

**In 1998 the founder (Rudi Tseng) of the Science and Engineering Society was able to make accurate predictions in regard to the Earth's climate. The founder calls this now ongoing climate change "the accelerating global climate change".**

At the moment both global warming and global cooling are working at the same time. We will see heavy rain and snow falls causing unusual flooding. Besides hurricanes, tornadoes and windy stormy weather will increase.

Evidence of recent cold spells in North America and the now ongoing cold spell in Europe (January 2010), which is not seen for at least 30 years, which suggests that a little ice age is real and ongoing at the moment. Please see "The **Accelerating Global Climate Change**" written by the Writer (Rudi Tseng).



Satellite picture showing the extent of snow-cover across [Great Britain](#) and [Ireland](#) on 7 January 2010

Therefore we should look at what effects do global warming and global cooling contribute to the Earth's climate. How do we cope with the resulting global climate change, certain area will be affected badly, caused by flooding, forest fires, more tornadoes and strong winds etc., and certain area will benefit from the climate change, such as more rain falls to the desert of Africa and Australia means the possibility for crops and reforestation. Increase of reforestation in the world also means that the carbon dioxide (CO<sub>2</sub>) in the atmosphere can be reduced by taken up by the leaves of the trees and plants. Besides the deserted desert can be made alive again.

**Therefore it is important for us to use this window of opportunity wisely,** and take it very seriously. According to the Writer this window of opportunity will last about 20 to 30 years. We should use all possible means to transform those deserts into croplands and forest instead. Fail to do so, means the increase of average global temperature, and further melting of Arctic and Antarctic ice, consequently the rise of sea level worldwide.

On the other hand we should do all our mighty power to prevent certain places on Earth which receive less rain falls than usual to becoming deserts. When there are less rain falls, trees and plants in the forest become dry and are vulnerable to forest fire. And when insanity kicks in, arsonists or terrorists make use of this opportunity to set forest in ablaze.

Therefore when disasters, such as forest fires, chemical spill etc. cause by nature or human beings, we should act promptly to solve them, before they cause more harm to us and the environment.

For you to do some thinking, just imagine what will happen to us, whom are living on Earth to see those days coming (about 20 to 30 years) when we don't do anything about the "Accelerating Global Climate Change"? Of course, we can say "so what! When the sea level rises". And "so what, when the human population growth reaches about 8.5 billion by 2025. How about the food we eat, the cars we drive or the public transportation we use and the houses or apartments we live in?

Anyway, so far we are still doing fine, despite the fact that we see more flooding caused by heavy rain and snow falls here and there. Also numerous destructions caused by more hurricanes and typhoons. As you can see the photo here below, the flooding in Australia from December 2010 had caused enormous damage to houses and cars.



Queensland Premier Anna Bligh, centre, met evacuated residents in Bundaberg 28 December 2010

Government of different countries should educate their citizens regarding those places that can be affected by hurricanes, flooding and forest fires, so that people can prepare for the natural disasters. Realistically, they should also encourage people to use more electric cars or hybrids, and they should also encourage companies to start building more renewable energy projects.

As a matter of fact Writer Rudi Tseng had sent his paper regarding the "Accelerating Global Climate Change" to Prime Minister Stephen Harper, Ex-Prime Minister Jean Chretien, Ex-President Bill Clinton, Ex-President George Bush and many leaders in the world, urging them the importance of the accelerating climate change and to take serious measure to cope with it. For example, when the winter is colder, more electricity is required for people to warm their houses. Therefore more nuclear power plants should be built to meet the demand.

Of course it is better to prevent hurricane, flooding or forest fires, which cause destruction in human lives, houses, buildings, cars etc., therefore governments of the world should have started to build and to design machines to prevent natural disasters. Governments of the world will have to make a choice, whether they want to spend money on paying victims, and rebuilding houses after the natural disasters have struck. Or they want to spend money on preventing natural disasters from occurring.

**Writer had proposed to Ex-President Clinton and other leaders of the world to build a "Solar Focusing Mirror Array Satellite (SFMAS)" since February 1999.** This SFMAS consists of 1 km by 1 km, which is a square kilometre of mirrors in the sky, at a geostationary orbit, and it is remotely control by engineers on Earth to focus the mirrors to a large barge and this barge could be moving as demand required. This barge is specially engineered to withstand high heat and it will carry a huge heat exchanger, which will receive the focusing Sun light from the SFMAS. The solar constant is about  $1350 \text{ W/m}^2$  on Earth, therefore the SFMAS will produce about 1.35 Giga Watt of heat or electricity. When this huge amount of wattage of Sun light focusing on a 100 to 200 square meter, the ocean water where the heat exchanger is will instantaneously boil to steam. Similar to a pot with water that is being heat up by the stove element of an electric stove. But can you visualize what happen when you pour some water into a heated empty pot on a stove element? I am sure you will suddenly see lots of steam escaping from the heated pot.

Let us do some simple calculation here, the stove element is about 1000 Watt and it has a radius of about 20 cm, (the area of a circle is,  $A = \pi r^2$ ), therefore the area of the stove element is about  $1256.6 \text{ cm}^2$ . The area of the barge is  $10\text{m} \times 10\text{m} = 100 \text{ m}^2$ , which is  $1000 \text{ cm} \times 1000\text{cm} = 1,000,000 \text{ cm}^2$  will receive  $1.35 \times 10^9$  Watt of Sun light.

$1,000,000 \text{ cm}^2 / 1256.6 \text{ cm}^2 \text{ per stove element} = 795.8$  stove elements in a barge of 100 square meter.

Each stove elements will receive  $1,35 \times 10^9 \text{ W} / 795.8 = 1,696,406$  Watt of Sun light.

That is a lot of Sun's energy going into the size of a stove element, and of course the ocean water will boil into steam instantaneously, if the stove element can withstand that kind of heat. Therefore engineers have to use material that can withstand extreme high heat to this Solar Heat Exchanger (SHE).

By the way, can you imagine how much electrical current will flow through that stove element if we use electricity to heat it up? Since Power (P) = current (I) x voltage (V), so  $I = P / V$ .

$I = 1,696,406 \text{ W} / 110 \text{ V} = 15,421.87 \text{ A}$

That is a lot of current going through the stove element. Usually about 30 Amps is going through it, if the material of the stove element cannot handle that much current, it will just explode.

The rising steam from the ocean water can destroy an infant hurricane by guiding it, or perhaps it requires more complicated movement, such as zig-zag motion of the barge to destroy it. You might say we are making the hurricane bigger by feeding it with warm moist air. But the logic behind this is like someone feeding a lot of

hungry ducks in a pond. When he throws a piece of bread in one direction, the ducks will move to that direction where he throws the bread. You might also ask, will we heat up more ocean water and destroying the ecosystem in the ocean? According to the writer, the risk should be minimum, because of the huge amount of Sun's energy, which is focused on a small area on the surface of the ocean, and ocean water is converted into steam instantaneously, in so doing not much heat is absorbed by the ocean. Scientists and engineers should do the calculations and to perform the operation as safely as possible. Just like a surgeon trying to remove a tumor using a laser beam. Of course, there is some risk that neighboring tissue could be destroyed by the laser beam, and of course the surgeon will try to do it as safe as possible.

When the SFMAS is not occupied with destroying hurricane, then it could be used to create rain for places where it is too dry. For example places like California, Nevada, Saudi Arabia, Sahara desert. It could also be used to generate electricity. Indeed this could be a project for future colonization of Mars as well. But the cost of bringing the mirrors to a stationary orbit with the space shuttle will cost millions of dollars, and perhaps several billion of dollars. However there should be ways to cut down the cost. In fact I had proposed a "Space Rail Gun (SRG)" around 2003, which can shoot a rocket with payload or space shuttle into orbit. The first stage of this SRG is the falling of the space shuttle or a rocket through an air sealed tunnel, and sliding down on a magnetic levitated rail, as it falls down to the valley of the mountain it gains momentum (this is what I call "Gravity Assist Booster"), and once it passes the valley and heading upward toward the sky, its rocket is fired, or a magnetic rail gun can be applied to give the rocket an extra boost. By doing so lots of rocket fuel is saved, and the cost of shipping the mirrors to the stationary orbit will be cheaper.

About 10 years ago little evidence was available to proof that my paper regarding the accelerating global climate change was on going. Now it is because of recent cold spell around the world, and especially Europe was very cold for the past two years from January 2010 to January 2011. There is reason to belief that accelerating climate change is ongoing, and it is due to both global warming and global cooling working at the same time.

**I should reiterate here that it is very urgent and important to fight climate change. Our future is in our hands, and we should not let natural disasters to rule us. We should do some calculation to see how much money we have spent in natural disaster, such as hurricanes, flooding, tornadoes etc.. Writer predicts that due to atmospheric CO2 still increases exponentially, which contributes to global warming, and global cooling is still ongoing and it will most likely come to an end at around 2045. These two extremes will create more often powerful hurricanes, more often flooding due to heavy rain. If we don't want to see more poor people and economic depressions around the world, governments of the world should take drastic actions as soon as possible.**

If we don't do anything to cope with the natural disasters, our children will not be proud of us. This is analogous to that we are not proud of World War I and World War II. But we are proud of people like Galileo, Albert Einstein, Isaac Newton, Michael Faraday, Joseph Henry, James Clerk Maxwell, Thomas Edison, Nikola Tesla, James Watt, Edwin Hubble, Bill Gates, Steve Jobs, all the electronic, car and

airplanes manufacturers. They all help to improve our quality of life and above all they make this world a better place to live.

Please send your questions and comments to [infoseeker.rt@gmail.com](mailto:infoseeker.rt@gmail.com)