

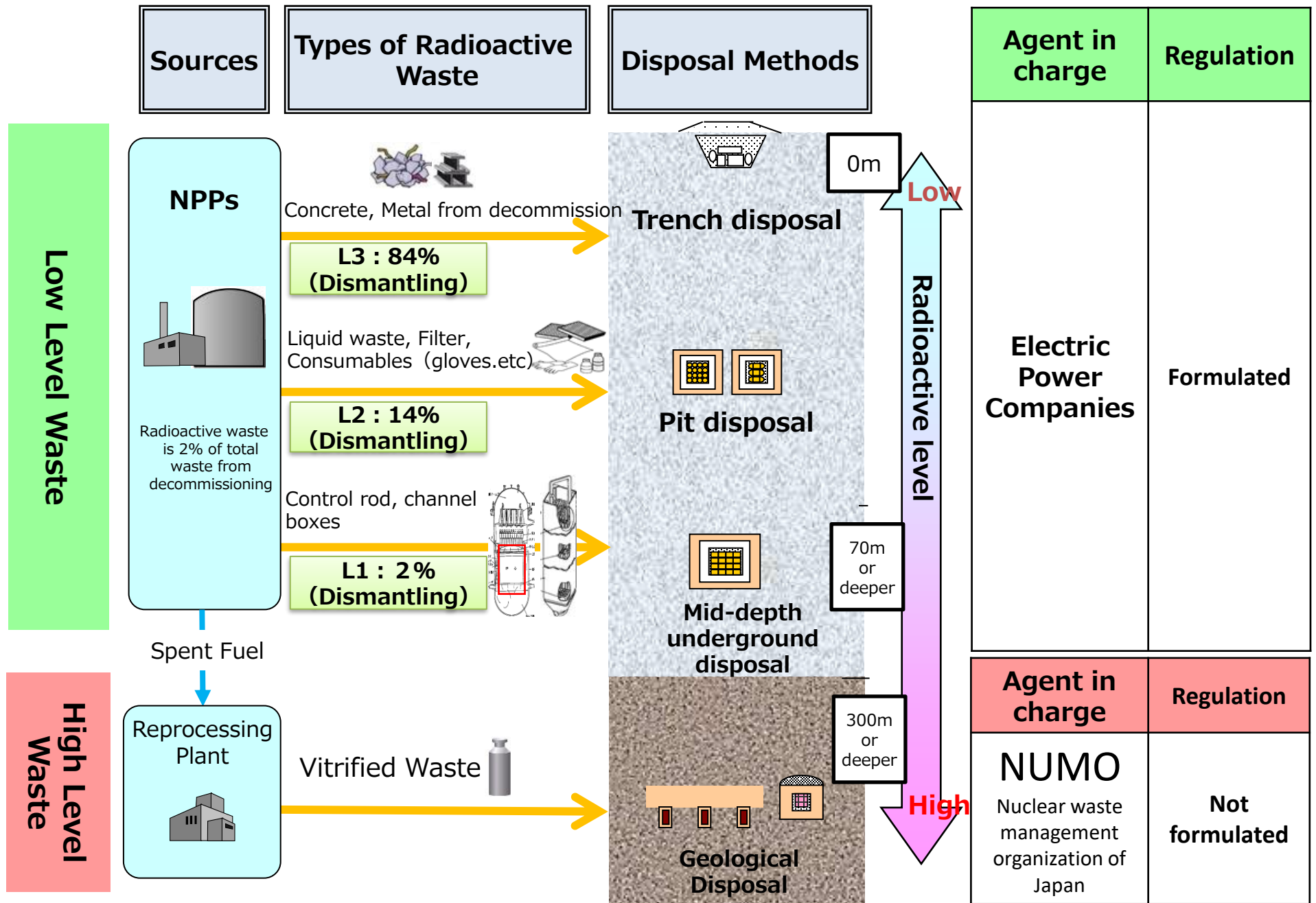
Current Situation of Final Disposal of High-Level Radioactive Waste in Japan

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Overview of Radioactive Waste Disposal in Japan



Governmental Policy (1)

- ◆ In 2000, Designated Radioactive Waste Final Disposal Act was enacted and "Nuclear Waste Management Organization(NUMO)" was established as an implementing agency.
- ◆ In 2002, NUMO started open solicitation for all municipalities to apply for an investigation.
- ◆ In 2007, Toyo Town submitted a formal application for the investigation. Following this submission, a controversy around the pros and cons of the apply erupted, which divided the town politically. The application was withdrawn after the mayoral election in the same year.

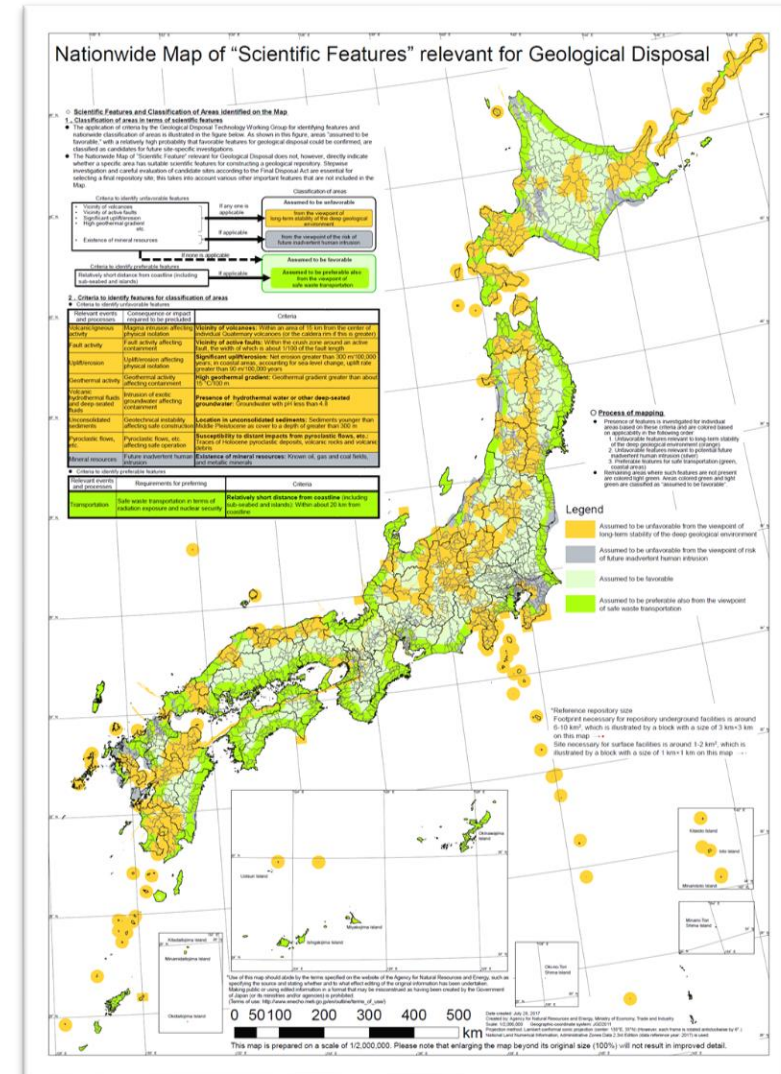
Lesson learned from Toyo Town

- ◆ Opposition of the governor of a prefecture and the surrounding areas
→ Lack of understanding at the national level.
Geological disposal projects need to be widely understood by the public as an issue to be solved by overall society.
- ◆ Application for literature survey from a single site
→ Aim to conduct literature surveys in multiple regions



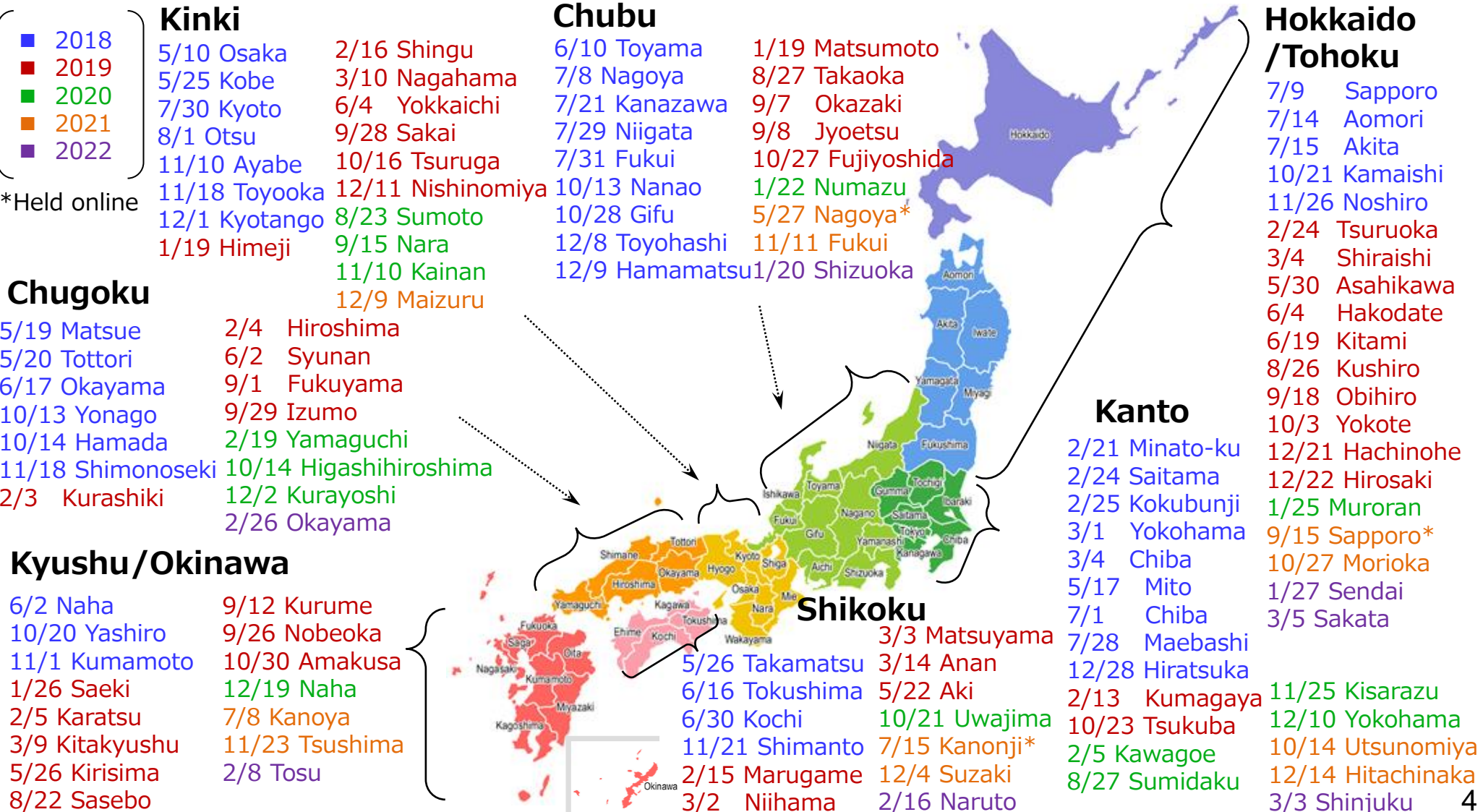
Governmental Policy (2)

- ◆ In 2013, Government established Ministerial Meeting on Final Disposal and started discussion on change of policy direction.
- ◆ In 2015, Revision of the basic policy based on the Final Disposal Act
⇒ **Government should take leadership for public understanding**, by publicizing scientifically favorable areas for geological disposal
- ◆ In 2017, government **published Nationwide Map of Scientific Features**
- ◆ Since 2017, with expecting that multiple municipalities will undertake the site investigations, **METI and NUMO have promoted public dialogues to ensure deeper public understanding of geological disposal.**



Public Dialogues all over the nation

- ◆ METI and NUMO held **public meetings** with **interactive dialogues** on geological disposal and Nationwide Map of Scientific Features in **more than 140 areas** all over the nation.



Other Public Relations Activities (1)

- In addition to the nationwide public dialogue, METI and NUMO are promoting a variety of **PR activities** to increase public awareness and interests in DGR project, **targeting wider range of groups.**

PR for families and kids

Holding exhibitions about DGR using “**Geo-Lab car**” at shopping mall and events etc.



Geo-Lab car



Exhibitions at events

Support for study groups

Support for interested groups' activities including **seminars, workshops or site visits**



Workshops about DGR



Site Visits

Dialogue with people who have diverse opinions

“**Deep Dialogue**” to share diverse opinions and have honest discussions on DGR



Discussions with participants

Other Public Relations Activities (2)

- METI and NUMO are enhancing broader PR activities for **students, younger generation, and women.**

PR for Students

Visiting class for schools and universities



In-person visiting class



Online visiting class

PR on SNS

Utilizing **SNS** such as Youtube or Instagram targeting younger generation



A Video explaining the overview of DGR and NUMO's activities on Youtube



Posts about underground facilities on Instagram

PR for women

Holding **exhibitions** and publishing **articles** using events or media for women



Exhibition at "WOMAN EXPO TOKYO"



Publishment of Article

International collaboration for final disposal of HLW

- International roundtable was held in cooperation with OECD/NEA to deepen international cooperation in final disposal as a common challenge for all nuclear-using countries.
- Participants shared experiences and knowledge about public understanding activities and discussed further research cooperation.

Date : [1st] October 14, 2019 [2nd] February 7, 2020 (in Paris)

Participants : Representatives of 14 countries, OECD/NEA, IAEA

Discussion Point:

- ✓ Decision making process should be transparent, sincere and open.
- ✓ Stakeholders' trust and confidence increase when they can see that other countries are approaching in the same way.
- ✓ Clear communication should be ensured to bolster general public confidence in the safety.
- ✓ In a long-term process of DGR project, partnerships between stakeholders, implementers and regulators must be well established, maintained and renewed as necessary.



Site investigation processes in Japan

- Site investigation processes consist of three stage, such as literature survey, preliminary investigation, and detail investigation.
- If the local government opposes to next investigation, **METI and NUMO will not progress the investigation process.**

Publication of Nationwide Map of Scientific Features

Nationwide public meetings for national and regional public understanding

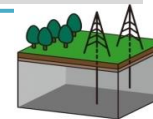
Provision of information according to needs of interested groups

Literature Survey



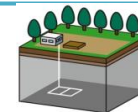
Hearing of opinions from local governments

Preliminary Investigation (borehole survey, etc.)



Hearing of opinions from local governments

Detail investigation (construction & studies in underground facilities)



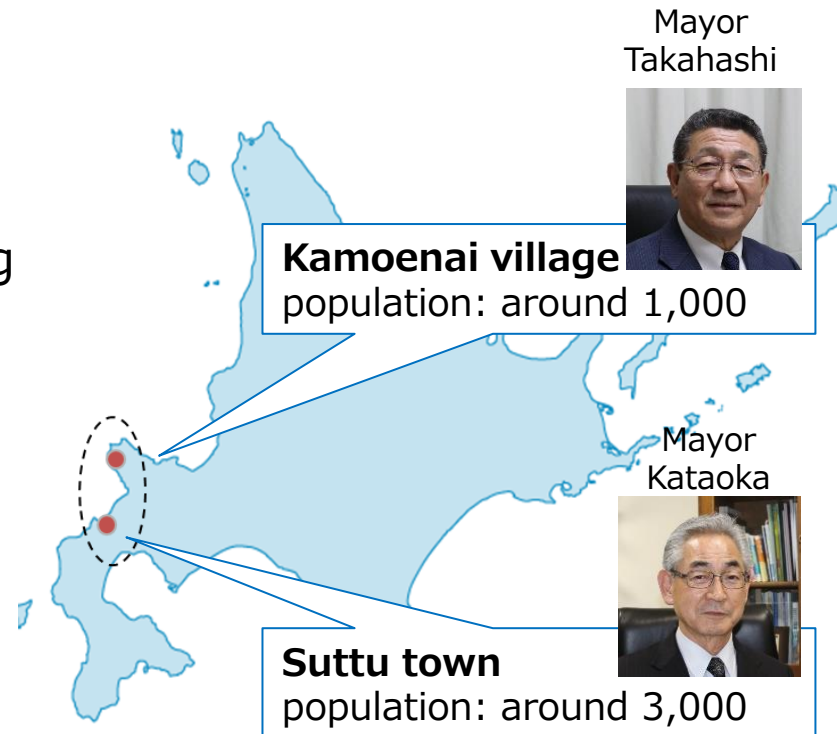
Hearing of opinions from local governments

Descision of final disposal site

Recent Progress in site investigation processes

In November 2020, NUMO started **Literature Survey**, the first stage of site investigation processes, in two municipalities in Hokkaido.

- ✓ **Kamoenai village** made the decision to accept the offer of government for literature survey, after discussions among the village council and the residents.
- ✓ **Suttu town** made the decision for the application of literature survey after discussion among the town council and the residents.

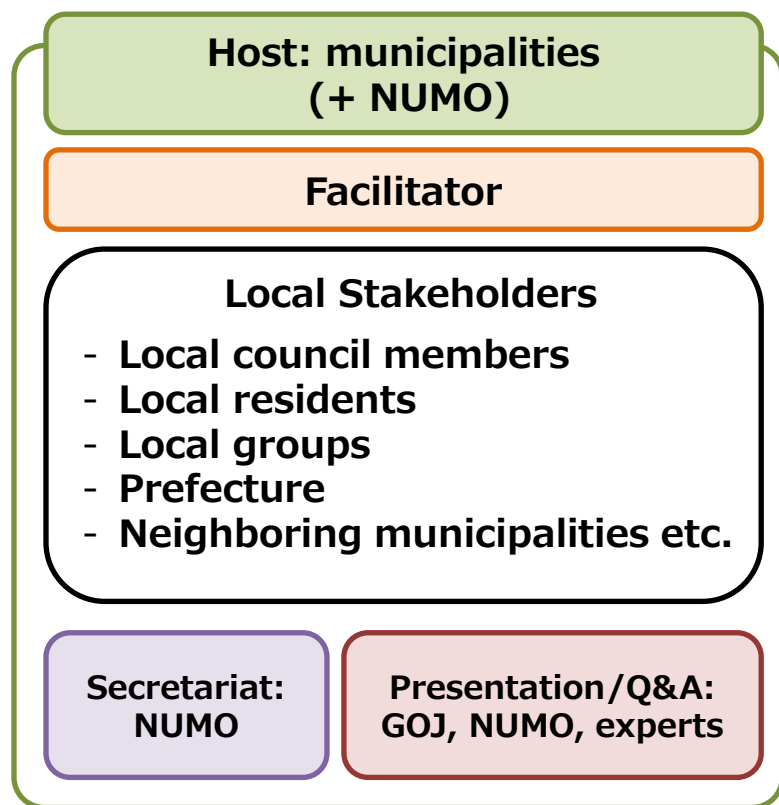


METI and NUMO will continue the public dialogues throughout the nation as well as in the two municipalities, to make more municipalities to have interests in the DGR project and to accept literature survey.

Place for Dialogue

- METI and NUMO are making efforts to support the **place for dialogue** in which local residents can take part in survey areas.
- In the survey areas, NUMO and METI provide **detailed information** on the **progress of literature survey** and **local development plans**, listening to the **community's request** at the place for dialogue.

<Place for dialogue in survey areas>



DGR Project

- Provide detailed information of DGR
- Report on the progress of literature survey
- Site Visit to relevant facilities etc..



Local Development Plan

- Discuss community development
- Research on social impact of the Project etc.

Place for Dialogue in Suttu Town and Kamoenai Village

- In April 2021, “**Place for Dialogue**” was established in Suttu Town and Kamoenai Village. **Local residents** participate in discussions with **neutral facilitators**, and other **activities** developed based on discussed ideas.
- Diverse opinions are raised including **concerns and positive views** about DGR.

“Place for Dialogue”

● **Suttu Town** (7 times held)

<Main Topics>

- Thoughts on the DGR project
- Overview of the DGR project
- Safety of the DGR
- Progress of the Survey
- Ideas to involve local residents
- Radiation effects on humans etc.



● **Kamoenai Village** (5 times held)

<Main Topics>

- Thoughts on the DGR project
- Overview of the DGR project
- Safety of the DGR project
- Progress of the Survey
- What is expected for the dialogue etc.



* As of February 2022

Activities

● “Workshop for local future”

- ✓ Workshops for voluntary participants
(Topics: DGR project, local development)

● **Site Visits**

- ✓ Nuclear fuel cycle facilities
@Rokkasho, Aomori
- ✓ Underground research center
@Horonobe, Hokkaido



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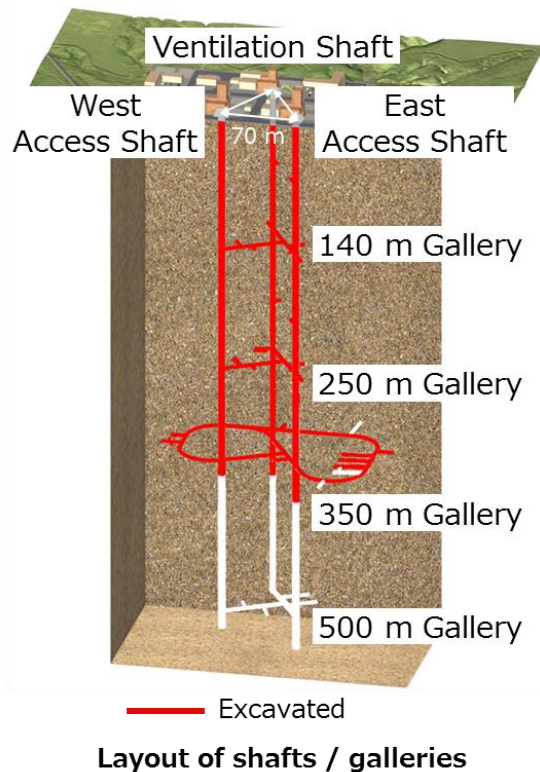


Main opinions

- ✓ Concerned that everything goes as planned by NUMO no matter what we say
- ✓ Who is NUMO? Is DGR really safe?
- ✓ Site visit is important to understand DGR project. We should first understand the project regardless of pros and cons

Future Direction of International Cooperation

- International cooperation is also important to enhance the reliability of geological disposal projects and technologies.
- Japan is taking the initiative in international collaboration in the area of final disposal including holding workshops and promoting joint research project based in Horonobe URL.



Horonobe URL

