

“False Reality” and energy democracy  
- Nuclear and Energy Discourse Decade After Fukushima 311 -

# Episodes Decade After Fukushima 311

Mr. Yamaguchi, Env. Minister on 1<sup>st</sup> Feb. 2022  
“The expert panel has assessed that radiation effects from Fukushima on thyroid cancer are unlikely at this time”



Env. Minister Yamaguchi  
on 1<sup>st</sup> Feb. 2022 (TBS)

On 24<sup>th</sup> Aug. 2022

PM Kishida addressed expansion of nuclear energy use at the GX (Green Transformation) Implementation Council

- ✓ to restart its idled nuclear power reactors,
- ✓ to consider extending their operating lives ,
- ✓ to develop "next-generation innovative reactors",



The GX Implementation Council meeting at Prime Minister's Office on 24<sup>th</sup> Aug. 2022

Mr. Uchibori, Fukushima Gov. on 2<sup>nd</sup> Feb. 2022  
“There are no relation between thyroid cancer and radiation exposure from Fukushima”

Fukushima Gov. Uchibori  
on 2<sup>nd</sup> Feb. 2022 (NHK)



## False Reality

“False Reality” is a concept raised by Professor Emeritus Karel van Wolferen of the University of Amsterdam in his book "The Japanese System that Does Not Make People Happy" (Shinchosha, 2000), which means created by the bureaucracy, economic organizations, industry groups, agricultural cooperatives, police, mass media, and even gangs, and covers Japanese peoples' minds.

# False & True Reality Decade After Fukushima 311

## False Reality

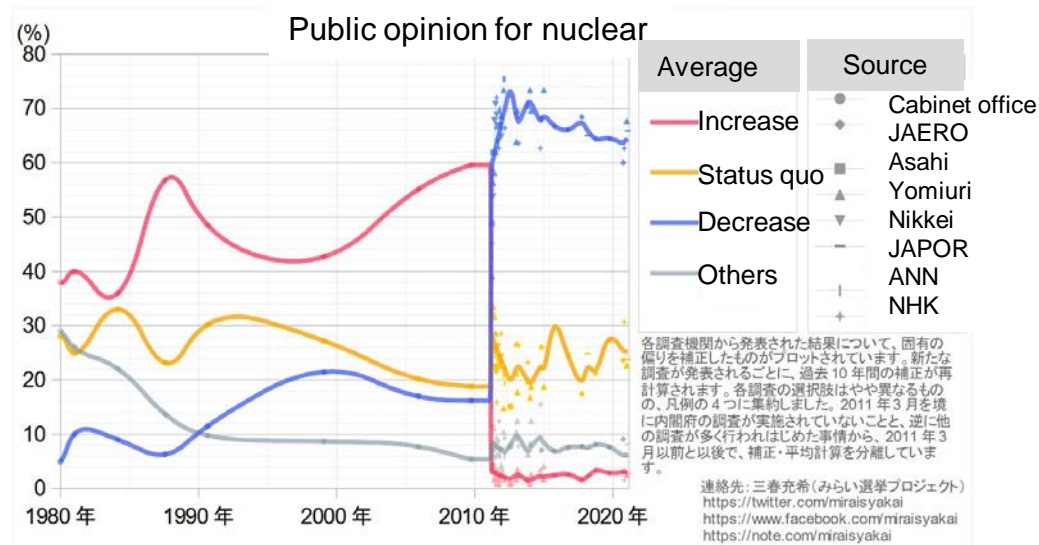
## True Reality

- Fukushima “decommission” within 40 years since 2011
- Contaminated soil would be taken out from Fukushima “interim storage” within 30 years
- Contaminated soil less than 8000Bq/kg reuse
- Decrease nuclear dependence (by LDP)
- Making renewable energy the main source of power supply (2018, 5<sup>th</sup> National Energy Plan)
- Nuclear export, since even right after Fukushima disaster
- Nuclear fuel cycle can contribute to decrease nuclear waste 4 ~ 7 times, to shorten “risk period”, to recycle energy resource
- Need to restart nuclear, to build new nuclear for tackling climate change and preparing for electricity shortage and cost escalation.
- TEPCO as Tokyo Stock Market
- No (thyroid) cancer due to Fukushima disaster
- 100 mSv safety standard
- “Reputation damage”
- “Wholesale market”

- ← **Mission impossible.** “Decommission” make people misunderstood as “normal reactors’ decommission” as well as political message for Fukushima people as “complete clean-up”, which make everything more difficult
- ← **Another mission impossible.** “Interim storage” are going to be final repository, at the same time, highly contaminated soil (8000 Bq/kg) are going to be “reuse”.
- ← **Double standard**, while the law defines 100 Bq/kg as release std.
- ← **New speak.** LDP has ever been pushing to increase by all means.
- ← **Historical change**, although only in words
- ← Resulting **Complete failure.** Still Gov. and Industry pursue SMR
- ← **Fake.** NFC itself has already failure theoretically, as a system, in reality.
- ← **a thief at a fire argument.** theoretically, as a system, in reality.
- ← **De facto bankrupt company.**
- ← **Faking science and history.** Not just thyroid cancer, other cancers and other diseases increase observed.
- ← **Make-up story** neglecting scientific evidence
- ← **Violent word**, to make people silent who feels anxiety about radiation
- ← **“Market” w/o market mechanism.** Only 10% liquidity easily vaporized, manipulated.

# Nuclear discourse— from “decrease” to speak out “expansion”

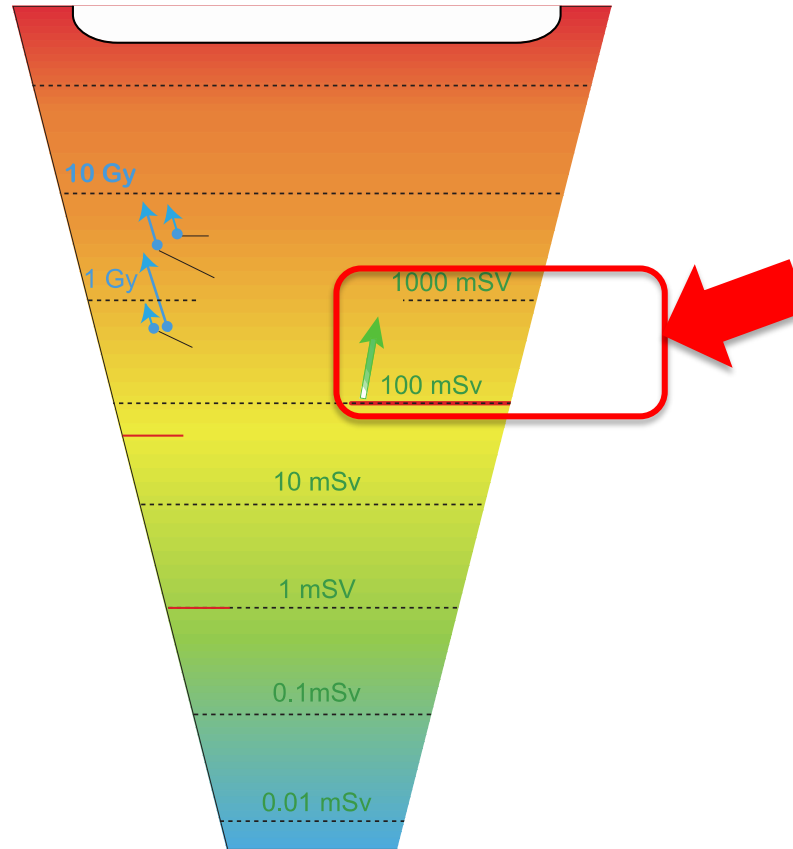
year	Description
2011.3.11	Fukushima Nuclear Disaster
2012 Sept.	Nationwide energy discussion, resulting “nuclear phase-out” by the end of 2030s’ under DPJ
2012 Dec.	National election, “nuclear phase-out” DPJ lost, “Decrease nuclear dependence” LDP won
2013 Jan.	<b>Abe Administration</b> , pushed nuclear restart and export.
2014 Apr.	Nuclear as “important baseload” in the 4 <sup>th</sup> National Energy Plan
2015 July	Energy outlook for cop21, renewable 20-22% nuclear 18-20% by 2030
2015 Dec.	COP21 at Paris
2018 Jun.	Making renewable energy the main source of power supply in the 5 <sup>th</sup> National Energy Plan
2020 Sept.	PM Abe resigned, PM Suga started, KONO Taro appointed as Reform Minister
2021 Sept.	PM Suga resigned, PM Kishida won against Mr. KONO, nuclear politics behind.
Oct.	National election, still LDP pledge “Decrease nuclear dependence”
2022 Aug.	PM Kishida announced nuclear restart, expansion lifetime, build new reactors, and develop "next-generation innovative reactors"



# 100mSv safety theory discourse

year	Description	Ref.
1990 2000	ICRP 1990 recommendation 1mSv/y limit for public Pierce & Preston showed the data showing risk of less than 100mSv exposure with supporting LNT theory	Pierce DA & Preston DL: Rad Res 2000; 154: 178–186.
2003 2005 2007	Possibly starting from “100mSv safety theory” ICRP conclude “100mSv safety theory” w/o evidence, although Dr. Wakeford indicated effectiveness of LNT theory under 10 mGy at its invited paper ICRP support “100mSv safety theory” in Publ.103 Annex A and ICRP Publ.105, while mentioning LNT model still practically effective	Preston DL et al.: Rad Res 2003; 160: 381–407. ICRP Publ.99 ICRP Publ.103 Annex A A86 ICRP Publ.105 (19)
2011.3.11 2011.3.18 2011.3.23 2011.3.25 2011.3.28 2011.4.7 2011.4.20 2011.6.2 2011.7.17 2011.12.22 2012 - 2013 2014. Aug ~ now	Fukushima Nuclear Disaster, and outbreak of “100mSv safety theory” Prof. Yamashita of Nagasaki Univ. invited as an adviser for Fukushima Pref. and started to speak out “100mSv safety theory” enthusiastic Japan Pediatric Society’s statement “no risk under 100mSv” Japan Epidemiological Society’s statement “no risk under 100mSv” National Cancer Center’s statement “no risk under 100mSv” National Institute of Radiological Sciences (NIRS) public “dose scale” Ministry of Education, Culture, Sports, Science and Technology Japan Radiological Society Chairperson of Science Council of Japan mentioned “100mSv safety theory”, followed by Council recommendation on 9 <sup>th</sup> Apr. 2012 Japanese Gov.’s WG report strongly support “100mSv safety theory” MEXT use “100mSv safety theory” in school sub-text. Nuclear Regulation Authority support “100mSv safety theory” Major newspapers shows “100mSv safety theory” as Gov.’s publicity Academia, science media, other influencers join “100mSv safety theory”	<a href="https://www.qst.go.jp/uploaded/attachment/1572.pdf">https://www.qst.go.jp/uploaded/attachment/1572.pdf</a>  NRA’s doc on 17 <sup>th</sup> Sept.2013

# 100mSv safety theory discourse



protection.



National Institutes for Quantum and Radiological Science and Technology

**National Institute of Radiological Sciences**

<http://www.qst.go.jp>



# Japan's societal and political root and structure of "False reality"

- Japan's political culture as a basis
  - ✓ "Kowtowing to the status quo" and "Escape to role at position" read to Irresponsible, reckless, irrational attitude (MARUYAMA Masao, "The Logic and Psychology of Ultrationalism" SEKAI, Iwanami 1946)
  - ✓ Strong paternalism
- Center of the power
  - ✓ Closed circle by interested parties "Iron Pentagon"
  - ✓ Bureaucratic organizational failure (Nonaka, I et.al., "Essence of Failure", Diamond-sha, 1984)
    - Unclear goal, atmospheric decision, authoritarianism, not facing reality, poor risk management, stick to old think

- Group think (Irving Janis, 1982)
  - ✓ Groups with high cohesiveness and homogeneity and structural deficiencies such as lack of norms and poor communication
  - ✓ 8 characteristics
    - (1) Failure to recognize failure (2) Viewing outsiders as enemies (3) Shifting of responsibility (4) Adherence to existing discipline (5) Self-censorship (6) Silence as consent (7) Tuning pressure (8) Exclusion of dissenters
- "Filter bubble" and "Echo chamber"
  - ✓ Francis Bacon already argued in "Novum Organum"(1620)

"For the human intellect, once it has recognized this, draws all other things to support and conform to it. And even if the force and number of the cases that act as counter-evidence are greater, in order to keep its authority from being violated by this first understanding, it sometimes dares to make a great and malicious prejudgment, either by not observing them, or by disregarding them, or by making some distinction between them, and dismissing them."
- Institutional inertia
  - ✓ Large institutes and/or existing experts might resist to change existing paradigm

- Myth and ideology
  - ✓ Traditional large technology faith
  - ✓ Eco-modernism, newly born with old idea



## ■ The direction of energy policy is objectively clear to be a 100% renewable

- Solar energy (photovoltaic and wind power), which is vast, inexhaustible, clean, emitting no CO<sub>2</sub> or radioactivity, purely domestic, and locally produced and consumable, is becoming the cheapest in the world, and the realization of 100% renewable energy is becoming mainstream even among scientists. (Breyer, C. et al., "On the History and Future of 100% Renewable Energy Systems Research" IEEE 2022)
- As a logical consequence, new nuclear power plants are a waste of money, time, and human resources, and there is no need to even develop technologies including SMR, innovative reactors, nuclear fuel cycle, and nuclear fusion.
- The Fukushima nuclear disaster is still ongoing "accident" with no end in sight, while no one at TEPCO nor the Government people has yet taken responsibility, and few lessons learned have been reflected.

## ■ Issues for Japan

- That the direction and concept of nuclear power and energy policy is drastically misaligned with the world, which is rapidly undergoing a major energy transformation of civilization-historical proportions.
- That Japan is lagging behind in the development of the electricity market through the latest technology and digitalization in order to achieve 100% renewable energy from solar and wind power, which are naturally variable forms of renewable energy.
- Structural problems include
  - ✓ A closed composition that creates collective shallowness
  - ✓ Bureaucrats + councils" are disconnected from the global network of knowledge.
  - ✓ The structural problem that the bureaucrats, who inevitably become experts due to regular transfers, come to the center of policy formation
- Therefore, both politics and administration system need to be updated in terms of both content (concepts and policies) and structure