**Request for inputs for the thematic report of the UN Special Rapporteur (SR) in the field of cultural rights**

 **‘“The Right to Access and Take Part in Scientific Progress”**

Member States have been invited to submit inputs on the following aspects:

| **NO.** | **KEY QUESTIONS AND INPUTS SOUGHT** | **INPUTS BY LINE AGENCIES** |
| --- | --- | --- |
|  | **General definitions** |
|  | How is science defined in your country, taking into consideration the definition of science adopted at UNESCO? In this context, how is the notion of scientific diversity understood?  | Malaysia accepts the universal definition of science, which is generally a systematically organised body of knowledge on a particular subject. As per the 2017 UNESCO Recommendation on Science and Scientific Researchers, the term ‘science’ signifies the enterprise whereby humankind, acting individually or in small or large groups, makes an organized attempt, in cooperation and in competition. Scientific diversity is embraced through an open engagement model across the societal spectrum (i.e. government, academia/researchers, industry, and civil society organisation) and extensive stakeholder engagements involving multiethnic and multicultural Malaysian society. Malaysia adopts the diversity, equality, equity, and inclusivity (DEEI) model in capturing and putting forward inclusive and comprehensive inputs for policy formulation and decision-making with science, technology, and innovation (STI) as a key enabler.The National Science, Technology and Innovation Policy (NSTIP) 2021-2030 is the government’s commitment in harnessing, utilising, and advancing science and technology, with a vision of achieving a sustainable, inclusive and scientifically enriched society towards high-tech nation. The two key policy fundamentals of NSTIP 2021-2030 are science, technology and innovation as the main enabler for policy and national development, as well as collaboration involving, Government, Industry, Academia and Society that ensures scientific diversity is applied to develop and deploy the best solutions in addressing national challenges and driving socio-economic growth. Therefore, the Government’s Malaysia MADANI Policy Framework and direction also grounded on building a sustainable and prosperous Malaysia based on Sustainability, Care and Compassion, Respect, Innovation, Prosperity, and Trust, where inclusiveness and equality is embraced by the whole nation. |
|  | Is science considered as a public and/or as a common good, and what does this imply or should imply, particularly in terms of setting priorities for scientific research, access to scientific benefits, and protection of the scientific enterprise from harm and encroachments from political, religious and private interests? | Science has always been and should be a public good depending on its end use and objective. In Malaysia’s science, technology, innovation, and economy (STIE) ecosystem, one of the main drivers are the twenty-six public research institutes (PRIs) and innovation intermediaries - organisations that are established, maintained as well and financed completely or partially by the government to perform or support any of the components of Research, Development, Innovation, Commercialisation, and Economy (RDICE) value chain or as an intermediary body for RDICE which works towards meeting national interests.These entities provide leadership and direction for national research priority areas and uphold research for public good towards creating return-on-value (ROV).For instance, MOSTI has implemented the Malaysia Open Science Platform (MOSP) that aims to strengthen STI Collaborative Ecosystem for Malaysia by making Malaysia’s research data as a valuable national asset by developing a trusted platform that enables accessibility and sharing of research data aligned to national priorities and international best practices. |
|  | Does the right to benefit from scientific progress include the right to be protected against anticipated harm? How is harm anticipated and what kind of reparation is offered in case of harm? | In Malaysia, every policy study will go through multistakeholder engagement involving the quadruple helix (academia-industry-civil society). Therefore, before a policy is adopted by the government, the stakeholders have already been engaged and been informed on the risks and reparations of a certain policy. **Malaysian Code of Responsible Conduct in Research (MCRCR)**The National Science Council, through the Ministry of Science, Technology, and Innovation (MOSTI), published the Malaysian Code of Responsible Conduct in Research (MCRCR) in 2021 as a guide and a tool for the scientific community – consisting of researchers and research entities – in the STIE ecosystem. The document focuses on the need to instil a culture of research integrity and values that are important to combat research misconduct and fraud that may lead to the adoption of poor policies and legislation, which can erode public confidence in science leasing to their distrust in it.The document outlines the principles to be adopted at every stage of research such as the handling of research proposals; conducting research; research involving human participants or animals; the management of research data, resources, and teams; the training and responsibility of researchers; the responsibilities of research entities, research funders; the publication, authorship, and peer review of research; and the conflicts of interests (The Malaysian Code of Responsible Conduct In Research. ASM, 2020). |
|  | **Main obstacles to access and participation in scientific knowledge and its applications** |
|  | What are the main obstacles to ensuring the right of all persons to access scientific knowledge and its applications, within and between countries? Please provide an example. | Ensuring the right of all persons to access scientific knowledge and its applications is an important goal for promoting education, innovation, and societal development. However, several obstacles can hinder equitable access to scientific knowledge within and between regions in Malaysia. These obstacles may include:1. **Economic Disparities**: Economic disparities in Malaysia can limit access to scientific knowledge. Access to education, internet connectivity, and research resources is often less accessible to individuals in lower-income communities or rural areas.
2. **Educational Disparities**: Unequal access to quality education can impede the development of scientific skills and knowledge. Schools in less-developed regions may lack the necessary resources and qualified teachers to provide a strong science education.
3. **Language Barriers**: Malaysia is a multilingual and multicultural country, and language barriers can be a significant obstacle to accessing scientific knowledge. Academic and scientific content is often published in English, which may be a second language for many Malaysians.
4. **Digital Divide**: Unequal access to the internet and digital technologies can limit people's ability to access online scientific resources and educational materials. This divide is especially pronounced in rural areas.
5. **Lack of Infrastructure**: Insufficient infrastructure, particularly in remote areas, may hinder access to scientific facilities, libraries, and research centers. This can limit opportunities for practical experience and hands-on learning.
6. **Intellectual Property and Copyright Issues**: Intellectual property rights and copyright restrictions can limit access to scientific literature, databases, and proprietary software, making it difficult for individuals to access and use certain scientific materials.

For Example:One specific example of an obstacle to ensuring the right of all persons to access scientific knowledge in Malaysia is the digital divide. In Malaysia, there is a significant gap in internet access between urban and rural areas. Urban centers tend to have better internet infrastructure and connectivity, while rural areas may lack reliable and high-speed internet access. This divide became particularly evident during the COVID-19 pandemic, where students in rural areas faced challenges in accessing online education and scientific materials, including e-learning platforms and research resources. This digital divide can result in unequal educational opportunities and hinder individuals from rural areas in accessing scientific knowledge and its applications.Efforts to bridge this digital divide include government initiatives to expand broadband infrastructure to underserved areas, providing subsidized devices and internet access to disadvantaged communities, and promoting digital literacy programs. Nonetheless, addressing the digital divide remains an ongoing challenge in ensuring equitable access to scientific knowledge in Malaysia. |
|  | **Adoption of specific measures** |
|  | Please describe how scientific freedom is respected, protected and promoted in your country. In particular, what kind of protection from interferences and threats from political, religious or commercial entities is offered? What are the main challenges? Please provide examples. | Scientific freedom is promoted based on the Malaysia MADANI Policy and Framework. The initiatives related to research, development, commercialisation and innovation (R,D,C&I) which are related to scientific freedom is further implemented by various national level and sectoral policies such as National Science, Technology and Innovation Policy (NSTIP) 2021-2030, New Industrial Master Plan 2030, National Biotechnology Policy 2.0 and 10-10 MySTIE Framework. The various funding and financing opportunities, public-private collaboration platforms, sharing of facilities and infrastructure and protection of intellectual property rights promotes scientific freedom.On top of that, under the National Science Technology and Innovation Policy (NSTIP) 2021-2030, MOSTI actively promote scientific freedom through many government programmes and initiatives, as well as collaborating with the private sector to bolster scientific development in all areas. For example, under MOSTI National Science Week and Malaysia Techlympics are the main events that consist of many scientific activities for the visitors and participants, mainly for the youth. In addition, researchers in Malaysia can share their knowledge and expertise with industry via Researcher-Industry Scientific Exchange (RISE) initiative.However, as in any other country, there are certain areas of scientific research that may be subject to restrictions or limitations to not only people in urban but also in the rural based on religious beliefs and cultural norms such as cloning.Challenges may include:1. **Commercial Interests**: Industries with financial stakes may seek to influence research in ways that align with their business interests.
2. **Public Perception**: Public opinion and perceptions about the safety and ethics of STI applications can influence government policies and research agendas protected through patent, trademark, etc. under Intellectual Property Corporation of Malaysia (MyIPO), STI Policies, regulations and guidelines.
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|  | Please provide information on measures adopted to: * Ensure and develop scientific education for all, including adult education;
* Develop and disseminate accurate scientific information in formats available to all;
* Protect and promote science journalists in sufficient number to ensure democratic and genuine debates on scientific issues.
 | Malaysia is actively pursuing a transformative initiative to accelerate scientific progress, a critical step in achieving its 2023 goal of becoming a high-tech nation. A significant milestone in this endeavour is the introduction of the Malaysia Open Science Platform (MOSP). This platform empowers scientists and researchers to easily share their research data, following international principles that make it accessible, discoverable, interoperable, and reusable. This marks a significant milestone in Malaysia's journey towards scientific advancement.By utilising this platform, sharing research data can generate insights and solutions for a wide range of challenges, from local to global complexities. Additionally, the establishment of this platform facilitates the dissemination of scientific knowledge and enhances scientific education for all.Building trust in data sharing remains a challenge, but collaborative efforts among key stakeholders in open science can be a game-changer for fostering trust. With this the Malaysia Open Science Alliance (MOSA) was created with the following members:1. **Ministry of Science, Technology and Innovation (MOSTI);**
2. **Academy of Sciences Malaysia (ASM);**
3. **Ministry of Higher Education (MOHE);**
4. **Ministry of Natural Resources, Environment and Climate Change (NRECC);**
5. **Ministry of Health Malaysia (MOH) – National Institute of Health (NIH);**
6. **Malaysian Administrative Modernisation and Management Planning Unit (MAMPU);**
7. **Forest Research Institute Malaysia (FRIM); and**
8. **Malaysia Research University Network (MRUN)**

In terms of enculturation, initiatives such as develop hands-on approach, outside the classroom education for all, suitable for urban and rural students. For those in rural, outreach programme is implemented for fair and focus approach to respective students/community via National Science Week and Malaysia Techlympics initiatives. An outreach program to rural areas is an initiative designed to provide essential services, support, information, or resources to communities in remote or underserved regions. These programs aim to bridge the gap in access to various services and improve the overall well-being of rural populations. In conjunction with government's initiative to provide public access to various datasets and information in a standardized, machine-readable format, open data in Malaysia is initiated. This open data policy is aimed at promoting transparency, innovation, and economic growth by allowing citizens, businesses, and researchers to access and utilize government data for various purposes, such as research, analysis, and application development. Open data initiatives often cover a wide range of topics, including demographics, healthcare, transportation, environmental data, and more.Besides that, scientific publication and information dissemination such as through social media, podcast, knowledge sharing, journals and articles. For instance, e-estidotmy articles, FAScinate series, factsheets and Innovathon. |
|  | **Connecting science and policy-making** |
|  | As recommended by the Committee on Economic, Social and Cultural Rights, “States should endeavour to align their policies with the best scientific evidence available”, (General Comment 25, para. 54). How is this principle implemented, following which kind of procedure? How is this implemented in case of scientific dissensus? | In Malaysia, policy formulation involved engagement with, public and private sector, academia and the government. Therefore, all policy developments are based on scientific evidence.  |
|  | In particular, what kind of science policy interface platforms, understood as channels connecting science with policymaking, have been put in place, to ensure input of scientific information in decision-making processes? What are the challenges and the elements necessary for the efficiency of such interfaces? How is the agenda set and who participates in these institutions? | The National Science Council, as well as Ministers and State Executive Councillors Responsible for Science, Technology and Innovation (MEXCO-STI) has been established by MOSTI as interface and collaborative platform to discuss papers and announce policies related to STI. The representations in these meetings are from key ministries/agencies, private sector, industry associations, state governments and academicians/institutions of higher learning. |
|  | **Participation in science** |
|  | How is the right of every person to participate in scientific progress and in decisions concerning its direction understood and implemented? What are the challenges? How are lack of representativeness of marginalized groups and inequalities in participation addressed?  | The right of every person to participate in scientific progress and in decisions concerning its direction is a fundamental principle outlined in various international declarations and agreements. Implementing this right involves ensuring that individuals, regardless of their background or characteristics, have the opportunity to engage in scientific activities, contribute to research, and influence the direction of scientific endeavours. However, there are challenges and disparities in practice that need to be addressed to fulfil this right:1. Understanding and Implementation:

Inclusivity in Research: Encouraging diverse participation in research projects, both as researchers and study participants, is an essential aspect of implementing this right.Access to Education: Access to quality education, including science and technology education, is critical in enabling people to participate in scientific progress. Education should be accessible to individuals from all backgrounds, regardless of socioeconomic status, gender, ethnicity, or other characteristics.Public Engagement: Governments, research institutions, and the scientific community must actively engage with the public to ensure their involvement in shaping research priorities and ethical considerations.Participation is addressed through outreach programme, collaborate with local authorities, community leaders, and relevant organizations to gain their support and insights. Engaging with the community from the start is crucial.1. Resource Allocation:

Determine the budget and resources required for the program, including staff, materials, and transportation.1. Program Design:

Develop a comprehensive plan that outlines the activities, timeline, and responsibilities. Ensure that the program aligns with the identified needs and objectives.1. Services and Activities:

Outreach programs can encompass various services and activities, depending on the needs of the community.Therefore, the National Policy on Good Regulatory Practice (NPGRP) can be used to promote an effective, efficient and accountable regulatory system and a rule-making process, including if it involves scientific progress that leads to establishment of standards, regulation or legislation based on scientific data and information. Generally, every person who is impacted, would be encouraged or allowed to participate in scientific progress.In addition, regulatory instrument can also be used to ensure right of every person in scientific progress. For instance, the Access To Biological Resources and Benefit Sharing Act 2017 is a regulatory instrument aimed to regulate the use of biological resources, addresses issues of biopiracy and ensures that result benefits from the access of biological resources are shared equitably, including with indigenous communities. |
|  | How is ‘citizen science’ (ordinary people doing science) understood in your country? Is it considered important, and what measures have been put in place to support it, particularly in terms of access to information and data, and participation in decision-making? What are the challenges? Please provide an example.  | Citizen science is widely recognized and appreciated in Malaysia for several reasons:Scientific Advancement: Citizen science expands the capacity of scientific research by involving a larger and more diverse group of participants, allowing for data collection on a scale that would be otherwise unattainable.Community Engagement: It fosters community engagement and enables individuals to take an active role in addressing local and global environmental and scientific challenges which is reflected in Malaysia Social Innovation initiative.Education and Awareness: Citizen science initiatives promote science literacy and environmental awareness, empowering participants with knowledge and skills via National Science Week & Malaysia Techlympics.Policy and Decision-Making: Citizen-generated data can influence policy and decision-making processes by providing valuable information for environmental protection and resource management.Enculturation of STI encompasses the public, which includes ordinary citizens. Various initiatives such as The Outreach Program conducted by National Science Center (PSN) brings STI experience to the citizens, including in rural areas. Furthermore, specific activities such as science demonstration and experiment showcase, as well as display of interactive science exhibits is open to public. These are important at fostering public awareness, understanding and appreciation of STI. Other programs include National Science Week which is implemented through collaboration of various stakeholders such as state governments, ministries/agencies, private sector and NGOs that touches on thematic topics such as planetary health, healthcare, biodiversity an environment and emerging technologies. Supporting grassroot innovation is also an important aspect that is supported by MOSTI by providing facilitation, funding and market access opportunities that stimulates ordinary citizens to develop products that can address community challenges, provide quality of life and income generating opportunities. The public also can participate in decision-making process when policies and research on STI is being developed or implemented. Malaysian Science and Technology Information Centre provides data and information on STI and can be accessed by various stakeholders, including the public. |
|  | To what extent are indigenous sciences and alternative sciences acknowledged, supported and included in policy decision-making? How is the conversation ensured between science and other kinds of knowledge? | As of January 2022, indigenous sciences and alternative sciences in Malaysia were acknowledged to varying degrees, and efforts were made to include them in policy decision-making. However, the extent to which these knowledge systems were supported and integrated into policies and dialogues can vary, and the situation may have evolved since that time. Here's a general overview of the situation in Malaysia1. Acknowledgment and Inclusion:

Malaysia has a rich tapestry of indigenous knowledge, particularly among its indigenous peoples, including the Orang Asli and the native communities in Sabah and Sarawak. Their knowledge often encompasses traditional medicine, agriculture, and environmental management.1. Support:

Efforts have been made to document and research indigenous knowledge, traditional medicines, and alternative sciences to preserve and utilize this knowledge for various purposes, including healthcare and conservation.1. Dialogue Between Knowledge Systems:

The Malaysian government has launched various programs and initiatives to promote the exchange of knowledge between indigenous communities and the broader society. These initiatives often aim to empower indigenous communities and improve their well-being. Efforts are made to involve indigenous communities and other stakeholders in discussions related to land and resource management, environmental conservation, and sustainable development. These discussions may involve indigenous knowledge. Educational programs and awareness campaigns aim to highlight the value of indigenous knowledge and alternative sciences, promoting respect and understanding of diverse knowledge systems.1. Challenges:

Ensuring the sustainability of indigenous practices and knowledge systems, particularly in the face of modernization and environmental changes, is a challenge.Disparities in access to resources, education, and healthcare services can affect indigenous communities and their ability to preserve and utilize their knowledge.Raising awareness and appreciation of indigenous and alternative knowledge among the wider population remains a challenge.MOSTI provides funding and facilitation to support grassroot innovation such as through Malaysia Social Innovation (MySI). The initiative acknowledges and supports indigenous science or technologies that is developed and applied to address community challenges, leveraging on their traditional knowledge and expertise.Others include the National Traditional & Complementary Medicine (T&CM) Blueprint 2018-2028 that provides unique value to Malaysia by integrating T&CM into the healthcare system. With rich biodiversity and variety of traditions and culture, the utilisation of indigenous science can support and create value in the healthcare system.National Policy on Biological Diversity 2022-2030 emphasises on protecting and documenting the traditional knowledge, innovations, and practices of indigenous and local communities. It recognises the rights of these groups towards certain biological resources through customary laws and community protocols.Stakeholder engagement is imperative when devising initiatives and policies that are inclusive and integrates traditional knowledge or science. The target groups such as indigenous and local communities are part of the focus group and their rights are protected through policies and legislations. |
|  | What are the limits to the right of every person to take part in scientific progress and in decisions concerning its direction and for which purposes? Please provide examples if any. | The right to participate in scientific progress and decision-making has its limitations to prevent conflicts with other societal values. These boundaries include ethical boundaries, intellectual property rights and public interests.Ethical boundaries are a cornerstone of scientific research, ensuring that studies and experiments align with established ethical principles. This safeguard prevents research from violating human rights, causing unnecessary harm, or breaching ethical guidelines. Researchers must secure informed consent from individuals participating in their projects, protecting their autonomy and rights.Intellectual property rights, encompassing patents, copyrights, and trademarks, offer ownership and exclusive rights to innovators and organizations for their creations. While these rights incentivize innovation by safeguarding intellectual work, they can simultaneously restrict access to scientific knowledge and advancements. This exclusivity can pose challenges for others looking to build upon or utilize these innovations without the owner's consent, potentially hindering collaborative and open scientific progress.The public interest acts as a fundamental constraint on scientific progress, particularly when safety and ethical considerations are paramount. Research projects that entail substantial risks or are at odds with public interests often face restrictions. It's worth noting that the definition of "public interest" can vary across societies and contexts. For instance, stringent regulations are imposed to safeguard the public in experiments involving dangerous pathogens or potentially harmful technologies. These measures are enacted to protect the broader community's welfare.In 2021, Malaysia introduced the National Policy on Good Regulatory Practice (NPGRP) applies to all regulatory activities affecting economic, social, and the environment. Ministries are required to provide an accountable regulatory system and a rule-making process that supports efforts to realise the Nation’s economic development goals.Extensive stakeholder engagement through workshops, Focus Group Discussions (FGDs), and Townhall sessions forms a strong foundation for inclusive participation in the policy-making process. Malaysia's adoption of a participatory model in policy formulation empowers the public to actively provide their valuable insights and feedback. This approach not only enhances the development of impactful and informed policies but also promotes thorough decision-making. It also leads to integrating STIE considerations into the policy landscape, thus furthering the nation's goals of progress and development. |

**Prepared by**

**The Government of Malaysia**