

-More 1°C rise agreement COP16 would cause catastrophic ?!!- ' 10/12/15, 17

The IPCC most defect is neglecting Arctic methane catastrophe possibility, COP16 allowing 2°C rise would be no-effective saving. Global ensemble synchronous -paralyzing has been causing science on fact, which must be digged by us all.

Bad news from UK. <http://www.independent.co.uk/environment/climate-change/at-last-the-climate-changes-2158127.html>

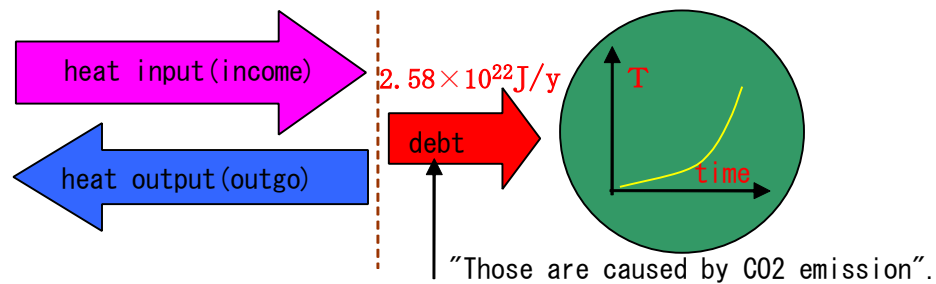
[O] : Heat Account for global and local(the introduction):

- (1)1st law of thermodynamics(TD) : energy(heat amount)conservation law.
- (2)2nd law of TD : heat flows from higher temperature zone to lower one.
- (3)heat capacity $\equiv$ heat amount(J) for 1°C(K) temperature up= $\text{weight} \times \text{specific heat}$ .

<http://www.777true.net/Global-Temperature-FACT-7.pdf>

(4)The essential cause=surplus heat input on globe(radiative forcing= $1.6\text{W}/\text{m}^2$ ).

You could account { $\text{Debt} = \text{Income} - \text{Outgo}$ }, which now has been punishing all of us.



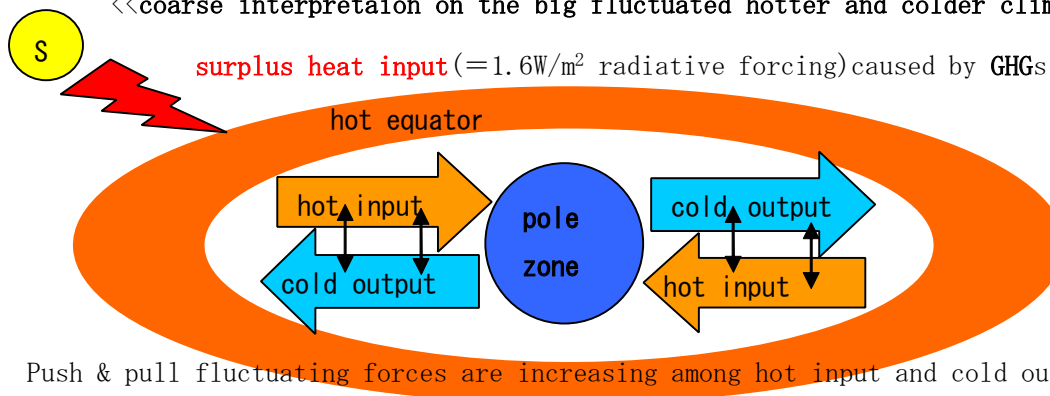
So long as debt(the surplus heat input)was positive,none could turn temperature down, which would cause more climate disasters on (foods & houses) on globe.

(5)Global heating up would cause extreme hotter and colder climates.

Caution that a judgement by local climate would make you strong delusion.

Bigger fluctuation would cause extreme climate of hotter and colder due to increasing of heat exchanging between hotter equator and north(south) pole zone.

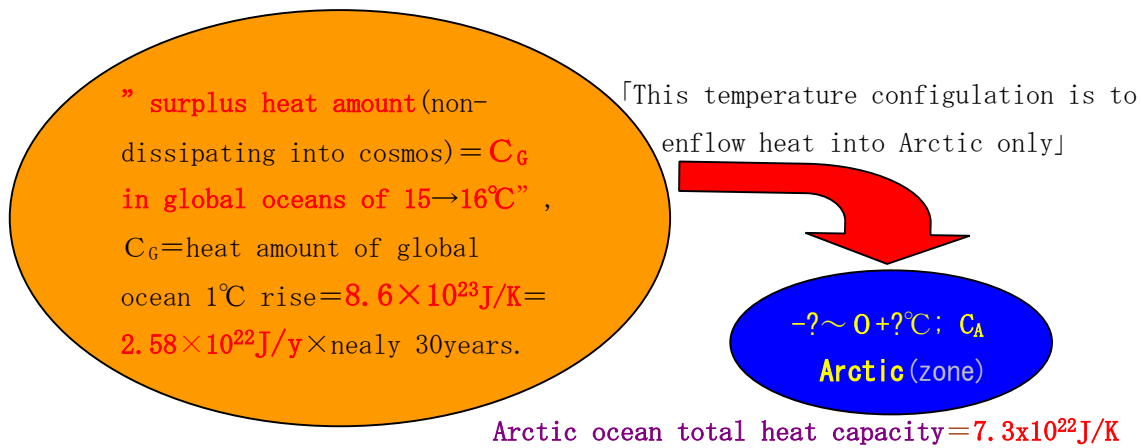
<<coarse interpretation on the big fluctuated hotter and colder climate>>



Push & pull fluctuating forces are increasing among hot input and cold output.

[1] : Global 1°C rise is catastrophic heat amount, the easy calculation.

① Conclusionary to tell, the surplus heat input amount (the total debt/y) not dissipated into cosmos, shall thermally be distributed from higher temperature tropical zone to lower one (arctic (antarctic)) by **ocean flows**, due to thermodynamics 2nd-law. The mean global 1°C rise would cause more 1°C rise in Arctic zone, where 2, 3 times temperature rise has been observed. If so, Arctic would become catastrophe of methane clathrate (=MC) (500~1400GtC in basin and nearly same amount in tundra) due to its small allowable thermal margin of **1, 2, 3, . °C**.



☞ : Note that  $2.58 \times 10^{22} \text{ J/y}$  is the global surplus heat input on globe/year.

☞ : Maximum summer solar input on Arctic is larger than that of equator !!.

Thus 2/3 of ice cover can be melted in summer in recent years.

☞ : Note that (ice and MC) melting heat is higher priority than heating up sea water-itself. Thus huge heat relaxation role of ocean become rather singular in Arctic. Extremely telling, year ocean and summer solar heat inputs in Arctic would go toward the thermal bombs after diminishing Arctic ice cover lid (2013 summer predicted by USA researcher). In above coarse temperature configuration model, the surplus heat would entirely go toward and make Arctic ocean 10°C ? up at last. It's evidently catastrophic.

\*mean Arctic ice diminishing weight/year in last 30 years = **391Gt**. The necessary melting heat amount =  $1.31 \times 10^{20} \text{ J/y}$ .

Only total Arctic ocean 1°C up heat amount ( $C_A = 7.3 \times 10^{22} \text{ J/K}$ ) could melt both ice and catastrophic MC 10GtC (95Gt) with ease. You could notice danger Arctic.

② supplement :

(1) surplus heat input on globe (radiative forcing =  $1.6 \text{ W/m}^2$ )

= (solar) heat input on globe - cooling radiation output from globe.

$2.58 \times 10^{22} \text{ J/y}$  (accumulated heat) = radiative forcing  $\times$  earth area  $\times$  year seconds.

\* earth radius =  $6.38 \times 10^6 \text{ m}$ . year seconds =  $3600 \text{ sec} \times 24 \times 365$ .

(2) global (active) heat capacity  $C_G$  = heat amount of global  $1^\circ\text{C}$  up in a year

= (surplus heat input on globe / y) / (year temperature rise)

=  $(2.58 \times 10^{22} \text{ J/y}) / (0.03 \text{ K/y}) = 8.6 \times 10^{23} \text{ J/K} \equiv C_G$

= global ocean area  $\times$  (mean heat active depth  $\doteq 600 \text{ m}$ )  $\times$  sea water density

$\times$  the specific heat

= global ocean (mean heat active depth  $\doteq 600 \text{ m}$ ) sea water weight  $\times$  the specific heat.

☞: heat capacity of atmosphere is that of ( $\doteq 1/1000$ ) of oceans and is negligible.

(3) global heat capa  $C_G \times$  temperature year rise ( $dT/dt \doteq 0.03 \text{ K/y}$ ) = the surplus heat.

\* global year temperature rise  $\doteq 0.02 \sim 0.04 \text{ K}$  by data.

(4) Total arctic ocean heat capacity =  $C_A$

= the ocean area  $\times$  the mean depth  $\times$  sea water density  $\times$  sea water specific heat.

<http://www.oceansatlas.com/unatlas/about/physicalandchemicalproperties/background/seemore1.html>

(5) ice melting heat =  $334.7 \text{ KJ/KgK}$ , that of methane clathrate =  $440 \text{ KJ/KgK}$ .

Methane Clathrate ( $\text{CH}_4 \cdot 6.5 (\text{H}_2\text{O})$ )  $\rightarrow 10 \text{ GtC} = 10 \text{ Gt} \times (16 + 6.5(18)) / 14 = 95 \text{ Gt}$ .

(6) 2010 Arctic maximum ice volume =  $8000 \text{ Km}^3$ .

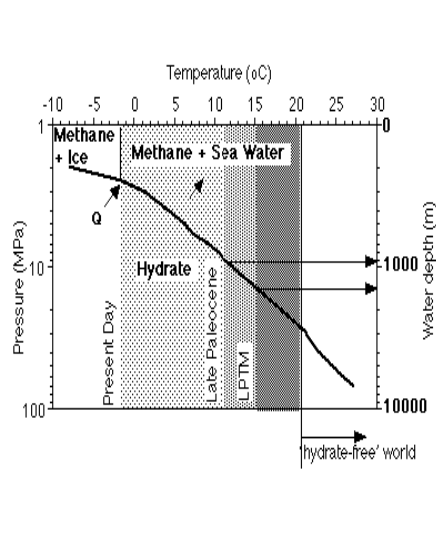
<http://climateprogress.org/2010/09/09/julienne-stroeve-nsidc-scientist-arctic-sea-ice-melt/>

(7) radiative forcine of 10GtC methane clathrate (MC) =  $1.6 \text{ W/m}^2$ .

(8) MC Pressure-Temperature phase diagram and the stability boundary curve:

Note the depth of zero temperature, it is as shallow as almost **200m**.

<http://ethomas.web.wesleyan.edu/ees123/clathrate.htm>

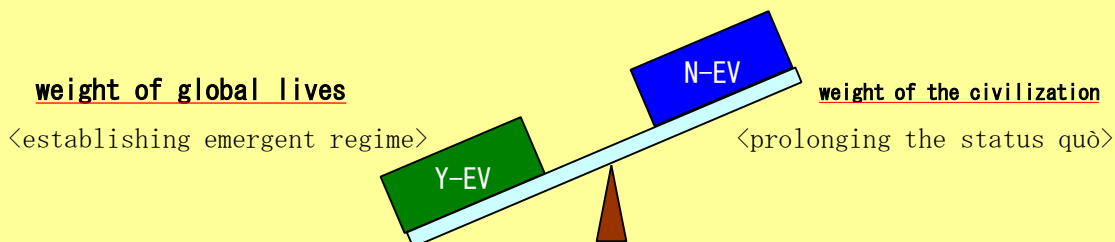


[2] : Policy decision must be comparing expectation value of "yes or no".

☞ : Is it really ?, the discussion is too coarse? !. But the fact is upside down. It is more impossible to prove safety of life by prolonging the status quò.

Policy decision dose not need 100% accuracy of science, but must be comparing expectation value of "yes or no".

\*expectation value (EV)  $\equiv$  realizing possibility  $\times$  the weight of realization.



Unless establishing emergent regime against the climate change catastrophe (CCC), none could be saved. The regime is to make **global emergent operations** for more than 80% CO2 reduction by **Global General Head Quater** (scientists, statemen, military men, etc) with **soliders of all nation citizens and with all nation disarmament**.

(1) Becoming solider could save eating and sleeping. And also they could migrate and serve for necessary emergent operations without fees.

It's far better than becoming home-less and life-less.

\*Most concern of citizens now encountering the global ressesion is to secure tommorow's own life.

(2) Global disarmament could save outrageous huge necessary budgets.

The CCC is world war the final without industrialized weapons. We now have no time to spare on any local disputes any more.

(3) Above all, the CCC is **the final judgement** for mankind becoming death or alive.

<http://www.777true.net/OPERATION-GLOBAL-RAMADAN.pdf>

[3] : The stubborn status quò is danger swindler.

Somebody accused that what we told made everybody dismal (despair), but our aim is **making hope to co-survibe**. Then which do you opt whether prolonging life of the global status quò which shall surely cause our perishing with long time sever suffer of us all after short time pleasure at now, or establishing global revolution regime against the climate catastrophe with long time sever suffer of us all before pleasure of great liberation at future ?.

<http://www.777true.net/CCC is conspiracy.pdf>