Sustainable Energy: Questions from Fukushima

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Questions from Fukushima

- Is nuclear energy sustainable?
- What are the *real* costs of nuclear energy?
- How about more sustainable energy sources?

Is nuclear energy sustainable?

Discourses of sustainability

before and after the Fukushima nuclear meltdown

"Nuclear Power, Energy for the Bright Future"



https://thepage.jp/detail/20150310-00000007-wordleaf

Nuclear Power for Sustainable Fisheries



Fukushima Daiichi nuclear power plant (rear) Fish hatchery (front)

"Until the accident, the nuclear power plant and we coexisted in peace and prosperity."

— a fisheries official of Fukushima



Fukushima fish hatchery in 2011

What are the real costs of nuclear energy?

- The conventional calculation: construction and maintenance → allegedly, cost efficient
- Missing numbers: the costs of an accident

The Costs of the Fukushima Disaster

Latest government estimate: US\$200 billion

- Decommission: \$80 billion
- Decontamination: \$40 billion
- Compensation: \$80 billion



Incalculable Costs

- Sociocultural losses
 - Identities (as fishers, as farmers, etc.)
 - Senses of home,hometown,community, family,friendship
- Uncertain economics of compensation



How about more sustainable energy sources?

Fukushima Floating Offshore Wind Farm Demonstration Project (Fukushima FORWARD)



All-Japan Consortium















Today's Work, Tomorrow's Heritage





Our Technologies, Your Tomorrow





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"Fukushima Future"



The Original Plan



A 3D Rendering of Fukushima Offshore Floating Wind Farm © Takeshi Ishihara

In Suspension



This Panel's Questions: In an era of deepening anthropogenic climate change, what are the costs involved in transitioning to more sustainable energy sources? How can governments balance environmental and economic concerns?