

In clear water no fish can live. Water purification promote global warming, decline of countries

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Abstract

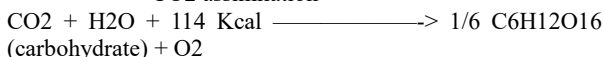
Carbon dioxide CO2 increasing 2 ppm yearly since developed countries started elimination of NOx and elimination of NP. Global warming is happening by the decrease of CO2 assimilation from insufficient supply of NP fertilizer. Developed countries hated NOx and NP and are eliminating NOx and NP. Japan is criticized as increasing much CO2. Japan is eliminating NOx, NP completely using much electricity producing 2 billion tone CO2 for the elimination of NOx and NP. Fish production of Japan dropped to 10%. GDP do not increase. If developed countries stop elimination of NOx, NP. CO2 assimilation is activated. Production of grain and fish increase. DGP will increase and global warming will stop

Keywords: nox; nox elimination; co2 assimilation; protection of global warming

Introduction

The earth is warming by the increase of burning of fossil. In the world, 140 billion tone fossil is burned. Three times of CO2 420 billion tone CO2 and 16.8 billion tone NOx (mixture of 90 % NO and 10 % NO2) are produced. Almost 100% of produced CO2 is converted to carbohydrate (later fossil) by CO2 assimilation.

CO2 assimilation



Burning

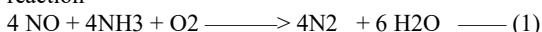
Global warming protection ratio (GWPR) = produced CO2/ fixed CO2

Cause of global warming is said to be increase of CO2. CO2 is increasing 2 ppm annually.

About 140 billion tone CO2 is remaining un assimilated. CO2 assimilated CO2 is 280 billion tone. $\text{GWPR} = 420/280 = 1.55$ we can decrease GWPR by decrease of produced CO2 or by increase of fixed CO2. To increase fixed CO2, acceleration of CO2 assimilation by increasing the supply of NP. Developed 7 countries wish to provide clean water and clean air and eliminated NOx and NP. By these eliminating procedure, supply of NP is retarded, CO2 assimilation is retarded and growth of plant is retarded and production of food like grain and fish is retarded, DGP increase is stopped and countries are declining. [1-38]

NOx should be released as it is.

NOx is playing very important role for CO2 assimilation, growth of plant and plankton, climate control (ref 39-65). But developed countries are eliminating NOx by ammonia by the reaction



The reaction (1) is elimination of one fertilizer by other one fertilizer. This is tremendous loss of precious resources. Since this reaction was carried out, Seto inland sea, Japan changed dramatically. Transparency of sea increased. Turbidity by

plankton disappeared. Eel grass disappeared. Fish, sea weed production decreased. Fish production of the world increased at developing countries who do not do NOx elimination like China, India and Indonesia. But fish production of developed countries decreased since NOx elimination.

Waste water should be dumped as it is

Developed countries are eliminating NP in waste water. In Japan 2200 waste water clean center were build 117.8 billion kWh electricity (1.16 % of total electricity 10080 billion kWh) were used for the operation of this center. For the production of 117.8 billion kWh electricity, 600 thousand tone fuel was burned. If we stop waste water purification. $600 \times 3 = 1600$ thousand tone CO2 emission is saved. By the operation of this center, Emission of 44.8 thousand tone N and 17.5 thousand tone P is lost. By the elimination of NOx and NP, Fish production of Japan decreased from 12 million tone of 1975 to 2.5 million tone after 1980. Because of decrease of NP concentration of sea water, plankton cannot grow and fish, sea weed cannot grow. Fish eat 20 times plankton. Plankton grow by eating same weight CO2.

By elimination of NP, $12 \times 20 = 240$ million tone CO2 fix is lost. If Japan stop NOx, NP elimination and increase NP concentration increase and 2.4 billion plankton grow and 2.4 billion tone CO2 is fixed and 12 million tons fish will be produced.

Bon fire is recommend

Slash and burn agriculture is carried out for many thousand years in the world.

Wood is burned and wood turn to the field which can produce crops. Ash produced by burning is said to be effective substance. But main effective substance is NOx. When tree 1000 tone is burned, $1000/25 = 40$ tone NOx is produced. And 40 tone NOx can grow $40 \times 25 = 1000$ tone plant [35]. In Japan, 3 billion tone garbage is collected and burned at high temperature incinerator to produce 0.12 billion tone NOx. This NOx is eliminated by ammonia.

In Japan very special law about the garbage incinerator was set up in 2002 by the reason much NOx is produced at lower temperature. By this rule, incinerator must be burned at higher temperature than 800 °C by adding excess fuel to keep higher temperature. Corrugated carton and fallen leaves must be burned at high temperature incinerator. Bon fire is inhibited by the reason bon fire produce much NOx. Burning of rice straw wheat straw is not possible. Big earth quake and tsunami happened in east Japan in 2011. Debris disposal was not allowed to burn on site. Debris disposal must transfer to far away district having high temperature incinerator consuming much fuel and money. Operation of this high temperature incinerator is using much excess fuel releasing much CO2.

Garbage, waste wood, fallen leave, straw should be burned on site producing much fertilizer NOx. Bon fir inhibition rule should be abandoned. [36]

Method to fit Paris agreement

510 billion tones CO2 are now producing in the world. To fix so much CO2, promote plant growth and increase of CO2 fix are essential.

Plant has C/N = 25/1 composition in average. As one molecule N combine with 25 molecule CO2, supply of 510/25 = 20.5 billion tone N is essential. To supply N, NOx should be released to air as it is. NOx is produced 16.8 billion tone. In waste water, estimated 10 billion tone NP are contained. From these NOx, NP, 7 developed countries are eliminating 6 billion tone NOx and 4 billion tone NP.

To stop the increase of CO2, to accelerate CO2 assimilation, 7 developed countries should stop NOx elimination stop NP elimination and do bon fire. Then (6+ 4) x 25 = 250 billion tone CO2 can be fixed. CO2 emission and fix become equal and GWPR (Global Warming Protection Ratio) become 1 and fit Paris agreement. [5, 7, 10, 16, 19, 22, 24, 29, 31- 38]

Comparison of NOx, NP elimination countries and no NOx, NP elimination countries

Developing countries like China, India do not eliminate NOx and NP and release as it is. Electricity price is low. CO2 assimilation is activated. Production of agriculture and fish industry increase. GDP is increasing 6% for 40 consecutive years. China use 106 billion tone CO2 and 4 billion tone NOx effectively and increased fish production to 81.53 million tone. India use 1 billion tone NOx effectively and grain production increased 5 times in 1950—>2010. Population increased 3.8 billion to 12.5 billion in 1951—>2014. On the contrary, 7 developed countries are eliminating NOx, NP and CO2 assimilation is depressed production of grain and fish is depressed. GDP growth rate is low. GWPR is high. Japan is doing NOx, NP elimination most severely. 8 million tone fish production is lost yearly. Fish price is 10 \$ /Kg. Japan is losing 0.08 billion \$. 6.7 million \$ per person. GDP growth rate increased only 1.6 % from 1985 to 2017 the country who use NOx NP are growing and increasing population. The country who eliminate NOx, NP are declining and decreasing population. [32]

CO2em (CO2 emission), CO2fix, CO2em/p (CO2 emission per person), NOxcon(NOx

Concentration at exit gas), W dump (Wastewater dumping), GWPR (global warming protection ratio), GDP (GDP increase ratio) of 11 countries are shown in Table 1

Country	CO2 em	CO2fix	CO2em/p	NOxcon	W Dump	GWPR	GDP
ratio	Bill t	bill t	tone	g/kWh			inc
World	510	370					
China	106	100	8.0	1.6	do		1
India	24.6	24.6	1.9	1.6	do		1
Indonesia	5.0	5.0	2.1	1.6	do		1
USA	51.0	51	19.1	0.5	no		1
Japan (2018)	12.5	3.8	8.9	0.1	no		3.3
(1980)	5.5	5.5	3.1	1.6	do		1
Russia	19.6	19.6	0.61				1
Germany	7.8	3.5	8.9	0.31	no		2.2
U. K	4.0	2.4	5.6	1.3	no		1.7
Italy	3.5	3.0	5.8	0.5	no		1.2
France	3.3	3.3	5.0		no		1
Canada	5.6	5.6	18	1.3	no		1

Japan, Germany, UK and Italy are narrow and they cannot fix CO2 produced at there countries. GWPR is over 1. These countries are surrounded by sea. They can fix CO2 by plankton CO2 assimilation by increase of NP concentration of sea. NOx, NP elimination should be stopped

Japan should stop NOx, NP elimination and should not inhibit bon fir.

Japan is criticized as producing much CO2 .Japan producing much CO2 for electricity generation for elimination of NOx, NP.

Japan established very severe law. Every factory must eliminate NOx by NH3 to less than 0.1 g/kWh. Japan eliminate NP in waste water purification center completely using much electricity. Japan producing 12.5 billion tone CO2 and criticized as most CO2 increasing country .Wood and agriculture field can fix 1000 tone CO2 per 1 Km2. Japan land is 3.8 x 105 km2. Fixable CO2 at Japan is 3.5 x 105 x 1000= 3.8 billion tone. Japan increasing 12.5-3.8 = 8.7 billion tone CO2.

GWPR of Japan is 12.5/3.8= 3.3. Japan is using 28 million tone NH3 for the elimination of NOx. 11 million tone butane is used for the preparation of NH3 and generating 33 million tone CO2. Japan also using 118 billion kWh electricity for water purification. If Japan stop NOx, NP elimination, CO2 emission will be reduced to 12.5-1-1= 10.6 billion tone. By using 0.5 billion tone NOx, 0.5x 25= 12.5 billion tone CO2 can be fixed. GWPR will decrease to 10.5/ 12.5 = 0.84. This value is fit to Paris agreement.

Influence of 2019-nCoV on global warming
2019 -nCoV situation is giving big influence on global warming and climate. About 140 billion tone fuel is burned and 420 billion tone CO2 is produced in 2019. By 2019 -n CoV, sight-seeing trip and other activity are restricted. Fuel

burning by airplane, car and ship are restricted. Fuel burning will decrease from 140 to 110 billion tone. 30x 3= 90 billion tone CO₂ will not produce. 2 ppm CO₂ increase will drop to 1.57 ppm. Estimated CO₂ concentration at 2021 will be 412-1.57=410.4 ppm

Summary

If developed countries stop NO_x,NP elimination, CO₂ assimilation is promoted and global warming will stop

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