

Survey on Research Data Sharing in Earth Environmental Research: Reality in Japanese Research Community

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Overview

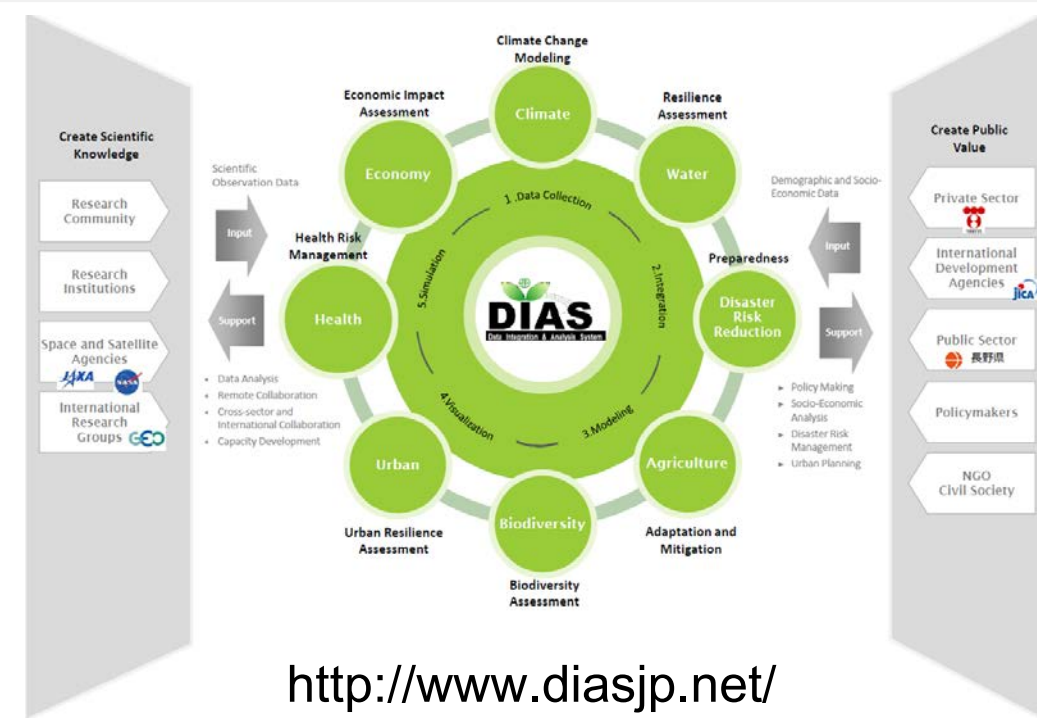
- Research data sharing has an important role of academic research advancement.
- Particularly in earth environmental research, cooperative efforts are inevitable to lead effective solutions for global change.
- Data sharing is considered in general as a good idea. However practically, it's not as simple as it seems.
- Therefore, we planned a survey on research data sharing targeting for Japanese researchers in DIAS and GRENE-ei project.
- The result reflects a part of current realities on data sharing perception in Japanese research community.

Project and Community

- DIAS was launched in 2006 as one of five National Key Technologies defined by the 3rd Basic Program for Science and Technology of Japan.
- The mission of DIAS is to coordinate the cutting-edge information technology and the various science research fields addressing the earth environment.
- DIAS is also one of Japanese activities contributing to GEOSS (Global Earth Observation System of Systems) which is Earth observation information and processing system coordinated by public and private sectors globally.

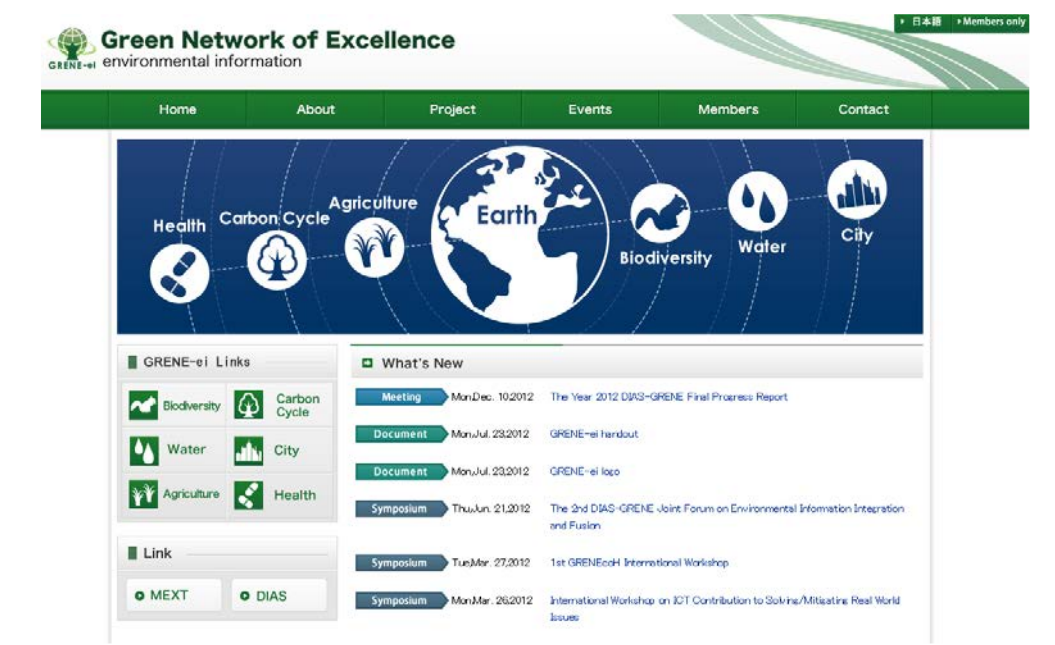
- A project GRENE is a new action to build a network that totally promotes collaborations among universities and research institutes.
- “ei” means environmental information. So, The aim of GRENE-ei is to enhance green innovation and networking in the fields of earth environmental science and information engineering.
- Particularly, GRENE-ei plans the 6 research topics which relate to agriculture, biodiversity, carbon cycle, city, health and water.

DIAS
(Data Integration and Analysis System)



<http://www.diasjp.net/>

GRENE-ei
(GREen Network of Excellence -environmental Information-)



<http://grene.jp/english/>

Survey basic information

- This survey was deployed in May 2015 and conducted as an online survey.
- We sent the request to 177 researchers and got 38 respondents (21.5%).
- Fig. 1 shows the breakdown of respondents by disciplines.
- Fig. 2 shows the major worries when researchers use data for their research.
- Fig. 3 shows the acceptable scopes when they provide their own data or metadata in the current situation.

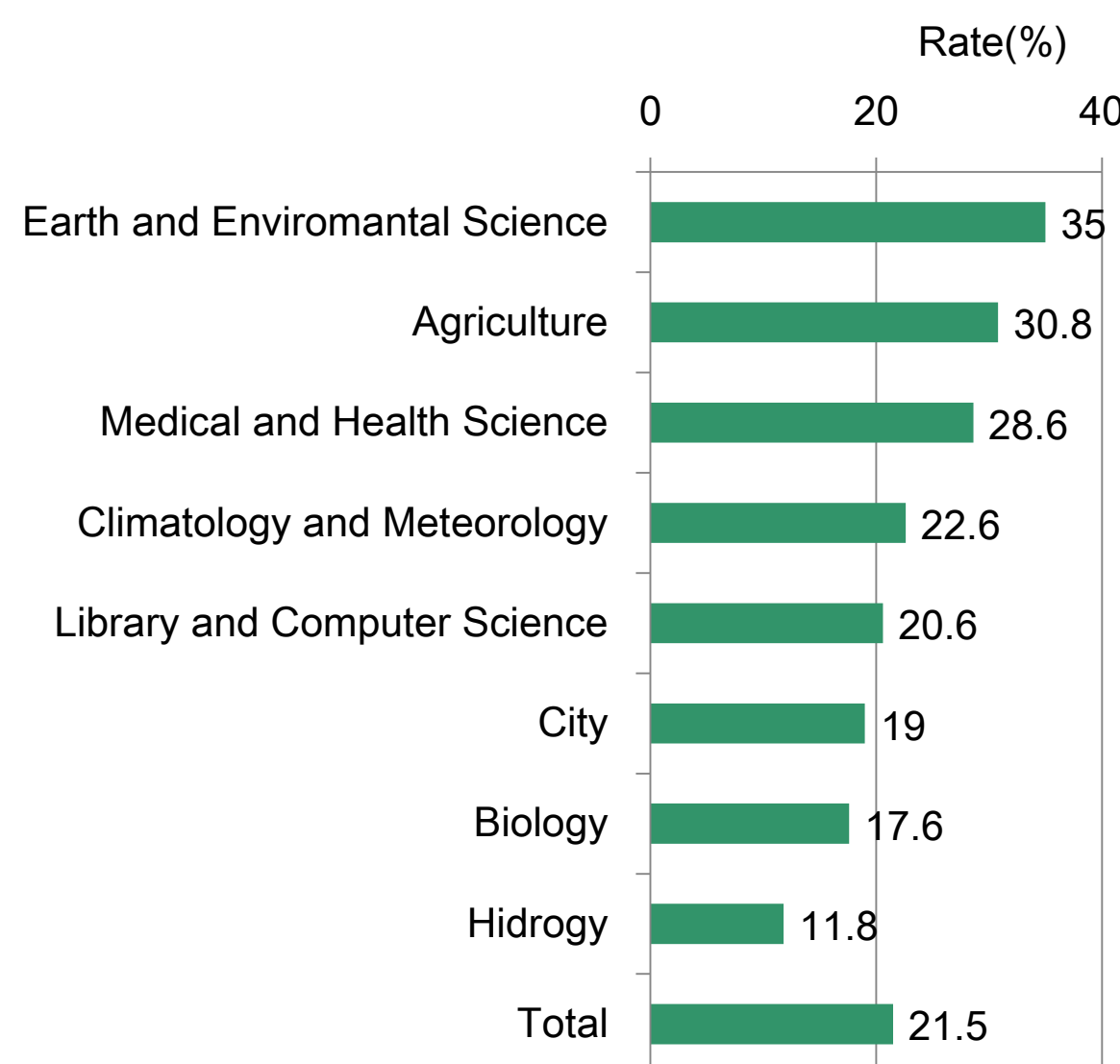


Fig. 1: Subject discipline of respondents

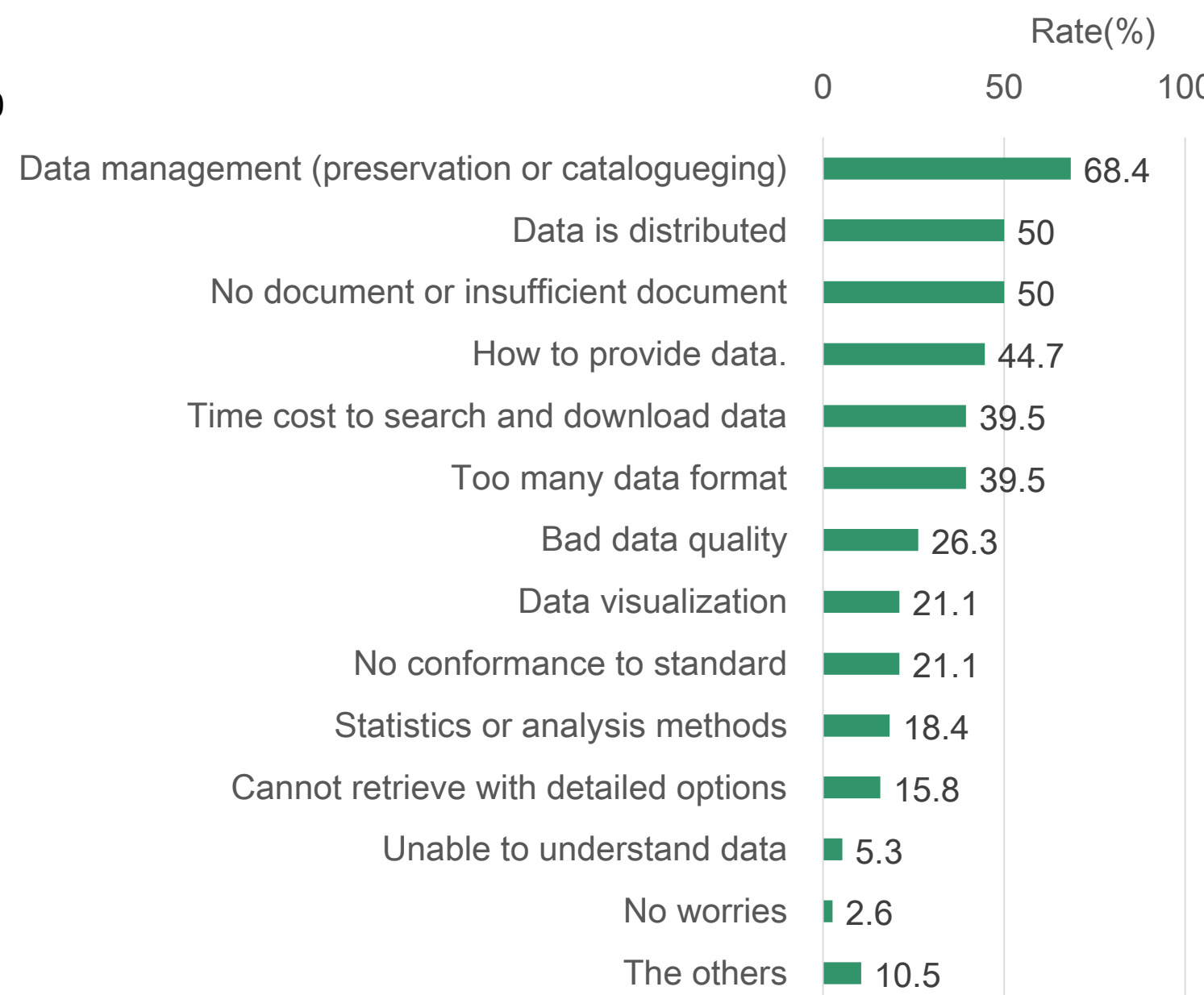


Fig. 2: Worries on data use

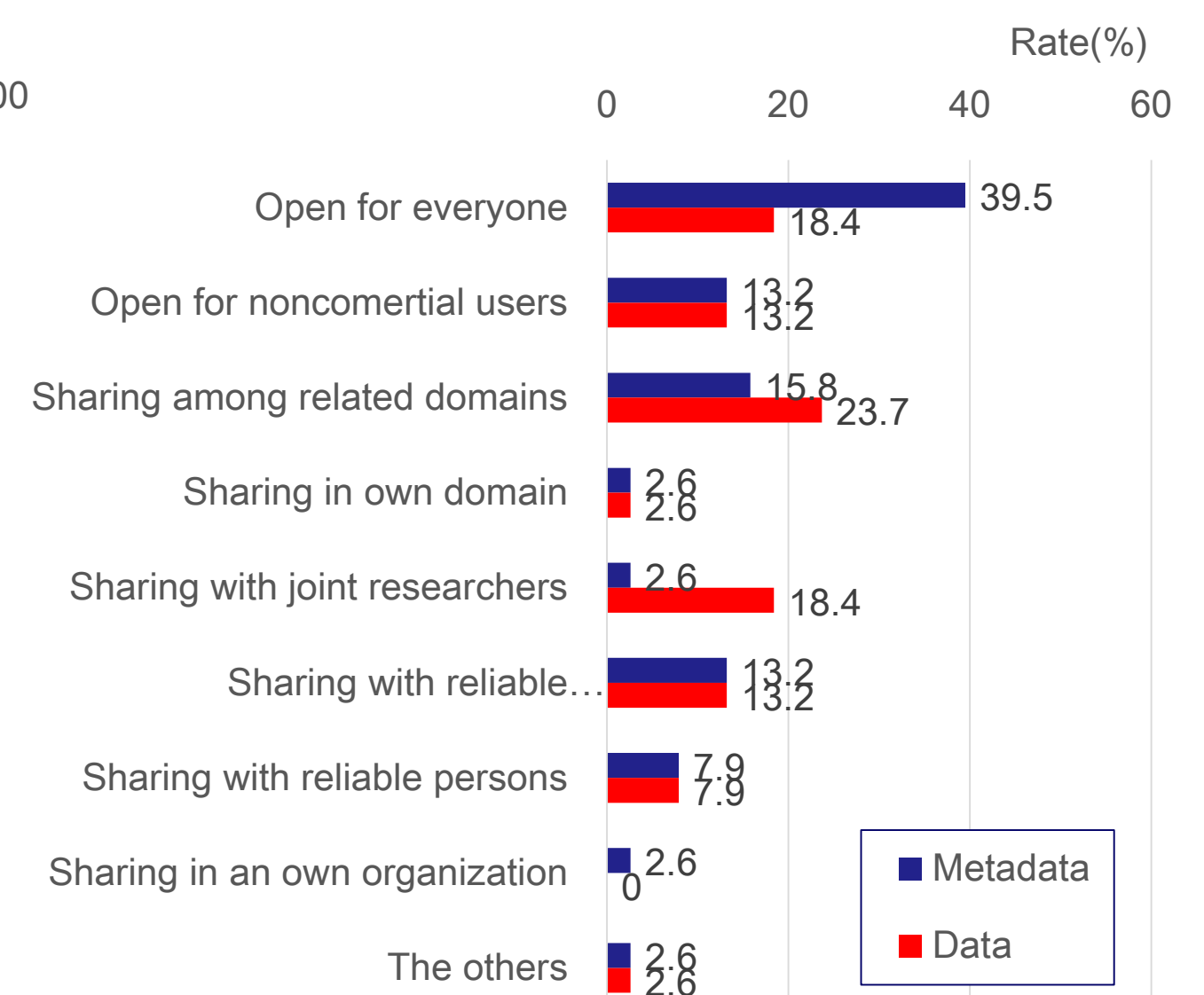


Fig. 3: Acceptable scopes of data/metadata provision

Comparison between Japanese and International results

- In this section, we show the comparison between two survey results. One result is this survey (Fig 4). Another (Fig 5) is DataOne's survey published as an article "Data Sharing by Scientists: Practices and Perceptions" (※) in 2011.
- We refer to a series of questions in table 14 in the article. These questions ask the requirements on data sharing consensus from both viewpoints of data provider and user.
- We summarize and shorten the sentences in Fig 4 and 5 because originals in the DataOne article are long.
- By comparing both, we can find several mind gaps between Japanese and International Community.

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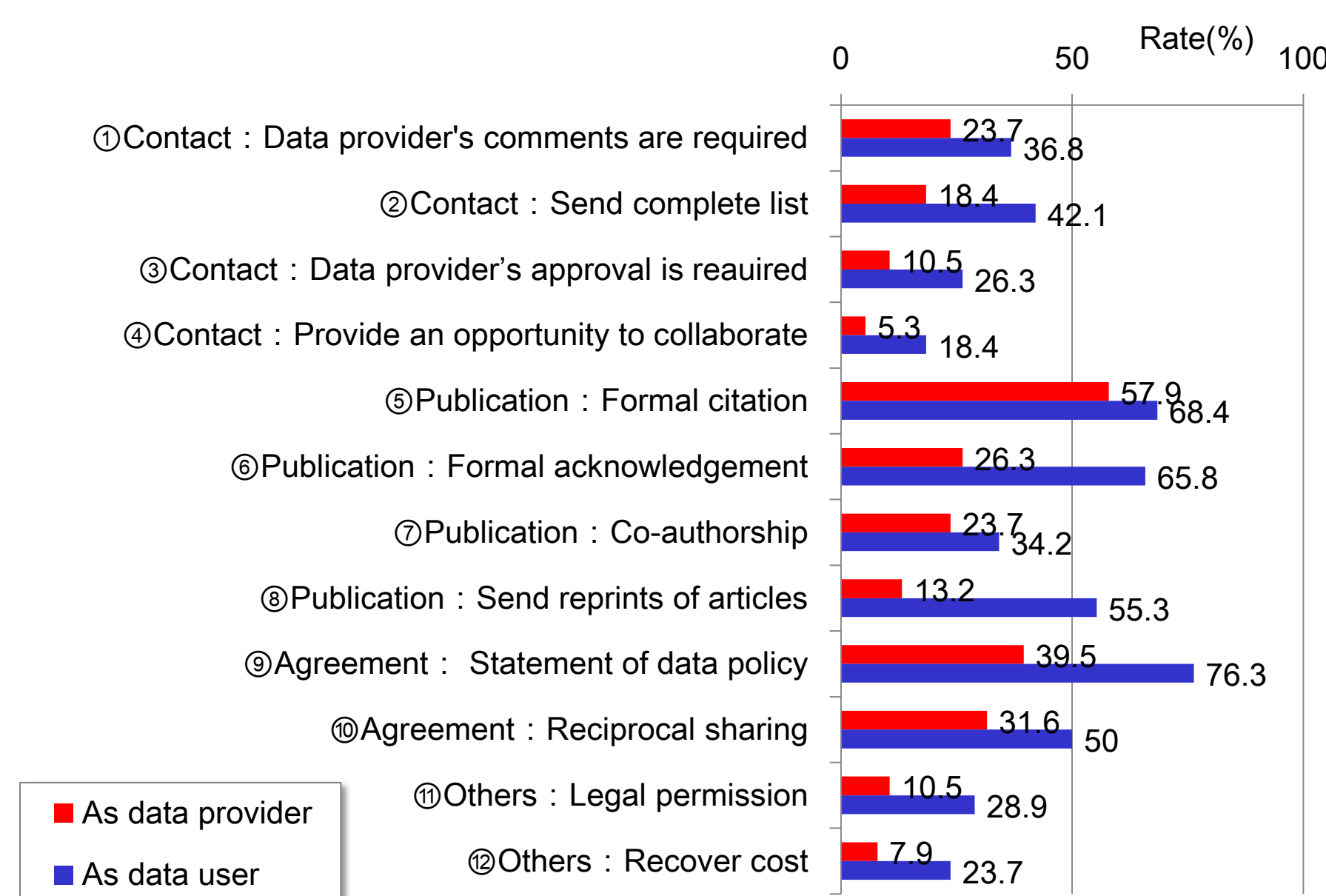


Fig. 4: Result of this survey (Japan)

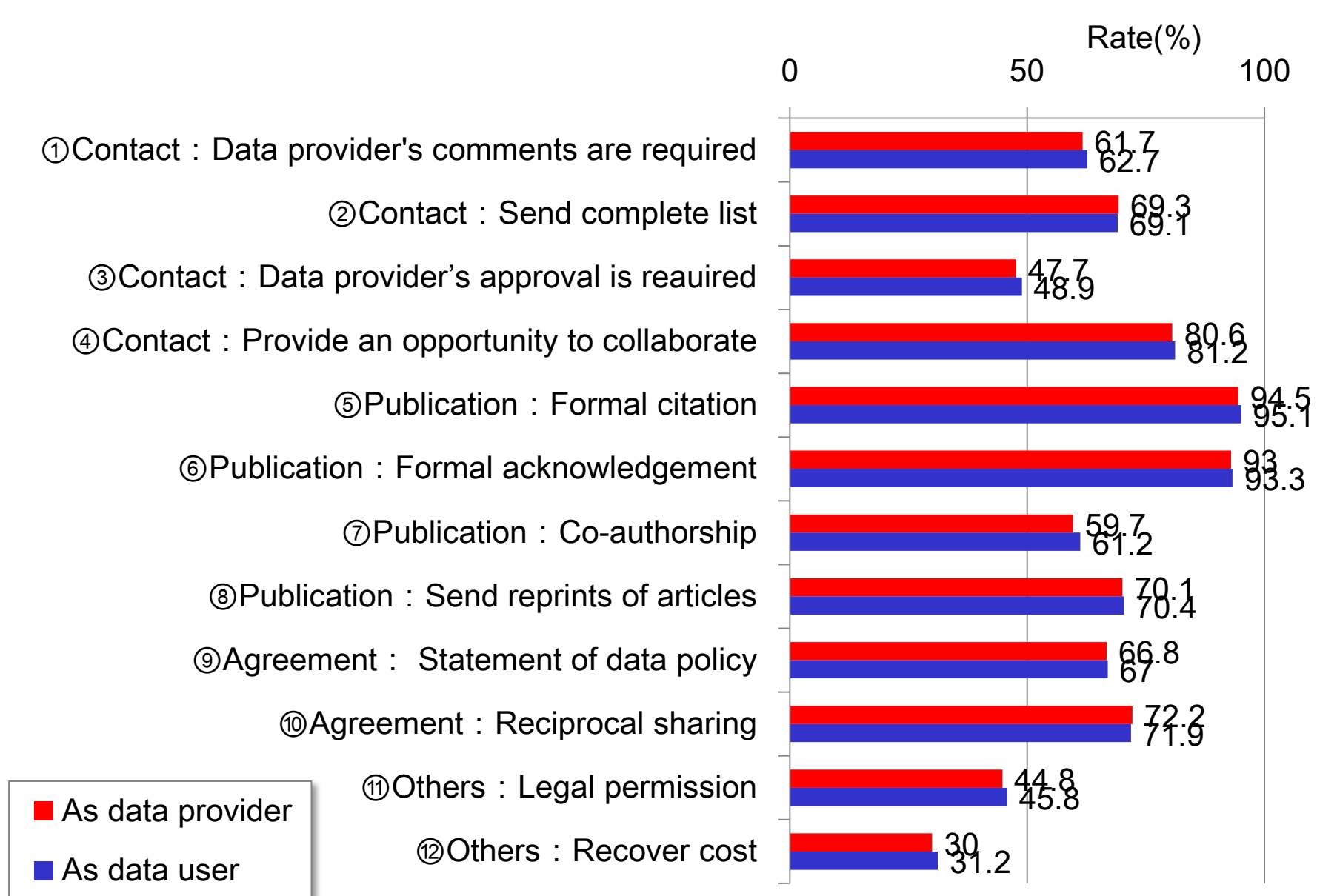


Fig. 5: Result of DataOne (International)

Conclusions

- In Japan, there are increased interests and willingness associated with data sharing.
- Most of researchers worry about data management on their own data.
- Some researchers do not hope that their resources would be open even if it is metadata.
- We find several mind gaps between Japanese and International Community.
- As a future work, we consider a follow-up survey to reveal the details of identified issues.