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Tu B'Shvat, 5782

To My Dear Student and Friend, Rabbi Hody Nemes (YCT '21),

It is a pleasure to write to you regarding a halakhic approach to the climate crisis. You were my original inspiration to investigate this matter and continue to be a major source of information, connection, and encouragement. You have my gratitude (*hoda'ah*). Before we plunge into the halakhic discussion, I'd like to briefly discuss the science of climate change so that we have clarity about the phenomenon when we get into the halakhic details.

Defining our Terms

As I understand it, climate change is caused by “greenhouse” gases (most notably carbon dioxide and methane) collecting in the earth’s atmosphere. This collection has the joint effect of preventing the reflected heat of the sun from radiating into outer space. Since this heat cannot be released, it gradually causes the temperature of the atmosphere and, ultimately, of the entire planet to increase. Increased planetary temperature causes changes in the weather. Much of the extreme weather we’ve experienced over the last ten years: hurricanes, droughts, and record heat are attributable to this phenomenon. In addition to extreme weather, we have seen unprecedented desertification in the last few decades. Previously arable land has turned to desert forcing farmers off the land and exacerbating the continuing global immigration crisis. Finally, increased planetary heat causes the polar ice caps to melt leading to rising sea levels and threatening coastal habitations worldwide.

These phenomena combine to create a global emergency. The World Health Organization stated in 2018 that at our current trajectory, we can expect an additional 250,000 deaths per year worldwide between the years 2030 and 2050 as a result of increased global temperatures. A Duke University study, also from 2018, claims that 150 million lives could be saved by reducing the global increase to less than three degrees by the end of the century. And this past May, Nature published a study stating that more than a third (37%) of heat-related deaths from 1991-2018 can be directly attributed to warming caused by humans. As we move through the halakhic analysis of this crisis, we should not lose sight of the current and impending catastrophe that lies behind these numbers.

Practical Questions

Considering the extraordinary damage caused by greenhouse gases you presented me with a group of practical questions related to the release of these gases:

- Does the halakha require me to reduce flying?

- Does the halakha require me to refrain from eating factory farmed meat (which is a surprisingly large producer of greenhouse gases)?
- If I want to buy a new car, am I required to buy an electric vehicle or a hybrid as opposed to a gas powered vehicle?
- Am I permitted to invest in fossil fuel companies? If not, must I withdraw funds that I have invested in fossil fuels previous to receiving this decision (*pesak*)?

Over the course of this discussion, we will relate to “the release of greenhouse gases” in general, but we will return wherever possible, to consider these practical questions as well.

Bal Tashchit: The Prohibition on Waste

For many years it has been a truism in the Jewish environmental community that pollution of the planet is forbidden based on the prohibition on wanton waste and destruction, *bal tashchit*. But this cannot be accepted at face value. The reason is that the Rambam (Maimonides, 1138-1204, Spain and North Africa) states that this prohibition is only relevant when the destruction is done in a specifically wanton manner, *derekh haschata*. If profit or benefit are gained by way of the destruction, the prohibition no longer applies.¹ The Tosafot (multiple authorship, 12th c., Western Europe) seem to arrive independently at the same conclusion.²

Even jurists who exhibit some sense of environmental sensitivity, bow to the Rambam’s point of view. Thus the *Sefer HaChinukh* (authorship uncertain, 13th c. Spain), regarding this mitzvah, writes, “this is the way of the pious and people of [proper] action...they do not destroy even a grain of mustard in the world. And they are distressed by all loss and destruction that they see; and if they can prevent it, they will prevent any destruction with all of their strength.”³ Yet, regarding chopping down trees, he simultaneously asserts, “But it is certainly permitted to cut [them] if he finds a beneficial matter in it, such as the wood becoming valuable and he wants to sell it.”⁴ We find a similar contradiction in *Shulkhan Arukh HaRav* (Rabbi Shnaer Zalman of Liadi, 1745-1812, Jewish Lithuania).⁵ In other words, even when scholars recognize the importance of preserving the natural world, legally that value is only expressed when there is no profit to be gained from its exploitation.

It is self-evident that the release of greenhouse gases benefits individuals and society at large. Electricity and gas, largely obtained through the consumption of fossil fuels, power our hospitals, our food supply, our clean water and our sewage systems. It is no exaggeration to say

¹ Mishneh Torah, Hilkhot Melakhim u-Milchamot 6:8

² Avodah Zara 11a, s.v. *Okrim...*

³ Sefer HaChinukh, mitzvah #529

⁴ Ibid.

⁵ Shulkhan Arukh HaRav, CM, Laws of Protecting the Body and Spirit and *Bal Tashchit*, subsec. 14 and 15

that all of modern civilization would come to a screeching halt if we required the total cessation of all greenhouse gas emissions. Because of this, *bal tashchit* seems to have no standing in our discussion.

However, the hyperfocus in the legal literature on the Rambam's articulation that *bal tashchit* must be *derekh hashchata*, done in a wantonly destructive manner, has distracted most scholars from another parameter of the prohibition. The Talmud cites an older source (*baraita*) as saying, "Only the trees of which you know"; this is referring to a tree that bears fruit. 'That they are not trees for food'; this is referring to a barren tree. And since the Torah ultimately includes all types of trees, what, then, is the meaning of: 'that they are not trees for food?' It is to give precedence to cutting down a barren tree over a fruit tree."⁶ In other words, when achieving a beneficial end allows for a choice of means, we are required to give precedence to the less destructive means. This requirement is ruled as practical law by the Rif (Rabbi Isaac Alfasi, 1013-1103, Maghreb)⁷ and the Rosh (Rabbi Asher ben Yechiel, 1250-1327, Germany and Spain)⁸ but ignored by the Rambam and the *Shulchan Arukh* (Rabbi Yosef Karo, 1488-1575, Israel). Rabbi Yosef Chaim of Baghdad, the *Ben Ish Chai* (1835-1909) is one of the few late jurists who takes this aspect of *bal tashchit* into consideration although he does not reference it explicitly. He states⁹ that people who leave two lighted wicks in their oil lamps overnight, in case they need to get up in the middle of the night, violate *bal tashchit*. The reason, he explains, is that one wick is perfectly sufficient to do the job. This indicates again that if there are two ways of doing something, and one way is more wasteful than the other, we are required to choose the less wasteful way. Despite the fact that this halakha is not recorded in the Rambam and *Shulchan Arukh*, neither source explicitly disagrees with it. Therefore it is perfectly reasonable to rely on the opinions of the Rif, the Rosh, and the *Ben Ish Chai* and demand this consideration from the modern Jewish community.

However, there are certainly activities that must be done for the good of an individual or society that release vast amounts of greenhouse gases that can only be done one way. Additionally, there must be cases where the method that releases more greenhouse gases is cheaper or more profitable. Thus it behooves us to continue probing the halakhic literature for further approaches to the climate crisis.

Indirect Damages

⁶ Talmud Bavli, Baba Kama 91b

⁷ Baba Kama 32b

⁸ Baba Kama 8:14

⁹ Torah Lishma, ch. 76

It is important to note that greenhouse gases themselves, by and large, are not toxic to human beings. Rather, their harm is done through the retention of the earth's radiant heat. This retention causes the overall temperature of the planet to rise which, in turn, causes hurricanes and other harmful weather (droughts, etc.), and these ultimately do damage to human life and property. This is an extremely indirect chain of causation.

For this reason, some important rabbis (Rabbi Daniel Wolf and Rabbi David Bigman amongst them) have argued that the rules of *gramma be-nezikin*, indirect damage provides a fruitful approach to understanding the climate crisis from a halakhic perspective. After all, the Mishna states that, "One must distance his ladder four cubits from a neighbor's dovecote so that a mongoose will not be able to jump from the ladder to the dovecote."¹⁰ And the Gemara adds, "Rav Tovi bar Mattana said: This is to say that it is prohibited to cause even indirect damage."¹¹

The Rambam and the *Shulchan Arukh* cite this Mishna almost verbatim, but the *Tur* (Rabbi Ya'akov ben Asher, 1269-1343, Spain) writes, "If one's fellow owns a dovecote next to a wall which separates them, and one wants to put up a ladder there, one must allow a distance of four *amot*¹² between the ladder and the wall so that a mongoose may not jump from the ladder to the dovecote."¹³ The *Tur*'s vision of the wall separating between the dovecote and the ladder is based on Rashi who imagines the situation identically.¹⁴ Rashi, however, states that the ladder must be four *amot* distant from the dovecote, not the wall. The *Nimuke Yosef* (Rabbi Yosef ibn Habib, 14th and 15th c. Spain) writes explicitly that it is permitted to lean the ladder against the wall so long as it is four *amot* removed from dovecote. This distinction is identified by the *Perisha* (Rabbi Yehoshua Falk, 1555-1615, Poland) who writes, "This indicates that [the *Nimuke Yosef*] thinks that if one distances the ladder from the dovecote, it is still permitted to lean the ladder against the wall itself. And the reason is that even though the mongoose could walk along the wall to the dovecote, it is not considered the responsibility of the owner of the ladder unless the mongoose can jump from the ladder to the dovecote in one leap."¹⁵ This indicates that according to *Nimuke Yosef* (and, probably, Rashi and the *Shulchan Arukh* as well),¹⁶ indirect damage is only forbidden when there is one leap between the act that enables the damage (putting up the ladder) and the damage itself (the mongoose leaping to the dovecote).

¹⁰ Mishna, Baba Batra 2:5

¹¹ Talmud Bavli, Baba Batra 22b

¹² approximately half a meter

¹³ Choshen Mishpat ch. 155

¹⁴ Baba Batra 22b, s.v. *Marchikin*...

¹⁵ Choshen Mishpat ch.155, s.v. *Haya lechavero*...

¹⁶ Based on the author's disregard for the position of the *Tur* there and in the *Beit Yosef*.

Damage caused by the release of greenhouse gases is the result of a multiple step chain reaction. A person drives their car, the car releases carbon dioxide into the atmosphere, the carbon dioxide traps the earth's radiant heat causing the planet's overall temperature to rise, rising temperatures lead to extreme weather and the extreme weather causes damage. In halakhic terms we call that *grama de-grama*, indirect damage three or four times over. According to the *Nimuke Yosef* and the *Perisha* (and, we've argued, *Rashi* and the *Shulchan Arukh* as well) there is certainly no prohibition in releasing greenhouse gases in this way. The connection between the agent and the ultimate damage is simply too remote. And even the *Tur*, who applies the prohibition in cases of two leaps (from the ladder to the wall and from the wall to the dovecote), doesn't concern himself with three and four step chain reactions. Therefore, all these authorities would agree that in the vast majority of greenhouse gas emissions, there is no prohibition whatsoever.

Negligible Individual Contributions to the Crisis

A further problem must be considered. Climate change is caused by the amassing of greenhouse gases in the atmosphere. This concentration of gases is caused by the joint activity of billions of people over the course of two hundred years. No one person, despite using all of the modern amenities to release greenhouse gases for their entire life, could cause the kind of concentration necessary to change the temperature of the planet let alone change the weather. This means that as we search for a holistic, halakhic approach to the climate crisis, we must consider cases where the contribution of the individual to the damage caused is virtually negligible and only a massive collective can truly do significant damage.

Chamira Sakanta me-Isura: Danger is Stricter than Prohibition

Because of these obstacles, I turned my attention to the laws of *sakana*, danger. The halakhic principle is *chamira sakanta me-isura*, danger is treated more strictly by Jewish law than simple prohibitions. I hoped that this additional stricture might help me confirm that the halakha imposes restrictions even on behaviors that trigger multi-step chain reactions (*grama de-grama*) and even when the individual contribution to the damage caused is negligible.

The Obligation to Remove Hazards and Dangers from Our Settlements

The Rambam writes, "it is a positive commandment to remove any obstacle that could pose a danger to life, and to be very, very careful regarding these matters, as Deuteronomy 4:9 states: "Beware for yourself; and guard your life." If a person leaves a dangerous obstacle and does not remove it, they nullify a positive commandment, and violate the negative commandment: 'Do not bring blood into your house.' (Deut. 22:8)"¹⁷ This language is further codified in the *Shulchan*

¹⁷ Mishneh Torah, Hilkhhot Rotzeach u-Shemirat Nefesh 11:4

Arukh.¹⁸ The language of the Rambam doesn't seem to distinguish between hazards. A simple read would suggest that there is an obligation to remove any hazard to life, no matter what the cause, that exists in places of human habitation. Furthermore, there is a prohibition to allow such hazards to remain. If this read is correct, the mandate of the Rambam is massive. All hazards, natural and man-made, must be dealt with to the full extent of our ability. We are explicitly prohibited from ignoring them, all the more so from causing them. But who, precisely, is obligated and what does that obligation consist of?

A Communal Obligation

The great Talmudist and jurist, Rabbi Yerucham Fishel Perlow (1846-1934, Poland), writes that in the case of hazards to the public, the obligation is on the community as a whole. In his own words, "in the public domain the obligation is incumbent on the community and on the *beit din* all together and not only on the perpetrator alone."¹⁹ This assertion is ruled as practical law (*halakha le-ma'aseh*) by the *Devar Avraham*²⁰ (Rabbi Avraham Dov-Ber Kahana Shapiro, 1870-1943, Lithuania) and the *Hazon Ish*²¹ (Rabbi Avraham Yishaya Karelitz, 1878-1953, Lithuania), two of the most important halakhic decisions of the late 19th and early 20th centuries.

Rav Perlow's use of doubled language, "on the community and on the *beit din*," is suggestive. Why does he mention both the local governing body, the *beit din* (rabbinical court) as well as the community? Doesn't the *beit din* act on behalf of the community? If there is an obligation on one, doesn't that automatically translate into an obligation on the other? The test case might be, what happens when the *beit din* fails to fulfill the obligation to remove a public hazard. Rav Perlow writes, "actively creating a hazard... violates the positive and negative commandments... For if one has an obligation to remove all obstacles even when one did not make them oneself, all the more so are we warned not to make them actively." According to this, Rav Perlow extends the communal obligation to every individual. It is logical then to assume that it is first the *beit din's* responsibility to fulfill this obligation on behalf of the community. However, if for some reason, *beit din* fails to fulfill their obligation, the obligation devolves back onto each individual.

Regarding what the obligation consists of, the language of the Rambam suggests that continuous efforts must be made until the danger is successfully removed. It is unreasonable to

¹⁸ Choshen Mishpat 427:8

¹⁹ Yerucham Fishel Perlow, Commentary on Sefer HaMitzvot, Negative Mitzvot 53-55, p. 54b

²⁰ Devar Avraham, vol. 1, ch. 37, sec. 1 s.v. umi-beraita, regarding the communal obligation to cover or fence an abandoned well in the synagogue courtyard.

²¹ Hazon Ish on the Rambam, Hilkhos Rotzeach u-Shemirat Nefesh, ch. 11, sec. 2, 3, and 4, s.v. a"sh. Interestingly, the Hazon Ish disagrees with Rav Yerucham Fishel Perlow's arguments here, but he agrees obliquely in the cited section that it is the responsibility of the community to cover a pit in the public domain.

suggest that governments must work exclusively on removing dangers to the detriment of their other responsibilities. On the other hand, the Rambam indicates that so long as danger remains, the obligation is not fulfilled.

Talmudic Source for the Communal Obligation²²

Despite his greatness, Rav Perlow is an awfully late source to bring as evidence of the communal obligation to remove dangers. However, we do find one Talmudic source that hints at the same thing. The Talmud says, “On the intermediate days of a Festival, agents of the court go out to clear thorns from the road, and to repair the city streets and highways... And from where is it derived that if agents of the court did not go out and do all these repairs, that any blood that is shed there on account of their negligence, the verse ascribes to them guilt as if they had shed it? The verse states, 'and so blood be upon you' (Deuteronomy 19:10).”²³ This passage indicates that there is a communal obligation to remove hazards in the public domain and it is cited in its entirety by the Rif²⁴ and the Rosh.²⁵ In the Rambam²⁶ and *Shulchan Arukh*,²⁷ however, the end of the passage, “And from where is it derived...” which points most clearly to the communal obligation, is omitted. Indeed, the Rambam and the *Shulchan Arukh* treat this passage as a source of permission to perform certain acts of labor on *hol ha-moed*, the intermediate days of Pesach and Sukkot, rather than the communal obligation to remove hazards from the public domain. However, although there is no mention of the obligation in the Rambam or *Shulchan Arukh*, they certainly make no objection. This being the case, it is reasonable to rely on the Rif and the Rosh and to treat this passage as the source for our communal obligation to address public dangers.

Kidra de-Bei Shutfei: Communal Apathy and Communal Obligations

In the course of consulting with my teachers and colleagues on these matters, I received the following challenge from a genius *Talmid Chacham* of my acquaintance. He suggested that perhaps the communal obligation doesn't devolve onto individuals (as we argued according to Rav Yerucham Fishel Perlow above) until the *beit din* makes an official move to pass the obligation on. The source for this is a Talmudic passage discussing a large tree that is planted too close to the city limits. The Talmud relates, “If the tree preceded the city, they cut down the tree and the city gives money to its owner.’ And let the owner say to the residents: Give me

²² Rabbi Danny Eisenberg brought my attention to this source shortly after YCT's second climate conference. Rabbanit Michal Tikochinsky, as well, cites it in her response to my initial analysis.

²³ Talmud Bavli, Moed Katan 5a

²⁴ Moed Katan 2a

²⁵ Moed Katan 1:7

²⁶ Hilchot Shevitat Yom Tov 7:10

²⁷ Orach Chaim 544:1

money first and then I will cut down the tree. Rav Kahana said: A pot belonging to partners is neither hot nor cold.”²⁸ Rashi ad loc. explains, “If we wait until the money is given, the tree will remain for some time as the citizens rely on one another [to make the first payment]. This is played directly into the hands of the owner. Therefore, we cut the tree down first and afterwards, the owner claims their payment from the citizens in *beit din*.”²⁹ This suggests that fulfillment of communal obligations must be pursued in *beit din* and not through individuals.

*Sefer Meirat Einayim*³⁰ rules this way explicitly as a matter of practical halakha. Regarding who is responsible to fence a cliff that borders the public domain he writes, “Since the occupants of the public domain are a pot owned in partnership, it obviously cannot be their responsibility to build a fence around the public domain.”³¹ In other words, the Talmudic principle, *kidra de-bei shutfei la-chamima ve-la karira*, a pot belonging to two partners is never hot and never cold,³² is a privilege of the community that exempts them from most communal obligations. Because individuals will always look for someone else to start a communal project, they are exempt from the obligation until *beit din* forces them to fulfill it.

However, this interpretation is overwhelmingly rejected by other commentators and decisors. This is expressed most clearly by the Meiri (Menachem ben Shlomo ha-Meiri, 1249-1315, Provence). Regarding the tree that is too close to the city limits he writes, “It is not necessary for them to give the money first. For if it were, they would be negligent because each individual would be too apathetic to pay and the owner of the tree would be silent [since until they receive the money, the tree remains]. Therefore, they chop the tree down first and afterwards the owner is motivated to demand their payment.”³³ In other words, *kidra de-bei shutfei* is a description of the negligence and apathy of the citizens of the town, not a legal exemption. This interpretation is echoed by multiple early authorities and may be the correct interpretation of Rashi as well. In other words, *beit din* might be necessary to enforce the communal obligation, but official action is not necessary to impose the obligation on the individuals.

Regarding the obligation to fence the cliff on the border of the public domain, the *Arukh ha-Shulchan* (Rabbi Yechiel Michel Epstein, 1829-1908) rules against the *Sefer Meirat Einayim* as a matter of practical halakha. He writes, “If there is a concern that someone will fall, let the occupants of the public domain fix it, or the chosen leaders of the town. And even though there

²⁸ Talmud Bavli, Baba Batra 24b

²⁹ Baba Batra 24b, s.v. *la chamima*

³⁰ Authored by Rabbi Yehoshua Falk, author of the *Perisha*, see above for dates and location.

³¹ Choshen Mishpat 427:7

³² Neither partner is so negligent as to let the pot get cold, but each relies on the other to stoke the fire to allow it to get hot.

³³ Baba Batra 24b, s.v. *amar ha-Meiri she-marchikin*

is *kidra de-bei shutfei* and everyone will rely on their fellow and nothing will be accomplished, in any case, it is not the responsibility [of the owner of the private property at the bottom of the cliff] for the Torah has exempted them."³⁴ This makes it clear that *kidra de-bei shutfei* is not a privilege or an exemption of the community but rather an expression of criticism for the negligence and apathy of the community that does not remove public hazards as it should.

Therefore, it emerges that there is a communal obligation, both on the community as a whole (as represented by its leadership) and on each individual as well to remove all public hazards as asserted by the Rambam and the *Shulchan Arukh* above. This should apply to dangers presented by the climate crisis as well. If the community does not actively work to remove these dangers, they have nullified a positive commandment and violated a negative one as we've seen in the Rambam above.

Indirect Damage and Negligible Individual Contributions in the Context of Danger

A few months ago, I presented this material to a group of Israeli rabbis who were visiting our yeshiva for the week. They objected vehemently to my contention that the Rambam we've seen is referring to all dangers including the climate crisis, and insisted that this halakha only applies to hazards that resemble the local context of building a fence around one's roof. In other words, direct damage. Therefore, although I remain convinced that the Rambam there is referring to all damages without distinction, it seems worthwhile to seek out a test case to indicate that even activities that trigger multi-step chain reactions are considered *sakana*, danger, and create an obligation to remove the hazard. Furthermore, the Rambam does not definitively indicate that in cases where the individual contribution is negligible, an individual obligation remains. Therefore, I turned back to the laws of *sakana* to search for test cases that would confirm or deny my assumptions about the obligation to remove dangers and hazards from our habitations.

A preliminary scan of the laws of *sakana* in their primary location³⁵ yields the conclusion that the vast majority of these laws deal only with direct damage. Even in the few cases of indirect damage, like the prohibition to spill tainted water in the public domain,³⁶ or the prohibition to sell weapons grade steel to a non-Jew,³⁷ the chain reactions under consideration are only one or two steps, nothing like the complex series we see in the release of greenhouse gases. However, towards the end of the *Tur's* discussion of *sakana*, the *Beit Yosef*³⁸ notes, "Similarly, it is forbidden

³⁴ Choshen Mishpat 427:4

³⁵ Rambam, *Mishneh Torah*, *Hilkhot Rotzeach u-Shemirat Nefesh* ch. 11 and 12, and *Tur* and *Shulchan Arukh*, *Yoreh Deah*, ch. 116

³⁶ *Mishneh Torah*, *Hilkhot Rotzeach u-Shemirat Nefesh* 11:15; *Tur*, *Yoreh Deah*, ch. 116

³⁷ *Mishneh Torah*, *Hilkhot Rotzeach u-Shemirat Nefesh* 12:12; *Tur* and *Shulchan Arukh*, *Yoreh Deah* 151:5

³⁸ Authored by Rabbi Yosef Karo, author of the *Shulchan Arukh*, see above for dates and location.

to be alone with non-Jews, and to accompany them on the road, and to get a haircut from them, or to receive medical attention from them, and to sell them weapons. Our teacher wrote this in chapters 151 through 157.”³⁹ And the Rama (Rabbi Moshe Isserles, 1530-1572, Poland) writes in *Darkei Moshe*, “See below from chapter 151 until chapter 156 for more situations that are forbidden because of danger (*sakana*).”⁴⁰

Indeed, when we turn in the *Tur* to *Yoreh Deah* chapter 151 we find the following law, “We may not sell them (non-Jews), anything that could cause damage to the public like... any weapon, or stocks, or chains, or shackles... even steel that could be flattened out and made into a weapon is forbidden and we may not sharpen their weapons. And we may not build for them any place where they might put human beings on trial.” This is ruled as practical halakha in the *Shulchan Arukh*,⁴¹ and according to the *Beit Yosef* and the *Darkei Moshe* above, these are all cases of *sakana*.

Building a Courthouse for Non-Jews: A Test Case for *Sakana*

The last of these halakhot is particularly notable. Building a courthouse for non-Jews is not a one person job. Rather, it requires an entire team of builders (and the further back we go in history, the more builders are required). It is reasonable to assume that in a major construction project of this sort, the contribution of each individual builder is almost undetectable. This is supported by the language of the Mishna that is the original source for this halakha. The Mishna says, “One may not build *with* non-Jews...”⁴² And this is echoed in the Rambam (although he interprets the Mishna to be about building temples to idolatry), “It is forbidden to build *together with* the non-Jews...” True, the *Tur* and *Shulchan Arukh* use the language, “we may not build *for* them...” this does not necessarily indicate that they believe that building a courthouse is a one person job. Rather it stands to reason that in their time, it wasn’t customary for Jews to work together with gentiles. Therefore, an entirely Jewish *team* of builders might be hired for the construction of a courthouse, and each of them is forbidden to participate.

Rabbi David Bigman has challenged me on this matter. He notes that the contribution of an individual builder even in a major construction project is at most one in several hundred. The contribution of the individual to the climate crisis is one in eight *billion*. In terms of negligibility, the two don’t bear comparison. Even the naked eye might distinguish the stones or bricks laid by a single worker in a team of several hundred, but one in eight billion is essentially zero.

³⁹ Yoreh Deah 116, s.v. *od yesh devarim...*

⁴⁰ Yoreh Deah 116:2

⁴¹ Yoreh Deah 151:5

⁴² Avodah Zara 1:7

I argue that negligible is negligible and the importance of the stones laid by one builder in several hundred are as unimportant to the ultimate project as the greenhouse gases released by the single individual out of eight billion human beings on the planet. Furthermore, there is reason to say that even when an individual's contribution to damage caused by a group is essentially zero, there may still be a prohibition forbidding the individual to contribute to the damage.

For example, the *Shulchan Arukh* writes, "It is forbidden to buy from a thief the item that they stole. This is a major sin for it empowers other sinners and causes them to continue stealing. For if they were unable to find a buyer, they would no longer steal."⁴³ It is certainly possible for an individual who buys stolen goods to be one amongst thousands, millions, or, in the internet age, even a billion buyers. In that case, their influence on the market for stolen goods is essentially zero. Yet there is every reason to assume that the prohibition on buying stolen goods remains. After all, the whole purpose of the prohibition is to reduce the market for stolen goods and that is by definition a group project. Therefore, I argue, the prohibition in this case is on the participation of the individual in a group activity that causes damage, even when the group is very large. I see no reason why the same reasoning should not apply to the climate crisis.

Continuing to examine our test case, there can be no question that building a courthouse for non-Jews is the first act in a multi-stage chain reaction. After all, there is no damage done by constructing the building alone. First a person has to be arrested and brought there for trial. Then they need to be condemned to death, then they need to be taken to the execution ground and only then is the damage actually done.

A similar example can be found in the Talmud Yerushalmi in the vicinity of our Mishna above. The Yerushalmi says, "One who sits in the stadium is guilty of shedding blood."⁴⁴ If this is in reference to the evils of non-serious habits, like the earlier context in the Yerushalmi, it ought to say so explicitly. We might wonder if this is an exaggerated statement like "Anyone who embarrasses their fellow in public, it is as though they have spilled blood,"⁴⁵ or, "Anyone who refuses to speak with their fellow out of anger for three days spills blood."⁴⁶ But those examples have no actual association with bloodshed whereas the spectator at the Coliseum, by their presence (possibly for an entrance fee), supports and encourages true bloodshed right before their eyes. Indeed, they are partially responsible for it, for were there no audience, this particular shedding of blood would not be taking place.

⁴³ Choshen Mishpat 356:1

⁴⁴ Talmud Yerushalmi, Avoda Zara 1:7, 40a

⁴⁵ Talmud Bavli, Baba Metzia 58b

⁴⁶ Midrash Tanaim, p. 114

Here too we are dealing with a multi-step chain reaction. After all, it's a long way from sitting in the stadium to committing actual murder. Again too, the contribution of the individual spectator to the overall damage is virtually negligible. A single spectator at the Coliseum is not able to cause or prevent the bloodshed that occurs there. And despite these facts, the Yerushalmi states that this is a form of bloodshed and forbids it. True, the Talmud Bavli does not discuss this case and it is not ruled upon in the writings of the early or late decisors. Just the same, it hints that our exact issues were on the minds of the authors of the Mishna and the Talmud when considering the building of a courthouse.

Therefore, I submit that the prohibition to build a courthouse for non-Jews is a paradigm that demonstrates that even cases of multi-step chain reactions where the contribution of the individual is negligible are still defined as *sakana* and create a communal obligation to remove all hazards from our habitations as articulated by the Rambam and the *Shulchan Arukh*.

Building a Courthouse: Rabbinic Decree?

The prohibition against building a courthouse for non-Jews is a legitimate test case so long as we assume that it is an essential ruling of the Torah or Sages and not a specialized decree, which cannot be expanded beyond its specific content. My friend and teacher, Rabbi David Fried (YCT '13) points out, however, that this assumption may not be true. Although the Gemara does not refer to any of the laws of *sakana* we've discussed as decrees, a few early commentators do use this nomenclature. The Ramban (Nachmanides, 1194-1270, Spain), regarding the Talmud's surprising permission to sell weapons to the Persians,⁴⁷ writes, "The only thing they permitted us to sell to the Persians was weapons because the original decree was out of concern for damages, but they lifted it for the Persians because they protect us."⁴⁸ And the Rambam writes as well, "Our Sages forbade many matters because they involve a threat to life. Whenever a person transgresses these guidelines, saying: "I will risk my life, what does this matter to others," or "I am not careful about these things," he should be punished by stripes for rebelliousness [against the Sages]."⁴⁹ This doesn't use the term *gezeira*, decree, explicitly, but the punishment of *makot mardut*, lashes for rebelliousness, among other things, suggests something of the sort.

The *Chatam Sofer* (Rabbi Moshe Sofer, 1762-1839, Hungary) rejects this. He writes, "All cases of *sakana* are forbidden from the Torah from the verse "Beware for yourself; and guard your life,"

⁴⁷ Talmud Bavli, Avoda Zara 16a

⁴⁸ Milkhamot Hashem, Avoda Zara 4b, s.v. *amar ha-kotev...*

⁴⁹ Hilkhhot Rotzeach u-Shemirat Nefesh 11:5

as the Rambam wrote...and the Sages have the responsibility to oversee this prohibition...⁵⁰ In other words, the decrees of the Sages regarding danger are different from the other decrees. Rather than making up new statutes ex nihilo, in the case of *sakana*, the Sages identify specific cases where the Torah prohibition on endangering oneself and others applies. Thus each case is not only limited to its own context but can be seen as a paradigm for other possible *sakana* cases.

A recent legal ruling by a Jerusalem *beit din* indicates that the “decrees” of *sakana* can be the basis for expansion in actual practice. The ruling deals with the case of a fundamentalist Christian cult that the court believed abused children in body and spirit. The decision reads, “Since these assailants could not have done what they did to children without an apartment in the neighborhood, every apartment that is rented to them becomes a weapon in their hands and a danger not only to the spirits and the holiness of these children’s bodies, but straightforwardly danger to their bodies themselves. Apartments rented to these bandits strengthens them and is falls under the prohibition that the Rambam wrote...that we may not sell them anything that causes damage to the masses, and anything that is forbidden to sell to a non-Jew, it is forbidden to sell to a Jew who we suspect will resell it to a non-Jew”⁵¹ Thus we see in black letter law that the “decrees” of *sakana* can be expanded beyond their own content. Based on this, the prohibition against building a courthouse for non-Jews can still act as a paradigm and test case for the kinds of situations that count as *sakana*.

One further distinction should be considered before we close this part of our discussion. The *Minchat Chinukh* (Rabbi Yosef ben Moshe Babad, 1801-1874, Galicia) notes that the Rambam’s language is contradictory. In *Hilkhot Rotzeach u-Shemirat Nefesh* 11:4 he writes that there is a positive commandment to remove all hazards from our habitations, as we have seen, and a negative commandment to allow them to remain. However, in the very next halakha he writes that the specific prohibitions of endangerment are Rabbinic in origin. How can this be reconciled? The *Minchat Chinukh* writes, “It is possible that ‘Do not bring blood into your house’ is only in reference to hazards that endanger others. And this is precisely why the Rambam includes, [in his discussion of self endangerment] the argument ‘what does this matter to others?’”⁵² Prohibitions on specific kinds of self endangerment, the *Minchat Chinukh* argues, may be only decrees of the Sages. Endangerment of others, however, is always from the Torah.

The Communal Obligation to Work to Remove the Dangers of the Climate Crisis

At this point we have argued that the straightforward language of the Rambam and the *Shulchan Arukh* establishes a communal obligation to remove all hazards, both natural and

⁵⁰ Chidushe ha-Chatam Sofer, Avoda Zara 30a, s.v. *mishum gilui*...

⁵¹ Beit Din Yerushalmi le-Dinei Mamot ve-Berur Yuchasin, Yoreh Deah, ruling 4

⁵² *Minchat Chinukh* 546:11

man-made from our habitations, and a prohibition on allowing those hazards to remain. We've also found the paradigm of the prohibition on building a courthouse for non-Jews that confirms that behaviors that trigger chain reactions, even when the contribution of the individual to the overall damage is negligible are still considered *sakana* and should be included in the positive and negative mitzvot above. It is time to start thinking about the bottom line.

I argue that the evidence indicates that there is a positive mitzvah for the worldwide Jewish community as a whole, and for each individual in particular to take the climate crisis seriously and work to find a solution. As we've said, our first expectation is that our local, and state and national governments (*beit din* in the parlance of Rav Yerucham Fishel Perlow) should do this on our behalf. Practically, this means that we should be forbidden to vote for candidates, whether on the right or on the left, who ignore or deny the climate crisis. Admittedly, this puts more pressure on conservative voters than on liberals. But there are conservative candidates who recognize the climate crisis and agitate for solutions. Their voices must be amplified. Based on what we've said, amplifying these conservative voices should be considered a *kiyum*, a fulfillment of the positive obligation.

The climate solutions offered by conservative proponents differ significantly from those favored by liberals. Liberals tend to champion austerity measures and cultural change. Conservatives often eschew austerity measures and tend towards technological solutions. As far as I can tell, the halakhic obligation to solve the crisis does not distinguish between types of solutions. As long as the officer or candidate supporting a particular solution is truly convinced that it is viable, that should constitute a *kiyum*, a fulfillment of their obligation and that of the community they represent.

If government fails to act, the obligation devolves back onto individuals. It then becomes our obligation to agitate for the government to take up the issue of climate change again. Other forms of support that could constitute fulfillment of our obligation include monetary and moral support for advocacy groups, technological research, and other organizations that seek to solve the crisis as well as mitigate and repair the damage already done. Finally, if we have a choice of climate friendly and non-climate friendly means to the same ends, we must choose the climate friendly path (as we argued above in our discussion of *bal tashchit*, the prohibition on waste). Thus, indeed, a Jew is in need of a car they must buy an electric vehicle if possible rather than a gas powered vehicle.

The Prohibition on Releasing Greenhouse Gases

In addition to the communal obligation, the Rambam also states that there is a prohibition on allowing the status quo to remain. Rav Perlow takes this as a starting point and writes, "actively

creating a hazard... violates the positive and negative commandments... For if one has an obligation to remove all obstacles even when one did not make them oneself, all the more so are we warned not to make them actively." In other words, it is forbidden to exacerbate the existing climate crisis by releasing more greenhouse gases into the atmosphere.

Certain applications of this prohibition are relatively unproblematic. It should be forbidden for Jews to invest in fossil fuel companies (and if we already have, there should be an obligation to remove our funds by selling our shares, thereby lowering fossil fuel stock prices, as a *kiyum* of our larger obligation to solve the climate crisis). That seems to me relatively benign.

However, the prohibition, as I articulated it above, indicates that absolutely all greenhouse gas emissions are forbidden at every level of the chain reaction. Can this be? Is it forbidden to use all electricity, running water, and gas-powered vehicles? Is it forbidden to have children, since every additional human being on the planet causes additional greenhouse gas emissions. It is not possible. It is no exaggeration to say that in the modern world, a person's every act is guaranteed to cause greenhouse gas emissions somewhere down the line. Tragically, there is no clear way to distinguish between an act of forbidden damage and a simple act of day to day living.

Tzorech Gadol: Essential Needs

Therefore, it is my opinion that we cannot rule universally that greenhouse gas emissions are forbidden. However, even though we can't be sure in all cases that there is a prohibition, we still need to suspect at all times that there might be. Therefore, every person needs to weigh their behaviors and ask whether their need is great enough to justify the possible prohibition hidden in any particular behavior. Obviously different people will have different calculi of what is essential and what is secondary. Thus, no one ruling can cover every person. Rather every Jew must use their own judgement to determine which behaviors are absolutely necessary and which are not. Similarly, Rabbis aiding in this process must consider the values of their constituents rather than their own values alone.

Rabbanit Michal Tikochinsky has challenged me sharply on this compromise position. If greenhouse gas emissions constitute a clear and present danger to human life, how can we compromise and allow behaviors that cause them in any case? I respond by reversing the question. What is the alternative? Is it possible that the climate crisis is not recognized as a sufficient danger to qualify for the communal obligation to remove it? We're talking about the loss of millions of lives of Jews and non-Jews! Rather it seems to me that there are cases which are obviously forbidden (such as investing in fossil fuels) and others which are obviously

permitted (such as having children and earning a livelihood). In between these poles there are grey areas, and in those cases, we calculate based on the magnitude of the need.

I have no proof that this is the correct method but I do find a hint. After telling us that it is forbidden to sell weapons to non-Jews, the Talmud queries, “How is it that nowadays we sell all weapons to non-Jews?” Rav Ashi replies, “We sell the weapons to the Persians, who protect us.”⁵³ This is clearly a gamble at best. Although the Persian government in Rav Ashi’s time may have been just to the Jews, who is to say that the next leader won’t exterminate the Jews with the very swords their predecessors bought from the Jews themselves? Rav Ashi must know this, and yet, he permits the sale in this context.

Rav Ashi’s case differs from ours. Most significantly, the negative outcome is uncertain. In the case of the climate crisis, on the other hand, it is virtually guaranteed. However, it should be noted that in Rav Ashi’s case, the damage is immediate (the same sword the Jew sold may kill Jews), and the impact of a single individual (even if they don’t sell weapons in bulk) is far more significant than in our case (as Rav Bigman emphasized above). So not all of the differences are to the advantage of Rav Ashi.

Rabbanit Tikochinsky argues that this halakha explicitly demonstrates that there is no concern for indirect causation of damage. Considering that the only difference between the permitted behavior and the forbidden one is the degree of certainty of the outcome, I find this to be unconvincing. Rather, I argue that Rav Ashi is faced with a situation where there is a significant benefit and an uncertain prohibition (since the Persians of this generation can be trusted to protect us). This is roughly the case for my compromise ruling above. Instead of a benefit, I require a significant need. But in our case as well, there is uncertainty about the prohibition. We have demonstrated that the climate crisis reaches the threshold of danger necessary to institute a communal obligation to solve it. But this cannot translate into a universal prohibition on everything that causes greenhouse gas emissions. Thus, loosely based on Rav Ashi, I suggest that when there is a need and a doubt, there is room to be lenient even in the case of *sakana*.

Boundaries: In Spite of Everything

Despite everything we’ve just said, I believe that there is still room to set some specific boundaries. As we argued above, we must choose the most climate friendly means possible to achieve our ends satisfactorily. That is a boundary. Similarly, I would be willing to hear an argument to permit investment in fossil fuels, but I find it hard to believe I would be convinced enough to permit it.

⁵³ Talmud Bavli, Avoda Zara 16a

Regarding flights: I am certain that there are needs that justify flying. However, I am doubtful that flying for the purpose of vacationing is one of them. Regarding meat consumption: I believe that eating meat as part of the mitzvah of *oneg shabbat* (enjoying Shabbat) and *simchat yom tov* is perfectly justifiable. However, I would be hard pressed to allow it for a standard weekday meal without the extenuating circumstances of health, economics, or something similar. Regarding gas-powered vehicles: I believe that people should make an attempt to acquire electric or hybrid vehicles. However, if this is beyond their means, and they need a car for their livelihood or some other pressing need, it should be permitted for them to purchase a gas powered vehicle. However, wherever possible, both for electric and gas they should attempt to acquire used vehicles since the production of new vehicles is a significant greenhouse gas producer in itself. And in cases where public transportation is reasonably convenient, I would demand that they use that, even for such needs as work or a mitzvah, let alone lesser needs. Regarding hybrids, my teacher and friend, Rabbi Barry Kornblau, has pointed out that depending on the circumstances, hybrids may actually be preferable to electric vehicles. Some research, therefore, will undoubtedly be required before the best choice emerges.

Summary

It is my opinion that Jews who want to adhere to a reasonable halakhic standard in their climate related behaviors should keep to the following guidelines:

- Agitate for the government to do more to solve the climate crisis. Write letters, attend meetings, do not be apathetic.
- Support, monetarily and morally, climate advocacy groups, climate technology institutes, and other organizations that work to solve the crisis and mitigate the damage already done.
- Vote for candidates who acknowledge the climate crisis and are working to find solutions. Do not vote for candidates who ignore or deny the crisis.
- Make every attempt to acquire electric or hybrid vehicles rather than gas powered. If these are not affordable, gas powered vehicles are permitted. In any case, try to buy used vehicles rather than new where possible.
- Refrain from investing in fossil fuels and withdraw existing investments.
- Restrict meat consumption to Shabbat and Yom Tov unless other extenuating circumstances like health or economy exist.
- Reduce flights to cases of need alone.

I present none of this to you as a strict ruling but rather as your teacher, trying to show you a reasonable path according to my best judgement. That being said, it is my opinion that what I have written here is indeed the correct analysis of the halakha and conscientious Jews should behave accordingly.

Berachot and best wishes,
Haggai