

Taking civil rights seriously in post-Fukushima Japan

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Objective

- To test a right-based conceptualization of the ethics of radiological protection.
- From the assumption that this shift in point of view is essential to professional ethics in post-Fukushima world.

I. INTRODUCTION

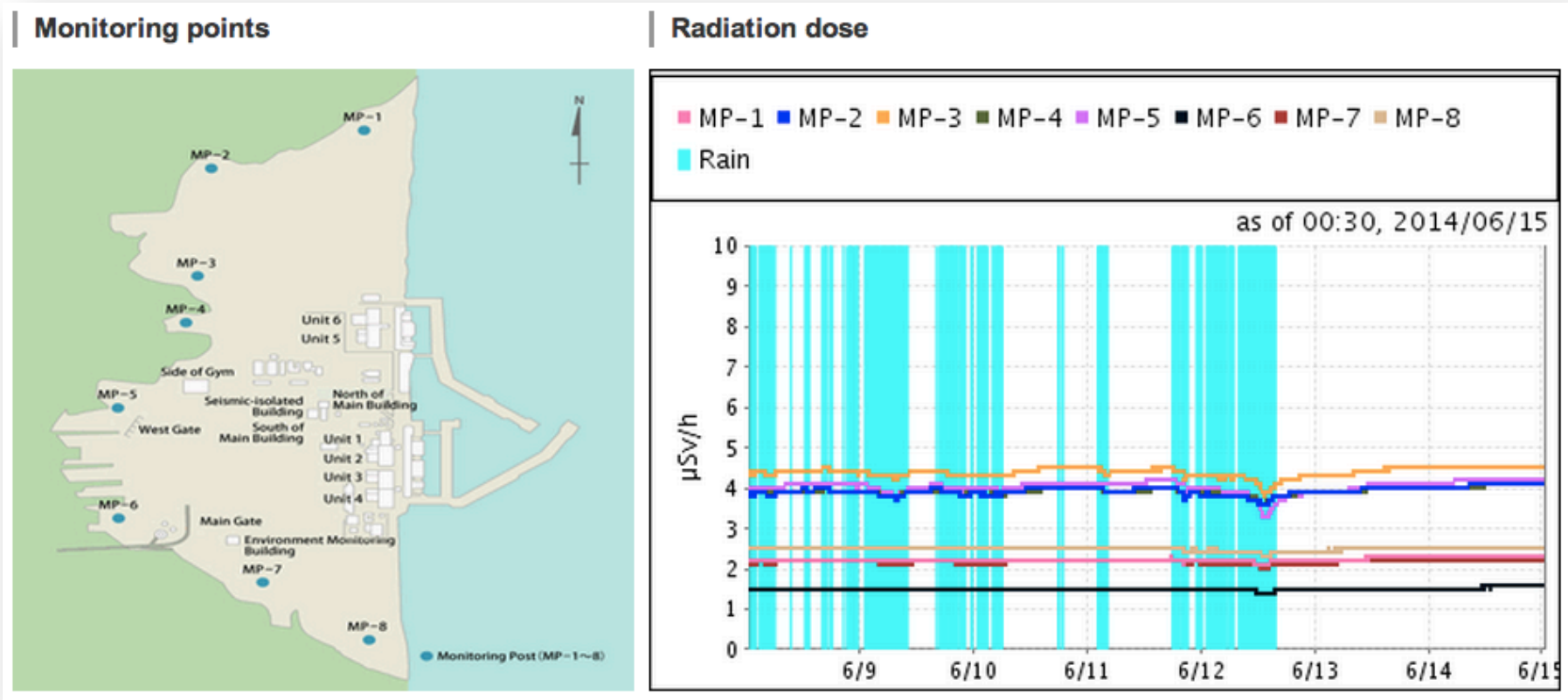
- WHAT HAS BEEN CHANGED,
WHAT NEEDS MORE CHANGE -**

I-1. DECOMMISSIONING FUKUSHIMA DAIICHI NPS



I-1-(1). Stabilization of nuclear units

- All reactors have been maintained mostly at low temperature by continuous cooling water injection.
- Radiation doses of the air at the monitoring posts in the station remains between 1 and 5 $\mu\text{Sv/h}$.



I-1-(2). Fuel removal

Units 1, 2, 3 (melted-down fuel)

- The fuel melted into debris can not be removed with conventional measures. TEPCO is planning to “develop tools and devices for removal,” which will take “over the next 30 to 40 years.”

Unit 4 (spent fuel)

- “The fuel assemblies are to be taken out and transferred to the common pool located within the station completion is scheduled for the end of 2014.”

I-1-(3). Contaminated water processing

TEPCO is taking “fundamental measures”:

- Pump up groundwater via sub-drains.
- Install the sea-side water-shielding walls.
- Install the land-side water-shielding walls by the frozen soil method.
- Prepare equipment with higher-processing efficiency (The multi-nuclide removal equipment (ALPS)) for contaminated water purification.

Some experts questions the efficacy of the measures, esp. of “frozen soil method” (to create 1.5 km × 30 m wall of frozen soil surrounding unit 1 – 4, circulating a calcium-chloride refrigerant of -30°C).

I-2. GOVERNANCE AND INSTITUTIONAL REFORM



I-2-(1). Governance reform

- All of 48 commercial reactors are stopped.
- The standard and the review process of regulatory clearance for restarting commercial reactors were redefined.
- Nuclear Regulation Authority (NRA) was established as a branch of the Ministry of Environment, to replace Nuclear and Industrial Safety Agency (NISA), a branch of the Ministry of Economy that is in charge of promotion of nuclear power business.

- NRA defines its mission as “to protect the general public and the environment through rigorous and reliable regulations of nuclear activities.”
- Shunichi Tanaka, the Chairman says, “we should be careful not to consort with electric utilities and other interest groups; and we will be tireless in our efforts to improve our regulatory measures so that Japan's nuclear regulation standards will be among the world's highest.”

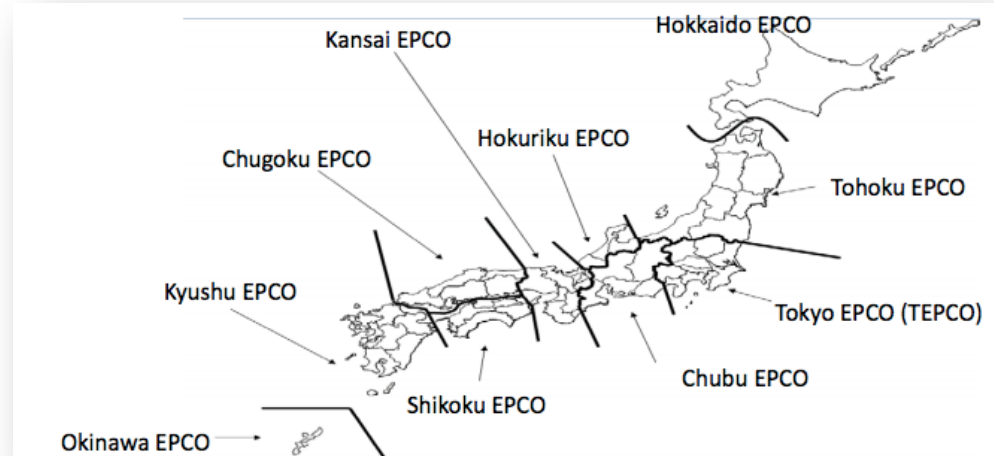
Questions

- NRA focuses on the mechanical safety of the nuclear power plant and the geologic safety of the soil and the stratum.
- Niigata Governor Hirohiko Izumida criticizes NRA, “Even experiencing that accident, they are still willing to judge the nuclear unit safety just focusing on its mechanical performance, and would never consider what should be done in case of an accident. ‘Safety legend’ is still intact to them.”

I-2-(2). Liberalization of electric power market

❌ Current “regional monopoly system” of Japan

- Ten EPCOs (electric power companies) are entrusted with power generation, transmission, marketing functions within specific regions.



- Only 3.6% of the total power is produced and supplied by non-EPCO facilities.
- Only 0.6% of the total retail market sales is transacted between EPCOs (through Japan Electric Power Exchange).

I-2-(2). Liberalization of electric power market

- The Electricity Business Act was revised in 2013 to liberalize retail electricity sales and to separate electric power generation from power distribution and transmission.
- Agendas:
 1. Cross-regional coordination of transmission operators
 2. Full retail competition
 3. Unbundle the transmission/distribution sector

Questions

- Though the ten big EPCOs are to be separated into transmission/distribution companies, the law approves their capital alliance.
- No guarantee is yet established by the law for the free and fair competition between EPCO-based companies and non-EPCO companies.

II. CIVIL RIGHTS IN THE CONTEXT OF NUCLEAR POWER GENERATION

II-1. PUBLIC OPINION AND NUCLEAR ENERGY POLICY



II-1-(1). Public seems to prefer gradual denuclearization

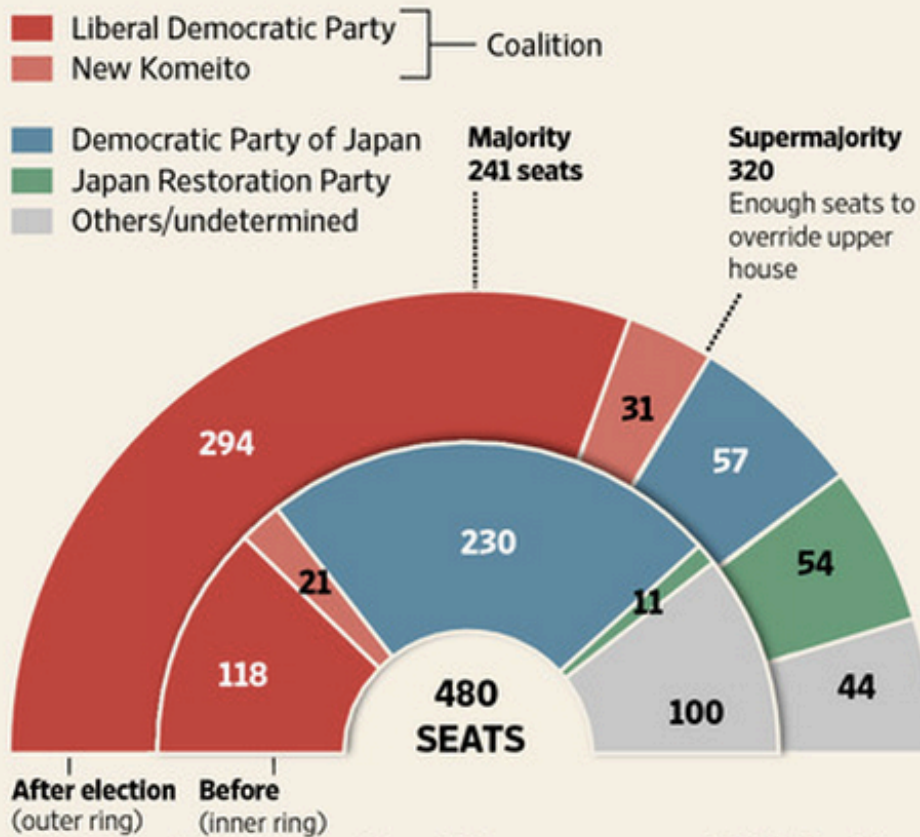
- Polls conducted by news agencies have repeatedly shown that a majority of Japanese citizens are opposed to restarting nuclear power plants.
- However, national and local elections have suggested that they prefer politicians who advocate for a gradual reduction of dependence on nuclear power over those who support an immediate and complete halt to nuclear power generation.

National Election 2012

Sharp Turn

Shinzo Abe's Liberal Democratic Party won a decisive victory in Sunday's election, giving the new ruling coalition enough seats to push through its legislation.

LOWER HOUSE SEATS



Source: NHK, preliminary results as of 5 p.m. EST

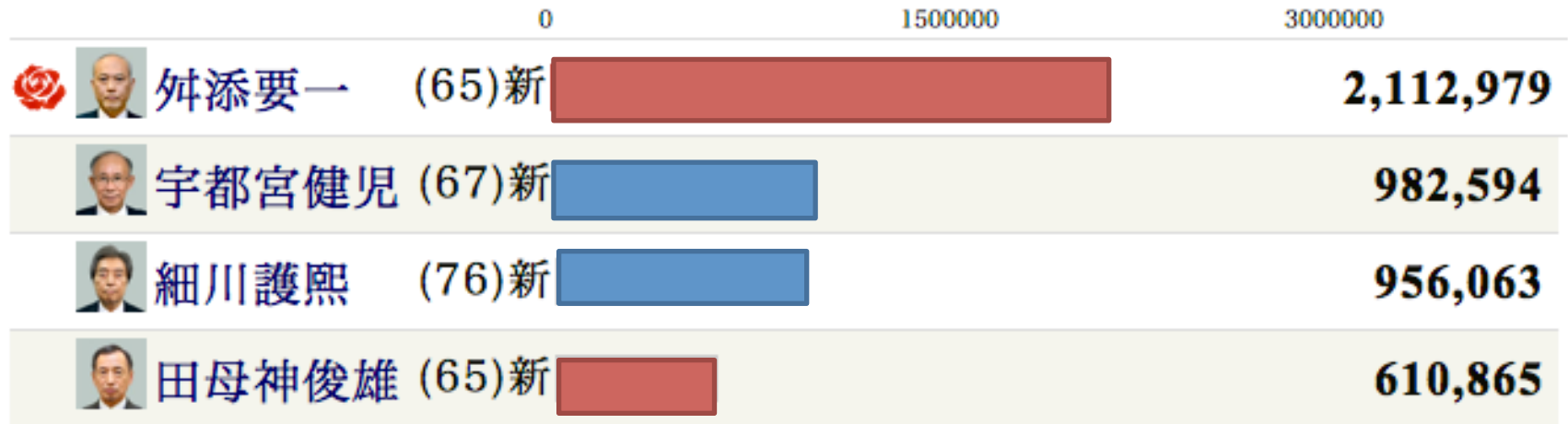
The Wall Street Journal

Pro-nuclear camp

Con-nuclear camp

Tokyo gubernatorial election 2014

確定得票



Pro-nuclear camp

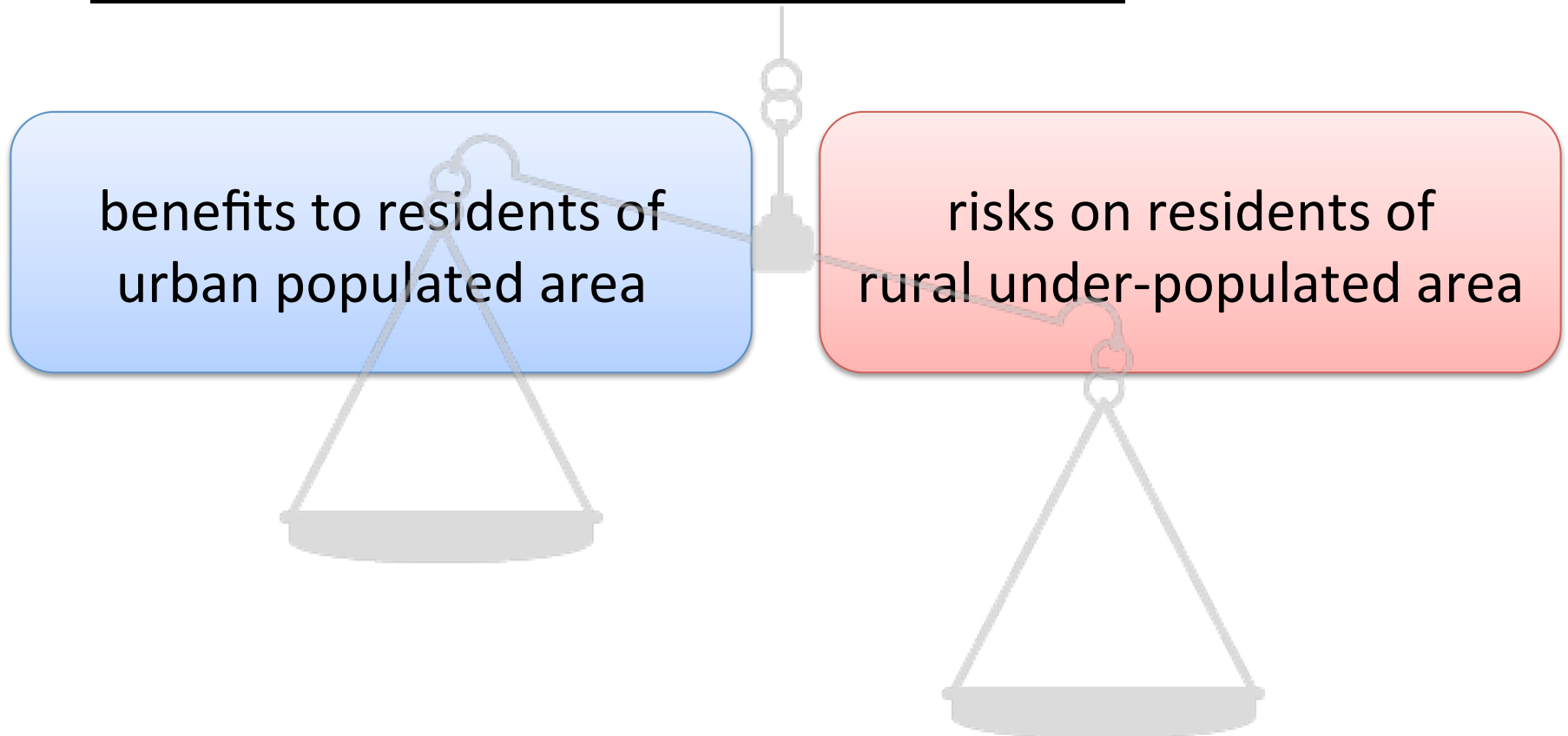
Con-nuclear camp

II-1-(2). Government adopted a pro-nuclear energy policy

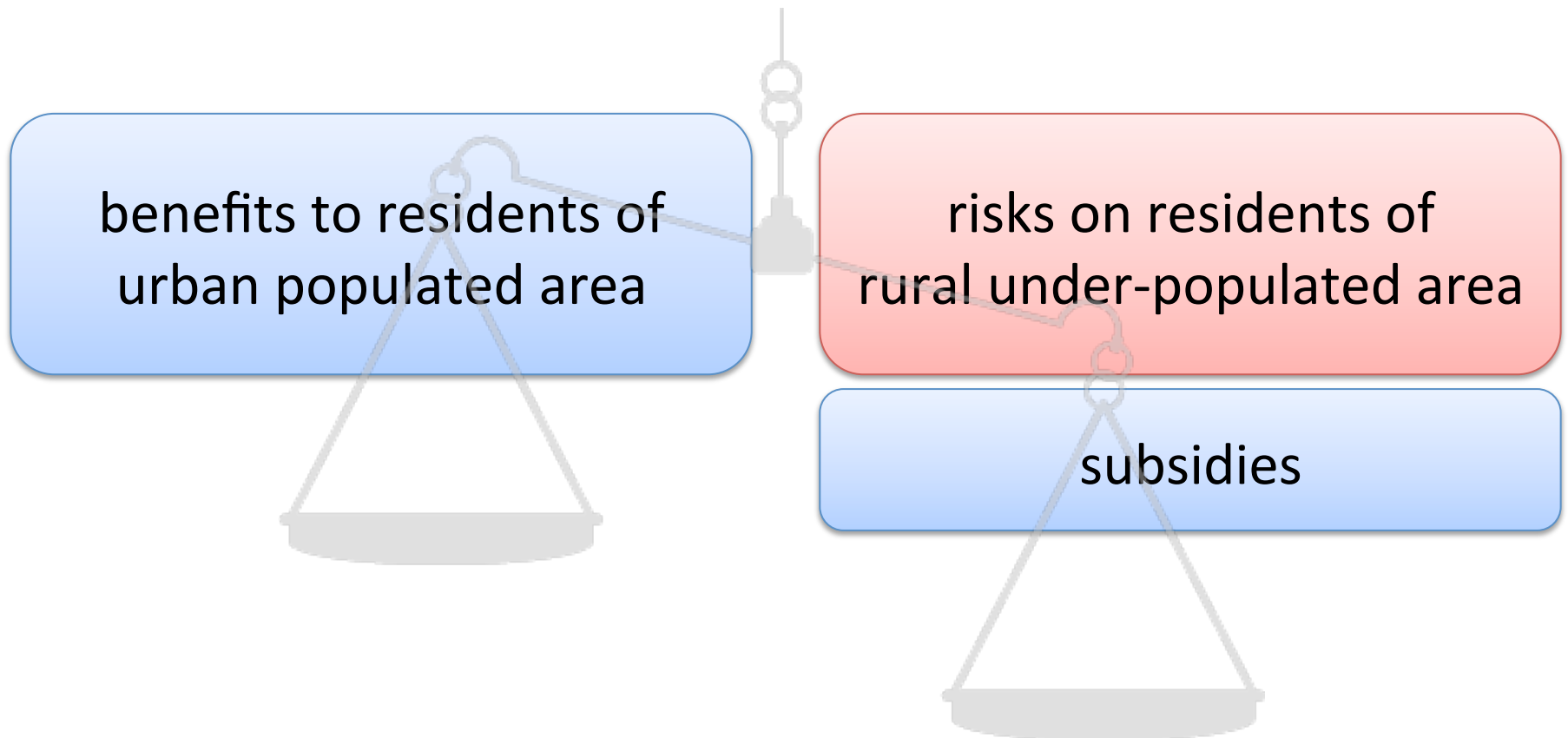
- Government approved in 2014 a new national energy strategy that designates nuclear power as an important energy source and calls for restarting idled nuclear plants that meet new safety standards of NRA.
- The new strategy rewrote the denuclearizing energy policy of the previous government.
- Japan's government plans to boost nuclear unit exports.

II-1-(3). Discussion on “spatial injustice”

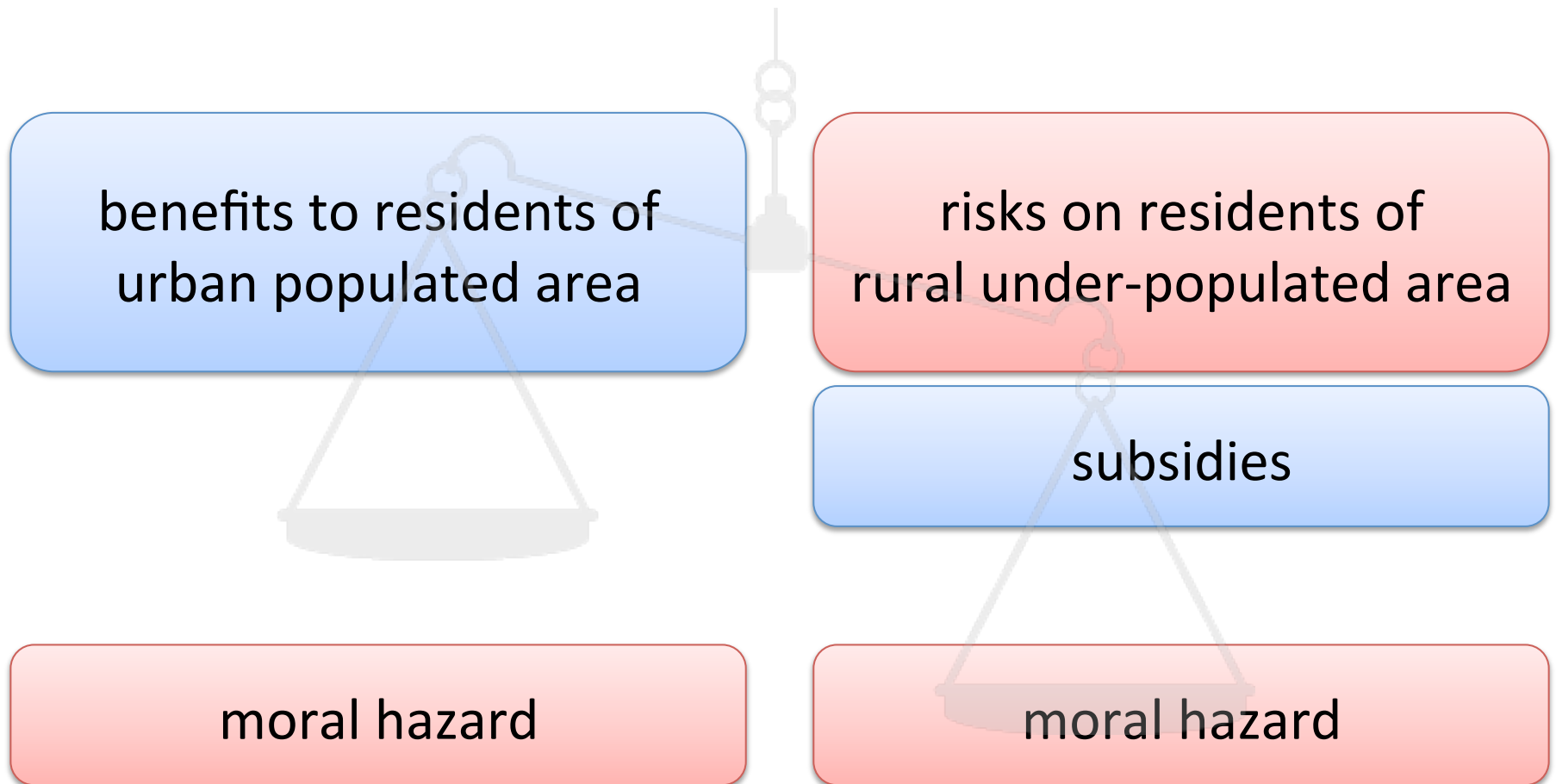
- Nuclear power plants in Japan bring benefits to urban residents while putting risks on residents of remote under-populated places.



- The imbalance was politically compensated with subsidies.



- However, the spatial injustice can lead to moral hazards on both sides.

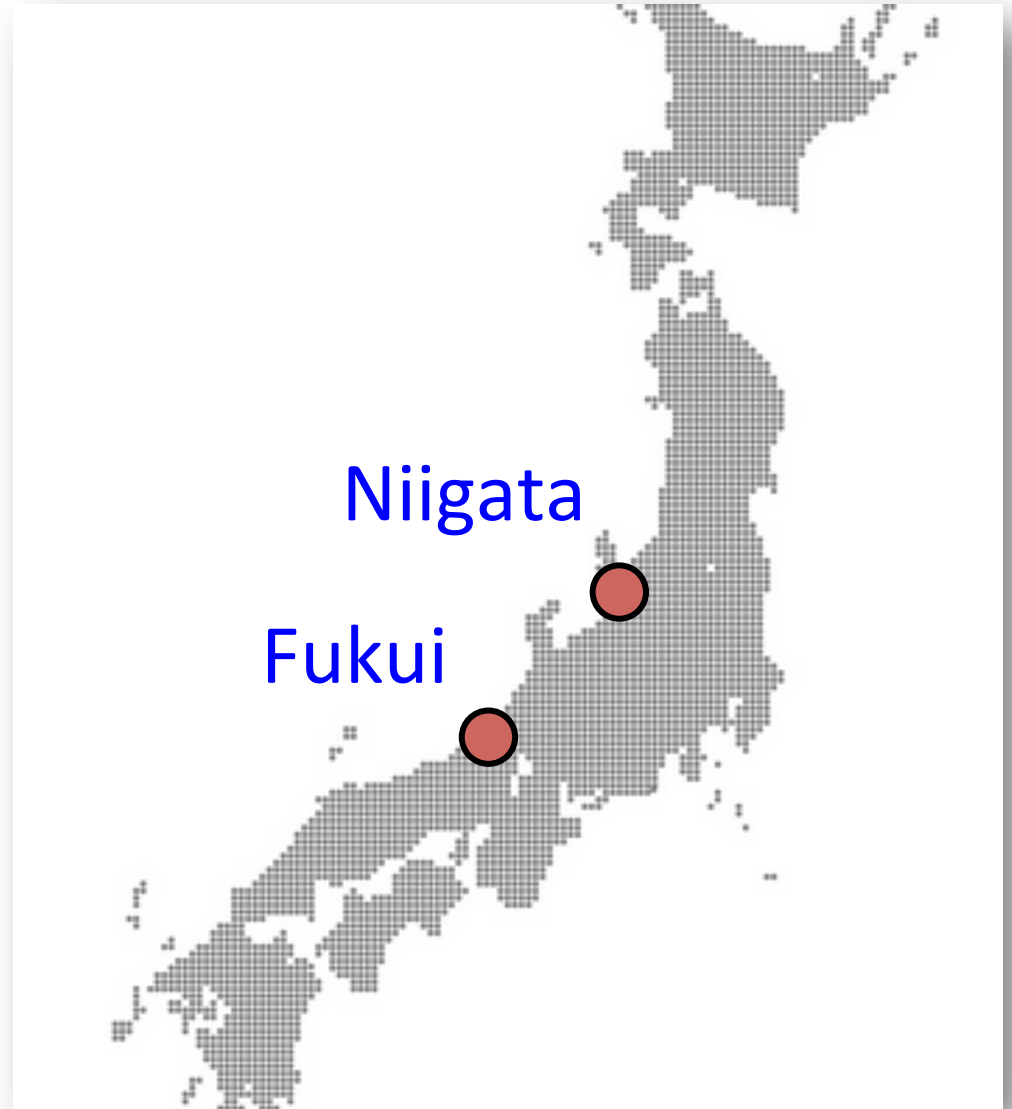


➤ Moral hazard rooted in the spatial injustice

- Urban residents (beneficiaries of NPPs) become indifferent to the risk taken by “distant others”.
- Rural communities (risk-takers) become dependent on subsidies, losing its autonomy, dignity, and appeal to young generation who prefer to move to urban areas.

*..... A good strategy to sweep all residents away,
considering a NPP needs a huge no man's land ?*

II-2. CASE STUDIES



II-2-(1). Case in Niigata

- In 2013, Prefectural Assembly of Niigata denied residents' petition with 68,353 signatures to pass a public referendum ordinance on restarting TEPCO's Kashiwazaki-Kariwa PPS (7 boiling water reactors with maximum output capacity of 8,212 MW), which is currently under safety examination.
- LDP, the largest party, opposed the ordinance claiming that the national nuclear energy policy should be under the control of the central government, and not the right issue for a local referendum.

II-2-(2). Case in Fukui

- The Fukui District Court in 2014 ruled that it will not allow the restart of reactors at Kansai EPCO's Oi NPP (4 pressurized water reactors, maximum output capacity of 4,710 MW), which is currently under safety examination.

- The court remarked the superiority of personal rights over the EPCO's right to operate an NPP;
 - *“The operation of a NPP legally belongs to the freedom of economic activity (defined in Article 22 of Constitution) , therefore should constitutionally be regarded inferior to the core components of personal rights.”*
- This is a departure from Supreme Court's ruling in 1992;
 - *“Given global environmental pollution due to coal-fired power generation, there is no other way but to promote nuclear power generation while increasing its safety.”*

II-2-(3). Shift in point of views for right-based argument

- Fukui case illustrate a paradigmatic shift in point of views for ethics of radiological protection.
- That shift in point of views will theoretically require us to define the concept of “risk-taker’s rights”.
- What are the “risk-taker’s rights”?

➤ Are they “civil rights” ?

- A civil right is an enforceable right or privilege, which if interfered with by another gives rise to an action for injury.

Examples: freedom of speech, press, and assembly; the right to vote; freedom from involuntary servitude; and the right to equality in public places.

(Wex, a free legal dictionary and encyclopedia by Legal Information Institute, Cornell Law School)

➤ Consumer rights ?

- Right to safety
- Right to be informed
- Right to choose
- Right to be heard

(businessdictionary.com)

➤ Patient rights ?

- Right to medical care of good quality
- Right to freedom of choice
- Right to self-determination
- Right to information
- Right to confidentiality
- Right to Health Education
- Right to dignity
- Right to religious assistance

(WMA Declaration of Lisbon on the Rights of the Patient)

➤ Consumer rights ?

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(businessdictionary.com)

Common components

➤ Patient rights ?

- Right to medical care of good quality
- **Right to freedom of choice**
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(WMA Declaration of Lisbon on the Rights of the Patient)

II-2-(4). There should be *the right to information*

- The insufficient information disclosure from TEPCO and the government have been criticized since the earliest days of the accident.

..... We should test an assumption that optimism is preferred by scientists and politicians?

..... An optimistic bias in truth disclosure?

➤ *Optimistic bias* in truth disclosure?

- The “worst scenario” not disclosed
 - The station blackout and the failure in water injection into reactors (not only in Fukushima Daiichi NPS, but also in Fukushima Daini NPS) could cause a wide range of high-level contamination throughout the east half of Japan.
 - It was regarded as a too sensitive topic to discuss even within the experts and politicians.
- The “melt-down” terms not spoken
 - Widely observed not only in official announcement by TEPCO and the government, but also in media reports.

➤ *The right to information is essential....*

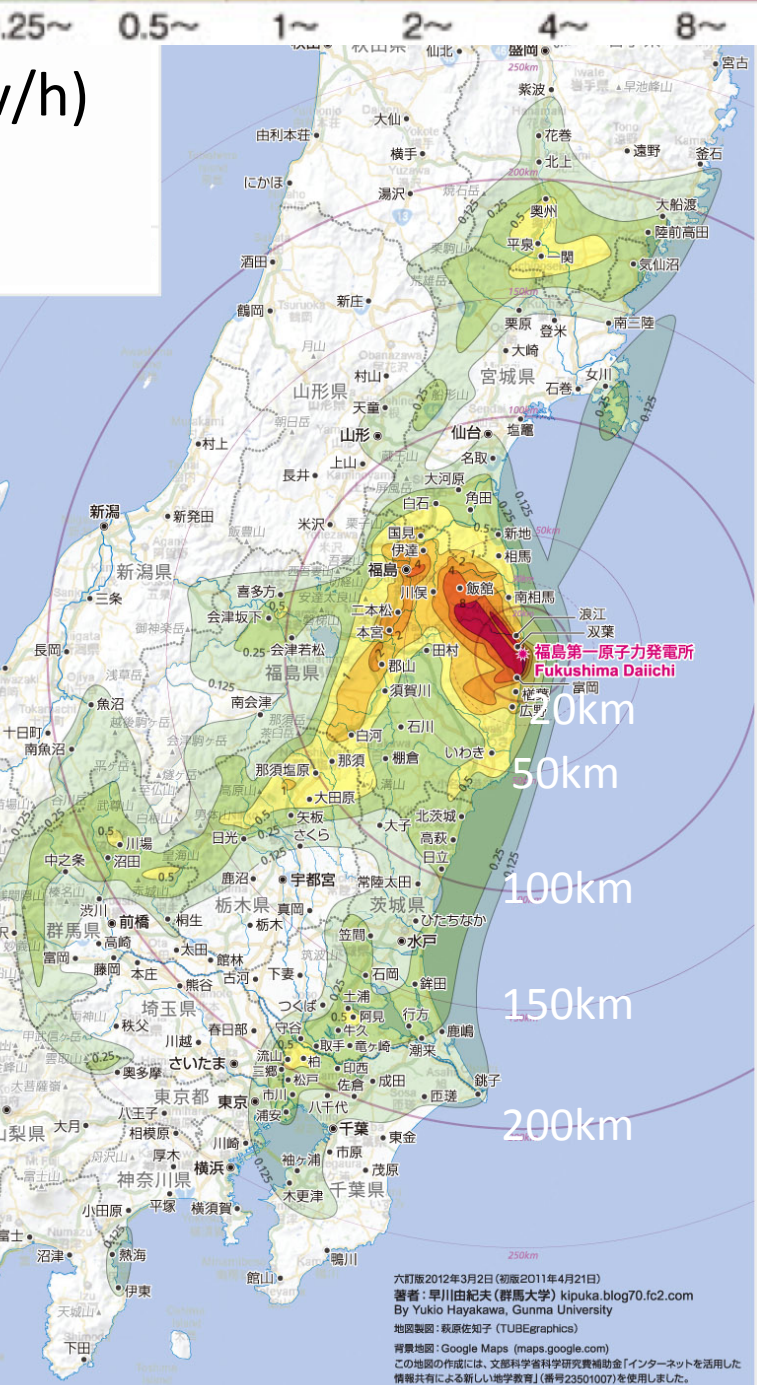
- Key lesson from Fukushima is “bad news are not disclosed, unless demanded by those who need them.”
- We should define *right to information*:
 - People at the risk of radiological exposure have the right for information about all possibilities that can afflict them, including the “worst scenario” (of scientifically rare but severe case), and about all available measures to reduce the risk.

II-2-(3). What about *the right to freedom of choice* for risk takers?

Micro lens

- Supreme Court in 1992 approved residents within 50 km from a NPP have *right to file a lawsuit* over the construction and/or operation of the NPP.
- Should the bordering ethically appropriate after Fukushima?

v/h)



Contamination map (as of December 2011)

- 47km
The most distant area of
“not permitted to live.”
(Current radiation over 50 mSv/year,
and estimated radiation remains over
20 mSv/year in 5 years)
- 200 km or more
“Hot spots” livable after
decontamination
(e.g. Kashiwa City, Kawaba Village.)

➤ *Right to freedom of choice for risk takers*

- If we adopt the standard of the risk of losing livelihood (“not permitted to live”), Supreme Court’s 50 km standard is right.
- If we adopt milder standards (e.g. risk of exposure permitted only to workers of nuclear facilities), it is wrong.
- This is **not a scientific choice**.
..... It is **a social / ethical choice**.

➤ *Right to freedom of choice* for risk takers

- Setting aside their *right to file a lawsuit*, residents should decide whether they continue to live or not in “livable” areas, with fair information provided by scientists.
- We should define *right to freedom of choice*:
 - People at the risk of radiological exposure have the right to freedom of choice from scientifically grounded and socially acceptable options.

II-2-(3). What about *the right to freedom of choice for electricity consumers*

Macro/meso lens

- Should a consumer given the freedom of choice over how the electricity is generated?
- Does it contribute to dissolve the moral hazard caused by the spatial injustice (btw. beneficiaries and risk-takers) ?
- Does it lead to another “green paradox” (more consumer prefer electricity from fossil/nuclear fuels to electricity from renewable sources)?

- If a consumer is given *the freedom of choice* over “how the electricity is generated”, how should she exercise her right,

..... at a national election, a local election,
at a referendum?

➤ inclusive or focused ?

- The magnitude of specificity differs among national and local elections, and a referendum.
 - National elections of the Diet members are probably the least specific to the nuclear energy issue. It would be a part of multi-faceted policies including economic, employment, foreign policies, etc.
 - A local election can be NPP-focused like a referendum, in a area where NPP (its construction, restart, whatever) is the question at issue.

➤ Conventional policy-making frame should be questioned

Economic development
policy

NPP issue

Ethically preferable
energy policy

NPP issue

- A policy promoting energy production will, at least for a short term, stimulate economy.
- A policy of denuclearization of energy production needs to appeal for voters' moral sentiment rather than their material benefit.

➤ Conventional policy-making frame should be questioned

Economic development
policy

NPP issue

Ethically preferable
energy policy

NPP issue

- Which is more appealing in a developed country with aging population, and under a continuous recession; in a developing country with huge drive for economical development?
- Can we develop other frames?

III. CONCLUSION

- I have discussed some aspects of the right-based conceptualization of ethics of nuclear energy policy, taking up some cases of current Japanese NPP issues.
- The concept of “risk-taker’s rights” can share some key components with consumer rights and patient rights.

- It should be concluded:
 1. People at the risk of radiological exposure have “the right for information” about all possibilities that can afflict them, including the “worst scenario”, and all about the available measures to reduce the risk.
 2. People at the risk of radiological exposure have “the right to freedom of choice” from scientifically grounded and socially acceptable options.

- I also expended our discussion to the “electricity consumer rights” focusing on the freedom of choice over how the electricity is generated, and questioned the conventional policy making frame.
- For the latter part I gave no conclusion, but I have attempted to illustrate how the right-based argument can provide broader and detailed views in both micro and macro arguments.
- We should develop right-based argument more!