How to Involve Stakeholders, especially Citizens, in the Revisioning Process of ICRP General Recommendation: An Analysis of ICRP Public Comments

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Abstract- This study aims to propose measures to promote stakeholder, especially citizens, involvement in the revision process of GR. To achieve this, we analyze the public comments for ICRP recommendations. Sixty-one public comments have been conducted by ICRP since 2005; a total of 1614 comments were posted (an average of 26.5 comments/publication). The draft of ICRP 146 received 308 comments, followed by the ICRP 103 2nd draft and the ICRP 103 first draft, which received 217 and 195 comments, respectively. We examined the posters' "organization" and "name" and classified them as general public (citizens) or not. ICRP 146 received 228 citizens' comments, but the first and second drafts of ICRP 103 received only 16 and 52 citizens' comments. Accepting comments in Japanese was effective in promoting public engagement with ICRP recommendations. However, critical comments from citizens were not well reflected in the ICRP Publ. 146.

In developing ISO 26000, The International Organization for Standardization (ISO) involved representatives from (1) industry, (2) government, (3) labor, (4) consumers, (5) NGOs, and (6) service, support, research, and others (ISO 2017). On the other hand, ICRP 2007 was developed by fourteen main commission members of the ICRP (ICRP 2008) or specialists in radiological protection. Involving the citizen (group) from the initial stage of the revision process is essential to formulating multi-stakeholder-involved general recommendations.

Keywords: Multi-stakeholder approach; ICRP General Recommendation; Public Comment; stakeholder involvement

1. RESEARCH BACKGROUND AND PURPOSE

The ICRP has initiated a revision process of its 2007 General Recommendation (GR). Despite the 2007 GR (ICRP Publ.103) recommending stakeholder involvement in decision-making on radiation protection measures, the 2007 GR was developed by fourteen ICRP members. Other ICRP publications are developed by Task Groups in the similar way. The GR's stakeholders include various parties, industries, radiation workers, regulatory authorities, government, patients, the general public, etc. Thus GR shoule be developed by Task group including various stakeholders.

The purpose of this study is to propose measures to promote stakeholder involvement in the revision process of GR. To achieve this, we analyze the public comments for ICRP recommendations and conduct case studies on the multi-stakeholder process.

This paper does not necessarily reflect the views of the International Commission on Radiological Protection.

2. ANALYSIS OF ICRP PUBLIC COMMENTS

2.1. Data

The ICRP has published the results of public comments on their homepage[b]. This data includes the name of the commenter, the organization of the commenter, if any, and the posted comment. Descriptive statistical analysis was performed using the published data. For ICRP 146, we compared the draft with the final version to examine how citizens' comments were incorporated.

2.2. Summary of ICRPPublic comments

As of September 2023, sixty-one public comments had been made since 2005; a total of 1,614 comments were posted, or 26.5 comments were posted on average per draft. The draft of ICRP Publ. 146 received 308 comments, followed by the ICRP 103-2nd draft and the ICRP 103-first draft, which received 217 and 195 comments, respectively (Figure 1).

We examined the posters' "organization" and "name" and classified them as General Public (GP), which includes citizen groups, or not (Non-GP). ICRP Publ. 146 also received the largest number of 228 comments from GP. We guess that the largest number of comments for ICRP Publ. 146 should be the results of Japanese citizen groups holding briefing sessions to understand the nature of ICRP recommendations and problems in the draft. Dr. Kai and Dr Homma of ICRP attended some briefings and explained major updtes points. Usually, ICRP public comments accept only English comments, in response to requests from Japanese civic groups, ICRP accepted Japanese comments also for this public comment.

The number of comments by GP is followed by the second and the first draft of ICRP 103, which received 16 and 52 comments, respectively. Although GR is essential and affects the general public, only 68 comments have been posted. The greater number of comments on ICRP Publication 146 may be attributed to the factors mentioned above and to Japanese citizens who suffered radiation disaster itself and felt conflicts in radiological protection during the Fukushima Daiichi Nuclear Power Plant Accident. It is crucial to inform on public comments to citizens not only in Fukushima but also around the world.

2.3. How public comments are reflected in ICRP Publ. 146

As mentioned in the previous section, the draft of ICRP Publication146:" Radiological Protection of People and the Environment in the Event of a Large Nuclear Accident: Update of ICRP PUBLICATIONS 109 and 111" received the largest number of comments, 308. In this section, we examine how major points posted through public comment were reflected into the ICRP Publication 146. Major points mentioned in public comments[c] are summarized in Table.

Citizen's comments point out fundamental problems, for example, "revision of ICRP109&111 should be postponed because of FDNP accident is ongoing", "the co-expertise process should be discarded because of malpractice of scientists, including non-consented data

[b] https://icrp.org/consultations.asp
[c] https://www.icrp.org/consultation.asp?id=D57C344D-A250-49AE-957A-AA7EFB6BA164

usage by scientists," "description of Fukushima accident is limited and biased."[d] However, they were neglected and ICRP Publ. 146 was published with minor revisions from the draft.

3. CASE STUDY ON MULTI-STAKEHOLDER PROCESS

3.1. Research target

The International Organization for Standardization (ISO) is a non-governmental organization, just like ICRP, with a membership of 169 national standards bodies. ISO adopted a multi-stakeholder approach in developing Guidelines for Organizational Social Responsibility (SR): ISO 26000. Based on ISO (2017, 2023) and Slob and Oonk (2007), the development process of ISO 26000 is summarized.

3.2. Multi-stakeholder process in ISO 26000 development

The Working Group on SR is composed of experts and observers nominated by members of the national standardization bodies from six different stakeholder categories: (1) industry, (2) government, (3) labor, (4) consumers, (5) NGOs, and (6) service, support, research, and others (ISO 2017). In 2007, WG was comprised of 355 experts and 77 observers representing 72 countries (Slob and Oonk 2007, Figure 2).

ISO applied "twinning" for WG composition: all leadership positions are shared between a representative from a developed country and a representative from a developing country. However, the voices of developing countries' representatives are not heard sufficiently in plenary meetings due to difficulties with the English language. Representatives from NGOs contributed sufficiently to WG, for example, determining the structure of the guideline. Prior to the Santiago meeting held in 2008, the WG SR had received some 5,200 comments on the second edition of the fourth working draft of the standard.

4. DISCUSSION AND CONCLUSION

The ICRP has initiated a revision process of its 2007 General Recommendation(GR). As recommended in the 2007 GR or ICRP 103, stakeholder involvement is important in determining radiation protection measures. From this perspective, stakeholder involvement in the revision of GR must be assured. For the GR, stakeholders include a wide range of parties, including industries, radiation workers, regulatory authorities, government, patients, the general public, and so on. Among them, this study focuses on the general public or citizens. Our analysis revealed that even GR that affects citizens received some 80 public comments.

Accepting comments in multiple languages will promote public engagement with ICRP recommendations. As described in the ISO 26000 development process case study, 5200 comments were obtained for the Santiago meeting, which far exceeds the total comments for 61 ICRP public comments 1614.

Moreover, a reflection of citizens' comments was limited in the past ICRP public comments. ICRP 2007 was developed by fourteen main commission members of the ICRP (ICRP 2007) or specialists in radiological protection related fields. Other publications were developed in a similar way. Involving multi-stakeholders, especially citizens or citizen groups, from the initial

[d] These coments were posted by the present author.

stage fits the “stakeholder involvement” philosophy emphasized in ICRP Publ. 103 and ICRP Publ. 146.

It is natural to adopt a multi-stakeholder process for revision of the General Recommendation. To prevent under voice of consumers and NGOs, the twining process must be employed, and care for non-English participants must be assured.

ACKNOWLEDGEMENTS

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REFERENCES

ICRP (2007), The 2007 Recommendations of the International Commission on Radiological Protection Publication 103: https://journals.sagepub.com/doi/pdf/10.1177/ANIB_37_2-4 accessed 2019/8/5.

---- (2020), "ICRP Publication 146: Radiological Protection of People and the Environment in the Event of a Large Nuclear Accident: Update of ICRP Publications 109 and 111," Annals of the ICRP, 49 (4), 11-135. https://www.icrp.org/publication.asp?id=ICRP%20Publication%20146

ISO (2010), "ISO 26000 on Social Responsibility Approved for Release as Final Draft International Standard," /Users/yh/Desktop/ISO - ISO 26000 on social responsibility approved for release as Final Draft International Standard.pdf), [available at https://www.iso.org/news/2010/05/Ref1321.html].

Slob, Bart and Gerard Oonk (2007), "The Iso Working Group on Social Responsibility Developing the Future Iso Sr 26000 Standard," https://www.researchgate.net/publication/259999429.

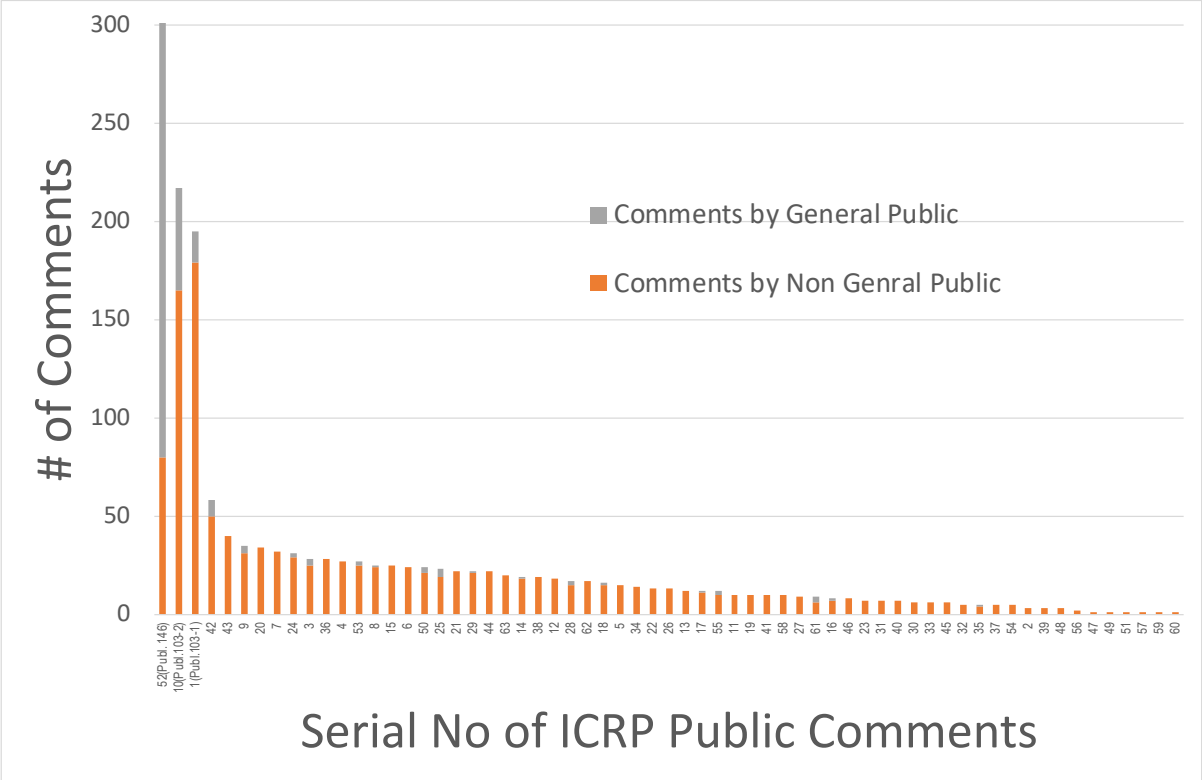

Figure 1 # of Comments for ICRP public comments

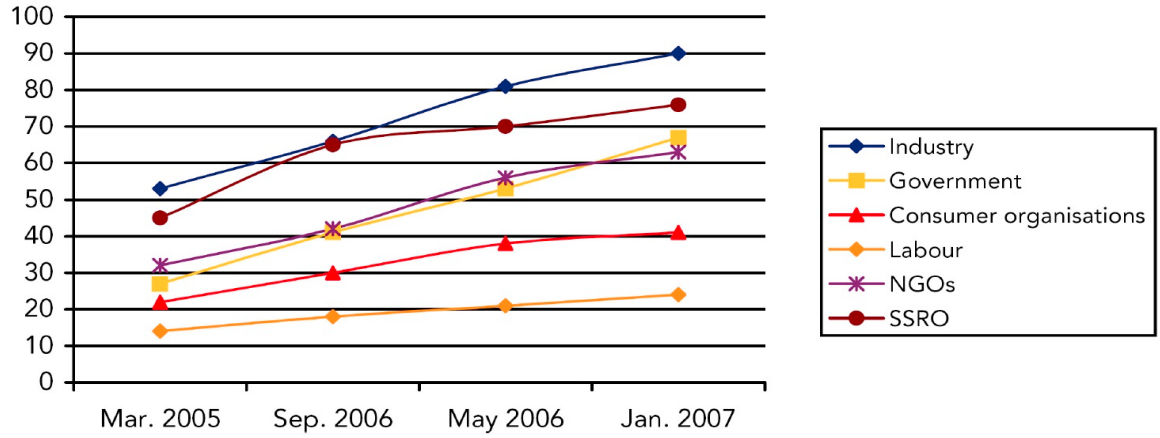

Figure 2 Stakeholder Participation in the Working Group for ISO 26000 (Slob and Oonk 2007)

Table Major Points posted toward the draft of ICRP Publ. 146

Example	Description
Unclear position of the publication	It appears that changes to reference levels have been made. If this is the case, the ICRP 103 (Recommendation of 2007), which is the premise of ICRP 109 & 111, should also be revised. The revision of Pub 109 & 111 should be postponed.
Neglection of recent scientific facts on LNT	In a recent survey of epidemiological studies, NCRP (2018) concluded, “Most of the larger, stronger studies broadly supported an LNT model. Furthermore, the preponderance of study subjects had cumulative doses <100 mGy (NCRP 2018, p.6)”. The upper limit of the reference level for the emergency situation should be lowered. Other reference levels should be reduced accordingly.
Limitations of “co-expertise”	The draft neglected malpractice by scientists who utilized non-consented individual-dose data collected in Date-city.
Ineffective Decision-Making Framework	In the draft, "Consequences for fauna and flora," "Psychological concerns," and "Health impacts of changes in lifestyle" are added. However, no specific decision-making method to incorporate these factors is described, which leads to an underestimation of the effects of radiation exposure.
Biased citations and misinterpretation of citation	The evidence for the effectiveness of co-experts is based solely on subjective and qualitative descriptions by the participants in the activities, such as Lochard (2019) and Ando (2016, 2019). Recommendations should be based on studies quantitatively assessed by third parties.
The responsibility of TEPCO and the Japanese Government is neglected	Their responsibility for the accident is neglected, and the responsibility of the company and the Japanese Government has been placed on the shoulders of residents and consumers nationwide.
The Japanese government did not take a "Systematic approach" for radiation protection.	The 20 mSv/y standard has remained in place for 12 years after the accident. This contradicts the ICRP recommendation to reduce reference levels in an existing exposure over time.