# Guidelines for specifying conditions of use in research data publishing

Research Data License Subcommittee under the Research Data Utilization Forum (RDUF)

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Introduction. Five Questions on Research Data Publishing and the Specification of Conditions of Use

#### Purpose and objectives

These guidelines are for the research data publishing and the specification of conditions of use developed by the Research Data License Subcommittee under the Research Data Utilization Forum (RDUF)<sup>1</sup>. The basic policy of open science in Japan is to expand the utilization of research results funded by public research funds as much as possible<sup>2</sup>, but some types of research data are exceptions. Therefore, these guidelines aim to enable data providers to publish research data under appropriate conditions of use and examples that generally require attention when publishing research data, along with the decision-making process. It also expects to be used as a tool for data rousers to easily understand the background of the conditions of use required by the data provider.

(1) When the data provider specifies the conditions of use

To enable those who wish to publish research data (individual researchers, teams, and repository managers) to inform third parties of their conditions of use concisely. Possible scenarios are as follows: a) when publishing research data underlying a research paper and b) when publishing research data itself as research results. These guidelines prevent unauthorized reproduction, plagiarism, inappropriate processing, and trouble with interested parties in research data publishing.

(2) When the data refuser checks the existing conditions of use

When the researcher acquires and reuses published research data, they can easily understand the conditions of use required by the data provider.

#### How to use these guidelines

First, select your research data to be published in Q1. Next, confirm any external constraints as listed in Q2. In Q3, you can confirm the processes for enabling research data publishing for the external constraints identified in Q2. Even if external constraints exist, it may be

<sup>&</sup>lt;sup>1</sup> Research Data Utilization Forum (RDUF) was established in May 2016. The principal

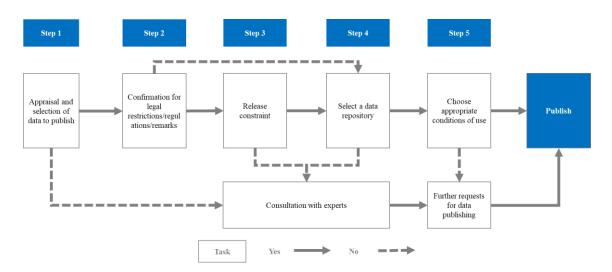
mission of the RDUF is to encourage the utilization of research data based on open science.

The RDUF is willing to support the communication on research data management and open science in various inter-disciplinary and inter-sectional views.

<sup>&</sup>lt;sup>2</sup> 5th Science and Technology Basic Plan.

https://www8.cao.go.jp/cstp/kihonkeikaku/index5.html

possible to publish your research data by setting a certain embargo period, as described in Q3. If your research data can be made public, refer to Q4 to select a data repository. Finally, specify the conditions of use for your research data in Q5.



# Publishing flow and licensing scenarios for research data

# Usage Notes

- These guidelines organize information and examples that generally need to be kept in mind when publishing research data and the decision-making process. We do not expect to cover all research fields; When publishing research data, please check general guidelines and policies related to research ethics and the handling of research data in your own research field.
- When the researchers share research data, even if one wants a particular publication method or conditions of use, the other researchers may not have the same intention. Please confirm their intent well in advance.
- The conditions of use recommended by these guidelines are proposed regarding the Creative Commons 4.0 International License. Note that we do not consider compatibility with different versions.
- If you wish to specify conditions of use for databases and/or repositories, we recommend seeking advice from experts in the relevant legal systems. The same advice should be given when there is more than one interested party, such as in the case of research conducted through industry-academia-government collaboration. Also, if you wish to state your conditions of use for research data as an organization or institution, please consider developing your institutional data policy.

# Conditions of use for this document/Disclaimers

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Source: "Guidelines for specifying conditions of use in research data publishing ver.1.0". Research Data License Subcommittee under the Research Data Utilization Forum (RDUF), 2019, 32p. <u>https://doi.org/10.11502/rduf\_license\_guideline</u>, (accessed YYYY-MM-DD).

• We do not guarantee the accuracy, certainty, fitness for purpose, or other quality of the statements in your context. The responsibility for all actions using these guidelines rests entirely with the user. The users themselves should make decisions based on the

#### information obtained.

#### Q1. Appraisal and selection of data to publish

First, select the research data to be published in your previous research. The scope of the "research data" term varies from field to field, so these guidelines limit the scope of the term to the extent that it can be managed by electronic means. In other words, the term "research data" does not include physical materials such as samples (specimens, samples) or recording media itself (paper, disks, etc.) in these guidelines.

• Definition of "research data" (\*Subject of these guidelines)

Digital data used as a source of information for scientific research. It includes a variety of formats, such as numerical, textual, image, audio, and video. Various designations may be used depending on the context in which the data is used; e.g., evidence data, source data, and derived data.

#### Example:

1) Evidence data

Data underlying a research paper or research results is called "evidence data." Raw data may be published as evidence, or sometimes processed data may be selected to publish.

2) Source data

The original data newly collected from the observation is called "source data (or primary data)." Researchers may observe and create the source data themselves, or it may be held by a third party (e.g., another researcher, a company, or a local government).

3) Derived data

Data created by derivation from source data is called "derived data." If the creator of the source data and the creator of the derived data are different, the data citation method and rights attribution tend to be complicated. It is necessary to pay attention to the source data version information.

(cf: Data not included in the "research data") (Outside the scope of these guidelines)

• Non research data

Descriptions to explain the outline and status of the research data, as well as physical objects such as research notes, diaries, samples, etc.

 Ex. Descriptions of research data (including metadata or metainformation)

- > Other records or logs (research notes, samples, and other physical objects)
- Copyrighted work

For example:

- Research papers
- > Books, derivative works by the authors, secondary works
- > Derivative works by third parties
- Research environment For example:
  - > Databases
  - Software (e.g., Analysis and visualization programs, estimation models, machine learning algorithms)
  - > Other source codes

When publishing research data is required

Publishing research data may be required by your funding agency, publisher, or institution to promote research data reuse.

[Ex. 1] by funding agency JST Policy on Open Access to Research Publications and Research Data Management (April 1, 2017) https://www.jst.go.jp/pr/intro/openscience/guideline\_openscience.pdf

[Ex. 2] by publisher Elsevier. Research Data Guidelines https://www.elsevier.com/authors/author-resources/research-data/data-guidelines

[Ex. 3] by institution (project data) JAXA. ISAS Data Policy (March 14, 2018) http://www.isas.jaxa.jp/researchers/data-policy/

[Ex.4] by institution (evidence data) National Institute of Polar Research. National Institute of Polar Research Open Access Policy (November 24, 2017) https://www.nipr.ac.jp/outline/activity/oap.html

# Some considerations for "Non research data," "Copyrighted work," and "Research environment"

- Metadata plays an essential role in informing the existence of research data. Even if the source or derived data is kept private, the metadata should be widely available for the public to search, view, and retrieve.
- Data not included in "research data" should be segregated and managed with the research data. If you treat past research notes or diaries as source data, be careful what you publish in digital form.
- The requirement of copyrighted works such as articles, papers, posters, slide materials, and projection materials differs from the research data to be published. For these works, consider publishing them in your institutional repository and apply standard licensing tools such as the Creative Commons License.
- The research environment and research data must be treated separately in the licensing context. You may refer to the following if you wish to specify a database license or a source code license.

[Ref. 1] Open Data Commons. Open Data Common Open Database License (ODbL). https://opendatacommons.org/licenses/odbl/index.html

[Ref. 2] Choosealicense.com. Licenses. https://choosealicense.com/licenses/

# Q2. Confirmation for legal restrictions/regulations/remarks

There may be restrictions on publishing research data due to the sensitive content contained in the data (e.g., privacy information) or the research participant's request. Please confirm if your data falls into the descriptions contained in the following categories.

In cases of disciplinary customs restriction, including international treaties

• Individual disciplines and research communities may have conventions or standards regarding data release restrictions. The provisions of international treaties are indicated in some cases<sup>3</sup>, but the provisions are not always explicitly stated<sup>4</sup>.

[Ex. 1] Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

https://www.cites.org/eng

[Ex. 2] Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property <u>http://portal.unesco.org/en/ev.php-</u> <u>URL\_ID=13039&URL\_DO=DO\_TOPIC&URL\_SECTION=201.html</u>

In cases of containing personal information

- The laws of each country regulate the handling of personal information. In Japan, if the research entity is private, the Act on the Protection of Personal Information applies. If the research entity is an Incorporated Administrative Agency, including a National Research and Development Agency, the Act on the Protection of Personal Information Held by Incorporated Administrative Agencies, etc.
- As for discipline-specific regulations, for example, guidelines may be formulated for each field, with separate policies for anonymization and information disclosure.

<sup>&</sup>lt;sup>3</sup> Other examples of publishing research data restrictions are mentioned within the guidelines prepared by RDA/CODATA, such as the protection of endangered species, cultural resources, sovereign genetic resources, and traditional knowledge.

Legal Interoperability of Research Data: Principles and Implementation Guidelines https://doi.org/10.5281/zenodo.162241

<sup>&</sup>lt;sup>4</sup> For example, materials may be withheld from the public due to the Bereaved family's request in literary research.

[Ref. 1] Personal Information Protection Commission, Government of Japan. "Laws and guidelines" (only in Japanese) https://www.ppc.go.jp/personalinfo/legal/

[Ref. 2] Japan External Trade Organization (JETRO). "About General Data Protection Regulation (GDPR)" (only in Japanese)

https://www.jetro.go.jp/world/europe/eu/gdpr/

[Ref. 3] Ministry of Health, Labor and Welfare (Japan). "About research guidelines" (only in Japanese) <u>https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/hokabunya/kenkyujigyou/i-kenkyu/index.html</u>

In cases of Diplomatic / National security restriction

- Publishing research data on national security is regulated by law and includes data related to the weapons development of mass destruction (as defined in the Foreign Exchange and Foreign Trade Law) and defense secrets (defined in the Self Defense Forces Law).
- In other cases, there are special legal measures for data that may affect the lives of the public (e.g., location of domestic energy resources, blueprints of important facilities, etc.).

[Ref. 1] Japan Society for Intellectual Production. "Security Trade Control Guidelines for Researchers in universities and other institutions of higher education. Revised 2<sup>nd</sup> ed"

http://j-sip.org/info/pdf/anzenhosho1-1\_2.pdf

In cases of keeping agreements, contracts, Intellectual Property rights

- In joint or contract research, it is necessary to comply with agreements with research partners, contractors, etc. regarding publishing research data.
- If you have some agreements or contracts with a private company (including a commercial publisher) that restricts publishing your data, you must comply with the terms of the agreements or contracts.

[Ref. 1] Ministry of Economy, Trade and Industry (Japan). "Operation guidelines for data management in contract research and development" (only in Japanese) https://www.meti.go.jp/press/2017/12/20171227001/20171227001-1.pdf

[Ref. 2] Ministry of Economy, Trade and Industry (Japan). "Contract Guidelines on Utilization of AI and Data. Data Section"

https://www.meti.go.jp/press/2019/12/20191209001/20191209001.html

In cases of complying with data policy

- Your institution may have a restricted data sharing policy. If your institution has an intellectual property policy or data policy<sup>5</sup>, you must confirm the scope or embargo period within the policy.
- In some cases, publishing research data on industrial property rights pending application or research data expected to be commercialized may be restricted as a management strategy decision<sup>6</sup>. You also need to confirm the target data attribution.

[Ex. 1] National Institute for Environmental Studies. "NIES Data Policy" (only in Japanese)

https://www.nies.go.jp/kihon/kitei/kt\_datapolicy.pdf

https://www8.cao.go.jp/cstp/tougosenryaku/index.html

https://www8.cao.go.jp/cstp/stsonota/datapolicy/datapolicy.html

Japan Patent Office. "Open and Closed Strategy"

<sup>&</sup>lt;sup>5</sup> In Japan, all national research and development agencies must have a data policy by 2020. Cabinet Office, Japan. "Integrated Innovation Strategy"

Cabinet Office, Japan. "Guidelines for the Development of Data Policies in National Research and Development Agency"

<sup>&</sup>lt;sup>6</sup> The "Open and Closed Strategy" is "a strategic choice to increase the company's profits by adopting an open model IP strategy of disclosing or licensing to other companies, in addition to a closed model IP strategy of keeping technologies and other information secret or implementing exclusive rights such as patent rights." The "Guidelines for the

Formulation of Data Policies for National Research and Development Institutions" also calls for the formulation of policies based on this concept.

https://faq.inpit.go.jp/content/tradesecret/files/100578260.pdf

[Ex. 2] Teikyo University. "Intellectual Property policy in Teikyo University" (only in Japanese) https://www.teikyo-u.ac.jp/affiliate/laboratory/tttc\_center/policy.html

[Ex. 3] Japan Agency for Medical Research and Development. "Data sharing policy for realization of genomic medicine" (only in Japanese) <u>https://www.amed.go.jp/content/000023353.pdf</u> <u>https://humandbs.biosciencedbc.jp/files/DAC/4th\_meeting/2\_ref\_AMED\_DSP.pdf</u>

# Q3. Release constraint

In most cases, even if there are some restrictions on publishing research data as described in Q2, it is possible to publish the data by applying appropriate data processing or allowing a certain embargo period<sup>7</sup>. Set the necessary conditions subsequent based on the following information<sup>8</sup> and show them to the data reuser:

# In cases of disciplinary customs restriction, including international treaties

You need to confirm the data publishing procedures with the corresponding national law if the disciplinary customs restriction is explicitly stated in an international treaty. In the absence of a specified period for restricted publication, you must set an appropriate period that considers the disciplinary practice and/or the treaty's purpose. In addition to checking with the IP department of your institution, you can consult with an expert if necessary.

[Ref. 1] Ministry of Foreign Affairs of Japan. "Treaty Data Search" https://www3.mofa.go.jp/mofaj/gaiko/treaty/

[Ref. 2 ] FAIRSharing. "FAIRSharing policies" https://fairsharing.org/policies/

\* Collection of field-specific policies/guidelines

<sup>&</sup>lt;sup>7</sup> In principle, the legal protection of a copyrighted work expires 70 years after the author's death. Still, there is no corresponding provision for research data, so it is necessary to be more careful in setting an embargo period. From the viewpoint of protecting research papers, it is generally 12 months for science, engineering, and medicine, and typically 24 to 36 months for humanities and social sciences. However, in recent years, the evidence data tend to publish immediately.

<sup>[</sup>Ref.] U.S. Department of Health & Human Services. "NIH Public Access Policy Details" https://publicaccess.nih.gov/policy.htm

<sup>[</sup>Ref.] Wiley. "Wiley's Self-Archiving Policy" <u>https://authorservices.wiley.com/author-</u>resources/Journal-Authors/licensing/self-archiving.html

<sup>[</sup>Ref.] SHERPA/RoMEO. "Publisher copyright policies & self-archiving" http://sherpa.ac.uk/romeo/index.php

<sup>&</sup>lt;sup>8</sup> There are some options for setting an embargo period, such as a timer, date/time-specified, and user-only limitation methods. These options will be used in some combination.

In cases of containing personal information

Even if your research data contains some personal information, it can be published when you anonymize your data in an appropriate method.

[Ref. 1] Personal Information Protection Commission, Government of Japan. "Guidelines for the Act on the Protection of Personal Information. Anonymized Information section"

https://www.ppc.go.jp/files/pdf/guidelines04.pdf

You can also refer to these specialized guidelines to specify anonymizing methods in your fields:

[Ref. 2] Personal Information Protection Commission, Government of Japan. "Guidelines for Specific Fields"

https://www.ppc.go.jp/personalinfo/legal/guidelines/

[Ref. 3] Japan Pharmaceutical Manufacturers Association. "Institutional Review Board (IRB) overview and date of event" http://www.jpma.or.jp/medicine/shinyaku/tiken/allotment/leaflet/009.html

In cases of Diplomatic / National security restriction

If your research data is restricted by export control, military diversion, or other treaties, you must follow established procedures to consider whether to disclose the data. Please consult with the department in charge and follow the disclosure procedures.

[Ref. 1] Ministry of Finance, Japan. "Overview of Foreign Exchange and Foreign Trade Act"

https://www.mof.go.jp/international\_policy/gaitame\_kawase/gaitame/index.html

[Ref. 2] Ministry of Economy, Trade and Industry, Japan. "Security Export Control System in Japan"

https://www.meti.go.jp/policy/anpo/

If your research data is categorized in public records, it is subject to the Public Records and Archives Management Act. You must be considered for disclosure following the enforcement order of the Act. As above, please consult with the department in charge and follow the disclosure procedures.

[Ref. 1] Public Records and Archives Management Act https://elaws.egov.go.jp/search/elawsSearch/elaws\_search/lsg0500/detail?lawId=421AC0000000066

[Ref. 2] Cabinet Office, Government of Japan. "Documents subject to management under the Public Records and Archives Management Act" https://www8.cao.go.jp/chosei/koubun/about/bunsho.html

[Ref. 3] Cabinet Secretariat, Japan. "Standard document retention period" https://www.cas.go.jp/jp/koukai/hyoujunbunsho/anzenhosho.html

In cases of keeping agreements, contracts, Intellectual Property rights

Based on the agreement or contract, set the publication date and time after confirming and coordinating the cases in which publication is possible. In addition to the statements related to the publication of research results, check the agreements after the joint research period has ended. Even in cases where there is no explicit agreement or contract, you should check with your IP department before publishing your research data.

[Ref. 1] Joint Research and Development Agreement (in Japanese)

第○条(研究成果の公表等)

甲又は乙は、本契約の有効期間中及び契約終了後○年間は、本共同研究によって得 られた研究成果を公表又は第三者に開示しようとする場合には、その内容、時期、 方法等について、書面により事前に相手方の承諾を受けるものとする。

Source: Ministry of Economy, Trade and Industry, Japan. "Handbook for Protection of Confidential Information - Toward Enhancing Corporate Value" https://www.meti.go.jp/policy/economy/chizai/chiteki/trade-secret.html#handbook

[Ref. 2] Ministry of Education, Culture, Sports, Science and Technology, Japan. "Sakura tool"

https://www.mext.go.jp/a\_menu/shinkou/sangaku/1383777.htm

\* Provides contract templates that can be used for joint research. The link provides the consortium type of contract and revised materials for individual versions.

# In cases of complying with data policy

Based on the applicable data policy, set the publication date and time to the end of the embargo period. If the policy does not specify the embargo period, it should be decided in consultation with the department in charge.

# In cases of not being available to be published

Even if your research data cannot be published at this time, it is necessary to leave a trail of evidence that the research data exists to support future research activities. Please document the decision-making process up to this point and store the research data in appropriate storage. Also, please publish it as metadata to the institution's platform if possible.

# Q4. Select a data repository

When you have finished checking the constraints in Q3, you need to select an appropriate repository. You can publish your research data using file-sharing services or data management software. However, we recommend using data repositories in related fields or institutional repositories from the viewpoints of data organization and preservation, data permanence assurance, user recognition, and security management<sup>9</sup>. Some examples of data repositories in Japan are as below. If you want to search for international data repositories, please see the "List of International Data Repositories."

# Disciplinary data repositories

- Social sciences
  - SSJDA (https://ssjda.iss.u-tokyo.ac.jp/Direct/)
    - Acceptable data type: Micro data with questionnaires used in various social and statistical surveys
  - RUDA (https://ruda.rikkyo.ac.jp/dspace/)
    - Acceptable data type: Social survey data (Economics, Business Administration, Sociology, Social Psychology, Political Science, Political Psychology, Law, Sociology of Law, Education, Sociology of Education, etc.)

# Life sciences

- DDBJ (https://www.ddbj.nig.ac.jp/index.html)
  - Acceptable data type: Annotated/assembled sequences, Sequencing and alignment data from next-generation sequencing platforms, Functional genomics data, Research project, Biological sample, Human data requiring controlled-access
    - \* Further information:

https://www.ddbj.nig.ac.jp/data-categories.html

- NBDC human database (https://humandbs.biosciencedbc.jp/)
  - Acceptable data type: Human data produced from publicly funded research

<sup>&</sup>lt;sup>9</sup> Even when research data is published as an Appendix or Supplement to a research paper, registering it in repositories and databases in related fields will further increase its discoverability and make it more likely to be used. It also facilitates maintenance of broken links.

- jPOSTrepo (https://repository.jpostdb.org/)
  - Acceptable data type: ProteOme data in Japan
- GlyTouCan (<u>https://glytoucan.org/</u>)
  - Acceptable data type: Glycan structures data
- Life Science Database Archive (https://dbarchive.biosciencedbc.jp/index.html)
  - Acceptable data type: Datasets generated by domestic life science researchers
- Earth science
  - DIAS (http://www.diasjp.net/)
    - Acceptable data type: Earth and Environmental data
  - IUGONET (http://search.iugonet.org/list.jsp)
    - Acceptable data type: Solar-Terrestrial Science Observations data
  - Global Environment Database (http://db.cger.nies.go.jp/portal/)
    - Acceptable data type: Global Environmental Research Data
- Biological science
  - Biological Information System for Marine Life (BISMaL) (https://www.godac.jamstec.go.jp/bismal/j/)
    - Acceptable data type: Data on marine biotic occurrence records
  - Global Biodiversity Information Facility Japan Node (JBIF) (http://www.gbif.jp/v2/)
    - Acceptable data type: World's biodiversity data
    - Contact: http://www.gbif.jp/v2/regist/index.html
- Synchrotron radiation science
  - SPring-8 case studies & reports cross research (<u>http://www.spring8.or.jp/ja/science/customsearch/</u>)
    - Acceptable data type: Data on polymers, organic thin films, and green energy fields
  - SPring-8 BL14B2 XAFS Standard Sample Database (<u>https://support.spring8.or.jp/xafs/standardDB/standardDB.html</u>)
    - Acceptable data type: XAFS (X-ray absorption fine structure) data
- Other fields
  - List of international data repositories (https://www.re3data.org/)

Institutional repositories

List of Japanese institutional repositories (<u>https://www.nii.ac.jp/irp/list/</u>)

# Considerations

- In the event of data leakage or unauthorized use, you will warn the data reuser and request an injunction against the data reuse. Depending on the circumstances, you may consider injunctive relief, damage, or criminal legal proceedings. Protection may be available under the Copyright Act, or relief may be obtained under the Unfair Competition Prevention Act. You should consult with the department in charge and follow the appropriate procedures.
- When selecting a data repository, information such as whether it conforms to international standards certification and which country's laws it complies with may be helpful.

[Ref. 1] FAIR principles

- FAIR principles as a standard for data sharing (https://doi.org/10.18908/a.2018041901)
- Is the repository listed on the "FAIRsharing" website? (https://fairsharing.org/)
- Is the repository listed on the "Repository Finder," which complies with FAIR principles? (https://repositoryfinder.datacite.org/)

[Ref. 2] International Standards Certification

- From the re3data.org search page (https://www.re3data.org/search), select "Certificates" in the Filter to check.
- A list of recommended repositories may be provided by the publisher.
   Ex. Nature "Scientific Data. Recommended Data Repositories" https://www.nature.com/sdata/policies/repositories

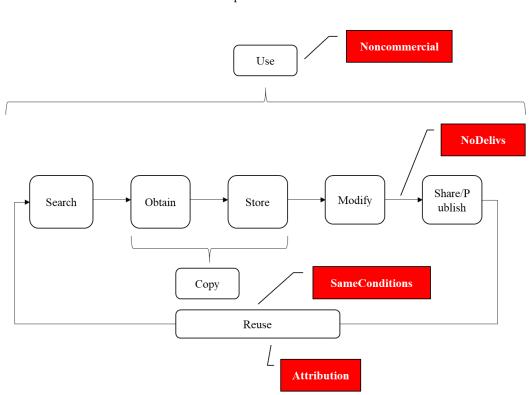
	Require Data to be protected A database that, by reason of the	ments Misconduct Reproduction or any other acts	Civil A Demand an Injunction	ffairs Claim for Damages	Criminal Affairs Imprisonment /Fines	Comparison with Limited Provision Data	
Database works (Copyright Act Article 12-2 (1))	selection or systematic construction of information contained therein, constitutes a creation	without the permission of the right holder (regardless of the malicicusness of the form)	O		o	Data that is not creative (e.g., factory operating data) is not	
Patented invention (Patent Act Artiole 2 (1), Article 29)	<ol> <li>the highly advanced oreation of technical ideas utilizing the laws of nature</li> <li>an invention for which a patent has been granted</li> </ol>	Implementation or any other acts without the permission of the right holder (regardless of the maliciousness of the form)	c		O	protected	
Prevention Act Article 2 (1)	1) confidentiality 2) non-public 3) value	Unauthorized acquisition, unauthorized use, etc. (list malicious acts)	C	1		Data widely available to the public is not protected	
Disolosing shared data (Unfair Competition Prevention Act Article 2 (1) (xi) to (xvi))	<ol> <li>shared data with limited access</li> <li>managed by electronic or magnetic means</li> <li>acoumulated to a significant extent</li> </ol>	Unauthorized acquisition, unauthorized use, etc. (list malicious acts)	0		×	-	
Torts (Civil Code Article 709)	Data in general	intentionally or negligently infringed the rights or legally protected interests	× (Except in Moral rights infringement)	0	l x	No injunction is available (in principle)	
Contract (Non-Performance) (Civil Code Article 415)	Data in general (depends on contract)	Violation of contract	O (only contracting parties)		X X	Cannot be applied to other than contracting parties	

# List of Legal Protection of Data in Japan

Ref. Ministry of Economy, Trade and Industry, Japan. Major legal systems against data misuse https://www.meti.go.jp/policy/economy/chizai/chiteki/H30nen\_fukyohoshosai.pdf

# Q5. Choose appropriate conditions of use

Once you have decided where to publish the data, you need to specify the conditions of use for your research data. When you have multiple datasets or are publishing them together with derived data, it is convenient to specify their conditions of use together. Specified conditions of use should be appropriately described as metadata<sup>10</sup> when registering to the repository.



Flow of research data reuse and actions subject to recommended conditions of use specification

- Please clearly indicate the following four points: attribution, same conditions, NoDelivs, and Noncommercial.
- "NoDelivs" means that the release of modified data is prohibited.

<sup>&</sup>lt;sup>10</sup> To ensure transparency, we strongly recommend that a description of how data is acquired and modified be created in the metadata according to the conditions of use or a link be provided to a report or data paper describing the procedure.

# Recommended conditions of use

In specifying the conditions of use, you can combine some conditions such as attribution and/or prohibition for modification. You can also choose to waive your rights. The description in square brackets for each conditional specification can be used generally when describing the conditions of use.

Conditions of use	Description		
Waiver	Freely available		
Attribution	Clearly indicate the data source and credit information		
Attribution - Noncommercial	Clearly indicate the data source and credit information; Commercial use prohibited		
Attribution - NoDelivs	Clearly indicate the data source and credit information; the release of modified data prohibited		
Attribution - Noncommercial - NoDelivs	Clearly indicate the data source and credit information; Commercial use prohibited; the release of modified data prohibited		
Attribution - SameConditions	Clearly indicate the data source and credit information; the release of modified data granted different conditions of use prohibited		
Attribution - SameConditions - Noncommercial	Clearly indicate the data source and credit information; the release of modified data granted different conditions of use prohibited; Commercial use prohibited		
Other	Individual restrictions by contract (e.g., limited sharing)		

- Although these guidelines aim to set appropriate conditions of use for non-copyrighted data, there are many cases in which it is difficult to determine whether copyrighted work. The conditions of use recommended in this section are compatible with the Creative Commons License (https://creativecommons.jp/licenses/) International 4.0, and you can use these conditions of use regardless of their copyrightability.
- Note that when research data are based on derived data (see p. 5), it is impossible to grant looser conditions of use than the source data. For example, you cannot grant

"Waiver" if the original conditions of use are "Attribution," even if the research data was published by yourself.

- "Waiver" can be understood as a declaration by the data provider that they waive the right to take legal action against copyright infringement. However, even if the data provider declares a "waiver," moral rights, privacy rights, and the right to prevent unfair competition remain. Trademark and patent rights are also not waived. Therefore, legal action against rights infringement other than copyright can be considered by the data provider, the institution to which the data belongs, or the repository manager. Cf. https://creativecommons.jp/sciencecommons/aboutcc0/
- "NoDelivs" prohibits the sharing or publication of modified data, so it does not prohibit private data reuse. Also, even under conditions of use that do not grant "NoDelivs," the Unfair Competition Prevention Act may be applied in case of data falsification.

- 1) Waiver
- The data are freely available for commercial or non-commercial purposes. It is unnecessary to indicate the data source information or the modification methods.

本データの利用に当たり、原則として、何らの制約はありませ ん。

In principle, there are no restrictions of any kind on the use of this data.

※本データが著作物である場合は、CC0(権利放棄)が付与されます。

\* If this data is a copyrighted work, CC0 (waiver of rights) is granted.

# [Notice]

If you select a "waiver," you may not revoke or change your choice in the future. Please check carefully with your institution or professional before selection.

These conditions of use will be interpreted that the data reuser does not require third parties to indicate the data source information or the same conditions of use as the original data.

Even if the data provider has waived their rights, it may be necessary to indicate the data source information according to the someone's policy, such as journal policy. You need to cite data appropriately, taking into account research ethics regulations.

# 2) Attribution

• The data are freely available as long as the data source and credit information are clearly indicated.

# [Description]

本データの公開に当たっては、出所を明示してください。 When publishing this data, please clearly indicate the data source.

本データを改変した場合には、その手順を何らかの手段で明 記してください。

If you have modified this data, please specify the procedure by some means.

※本データに著作権が発生する場合、クリエイティブ・コモンズ表示 4.0 国際 ライセンス(CC-BY)の条件で利用することが可能です。著作権が発生しない 場合でも、出所の明示を条件に利用することが可能です。

\* If this data is copyrighted, it may be used under the terms of the Creative Commons Attribution 4.0 International License (CC-BY). Even if the copyright does not arise, the data may be used under the condition that the data source is clearly indicated.

# [Notice]

In displaying attribution for your research data, clearly indicate the credit information, including the version and date/time information on the landing page.

There are several ways to specify the means of data modification: 1) mentioning when the data source is referred, 2) including it in the metadata, and 3) writing a report or data paper that describes the procedure in more detail. Choose a method appropriate to the degree of alteration.

- 3) Attribution Noncommercial
- For non-commercial purposes, the data are freely available as long as the data source and credit information are clearly indicated.

本データの公開に当たっては、出所を明示してください。 When publishing this data, please clearly indicate the data source.

本データは、営利目的で利用することができません。 This data may not be used for commercial purposes.

本データを改変した場合には、その手順を何らかの手段で 明記してください。

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- 4) Attribution NoDelivs
- The data are freely available as long as the data source and credit information are clearly indicated; The release of modified data is prohibited.

本データの公開に当たっては、出所を明示してください。 When publishing this data, please clearly indicate the data source.

本データを改変した場合、改変されたデータを公開するこ とはできません。

If you have modified this data, the modified data may not be made public.

※本データに著作権が発生する場合、クリエイティブ・コモンズ表示-改変禁止 4.0 国際ライセンス(CC-BY-ND)の条件で利用することが可能です。著作権 が発生しない場合でも、出所の明示及び改変されたデータを公開しないことを 条件に利用することが可能です。

\* If this data is copyrighted, it may be used under the terms of the Creative Commons Attribution-No Derivative Works 4.0 International License (CC-BY-ND). Even if the copyright does not arise, the data may be used under the condition that the data source is clearly indicated and that the modified data is not made public.

# [Notice]

It is common for data acquired by third parties to be modified in the reuse process, except when the data is only for observation, viewing, or browsing. If you have a particular modification method that you want to prohibit, clearly state it.

The term "Modified" includes partially altered from the source data and derived data. For example, this applies when tabular data are prepared based on individual data or estimates are organized based on observed data.

- 5) Attribution Noncommercial NoDelivs
- For non-commercial purposes, the data are freely available as long as the data source and credit information are clearly indicated; The release of modified data is prohibited.

本データの公開に当たっては、出所を明示してください。 When publishing this data, please clearly indicate the data source.

本データは、営利目的で利用することができません。 This data may not be used for commercial purposes.

本データを改変した場合、改変されたデータを公開することはできません。

If you have modified this data, the modified data may not be made public.

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- 6) Attribution SameConditions
- The data are freely available as long as the data source and credit information are clearly indicated; The release of modified data granted different conditions of use is prohibited.

本データの公開に当たっては、出所を明示してください。 When publishing this data, please clearly indicate the data source.

本データを改変した場合には、本データと同じ利用条件で 公開し、かつその手順を何らかの手段で明記してくださ い。

If you have modified this data, please publish it under the same conditions of use as this data and clearly state the procedure by any means.

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- 7) Attribution Same Conditions Noncommercial
- For non-commercial purposes, the data are freely available as long as the data source and credit information are clearly indicated; The release of modified data granted different conditions of use is prohibited.

本データの公開に当たっては、出所を明示してください。 When publishing this data, please clearly indicate the data source.

本データは、営利目的で利用することができません。 This data may not be used for commercial purposes.

本データを改変した場合には、本データと同じ利用条件で 公開し、かつその手順を何らかの手段で明記してくださ い。

If you have modified this data, please publish it under the same conditions of use as this data and clearly state the procedure by any means.

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#### 8) Additional conditions of use

In cases of some additional conditions of use caused by an institutional data policy or individual contracts, the detailed description will be more readily understood when displayed along with the usage notes. We recommend preparing a concise user guide with references to these policies or contracts. Note that any new conditions granted to the data will no longer make it compatible with the Creative Commons License.

## Appendix. Terms of use statement

Since the research data assumed by these guidelines are not protected by copyright law, it is necessary to indicate the specified terms of use in the metadata and establish more detailed terms in advance to legally guarantee the specified conditions of use. Referring to the following sample format, please check your description, such as the data source and credit information, an example of how to modify the data, and a disclaimer. If there is missing information on the landing page, add the information in the metadata section. If a problem cannot be covered by adding information in the metadata section, please consider changing the data repository.

• Sample format: in cases for "Attribution" (Japanese)

All rights to the data and information contained in the Appendix (hereinafter referred to as the "Data") belong, in principle, to the researchers, research institutions, or data providers involved in the creation of the Data (hereinafter referred to as the "Information Providers"). The rights to the Data are protected by Japanese domestic law and international treaties. The Data may not be used without permission (including, but not limited to, use, reproduction, distribution, screening, public transmission, performance, publication, making transmittable, adaptation, modification, and commercial use) except in accordance with the terms of use or license notice specified by the Information Providers. In using the Data, you are deemed to have agreed to the terms and conditions of use or the license notice specified by the Information Providers.

(Conditions of use)

- When publishing this data, please clearly indicate the data source.
- If you have modified this data, please specify the procedure by some means.

If this data is copyrighted, it may be used under the terms of the Creative

Commons Attribution 4.0 International License (CC-BY). Even if the copyright does not arise, the data may be used under the condition that the data source is clearly indicated.

(Example 1) Source: "Name of this data", (name of authors), (URL information), (version information)

(Example 2) Source: Modified by (refuser names) based on "Name of this data", (name of authors), (URL information), (version information)

Although every effort has been made to ensure accuracy, reliability, fitness for purpose, and other qualities of this Data, this does not guarantee them. All responsibility for all actions taken using this Data rests solely with the refuser. In the unlikely event that a reuser suffers damage because of using this Data, the Information Providers assume no responsibility for such damage. Decisions based on the information obtained are the sole responsibility of the reuser of this Data. The Information Providers do not guarantee the accuracy, reliability, or safety of any information to which a third party has rights that can be accessed from this Data. The Information Providers shall not be held liable for any damages resulting from the use of information to which a third party has rights.

Please note that this Data may be added, changed, or deleted without prior notice.

(Information Provider's name) (Date and Time)

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