

Stakeholder engagement for promoting the Comprehensive Nuclear-Test-Ban Treaty (CTBT): Malaysia's experience

F I A Rashid^{1,a)}, M Z Zolkaffly^{1,b)}, N Jamal^{1,c)}

¹ Planning and International Relations Division, Malaysian Nuclear Agency, MOSTI, Bangi, 43000 Kajang, Malaysia

a) faisal_izwan@nm.gov.my

b) zulfakar@nm.gov.my

c) noriahj@nm.gov.my

Abstract. In order to keep abreast on issues related to CTBT in Malaysia, Malaysian Nuclear Agency (Nuklear Malaysia), as the CTBT National Authority in Malaysia, has collaborated with local partners to implement various stakeholder engagement programme. This paper aims at highlighting Malaysia's approach in promoting CTBT through stakeholder engagement programme targeted at multilevel stakeholders, both national and international. Such programmes includes participation in the international forums, inter-agency meetings, awareness seminars, training courses, technical visits to IMS station, promoting civil and scientific application of International Monitoring System (IMS) data and International Data Centre (IDC) products using Virtual Data Exploitation Center (vDEC), inviting youth groups to participate in the CTBTO Youth Group ,and publications of CTBT-related topics. This approach has successfully fortify Malaysia's commitments at the international level, enhanced national awareness of global multilateral framework, increased stakeholders awareness and their roles related to CTBT, as well as building domestic capacity on CTBT matters. In conclusion, stakeholder engagement is crucial in promoting and enhancing stakeholders understanding on CTBT. Continuous engagement with relevant stakeholders will enable effective dissemination and smooth implementation of CTBT related matters that will eventually support global universalization of CTBT.

1. Introduction

Malaysia has always been a strong advocate for disarmament and world free of nuclear weapon. This commitment is reflected through Malaysia signature, ratification and accession to a number of key international legal instruments related to non-proliferation, disarmament and peaceful uses of nuclear energy, including the Non-Proliferation Treaty (NPT), Southeast Asian Nuclear-Weapon-Free Zone Treaty (SEANWFZ) and Comprehensive Nuclear-Test-Ban-Treaty (CTBT). In the context of nuclear non-proliferation and disarmament, CTBT was recognised as one of the thirteen practical steps for the systematic and progressive efforts to implement Article VI of the NPT.

CTBT is a multilateral treaty banning all nuclear explosions – everywhere and by anyone. Presently, the CTBT has not entered into force due to pending ratifications from remaining eighth countries under the Annex 2 of the CTBT namely, China, Egypt, India, Iran, Israel, North Korea, Pakistan, and United States ^[1]. Malaysia signed the CTBT on 23 July 1998 and ratified it on 17 January 2008. Subsequently, Malaysian Nuclear Agency (Nuklear Malaysia) was entrusted by the



Government of Malaysia to act as the National Authority for the implementation of the CTBT in the country. In Malaysia, the implementation of CTBT consist two aspects; 1) policy and legal 2) technology as shown in Figure 1. The policy and legal aspect covers the formulation of policy and legal framework on CTBT. Meanwhile, the technology aspect covers the Radionuclide Monitoring Station (RN42) and CTBT National Data Centre (MY-NDC).

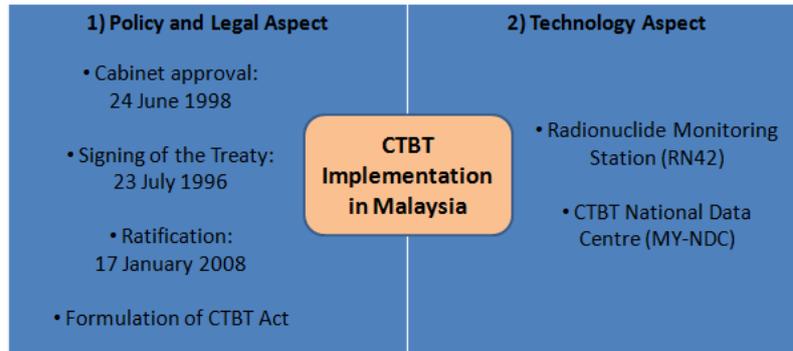


Figure 1. Two aspects of CTBT implementation in Malaysia.

As the CTBT National Authority, Nuklear Malaysia has implemented various programmes together with the engagement from relevant stakeholders in Malaysia. These programmes aimed at promoting and increasing awareness among relevant national stakeholders on CTBT. Every CTBT programmes is carefully plan and design to achieve its intended objectives and allow effective stakeholder engagement. In engaging stakeholder, there no single ‘magic bullet’ solution exists because each of them has unique purpose and is influenced by several factors ^[2]. Therefore, it requires thorough design and planning specifically tailored to the objectives sought for each programmes. On this note, the engagement with relevant stakeholders in CTBT programmes is critical in ensuring the stakeholders are able to grasp the issues surrounding CTBT as well as enabling them to communicate their feedbacks to improve the implementation of CTBT programmes in the future.

This paper aims at highlighting Malaysia’s approach in promoting CTBT through stakeholder engagement programmes targeted at multilevel stakeholders, both local and international.

2. Framework for stakeholder engagement

Figure 2 illustrates the framework for stakeholder engagement adopted for the implementation of CTBT related programmes in Malaysia. It consists of three stages namely, 1) the identification of stakeholder and when to engage; 2) implementation of stakeholder engagement programmes; and 3) stakeholder feedback. From the implementation stage and onward, the review and improvement process will take place to assess the effectiveness of the implemented programmes and to acquire feedbacks from stakeholders. The feedbacks will be used to improve the implementation of future programmes. As a result, this framework ensures the CTBT programmes are subject to continuous improvement and stakeholder oriented.

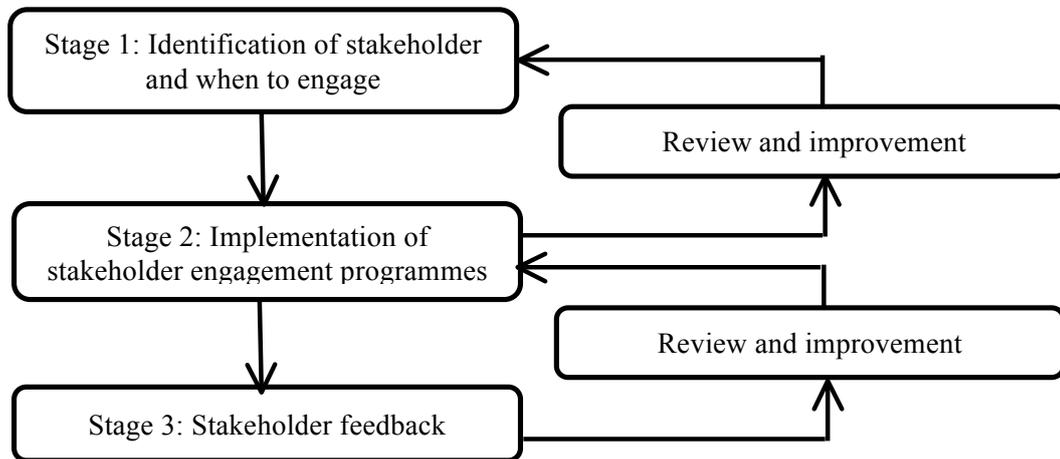


Figure 2. Framework for stakeholder engagement.

3. Stakeholder categories and level of engagement

3.1. Stakeholder Categories

In general, there are many types of stakeholder. The attributes and interests of each stakeholder vary from one another. For example, the national stakeholder's interests are mainly on legal and implementation aspects of the CTBT that shall be implemented in accordance to the national framework. Meanwhile, for international stakeholders, they are more interested on Malaysia's commitment on CTBT and the means of implementing CTBT programmes. Taking into consideration the diversity of stakeholder's interests, the CTBT programmes are carefully designed to suit the stakeholders so that it can stimulate their participation hence creating a 'buy-in' to the programme and thus to its outcomes.

In Malaysia, the stakeholders are categorised into two groups - international and national. Figure 3 shows the graphical representation of these stakeholder groups and its entities. At the international level, the stakeholders include the international organisations such as the United Nations and the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organisation, regional organisations such as ASEAN, individual country, and international community. Meanwhile, at the national level, the stakeholders are government agencies, local authorities, universities and the public including the youth groups. The communication is always a two way process between Nuklear Malaysia and the stakeholders. It allows Nuklear Malaysia to deliver the programmes and at the same time gather feedbacks from the stakeholders.



Figure 3. Stakeholders categories.

3.2. Level of Engagement

According to the International Association for Public Participation, public participation consists of five elements with increasing level of engagement as shown in Table 1^[3]. Those elements are inform, consult, involve, collaborate and empower. The further down the table, the more influence the stakeholders have on CTBT programmes. In Table 1, the stakeholders are mapped into various levels of engagement. In addition, a variety of mechanisms were employed by Nuklear Malaysia to engage with different stakeholders, depending on level of engagement. Using this hierarchy of engagement mechanisms, the stakeholders were presented with numerous avenues to engage and deliver their feedbacks and inputs.

4. Implementation of stakeholder engagement programmes

In promoting the CTBT, Nuklear Malaysia has implemented various CTBT programmes to engage relevant stakeholders, both national and international. The programmes allow two-way communications between Nuklear Malaysia and stakeholders. The programmes are made up of awareness seminars, meetings and workshops, conferences, webnews and social media, virtual data exploitation centre (VDEC), CTBTO Youth Group and publications.

4.1. Meetings, Workshops and Conferences

Meeting, workshops and conferences offer the platforms for stakeholders to communicate their inputs and feedbacks from their perspective. Nuklear Malaysia frequently conducted coordination meetings with relevant stakeholders in order to ensure their inputs were taken into consideration in the CTBT programmes. Since the implementation of CTBT covers legal and technical matters, views from stakeholders, particularly the government agencies and local authorities are pertinent to ensure that CTBT is implemented in accordance with national framework and regulations. Meanwhile, at the international level, meetings, workshops and conferences are usually organised by the international organisations to review information, define issues, brainstorm ideas and define solutions on CTBT related matters. Malaysia usually participated in the international meetings, workshops and conferences to convey its views as well as engaging with international stakeholders on CTBT matters.

The international meeting, workshops and conferences also allowed Malaysia to broaden its network on CTBT and engage in universal issue such as nuclear disarmament and non-proliferation.

Table 1. Level of stakeholder engagement.

Level of Engagement	Stakeholders Involved	Engagement Mechanisms
Inform To provide the stakeholders with balanced and objective information to assist them in understanding the issues	All international stakeholders	International conferences and workshops
	All national stakeholders	National seminars, web news and article in website and social media, publications
Consult To obtain feedback or decision stakeholders	<u>International stakeholders</u> United Nations, CTBTO Preparatory Commission	International workshops, meetings, conferences
	<u>National stakeholders</u> Government Agencies, Local Authorities	Meetings
Involve To work directly with the stakeholders to ensure their views and concerns are consistently understood and considered	<u>National stakeholders</u> Government Agencies, Local Authorities	Meetings
	Universities	Virtual Data Exploitation Centre (VDEC)
	Youth Groups	CTBTO Youth Group
Collaborate To partner with the stakeholders in implementation	<u>International stakeholders</u> CTBTO Preparatory Commission	International training courses and workshops
	<u>National stakeholders</u> Government Agencies, Local Authorities	Operation of RN42, training courses, CTBT authorised users, VDEC
Empower To equip the stakeholders with appropriate capacity and capability to enable them to play effective role	<u>National stakeholders</u> CTBT authorised users	Training courses

4.2. Awareness Seminars

Awareness seminars are the platform to disseminate information on CTBT. At the national level, Nuklear Malaysia often organised awareness seminar on CTBT. The seminars are targeted at all types

of national stakeholders. In order to build awareness and instill interest among stakeholders, the materials presented in the seminar are designed to be general and broad. The seminars also allow the audience to express their queries and views.

4.3. Training Courses

Training courses were conducted to develop stakeholder's capacity and capability in subjects related of CTBT. At the international level, training courses are organised by the international organisations, particularly the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organisation. The international training courses are mainly focusing on the operation of International Monitoring System (IMS) stations and national data centre. At the national level, Nuklear Malaysia conducted the training course for CTBT authorised users in Malaysia. The training course aimed at building the awareness on CTBT as well as developing the CTBT authorised user's capability to access and use the International Monitoring System (IMS) data and International Data Centre (IDC) products. The training course used e-learning materials developed by the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organisation. Through the training courses, the CTBT authorised users in Malaysia are able to perform their roles more effectively and keep abreast with CTBT issues.

4.4. Operation of RN42

Under the IMS network of CTBT, Malaysia hosted RN42 at Cameron Highland, Pahang. Since the beginning of its operation in November 2008, Nuklear Malaysia has formed a close collaboration with the Malaysian Meteorological Department (MMD) in operating the RN42. The activities of RN42 have engaged the MMD as an important partner on CTBT issues. In addition, MMD staffs have the opportunity to undergo technical trainings on the operation of RN42 organised at the international level.

4.5. CTBT Authorised Users

Presently, Malaysia has twenty-eight CTBT authorised users. These users were nominated by Malaysia to the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organisation to enable them to have access to IMS data and IDC products. Since IMS data and IDC products are confidential, access are only limited to these users. These users are coming from Nuklear Malaysia, Atomic Energy Licensing Board, Malaysian Meteorological Department and National Security Council. By engaging users outside Nuklear Malaysia, they are able to keep abreast with CTBT matters and develop their capability to utilise data and products of CTBT for verification of nuclear explosion as well as for civil and scientific applications.

4.6. VDEC

VDEC is a dedicated platform developed by the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organisation to provide scientists and researchers from many different disciplines around the globe with access to data to conduct research and to publish new findings^[4]. In order to help promote the application of IMS data for civil and scientific application, Nuklear Malaysia has extended the information on VDEC to several universities in Malaysia. This effort aimed to include the academic community, particularly the university in CTBT programme and to make them aware and use the IMS data for conducting scientific research. The VDEC also enable them to exchange knowledge and information at a range of forums, including the CTBTO's Science and Technology Conference series, workshops and technical meetings.

4.7 CTBTO Youth Group

Recognising the importance of youth involvement as key to advancing the Treaty's entry into force, the CTBTO Youth Group was established in 2016. The group is open to all students and young graduates who are interested in directing their careers towards global peace and security and who wish

to actively engage in promoting the CTBT and its verification regime ^[5]. Sharing the same spirit, Nuklear Malaysia extended the information on CTBTO Youth Group to youth groups at universities. The universities include the Universiti Teknologi Mara, Universiti Putra Malaysia, Universiti Malaya, This effort aimed at engaging Malaysian youth as agent for promoting CTBT in Malaysia.

4.8. Publications

Stakeholders in Malaysia are also engaged via publications on CTBT. Nuklear Malaysia has published a few publications on CTBT and is available at public domains. Through publications, it could provide information related to CTBT to the stakeholders. As the publications are available at public domain, a large crowd of stakeholders can be engaged. Despite the engagement through publications is a one way communication, it allows early engagement to broader stakeholders and may lift their interest to be more engaged on CTBT issues.

4.9. Articles in Web and Social Media

As we are living in a digital world, we could not rule out the influence of website and social media on stakeholders. In this relation, Nuklear Malaysia disseminates information on CTBT via articles in web and social media. Every CTBT programme and activity conducted by Nuklear Malaysia was posted on the website and social media. As a result, more stakeholders can be reached and it increased Nuklear Malaysia's visibility as the CTBT National Authority in Malaysia.

5. Outcome and benefits

The outcomes of engaging stakeholders in CTBT programmes are as follow:

- fortify Malaysia's commitments at the international level
- enhance national awareness of global multilateral framework including CTBT
- increase stakeholders awareness and their roles related to CTBT
- build domestic capacity on CTBT matters
- increase Nuklear Malaysia's visibility as CTBT National Authority in Malaysia

The benefits of engaging stakeholders in CTBT programmes are listed in Table 2.

Table 2. Benefits to Nuklear Malaysia and stakeholders.

Benefits to Nuklear Malaysia	Benefits to Stakeholders
<ul style="list-style-type: none"> • Improved communication between Nuklear Malaysia as CTBT National Authority and stakeholders • Greater cooperation, collaboration and mutual support with stakeholders • Accommodate stakeholder's inputs for improved CTBT programme • Ensure the programmes are implemented in collaboration and support with stakeholders • Address stakeholder's concerns and needs • Improved relationship and a wider network of support • Enhanced implementation of CTBT programme • Increased stakeholder awareness 	<ul style="list-style-type: none"> • Greater opportunities for stakeholders to contribute to CTBT programmes and related matters • Provide a platform to have their inputs heard and addressed • Opportunity to participate in decision making process • More open and transparent line of communication • Early identification of connections between stakeholder's interests and CTBT programmes • Increase stakeholders awareness and understanding

6. Conclusion

Engaging relevant stakeholder in CTBT programmes is pertinent to ensure the implemented programmes are well-suited to the targeted stakeholders and creating an environment that encourage their engagement in the programmes. Malaysia through Nuklear Malaysia as the National Authority for the implementation of the CTBT in Malaysia has implemented various programmes with engagement from relevant stakeholders. Through those programmes, it has enabled wider promotion of CTBT among stakeholders, both national and international. In addition, stakeholders are able to engage and share their inputs. It also widen Nuklear Malaysia's network of support as well as helping Nuklear Malaysia's capacity to implement and sustain the CTBT programmes. Consequently, it will not only benefit Nuklear Malaysia alone, but Malaysia as a whole.

7. References

- [1] M. B. D. Nikitin 1 September 2016 Comprehensive Nuclear-Test-Ban Treaty: Background and Current Developments Congressional Research Service RL3354
- [2] S. Yee May 2010 Stakeholder engagement and public participation in environmental flows and river health assessment A Report from the Australia-China Environment Development Partnership
- [3] International Association for Public Participation 14 February 2017 What is the spectrum of public participation? available url:
<https://sustainingcommunity.wordpress.com/2017/02/14/spectrum-of-public-participation/>
- [4] CTBTO 20 September 2017 Virtual Data Exploitation Centre (VDEC) available url:
<https://www.ctbto.org/specials/vdec/>
- [5] CTBTO 20 September 2017, "CTBTO Youth Group" available url:
<https://youthgroup.ctbto.org/youth-group-homepage/>