, אלא כל המשבר כלים, וקורע בגדים, והורס בנין, וסותם מעין, ומאבד מאכלות דרך השחתה, עובר בלא תשחית.

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[46] This principle appears on Shabbat 67b, Kiddushin 32a, Bava Kama 91a, and Ḥullin 7b, and is not named, but is the halakhic underpinning of statements on Pesahim 50b, Sukkah 29a, Bava Batra 26a and Makkot 22a.

[47] Deuteronomy 20:19-20. The Torah's text seems to demand that people accord a certain deference to fruit trees on account of the role that they play.

[48] Yevamot 44a: אמר רב יוסף כאן שנה רבי: לא ישפוך אדם מי בורו ואחרים צריכים להם (Rav Yosef said: This is where Rabbi taught: One should not spill out the waters of his cistern if others need them).
Shabbat 67b: אמר רב זוטרא: האי מאן דמיכסי שרגא דמשחא ומגלי נפטא קעבר משום בל תשחית (Rav Zutra said: Anyone who covers an oil lamp or uncovers a naphtha lamp (causing it to burn less efficiently) transgresses *Bal Tash-ḥit*). Note that here intentional inefficiency is seen as a transgression of *Bal Tash-ḥit.*
Shabbat 140b: אמר רב חסדא: האי מאן דאפשר ליה למיכל נהמא דשערי ואכל דחיטי קעבר משום בל תשחית ואמר רב פפא האי מאן דאפשר למישתי שיכרא ושתי חמרא קעבר משום בל תשחית. ולאו מילתא היא. בל תשחית דגופא עדיף (Rav Ḥisda said: Anyone who can eat barley bread but eats (more expensive) wheat bread transgresses *Bal Tash-ḥit*. Rav Pappa said: Anyone who can drink beer but drinks wine transgresses *Bal Tash-ḥit*. But this is not the case. *Bal Tash-ḥit* of the body [that is, concern for the best treatment of the body so as to avoid harm] takes precedence [over financial considerations].

> One does not cut down fruit trees… nor cut off their source of irrigation in order to dry them out [viz. in order indirectly to cause them to die and thus be allowed to cut them down] because the Torah says, "Do not destroy its trees." Whoever does so is punished. This does not apply only in a siege but in every case, one who cuts down a fruit tree as an act of destruction[49] is punished. [But] One may cut down such a tree if it was harming other trees, or harming others' fields, or because it is of high financial value. The Torah only prohibited this as an act of destruction.
>
> It is permitted to cut down a non-fruit-bearing tree even if he has no use for it [=the wood], similarly, a fruit tree that has grown old and does not produce more than a small amount and is not worth bothering with may be cut down…
>
> [This prohibition holds] not only for fruit trees. Whoever smashes utensils, tears clothes, razes a building, seals a well or wastes food by destroying it transgresses "do not destroy." [*Hilkhot Melakhim* (the Laws of Kings)*,* 6.8-10]

On the one hand, the tradition radically expands on the biblical commandment, including in it all kinds of destruction of natural and manufactured objects. Yet on the other, it appears to limit the commandment as well, prohibiting only destruction without sufficient cause, while allowing

[49] Maimonides' characterization of that which is prohibited is "derekh hash-hatah", which we have translated as "as an act of destruction." Commentaries generally interpret this as alluding to intention. Thus eliminating trees for the purpose of building on the cleared lot would be permitted because the intention is constructive, not destructive. Indeed, despite the apparent intent of the Biblical passage to prohibit felling fruit trees to build a siege engine in time of siege ("Only a tree that you know not to be a fruit tree, that one you may destroy, cutting it down to build a siege-engine." Deuteronomy 20:20), Sifra Deuteronomy 203 and Bava Kamma 91b midrashically find that even a fruit tree needed for a siege might be used if no non-fruit-bearing tree were available.

destruction for sufficient cause.[50] The upshot of this Torah prohibition is that one must weigh potential value[51] against a general mindset that seeks to avoid damage and wastefulness.[52]

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[50] "Because of its … financial value" in Maimonides' formulation, and by implication, if he has any use for it. David Seidenberg identified this problem in his dvar Torah to Parashat Shoftim that appeared on-line in Tikkun Daily on September 8, 2016. (*Bal Tashchit: What's Wrong With the Jewish Law Against Destruction and Waste -- and How to Fix It*, accessed 9/10/19). Thus the ritual requirement to tear a garment in mourning is permitted, as implied by the comment of Rabbi Elazar on Bava Kama 91b: שמעתי שהמקרע על המת יותר מדאי לוקה משום בל תשחית (I have heard that one who tears in mourning overmuch is punished for [transgressing] *Bal Tash-ḥit*). Even destruction of foodstuffs to regulate markets seems to have been permitted, as can be seen from an episode reported on Ta'anit 20b. [רב הונא] כל פניא דמעלי שבתא הוה משדר שלוחא לשוקא וכל ירקא דהוה פייש להו לגינאי זבין ליה ושדי ליה לנהרא. וליתביה לעניים? זימנין דסמכא דעתייהו ולא אתו למזבן. (Every Friday afternoon, Rav Huna would send an emissary to the market to buy all the fruit left over in the farmer's markets. He would buy it and cast it into the river. Should he not have given it to the poor? That might lead to them relying on it so that they would not buy.)

[51] The conundrum of assigning value in a particular culture or circumstance is as old as time. Value might be seen as inherent or utilitarian; situational or timeless; absolute or relative. So it is with the requirement to assess the utility of destruction and see if it meets the conditions that would justify it. Indeed almost all construction is predicated on some element of destruction. That is the way of the circular economy of nature. To assess if this particular act of destruction is right, we can ask: on the whole, do the benefits of the new creation outweigh the costs of destroying the old? How equitably are the benefits and costs spread? How long till the damages are repaired or renewed by nature? Creating a matrix that attends to these questions - and others - can help us determine the right decision. Such is the goal of environmental impact statements, health impact statements, climate crisis assessments and the like.

[52] Maimonides rules, here, that one may cut down a fruit tree that is causing harm. But in just such a case, brought on Bava Batra 26a, Rava refuses to cut down his offending tree due, apparently, to *Bal Tash-ḥit*. Ramban [Naḥmanides, 13th c. Spain] in his commentary to that case seems to indicate, beyond Maimonides' permission to cut down the tree, that it is affirmatively necessary to do so, but Tosafot argues to defend Rava and support the requirement of *Bal Tash-ḥit* over the matter of damages. Most poskim rule with Ramban (see Entziklopedia Talmudit, Vol. 3, pp. 336-337), taking into consideration the relative value of the fruit tree against that damage, and considering any lesser means that might achieve the purpose. This latter point is grounded in the early midrash Sifrei on Deuteronomy 20:20 which follows the prohibition of *Bal Tash-ḥit* with the provision that one may cut down a non-fruiting tree – "אשר תדע" – זה אילן מאכל. "כי לא עץ מאכל הוא" – זה אילן סרק. אם סופנו לרבות את אילן מאכל, מה תלמוד לומר "עץ מאכל"? מלמד שאילן סרק קודם לאילן מאכל. ("which you know" refers to a fruit tree, "is not a fruit tree" refers to a non-fruiting tree. If we come to include a fruit-bearing tree [in this latter permission to use a tree for our benefit], why did the verse specify [permission to cut down that which is not] "a fruit tree"? To teach that a non-fruit- bearing tree should precede a fruit-bearing tree.)

Yitzchok Zilberstein, a rabbi in Bnei Brak, published an article in Tzohar (a publication of Machon Hilkhati-Actuali Derekh Eliezer, and not that by the same name published by the rabbinic organization of that name), Vol I (5758), pp. 49-75 discussing ramifications of the prohibition of *Bal Tash-ḥit* which further illustrates the extent to which the implications of the prohibition are subject to subjective determinations. He was asked whether a caterer who discards unused food after an event rather than repurpose it is transgressing *Bal Tash-ḥit*. He cites a responsum that accepts the contention that the caterer's time is too valuable to bother with attending to the leftovers, but rejects that line of thought, ruling that time has no value. Neither side seems to plumb the essence of the matter.

Israel Rozen of the Zomet Institute (dedicated to "merging Halakhic Judaism with modern life"), in an article about the clash between ecology and human comfort, cites Ezekiel Landau's famous responsum strongly suggesting that a Jew should not hunt (Noda Biyhudah Tinyana, Yoreh Deah 6) for his musing that wild animals may have greater value killed than alive, for their meat and pelts, and that "דבר שאין בו הפסד לשום אדם לא שייך בל תשחית" (in things that cause no harm to anyone, *Bal Tash-ḥit* is not applicable). He concludes that "in the matter of applying *Bal Tash-ḥit* to harming the scenery, affecting the ozone hole or failure to recycle – it seems to me that these matters remain very unclear as to whether there is 'harm to anyone'." [Sha'arei Zedek 6, pp. 202-212, 2005]. Needless to say, these judgments are wholly subjective, and not probative.

This awareness of the blatant offensiveness of destroying inherently valuable things plays a part in some of the more expansive expressions of our tradition's concern for God's creation. It is these grander statements that get us closer to the legal and moral guidance that we are seeking. In his discussion of this mitzvah, the author of the medieval pietistic work Sefer haHinnukh,[53] writes:

> שורש המצוה ידוע, שהוא כדי ללמד נפשנו לאהוב הטוב והתועלת ולהדבק בו, ומתוך כך תדבק בנו הטובה ונרחיק מכל דבר רע ומכל דבר השחתה. וזהו דרך חסידים ואנשי מעשה: ... לא יאבדו אפילו גרגיר של חרדל בעולם, ויצר עליהם בכל אבדון והשחתה שיראו. ואם יוכלו להציל, יצילו כל דבר מהשחית בכל כחם.
>
> The root of this mitzvah is well-known: it is in order to teach our souls to love what is good and valuable and long for it, and through this [longing], goodness will attach to us and we will keep far from any evil or destructive thing. This is the way of the pious and the activists … They will not destroy from the world even a mustard seed, and they are pained by any loss or destruction that they see, and if they are able to rescue, they [act to] rescue everything from destruction with all their might. [Sefer haHinnukh, #529]

And Samson Raphael Hirsch[54] takes this even further in his particularly fiery writing:

> Yea, 'Do not destroy anything!' is the first and most general call of God, which comes to you… as master of the earth. All round you you perceive earth and plant and animal… already bearing your imprint…. [T]hey have been transformed by your human hand for your human purposes… and you have taken them as your property…. If you should now raise your hand… wishing to destroy that which you should only use… if you should regard the beings beneath you as being objects without rights, not perceiving God Who created them…then God's call proclaims to you, 'Do not destroy anything! … [I]f you destroy, if you ruin – at that moment you are not a [hu]man, you are an animal, and have no right to the things around you… [Y]ou sin against Me!' …. The first prohibition of creation is thus not to destroy… [D]estruction… also means trying to attain a certain aim by use of more things… when fewer… would suffice… This, then, is the first law…. Regard things as God's property and use them with a sense of responsibility for wise human purposes. Destroy nothing! Waste nothing! Do not be avaricious! Be wisely economical with all the means which God grants you… [Horeb, Vol. II, sect. IV, #56, pp. 279-282][55]

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[53] Dating to the middle or late thirteenth century in Spain, the author of Sefer haḤinnukh, who identifies himself as "from the house of Levi in Barcelona" was long considered to be unknown. In an article in 1980, however, Israel Ta-Shma identifies the author as Pinḥas, older brother of the known sage Aaron haLevi of Barcelona (Meḥab'ro haAmiti shel Sefer haḤinnukh, Kiryat Sefer 55:4 (Elul 5740/ September 1980), pp. 787–790). That is the opinion, as well, of Charles Wengrov, editor of an edition of Sefer haḤinnukh in 1984.

[54] German Orthodox Rabbi of the nineteenth century (1808-1888), he was known for a philosophy which emphasized Torah im Derekh Eretz, that is adhering to Jewish law while being invested in the affairs of the world.

[55] Eliezer Diamond identifies a third broad statement of concern for sustainability in the words of Isaac Abravanel in 15th century Spain, in which Abravanel finds part of the reason behind the mitzvah of *shiluaḥ ha-ken* (sending away a mother bird when gathering her eggs, Deuteronomy 22:6-7) to be connected to *Bal Tash-ḥit* and the perpetuation of existence. Abravanel writes, in his commentary there:

Nevertheless, the mitzvah as articulated by Rambam constructs *Bal Tash-hit* as allowing one to preference proximate benefit and its salience (e.g., the value of the tree's wood or location) over the concerns of long-term harm, an issue that is specifically relevant to the matter of sustainability. And though chopping down one fruit tree might in fact have little-to-no discernible long-term harm, what would *Bal Tash-hit* teach us about clear-cutting an orchard to make way for a housing development? Or a solar array?[56] Likewise, there is no question that burning fossil fuels offers benefits in the near term. There is also no longer any question that it is destructive both in the near and long-term to humans and the natural environment.

The consequences of environmental degradation demand that we immediately work to remediate these harms. The question becomes how best to do this; how to balance immediate economic upset with long-term benefit, how to measure scope, severity, duration, equitability and economic impact. It is here that we must rely on the guidance of the experts, as noted by Isserles.[57]. But move we must.

Thus we believe that *Bal Tash-hit*, as it has traditionally been understood, has been too narrowly construed. Yet applied anew to the issue of sustainability, in light of the general positive commandment of *yishuv ha'olam,* it can offer us the over-arching guidance we need. As Rabbi Menashe Klein perceptively explains: "The law of *Bal Tash-hit* is based upon [the goal of] making the world habitable (יישוב העולם), for it appears that '[God] created [the world] to be inhabited' and not to be destroyed."[58]

כוונה התורה בזה עוד להרחיק ההפסד האפשרי... ושתתמיד הווית הוויה... כמו העץ העושה פרי. וצוה הקדוש ברוך הוא שלא ישחית הדבר המוליד ועושה פרי אבל כמו שהותרה כריתת הפרי ונאסרה כריתת העץ כמ[ו] ש[כתוב] (פ' שופטים)... ככה צוה שנקח הבני' שהוא הפרי ... אבל נשלח את האם.... והאם תעשה פרי אחר ותתמיד ההויה וההטבה... ולזה היה סוף המאמר "למען ייטב לך והארכת ימים". ר"ל... למען ייטב לאדם כשתתמיד בהם הויתה למען יאכל ממנה פעמי' אחרות וזהו "והארכת ימים", ר"ל כיון שאתה עתיד להאריך ימים בארץ, הנה אתה צריך אל התמדת ההויה במזונות כדי שיספיקו אליך בהזנת ימים רבים.

The Torah intended by this to avoid the possible loss… and that existence should continue to exist… as (in the case of) the fruit-bearing tree. The Holy One commanded not to destroy that which gives birth or produces fruit, rather, just as it is permitted to pick fruit but forbidden to cut down the tree, as it is written (Deut. 20)... so He commanded that we take the children, who are the fruit… but send away the mother… so the mother should produce other fruit and existence will be sustained and improved…. That is why the end of the verse is "so that it may be good for you and you live long [upon the earth]". That is to say: so that it should be good for humankind for existence to be sustained so that he may partake of it on other occasions. And that is the meaning of "you shall live long", that is to say: since you are slated to live long upon the earth, you have need of the continued existence of foods to suffice in feeding you for many years. (Jewish Perspectives on LImiting Consumption, p. 85. In *Ecology and the Jewish Spirit: where nature and the sacred meet,* ed. by Ellen Bernstein. Woodstock, VT: Jewish Lights Publishing. 1998.

[56] https://www.washingtonpost.com/local/md-politics/maryland-officials-deny-permit-for-solar-farm-that-georgetown-university-wanted-to-build/2019/08/29/6f566aea-ca52-11e9-a1fe-ca46e8d573c0_story.html

[57] See footnote 38.

[58] Menashe Klein (20th c. Ukraine and Israel), Mishneh Halakhot 12.433. The internal citation is from Isaiah 45:18. See page 2.

The traditional parameters of *Bal Tash-hit* have been interpreted exclusively within the model of Genesis One, where the model of *yishuvo shel olam* was one of subduing the earth in order to craft within it a livable space. Humanity's task was to overcome their grand vulnerability in a world that was assumed to be self-sustaining. Here, *Bal Tash-hit* was allowed to readily yield to economic benefit in the near term, for immediate survival was at issue. Our challenge, and the approach we see in the more expansive approaches of Sefer HaHinnukh and Hirsch, is to consider *Bal Tash-hit* as reflected through the prism of Genesis Two, that is, in a natural environment whose health and generativity are affected by and dependent upon human behavior. In that model, *Bal Tash-hit* is measured in terms of harm over the long-term, for no generation has a greater claim to earth's resources than any other generation.

Our mission not to destroy (*Bal Tash-hit)* goes hand in hand with our mission to make the world habitable (*yishuvo shel olam*). This is both an *aseh (positive command)* and *lo ta'aseh (negative command)*. Our difficulty is determining in the specificity of the moment what is demanded. But at every moment, the demands of those mitzvot are urgent and immediate. We must be as dedicated to attending to them as to reciting the Sh'ma and building a sukkah (*aseh*) or avoiding unkosher food or *hametz* on Pesah (*lo ta'aseh)*. All the more so must we be diligent because they do not present themselves in fixed forms that are easily comprehended.

לצאת ידי שמים (latzet y'dei shamayim / to fulfill God's mandate)

There is, finally, another halakhic model for our *pesikah* (our legislation) that will offer guidance in a less prescriptive manner and will allow greater discrimination in what mix of actions a person might take in pursuing the goal of sustainability thus sidestepping the difficulty we have in strict liability and halakhic prescriptions.

That other model is found in language of preferability that may be more useful for our purposes. On Yoma 84b, speaking of the obligation to save a life on shabbat, the Talmud reports: מפקחין פקוח נפש בשבת, והזריז הרי זה משובח, ואין צריך ליטול רשות מבית דין (One should attend to saving of a life on Shabbat. One who does so with alacrity is to be praised. One need not seek permission from a court).

And the Talmud Yerushalmi there adds the opposite clause: הזריז משובח והנשאל מגונה (One who does so with alacrity is to be praised; one who hesitates[59] is to be decried).

Why does tradition appeal here to one's higher angels? Why not simply say חייב (one is obligated)? Because this is an appeal to action that surpasses obligation.

Pesikta Zutarta (also known as Midrash Lekah Tov) to Deuteronomy defines this personal character of acting above and beyond one's technical obligations even without possessing the full capacity or expectation of achieving a certain end as the meaning of righteousness.

> "כי תעשה הישר בעיני ד'" – ללמדך שכל הזריז במצות נקרא ישר.
>
> "If you do that which is righteous in the eyes of God" – This teaches you that whoever performs mitzvot with alacrity is called righteous. (p. 20a, to Deuteronomy 12:25)

And righteousness becomes obligatory, at least for those who wish to see themselves and to be seen by others as fulfilling their highest calling.

> א"ר חייא בר אבא א"ר יוחנן: האומר לחבירו: מנה לי בידך, והלה אומר: איני יודע – חייב, בבא לצאת ידי שמים.
>
> Rabbi Hiya bar Abba said in the name of Rabbi Yohanan: If a person tells his fellow: "you owe me a hundred [zuz]," and the other responds: "I don't know" – he is obligated [to pay], if he hopes to fulfill God's wishes.[60]

An extraordinary case example, given of one of the rabbis who can be assumed to be one of those who see themselves and are seen as on the plane of the righteous, where righteous behavior is elevated to obligatory behavior, is found on Bava Metzia 83a.

> רבה בר בר חנן, תברו ליה הנהו שקולאי חביתא דחמרא. שקל גלימייהו. אתו אמרו לרב. אמר ליה: הב להו גלימייהו. אמר ליה: דינא הכי? אמר ליה: אין. "למען תלך בדרך טובים" (משלי ב, כ). יהיב להו גלימייהו. אמרו ליה: עניי אנן, וטרחינן כולה יומא ובפינן, ולית לן מידי. אמר ליה: זיל, הב אגרייהו. א[מר] ל[יה]: דינא הכי? אמר ליה: אין. "וארחות צדיקים תשמור" (שם).

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[59] Literally, the one who asks, ie, seeks guidance. This hesitation is due to one's unwarranted or untimely deference to supposed authorities in moments of urgency. Sometimes we do not have the luxury of waiting for the fullness of absolute certainty to act.

[60] Bava Kama 118a. This idea is elsewhere expressed as פטור מידי אדם וחייב בידי שמים (patur midei adam v'hayav bidei shamayim / exempt in a court of law, but liable before God). See, for instance, Mishnah Bava Kamma 6.4 where a competent adult sent a child or an incompetent adult on an errand carrying a lighted torch which caused a fire. Precisely like the issue before us, since there is only indirect causation, liability cannot be assessed, but it is nonetheless considered unacceptable for one whose behavior comports with the demands of God. And see the entry on *"Dinei Shamayim"* in Entziklopedia Talmudit, Vol. 7, pp. 382-396. This principle is generally invoked in matters of monetary payments, whereas we wish to apply it more broadly.

> Some porters broke the wine keg of Rabbah bar bar Hanan. He took their cloaks. They brought the matter before Rav. He told [Rabbah]: Give them back their cloaks. [Rabbah] said: Is that the law? [Rav] responded: Yes. "So that you might walk in the ways of the worthy" (Mishlei 2:20). So he gave them back their cloaks. They [then] said to [Rav]: We are poor people. We worked all day, bending over, yet we have nothing. Said he [to Rabbah]: Go, pay their wages. Said [Rabbah]: Is that the law? [Rav] answered: Yes. "and follow in the paths of the righteous" (ibid).

While the commentator Rashi sees this as a case of Rabbah acting לפנים משורת הדין (*lifnim mishurat hadin*), that is, beyond that which is required by law, Rav clearly was saying that for him, righteous behavior was the law ("Is that the law?" "Yes").[61]

We are not, here, addressing what the court must require, but what a person should strive to do. And that is to be proactive in doing God's will, judging oneself by the higher standard of fulfilling God's demands (לצאת ידי שמים), following the ways of the worthy (דרך טובים) and the paths of the righteous (ארחות צדיקים), seeking to fulfill the mission of protecting the world, eschewing the causing of damage even beyond legal liability. For in the end we are all of us under the umbrella of Deuteronomy 6:18 which instructs "ועשית הישר והטוב" (you shall do the right and the good).[62]

Though Rabbi Nahman of Bratslav does not qualify as a halakhic source, he nonetheless states well in Likutei Moharan the call that should motivate the individual's actions in the world:

> צריך כל אדם לומר כל העולם לא נברא אלא בשבילי (ע"פ משנה סנהדרין ד, ה).[63]
> נמצא כשהעולם נברא בשבילי, צריך אני לראות ולעיין בכל עת בתיקון העולם, ולמלאות חסרון העולם.

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[61] The principle of לפנים משורת הדין (*lifnim mishurat hadin*) appears in a legal context on Bava Metzia 24b and 30b, Bava Kama 99b, Ketubot 97a and Berakhot 45b, sometimes indicating that it is enforceable in court and sometimes that it is not. See Tosafot to BM 24b and Shulhan Arukh, Hoshen Mishpat 259:5. Bayit Hadash at the end of note #4 to Tur, Hoshen Mishpat offers the clearest statement of when righteous behavior beyond the letter of the law might be demanded by a Jewish court. He writes: "It is customary in every Jewish court to force a well-to-do person in matters that are right and proper, even though the law is not so…. [A]nd where there is no loss of money, even one who is not wealthy… all agree may be forced." Indeed, this is described by Nahmanides and Rashba as "din hasidut" (see footnote 37).

[62] As Daniel Z. Feldman writes in the introduction of his book, The Right and The Good (Jason Aaronson 1999): "No act that may impact negatively upon another person can be said to be devoid of Sinaitic guidance."
Another verse that is cited in the Talmud to enforce a moral "ought," raising it to a requirement, is Job 11:14: [אם און בידך הרחיקהו,] ואל תשכן באוהליך עולה" ([If anything with you is untoward, push it away]. Do not keep an untoward thing in your possession). See Ketubot 19b.

[63] This of course is not meant to be read as an egocentric comment but rather as a truth that acknowledges that each individual is the center of their own world - physically, cognitively, spiritually. Quite the opposite of being egocentric, this truth unfolds in Rav Nahman's teaching as saying therefore each of us is uniquely and inescapably tasked with tending to the wellbeing of the world.

> "Every person must say: The world was created only for me. Thus, since the world is created for me, I must look and ponder concerning the betterment of the world (*tikkun haolam*) at all times and how to provide that which it lacks.[64]

We are asked to learn from our forefather Jacob's approach to Shekhem that "one has to seek to benefit a place from which one has received benefit."[65] While the source of this teaching is not concerned with the welfare of the world per se, we can extrapolate from it, and must necessarily agree that we have been nurtured by the earth and consequently owe it our gratitude, care and concern, as Rav Nahman proposes, and as follows from our guiding mission of tending to the world, which was created for our habitation.

As the midrash derives this lesson from Jacob's actions, so a contemporary rabbi, Ben Zion Eisenstadt, makes the same point drawing from the life of Isaac. "'Isaac returned and re-excavated the wells that were dug in the days of Abraham his father which the Philistines had sealed up' (Genesis 26:18) – Isaac would dig and bring forth, restoring [the fecundity of] the world, investing in its continued existence. The Philistines would seal the wells, attempting to destroy the world and see it diminished."[66] We not only have the obligation to prevent degradation, we have the obligation, and must discover and develop the skills, to repair the damage we have done to the earth.

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[64] Likutei Moharan, Torah 5:1. A shout out to David Seidenberg who includes this text among his "29 Texts on *Tikkun HaOlam*." http://neohasid.org/pdf/29-texts.pdf accessed July 2019.

[65] Bereshit Rabbah 79:6 to Genesis 33:18 "ויחן את פני העיר" ... הדא אמרה שאדם צריך להחזיק טובה למקום שיש לו הנאה ממנו
("And [Jacob] camped before the town"… This indicates that one must seek to benefit a place from which one has received benefit.) The midrash takes the word for 'camped' (*vayihan*) and interprets it as derived from *hen*, meaning pleasantness, and derives a lesson from Jacob that caring for that place which has nurtured you is an affirmative value to be emulated. For our purposes it is worth noting that when this midrash is brought on Shabbat 33b, Rashi interprets "[Jacob] prepared for them *(tikken lahem*) things that were pleasant (*hen*) and grounding (*hanayah*)" then adds that this may allude also to the next verse, "and he bought (*vayiken*) a tract of land" – using the language of establishment (*tikkun*)."
Perhaps, then it is not incidental that this midrash is brought there in the context of the famed story of Shimon bar Yohai and his son who, pursued by the Romans, hid out in a cave for twelve years and emerged self-righteous, such that everywhere they saw people they considered insufficiently dedicated to Torah, but rather concerned with the maintenance of the physical world, they cast their scornful gaze upon them and they were destroyed. A voice from heaven upbraided them "Have you left the cave only to destroy My world? Go back to the cave." Having returned to the cave for a year, they came out again, this time, citing Jacob, seeking to be of benefit to the world.
We do not think we are stretching to apply this insight to the question before us of maintaining or, God forbid, causing destruction of the world.

[66] "וישב יצחק ויחפר את־בארת המים (אשר חפרו בימי אברהם אביו) ויסתמום פלשתים" (בר' כו:יח): יצחק חופר
וממציא, מתקן עולם, משתדל בקיומו, והפלשתים סותמים את הבארות, משתדלים בחרבנו של העולם ובהפסדו.
Rabbi Ben Zion Eisenstadt (NY, 1873-1951) *Or Lifnei haDorshin* (1916), p. 10 from David Seidenberg's "29 Texts" (see footnote 64).

Indeed, Bereshit Rabbah, reflecting on God's resting from His labor on the first Sabbath, sees maintaining the world as characteristic of the righteous and the destruction of the world as following from the behavior of the unrighteous.

> "מלאכתו" – לא כן אמר ר' ברכיה בשם ר' סימון: לא בעמל ולא ביגיעה ברא הקדוש ברוך הוא את עולמו, ואת אומר "מכל מלאכתו"? אתמהא! אלא, להפרע מן הרשעים שהן מאבדין את העולם שנברא כלו בעמל וביגיעה ולתן שכר לצדיקים שהן מקיימין את העולם שנברא כלו בעמל וביגיעה.
>
> "His labor" – Did not Rabbi Berekhiah say in the name of Rabbi Simon: The Holy One did not create His world with strain and toil, yet you say "all His labor"? I'm amazed! Rather, [this was intended] to indicate that there will be punishment for the unrighteous who degrade the world which was created, all of it, with strain and toil and to reward the righteous who maintain the world which was created, all of it, with strain and toil.[67]

Thus did the first Sephardic Chief Rabbi of Israel write:

> ישובו של עולם... הוא תנאי מוקדם וצורך הכרחי להשגת דרכנו הישרה בחיים.
>
> *Yishuvo shel olam*… is a precondition and necessity to achieve our moral footing in life.[68]

Conclusion and P'sak Halakhah

We are tasked with creating a habitable world for all God's creation (יישוב העולם). To fail to do so is to fail at our primary task of engaging in work that increases the "good"-ness[69] of God's world -- *l'taken tikkun haolam b'khoah ma'aseinu.*[70] While the discrete actions we take will vary according to our particular needs, locations and capacities, certain goals should drive our choices:

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[67] Bereshit Rabbah 10.9 to Genesis 2:2, and see Mishnah Avot 5.1.

[68] Ben Tziyon Meir Hai Ouziel, Hegyonei Ouziel, Vol. 2, Sha'ar 23 (1954).

[69] God deems the world "good", *tov,* seven times in Genesis One. It is up to us to keep expanding and improving on the *tov*, the "good"-ness of the world in Genesis Two.

[70] Based on the language of Yehiel Mikhel ben Uzziel, Nezer HaKodesh (Yesnitz Germany 1719), in his commentary to the Bereshit Rabbah text above (numbered 10.12). תכלית הבריאה היה עבור האדם... מצד תיקון העולם וקלקולו, כי הצדיקים מתקנין תיקון העולם בכח מעשיהם והרשעים מקלקלין תיקונו להחזירו לתוהו ובוהו, למעט שפע העולם (The purpose of creation was for humankind… as regards sustaining the world or destroying it. For the righteous engage in the maintenance of the world through their actions, but the unrighteous destroy its equilibrium, returning it to *tohu vavohu* (formlessness and chaos), reducing the abundant goodness in the world). Credit for this reference goes also to David Seidenberg's 29 Texts on *Tikkun HaOlam* (see footnote 64). He cites it there from Pardes HaMelekh by Pinhas ben David (Sosish) where he found it as part of a long citation from Yehiel Mikhel's commentary to Bereshit Rabbah.

- We are in a global emergency that is already irrevocably jeopardizing the future of humankind and thousands of other life-forms on this astonishingly unique and awe-inspiring planet. The actions we choose must match this urgency.
- We must seek to achieve net-zero greenhouse gas emissions as soon as possible (the urgency being guided by the concensus of the science community) and no later than 2050 , and assist nature in the re-absorbtion of greenhouse gases
- We must turn society from a linear economy to a circular one.
- We must do all this in just and equitable ways.

These, then, are the actions that we are called to do.

All of us, as individuals and institutions, must:

1) **Respond with Urgency**. It is past the time when we can accommodate the sensitivities and restraints of political expediency. We have delayed sufficiently so that we are now experiencing undeniable negative global impacts. The longer we wait, the more costly it will be - in lives, health, environmental degradation and the economy.[71] We must align our responses and act in accord with Nature's timetable.

2) **Inform ourselves about sustainability issues.** We are in a transitional age from Genesis One to Genesis Two; from an era that runs on fossil fuels to one that runs on renewable energy; from seeing nature as a commodity to seeing nature as a living entity; from seeing elements of nature as discrete parts to seeing the world as a unified, interconnected whole, from seeing nature as somehow out there, distinct from civilization to seeing civilization – and everything we make, consume and discard - as an integral part of nature. We are learning so much. Answers to our fundamental questions about how best to create and live into a sustainable economy and society are continually emerging, being tested and improved. We must therefore keep abreast of the latest and most just[72], efficient, affordable and replicable responses.

[71] https://www.sciencenews.org/article/climate-change-economic-cost-united-states, https://www.worldbank.org/en/topic/climatechange/overview

[72] Environmental justice is an essential component of sustainability. Those who contribute least to climate degradation are often those who suffer the most from it. Sustainability solutions must assure that all those impacted have a seat at the table and that no particular community is over-burdened.

3) **Talk with family, friends, colleagues and co-workers**, those in your congregations, schools and other arenas of your social orbit about the necessity and ways of living sustainably.[73] Institutional leaders must speak with their counterparts in sister institutions. Sharing commitment, ideas, products, methods and knowledge is key to creating the massive shift in attitudes, values and practices that is needed to meet the challenges we face. For those eager to adopt these new practices, such sharing is a simple kindness. For those skeptical or reluctant to adopt sustainable ways, it is a form of *hokheah tokhiah* - speaking truth in love so that all might benefit, akin to encouraging life-saving inoculations. The current environmental crisis needs all hands on deck. Recent studies show that people are likely to "shift their opinions on the subject [of the climate crisis] to align with the people closest to them."[74] People will act with urgency if and when they feel the collective sense of urgency. We care most about what we talk most about.

4) **Make all our decisions align with the goals of sustainability**. Individuals and families should create their own sustainability "credo" articulating their values and ideal practices. [75] On a broader level, institutions should create and develop ways to abide by sustainability policies. Our institutions should conduct energy, resource and food consumption audits, including what we use, how much we use and how we discard what is left over[76]. Sustainability plans and goals should be created and implemented that respond to these findings. Congregations and institutions should likewise encourage their members' households to conduct their own consumer audits and establish their own sustainability goals[77]. Our institutions should incorporate sustainability updates in their monthly meetings, as consistently as they include divrei torah, and reports on programming, membership and budget/finance.

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[73] See Katharine Hayhoe's TED talk on the necessity of speaking about climate change, https://www.ted.com/talks/katharine_hayhoe_the_most_important_thing_you_can_do_to_fight_climate_change_talk_about_it?language=en#t-685143, and how best to do it.

[74] https://grist.org/article/what-shapes-your-beliefs-about-the-climate-crisis-its-not-just-left-vs-right/?eType=EmailBlastContent&eId=c777a329-b297-49de-847f-7b7f7ebd2055 , accessed July 2019.

[75] While individual behavior Is not sufficient to achieve the remedies we seek, it is an essential part of the solution. Cumulatively, our individual actions, our buying habits, the practices we model at home and at work, affect the material, economic and social environments in which we live. And as importantly, our actions will deepen our own commitment to the imperative of sustainability. Our hearts and values tend to follow our actions, for we seek to align our beliefs with our behaviors.

[76] The ideal is for nothing to be discarded, tossed or sent to a landfill. For earth's ecosystems know no waste. There is no end-of-cycle, dead-end deposit of materials. Everything gets recycled, reused, renewed, re-absorbed somehow. Using biomimicry and regenerative design can help society craft materials and products that can re-enter either the natural or technological cycle. What we buy determines how we discard it. Designers, manufacturers and consumers alike must hold regenerative design as our ultimate goal.

[77] Such as using 100% green energy, trending toward a plant-based diet, composting, etc. See Resources in appendix for suggested sources for such audits and other helpful guides.

5) **Advocate for sustainable practices in business and government.**[78] Protecting and preserving a world in which all life can flourish requires more than our individual actions. It requires the cooperation and commitment of business and public policy. We must work to align all of society's practices and policies with nature's demands.[79] To fail to do so is to transgress the command, לֹא תַעֲמֹד עַל־דַּם רֵעֶךָ, do not stand idly by the blood of your neighbor. (Leviticus 19:16) We are all truly neighbors in this global society. And people are already suffering because of climate change.[80] Tens of thousands have died due to excess heat and other weather-related disasters. Floods bringing destruction, water-borne diseases and disease-carrying insects are multiplying. Droughts causing famine, dislocation and death are on the rise. Those in developing countries and in the more impoverished areas of developed countries may feel these effects first. But we are all of us responsible for preventing them. And eventually, it will affect us all. Whether on a local, state or national level, we need to motivate the powers that be to turn our economy, laws and society toward a sustainable future.

Institutions must:

6) **Appoint someone to hold a designated sustainability portfolio.** Synagogues, schools, camps,

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[78] The notion that government has the right and ultimately the obligation to enact regulations for the benefit of their citizens is an accepted halakhic principle. (Bava Batra 8b and Tosefta Bava Metzia 11:23). The Talmud speaks only of a right. It was the burden of medieval interpreters of halakhah to extend it to an obligation upon communities. This is the burden of a responsum by Hananyah bar Yehudah Gaon, the father of Sherira that is found in Teshuvot HaGeonim Sha'arei Tzedek 4.4.16. "Let the elders of the community gather, come to an agreement and legislate…" for "whatever transpires to a community, all equally… they may obligate one another in that regard according to the agreement of elders which applies to them and which all members of the community are bound by." [My translation (AIR)]. (See Menahem Elon, HaMishpat HaIvri, p. 564; in English, Jewish Law, p. 685 which translates the passage differently, failing to provide context crucial to this presentation).
A Jewish polity would be bound to act for the betterment of the world. While we cannot instruct a non-Jewish polity to act as the Torah and the rabbis demand, wherefore our arguments in the public square must be those that secular legislators will be moved by, our halakhic drive to tend to God's world should have us utilize our democratic access to public influence in service of pursuing the mitzvah of יישובו של עולם which is incumbent upon us.

[79] Our goals over the next few decades should be not only to achieve a net-zero carbon society but a "drawdown" society in which we learn how to both radically reduce the carbon we emit and also rapidly re-sequester the carbon in the atmosphere. See *Drawdown: the most comprehensive plan ever proposed to reverse global warming*. Ed by Paul Hawken. 2017. Drawdown is a science-based approach to crafting an enduring solution to our climate crisis. It offers 100 ways that together will help us build a better world, engaging the technological, natural and social arenas. Visit https://www.drawdown.org/.

[80] "Researchers believe that global warming is already responsible for some 150,000 deaths each year around the world, and fear that the number may well double by 2030 even if we start getting serious about emissions reductions today." https://www.scientificamerican.com/article/global-warming-and-health/ In addition, "The Internal Displacement Monitoring Centre (IDMC) records that worldwide, over a period of eleven years (2008-2018), about 265.3 million people were displaced internally as a response to [environmental] disasters." https://migrationdataportal.org/themes/environmental_migration (accessed July 2019)

federations, agencies and other Jewish institutions should designate sustainability offices and officers (just as we have fiscal advisors, IT advisors, marketing and messaging and other technical staff and board positions) and designate a portion of their budget to that end. These positions, whether staff or board, should reside at senior management level and assure that goals and practices of sustainability are integrated into every aspect of organizational management and development.

7) **Develop and incorporate texts, teachings and values of Jewish environmentalism in the curricula of our formal and informal education for everyone.** Judaism is, at root, a religion deeply connected to the earth. It incorporates agricultural practices, land use and management of resources among its calendar, rituals, values and laws. These should be taught from pre-school to rabbinical school, with new commentary and insights that encourage and inspire modern application.

8) **Create appropriate bodies that can guide the implementation** of these tasks. These recommendations must move from paper to action. That requires leadership and resources. Within the next six months, the various arms of our movement, together or severally, should distribute and study this teshuvah and create committees and offices to guide their sustainability work; create resources, conduct webinars and other training opportunities that can help them and their constituents translate the move from intent to action.

What else?

We recognize that this teshuvah does not offer specific halakhic directives for sustainable living. It does not decree the propriety of local eating or a 100% plant-based diet, create a mandate for composting, or determine transportation options. That is because the landscape of sustainable options is constantly changing and does not lend itself to solutions that work for everyone everywhere, both today and tomorrow. And because we are not classical sages who can enact new *takkanot* with ease. Therefore, in line with CJLS' mission to proffer standards, and in line with the 2019 Rabbinical Assembly Resolution on Climate Change and Environmental Concerns,[81] we offer a

[81] Rabbinical Assembly Resolution on Climate Change and Environmental Concerns, Rabbis Edward Bernstein and Susan Tendler, chairs (Posted on: March 26, 2019):
The rabbis teach: תן דעתך שלא תקלקל ותחריב את עולמי, שאם קלקלת אין מי שיתקן אחריך. Pay attention that you do not corrupt and destroy My world: if you corrupt it, there is no one to repair it after you. (Kohelet Rabbah)

program for living in a way that emphasizes intentional sustainable use of resources and eschews excess and waste. These are informed by the primary halakhic requirement for which humanity was created: to be engaged in יישובו ותיקונו של עולם (*yishuvo v'tikuno shel olam* / the habitability and betterment of the world). And as Rabbi Tarfon taught

לֹא עָלֶיךָ הַמְּלָאכָה לִגְמֹר, וְלֹא אַתָּה בֶּן חוֹרִין לִבָּטֵל מִמֶּנָּה.

(Yours is not to finish the work, but neither are you at liberty to abstain from it).[82]

Kavvanah

Until such time as all human-devised systems for extraction, consumption and disposal of material resources are themselves sustainable so that sustainability becomes part of the default operating system of civilization, sustainability will require constant vigilance and intentionality.

Whereas the Rabbinical Assembly has been proactive on environmental issues and has passed numerous resolutions over the past three decades in support of environmental protection (1991, 1994 1995, 1997, 1998, 1999, 2001, 2003, 2007, 2008, 2009, 2012, 2013, 2016, and 2017) and even adopted guidelines for its own events; and Whereas the National Climate Assessment (issued by 13 federal agencies of the United States government) and the Intergovernmental Panel on Climate Change (a group of scientists convened by the United Nations) October 2018 Report warned of the dire consequences of climate change and its impact on the environment if urgent action is not taken immediately, including droughts, famines, wildfires, and rising sea levels threatening to erode cities such as Charleston, Miami, and New York, for which the United States is unprepared. Whereas the IPCC report revealed that we have only 12 years left to take urgent action if we hope to keep global warming to a maximum of 1.5C, beyond which we risk catastrophic drought, floods, extreme heat, and poverty for hundreds of millions of people; Whereas the severity of climate change can be lessened by transitioning to the usage of renewable sources of energy and improving energy efficiency; Whereas dependence on volatile sources of energy destabilizes the world order and, Whereas climate change is a serious threat to Israel because the Middle East is vulnerable to, and increasingly experiencing more, drought and, Whereas Hazon has developed a Seal of Sustainability for Jewish institutions to engage in sustainability initiatives through education, action, and advocacy;

Therefore be it resolved that the Rabbinical Assembly urge its members to deepen their commitment to combating climate change individually and institutionally; Be it further resolved that Rabbinical Assembly members adopt the guidelines of the RA on environmental sustainability in food service, conduct energy audits of their institutions, and encourage their constituents to do the same in their homes; Be it further resolved that the Environment Subcommittee of the Social Justice Commission be charged with creating a comprehensive report to the RA on environmental issues, which will then be published and made accessible to our members.

Be it further resolved that Rabbinical Assembly members pursue the Hazon Seal of Sustainability for their own institutions and for other communal institutions. Be it further resolved that the Rabbinical Assembly work in coalition with other groups such as Interfaith Power and Light, Coalition on the Environment and Jewish Life (COEJL) and GreenFaith to advocate for the use of renewable sources of energy and purchasing energy in bulk for all religious institutions in a given community.

[82] Pirkei Avot 2:16.

There exist many practical guides on the web offering information on how to become a more sustainable congregation, community or home. See, for example, Greening Synagogues: lessons from the Jewish Greening Fellowship, Brit Olam Environmental and Climate Justice, Interfaith Power and Light, Drawdown, Canfei Nesharim, Jewcology , among others.

Encouraging that intentionality is part of the task of society as a whole and religions in particular. To that end, we propose a kavvanah that can be added to the morning prayers[83].

רבונו של עולם כל מה שבראת לא בראת דבר אחד לבטלה.[84]
אויר לנשימה, מים לשתיה ולרחצה, אדמה למחיה ולכלכלה,
צמחים וחיות כפי רצונך, ואדם "לעבדה ולשמרה."
תן בלבנו כל יום לעסוק באוצרך באמונה וכן נקיים רצונך,
כדברי נביאך: "לא תהו בראה, לשבת יצרה."

God, everything you have made has a purpose:
air for breathing, water for drinking and bathing, land for living and growing, plants and animals for your pleasure
and humanity, to work and care for your earth.
Inspire us every day to care for your earth so that we may fulfill your vision
“Not as a wasteland did God did create the earth but as a home where we may live.” (Isaiah 45:18)

[83] Mahzor Lev Shalem has an environmental Al Het for Yom Kippur on page 267 and Siddur Lev Shalem has a Prayer for the Renewal of Creation alongside the other prayers that follow the Torah reading on Shabbat, on page 177, both composed by Rabbi Daniel Nevins. We add this as a daily reminder to be added to the morning prayers, to be said directly after Elohai Neshamah (and kavvanat haAri).

[84] Berakhot 31b - This first line of this kavvanah is a direct quote from the prayer Rabbi Elazar - in the name of Rabbi Yosei ben Zimra - said was recited by Hannah as she prayed for a child. The rest of the kavvanah is modeled after the structure of Hannah’s prayer.

Contemporary Jewish Resources

Institutional

http://www.webofcreation.org/archive-of-resources/74-environmental-checklists-for-church-buildings-a-grounds

Energy Star for Congregations and Energy Star action workbook
https://www.energystar.gov/buildings/owners_and_managers/congregations

GreenFaith inspires, educates, organizes, and mobilizes people of diverse religious and spiritual backgrounds globally for environmental action. https://greenfaith.org/mission

Hazon Seal of Sustainability A roadmap for Jewish institutions to become healthier and more sustainable through education, action, and advocacy. https://hazon.org/seal/about/

Interfaith Power and Light http://www.coolcongregations.org/ The Cool Congregations program of Interfaith Power and Light is designed to support faith communities as they "walk the talk" by reducing their own carbon footprint.

Jewish Earth Alliance JewishEarthAlliance.org

National Religious Partnership on the Environment - Jewish organizations and resources
http://www.nrpe.org/jewish-perspectives-and-resources.html

Personal/Residential

Checkout your personal footprint https://www.footprintcalculator.org/

It's all about food. The Johns Hopkins Center for a Livable Future Clearly one of the best, most accessible and impactful ways to arrest and reverse climate change and environmental degradation is to change the ways we eat.
https://www.coursera.org/learn/food-system and https://www.nytimes.com/2019/04/08/well/eat/a-guide-to-sustainable-eating.html

Create your personal sustainability program
http://www.sustainabilityconsulting.com/blog/2016/8/11/the-importance-of-a-personal-sustainability-project

How to live more sustainably and why https://www.wwf.org.uk/what-we-do/area-of-work/promoting-sustainable-living

Fundamental principles of sustainability
http://www.sustainablemeasures.com/Training/Indicators/Def-NatS.html

Educational Resources

Jewcology Jewcology is a project of graduates of ROI who have come together to create a resource for the entire Jewish-environmental community. https://jewcology.org

Jews of the Earth To provide educational programs and activities focused on the connection between Judaism and the environment. http://www.jote.org/

Pearlstone Retreat Center **Our Mission:** to ignite Jewish passion while connecting guests with the land and Jewish values; https://www.pearlstonecenter.org

The Heschel Center for Sustainability develops and implements the vision of sustainability: a just and cohesive society, a robust and democratic economy, and a healthy and productive environment to all of its residents. https://www.heschel.org.il/heschel-media

Some relevant books for further study, reflection and action

Judaism and Ecology, Hadassah and Shomrei Adamah. (NY, NY 1993)

Who Renews Creation, Earl Schwartz and Barry D. Cytron. (United Synagogue of Conservative Judaism, Dept. of Youth Activities, N.Y. 1993)

Ecology and the Jewish Spirit: where nature and the sacred meet, Ellen Bernstein. (Woodstock, VT: Jewish Lights, 1998)

Torah of the Earth: Exploring 4,000 Years of Ecology in Jewish Thought, Arthur Waskow, ed. (Woodstock, VT: Jewish Lights, 2000)

Judaism and Ecology, ed Hava Tirosh- Samuelson. (Cambidge, MA: Harvard University Press. 2002)

The Way into Judaism and the Environment, Jeremy Benstein. (Woodstock, VT: Jewish Lights, 2006)

Kabbalah and Ecology: God's Image in the More-Than-Human World, David Mevorach Seidenberg. (New York: Cambridge University Press, 2015)

Some Suggestions for a Personal Sustainability To-do List

Resource Consumption:

Use / Switch to highly rated Energy-Star appliances

Use LED or other energy efficient lighting

Switch off lights and electrical devices when not in use

Where possible, put lights on motion detectors

Enroll in 100% wind or solar electricity supply

Buy or use vehicles with high gas mileage (also walk, bike, use public transportation and otherwise find ways to limit your vehicle miles traveled)

Conserve water – develop habit of switching off when not in use / restrict shower heads and toilet tank volume / consider choice of garden plants and watering plan

Move as much as possible to a plant-based diet, limiting consumption of meat and dairy
(large resource input / large greenhouse gas effect)

Waste Management:

Minimize the packaging of products you purchase.

Recycle. Compost. Attend to proper disposal of sensitive items (batteries, electronics, pharmaceuticals).

Use reusable bags rather than throwaway, single use bags.

Enoughness

Help create a culture that is moving toward a circular economy.

Develop habit of less is more.

Potential Future Research Agenda:

As noted in Ft. 2, the landscape of environmental concerns today is vast. No one teshuvah can address the full array of these issues. Many issues relating to pollution and environmental degradation fall under the categories of *nezikin*/damages and *hilkhot shekhenim*/neighbor's rights. We hope that this teshuvah lays the theoretical and moral grounding for future explorations. Potential issues for further discussion could be:

The appropriateness (kashrut) of eating meat, dairy or eggs

Explorations of requirements of a (mostly) plant-based diet

Balancing travel on vacation or to Israel with one's sustainability goals

Land use and building occupancy

The appropriateness (kashrut) of one's financial investments

The appropriateness of cutting non-fruit-bearing trees, (given our knowledge of their contribution to the respiration cycle of the earth)

Extending the environmental implications of mitzvot ha'teluyot ba'aretz to all land use.