**HUMANITY IS IN OVERSHOOT-------COLLAPSE OF CIVILIZATION MUST HAPPEN**

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According to the Global Footprint Network (GFN), humanity is in overshoot using the theoretically renewable resources of 1.7 Earths. The GFN is a respected think tank whose sole purpose is to determine if humanity is in overshoot, and if it is in overshoot by how much. Since nonrenewable resources, by definition, can be used only one time (or at the very most only a few times), at some time in the future each of them will no longer be available to humanity. The determination by the GFN that humanity was in overshoot was made when the population of the planet was 7.6 billion. Simple math shows that in order to get out of overshoot the population will have to be reduced to 4.47 billion (7.6 divided by 1.7 =4.47)--- in simple terms to get out of overshoot humanity must reduce its population by 3.13 billion (7.60 -4.47=3.13)

A species is in overshoot when it uses more resources than the environment it occupies can provide for a long period of time. A species can remain in overshoot for a short period of time--- it is similar to a bank account that pays interest at the rate of 2% per year when the owner of the bank account withdraws 3% per year--- the owner must eventually run out of money.

The amount of resources used by humanity is determined by two simple numbers--- the total population of the planet and the average per capita usage of resources. Population increases and/or increases in the average per capita usage of resources will drive humanity deeper into overshoot. The deeper humanity goes into overshoot, the more likely that civilization will collapse.

The necessary reduction of 3.13 billion set forth in the first paragraph above is based upon the assumption that neither the population of humanity will increase nor will there be an increase in the average per capita usage of resources.

According to the latest population numbers issued by the UN (medium variation, June 2019), the human population is predicted/projected/estimated to increase from the current 7.7 billion to 10.9 billion by the year 2100. This represents an increase of 3.2 billion (10.9 minus 7.7=3.2) or 41.5% (3.2 divided by 7.7=41.5%) in just 81 years (2100 minus 2019=81). And according to the UN, population will continue to increase after the year 2100.

Assuming no increase in the average per capita usage of resources, starting in the year 2100 for humanity to get out of overshoot it would have to reduce the human population from the 10.9 billion predicted by the UN to the 4.47 billion calculated in the first paragraph above. This would require a reduction of 6.43 billion (10.90 minus 4.47= 6.43) or a reduction of 59% (6.43 divided 10.9=59%)

However, the reduction of 6.43 billion does not take into account the almost certain increase in the average per capita usage of resources between now (2019) and the year 2100 caused by the demands of the ever-growing billions in the underdeveloped nations. In order to offset the increase in the average per capita usage of resources, a reduction in the human population substantially greater than 6.43 billion will be required to get humanity out of overshoot.

Any species that remains in overshoot must suffer a violent, massive, uncontrolled and substantial decline in population in order to bring the population down to a level that can be supported by the resources the environment provides. And the environment occupied by humanity is the entire planet. If humanity remains in overshoot it must suffer the decline set forth previously. The only questions are--- when will that decline happened?---how many humans will die horribly?-- And will humanity go extinct?

Every human right, with only one exception, is in some manner controlled by society when the exercise of that right harms another person. I have the right to swing my arm, but I do not have the right to swing it such that it slams into someone’s face. I have a right of free speech, but I do not have the right to yell fire in a crowded theater when fire does not exist. I challenge anyone on the face of the earth to set forth a human right, except the one that will be stated below, that is not controlled in some manner by society when the exercise of that right harms another person. The sole exception is the right to produce an excess number of children that will cause the collapse of civilization and the deaths of billions.

To get out of overshoot the number of human beings on the planet has to be reduced; merely reducing population growth to zero will not suffice. Therefore, anyone producing more than one child is producing an excess number of children. If humanity does not immediately limit the production of children to one child per couple, humanity will stay in overshoot, civilization will collapse, billions will die and there is a strong probability that the human species will go extinct.

There are only three ways that human population growth can be controlled---a) Disease, starvation, war and/or other horrors; b) Voluntary population control; and c) Coercive population control. Since no one wants (a), that method must be excluded from discussion. Voluntary population control includes every action humanity can take short of coercion-- educating women, changing culture, providing cheap or no-cost abortion, providing cheap or no cost birth control, and educating all humanity as to the benefits of limiting population growth are just a few actions that humanity could take that could be considered voluntary population control. Coercive population control can range from social exclusion to severe criminal penalties.

As shown above there are three possible reduction requirements for humanity to get out of overshoot—a) 3.13 billion based upon the current population and based upon no increase in the average per capita usage of resources; b) 6.43 billion based upon the population increasing to 10.9 billion by the year 2100 and no increase in the average per capita usage of resources; and c) Some number substantially greater than 6.43 billion, if the human population were to reach 10.9 billion by the year 2100 and if the average per capita usage of resources were to increase. No one has shown and no one can show that voluntary population control will reduce the level of human population in time to prevent the collapse of civilization.

At this point in time about nine nations have nuclear weapons, some of whom have H-Bombs. The A-bombs that were dropped on Japan at the end of World War II had the equivalent of about 20 thousand tons of TNT. The Russians exploded an H-bomb type of device that had the equivalent of 57 million tons of TNT. A very strong argument can be made that there cannot be a limited nuclear war-- once a single bomb goes off, the rest will follow.

Voluntary population control has some chance of failure and by failure I mean that population will continue to grow until it is stopped by disease, starvation, and wars, most likely with weapons of mass destruction. Anyone who takes the position that voluntary population control has zero chance of failure or that is absolutely certain that voluntary population control will prevent wars with weapons of mass destruction is an idiot (and that word is not name-calling, but a statement of fact). The question then becomes--- what chance of failure of voluntary population control is acceptable to humanity? Since the failure of voluntary population control almost certainly will cause the collapse of civilization and the deaths of billions and even possible extinction of the human species, the chance of failure must be very low. We can debate how low, but we cannot debate that it must be very low. In my view, any chance of failure greater than 10% is not acceptable and I defy anyone to show the chance of failure is less than 10%.

Since at this point in time no one is considering coercive population control, the leaders of humanity have a duty to determine what is the chance that voluntary population control will fail to reduce the human population to whatever level is necessary to prevent the collapse of civilization over the next 250 years-- what is the chance of failure by 2050, by 2100, 2150, etc.. The leaders of humanity also have a duty, at this point time, to estimate the future events that will require the immediate imposition of coercive population on a worldwide basis. For example--- if it were determined in the year 2050 that the UN’s estimate of population by the year 2100 was substantially incorrect and that humanity was on a trajectory such that the population by 2100 would be 20 billion instead of the original 10.9 billion, coercive population control would be immediately implemented on a worldwide basis.

In simple and direct terms-- leaders of humanity have a duty today to cause experts to evaluate every major problem faced by humanity to determine the chance that one or more problems will cause the collapse of civilization before 2050 and/or 2100. Of course, there are many problems (I will not list them, as they should be known to every reader) and an analysis of each of them would be time-consuming and very expensive. Since each problem will have many unknowns, no one could guarantee the accuracy of any estimate. However, humanity must do the best it can and periodically review each and every estimate so that the collapse of civilization can be prevented. Anyone who takes the position that none of the problems presently faced by humanity could or would cause the collapse of civilization in the near term is an idiot (and again that is not name-calling, but a statement of fact)

If the chance of failure, at any point in time, is greater than 10%, in my view, that would immediately require an analysis of every aspect of coercive population control and a detailed and comprehensive comparison between coercive and voluntary population control. If the chance of failure of voluntary population control is greater than 10%, no intelligent person should object to the analysis of coercive population control and/or its comparison will voluntary population control.

IN ONE SENSE EVERYTHING WRITTEN ABOVE IS CORRECT AND VERY, VERY IMPORTANT. WHILE EVERYTHING WRITTEN ABOVE IS CORRECT, IN ANOTHER SENSE EVERYTHING WRITTEN ABOVE IS IRRELEVANT. HERE IS WHAT IS IMPORTANT AND RELEVANT:

WHILE THERE CAN BE A DISPUTE AS TO HUMANITY’S DEPTH IN OVERSHOOT, THERE CANNOT BE A DISPUTE THAT HUMANITY IS IN OVERSHOOT.

WHILE THERE CAN BE A DISPUTE AS THE ACCURACY OF THE UN’S NUMBERS RELATING TO THE FUTURE POPULATION BY THE YEAR 2100, THERE CANNOT BE A DISPUTE THAT THE HUMAN POPULATION WILL CONTINUE TO SUBSTANTIALLY INCREASE FOR AT LEAST THE NEXT 25 YEARS.

THERE CANNOT BE A DISPUTE THAT FOR THE FORESEEABLE FUTURE THE AVERAGE PER CAPITA USAGE OF RESOURCES WILL CONTINUE TO INCREASE.

Based on the three statements above, unless humanity immediately imposes a world-wide limitation as to the number of children that a couple can produce (one child per couple) humanity will remain in overshoot until wars with weapons of mass destruction cause the extinction of humanity. Humanity has one and only one choice---coercive population control or extinction.