

Public Education and Outreach for Supporting Nuclear Program in Indonesia

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- The applications of nuclear science and technology has helped Indonesian government in strengthening food security, increasing health quality, providing modern solutions for industrial applications and providing alternative clean energy sources.
- Although nuclear science and technology offers benefits to address public needs and national challenges in various fields, it still faces great challenge in terms of public acceptance especially for electricity generation application.
- Public perception is very important in nuclear program in any country. Public perception is affected much by political condition as well as media.

Introduction (2)

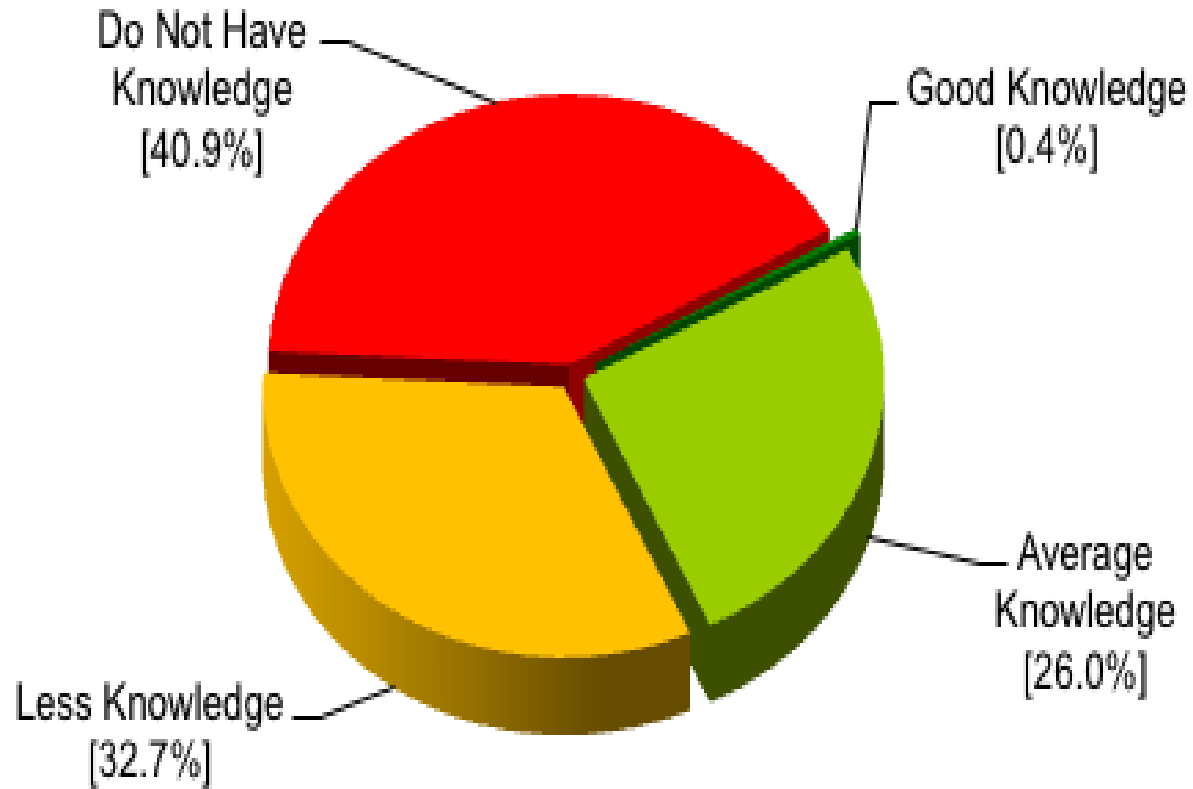


- Misperceptions persist about nuclear: fear of radiation, it's security risk, it's not tightly controlled, waste is not well-managed, and mining is not well regulated as well
- Public education and outreach are implemented to:
 - Educate and inform the public,
 - Gather important feedback, and
 - Support government program.

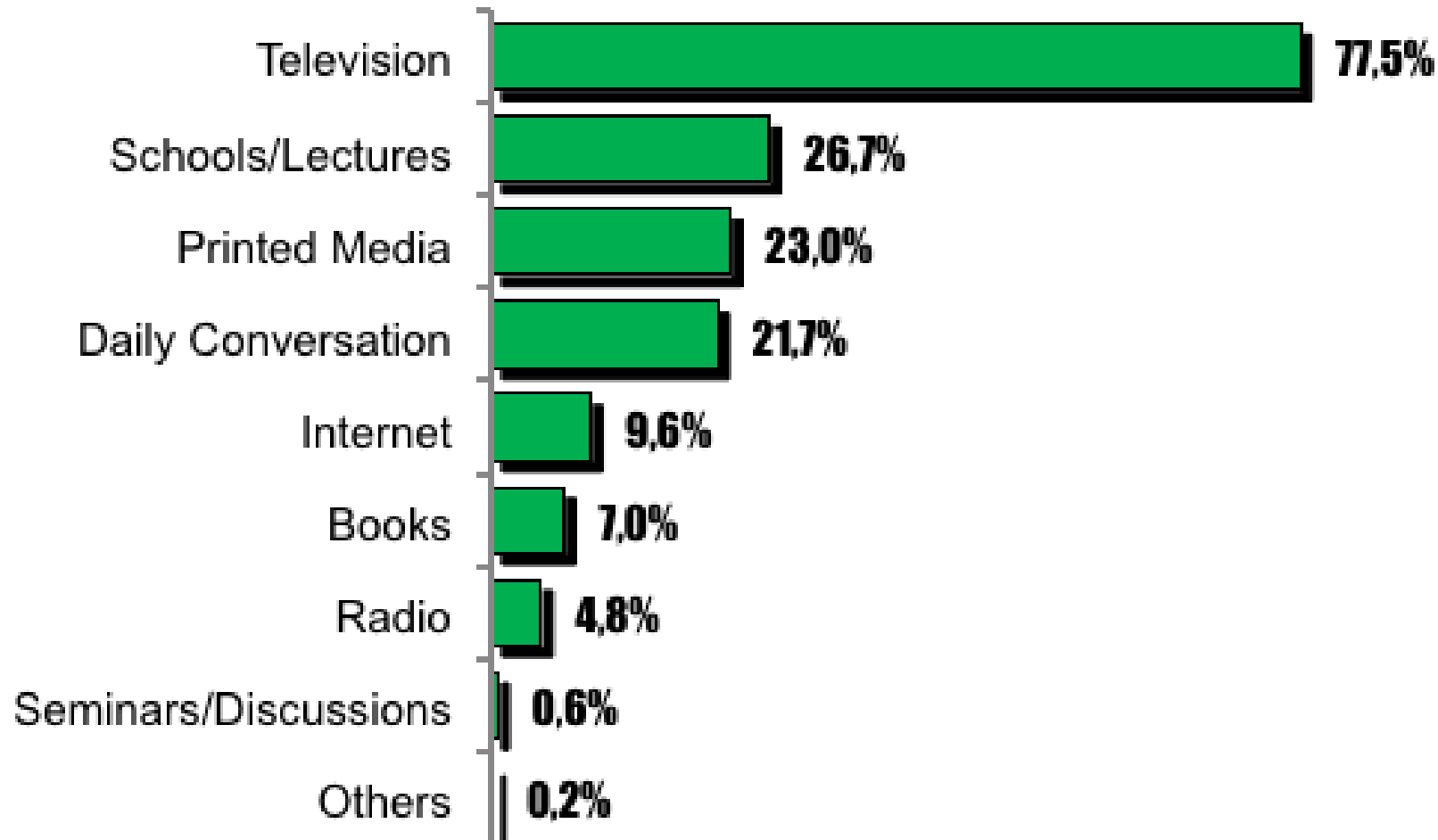
1. Public Knowledge on Nuclear Energy in Indonesia



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Sources of Information on Nuclear Energy



The Importance of Public Education on Nuclear Energy



- Providing transparent and balanced information on nuclear energy
- Helping public to learn nuclear science and technology
- Generate interest in young students to pursue nuclear science and technology
- Supporting a better educated and more broadly informed society.

2. Government Program on Public Education and Outreach



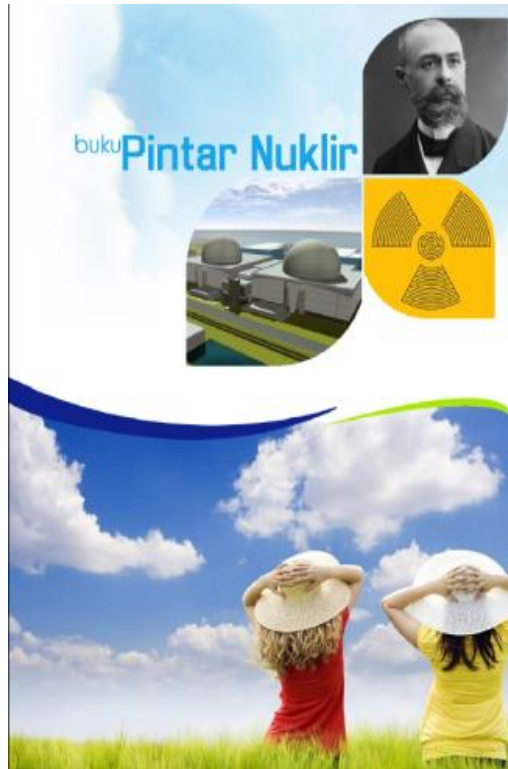
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2.1 Strengthening Nuclear Education at Secondary Level Curriculum



- Joint program of BATAN and the Ministry of Education and Cultural Affairs (MoEC)
- Jointly reviewed science subjects in national education curriculum and produced new recommendations to MoEC in establishing an interactive methods of delivering topics of nuclear science and technology in Physics, Chemistry and Biology.
- The recommendations was further incorporated in revision of the national education curriculum for secondary level, which was published as 2013 national education curriculum and now has been implemented at all secondary level schools.
- Ministry of Education and Cultural Affairs (MoEC) also set up training for trainer program for teachers in this specific topics.

2.2. Provision of Teaching Modules and References



Nuclear Smart Book provided by MoEC and BATAN



Nuclear Interactive CD provided by MoEC

2.3. Scholarship Program for University Degree



- Since 2011 BATAN in cooperation with local governments establish scholarship program for university degree majoring in nuclear related studies.
- The program has successfully engaging 137 students from several provinces joining higher studies at 7 major universities in Indonesia.
- Until today 85 scholars have already graduated from bachelor degree, most of them are working at nuclear related companies and governmental agencies and some also receive scholarship for Master Degree at national and foreign universities.



2.4. Schools Engagement Activities

Nuclear Goes to School

Edufun, Presentation & motivation, simple **practices**, sharing & discussion, games, and role play “who want’s to be a nuclear scientist”



Nuclear Science Day

Information designed in fun and interactive concept and located in public facilities (Science Park, School)



Science Competition

Competition **on** nuclear science **topics** and mini project.



Nuclear Visit

Nuclear facilities visit and tour for public.

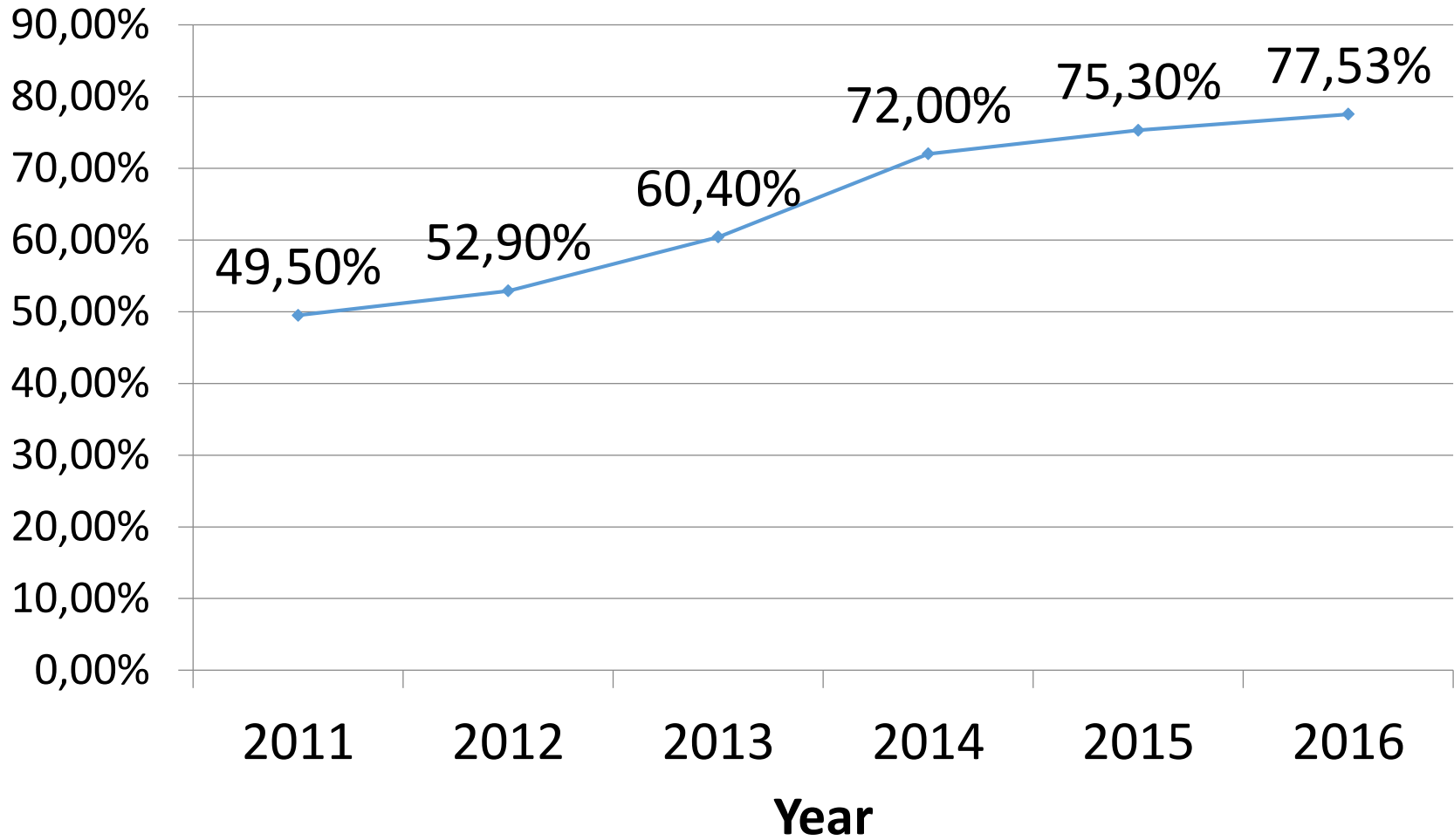


2.5. Cooperation with NGO



- cooperation with National Nuclear Youth Community (KOMMUN) or Indonesia Young Generation Network (YGN).
- KOMMUN which is affiliated to International Nuclear Youth Congress (IYNC) was initially formed by BATAN scholarship program participants.
- KOMMUN supports government program in educating the public through activities: Smart Intensive Class, Nuclear Talks and Nuclear Festival, others.
- Today KOMMUN has more than 600 members covering young professionals, university students and students from 12 regions of Indonesia.

3. Public Opinion Survey



Additional Information

Activities of public information



Seminar, Talkshow

Disseminating R&D products, recent and update status of nuclear in Indonesia with discussion and general sharing



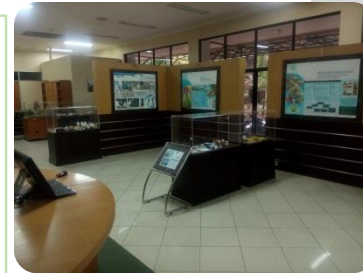
Focus Group Discussion

Meeting with stakeholders and shareholders about nuclear prospect in future, also intense sharing about status of NPP



Products Exhibition

Introducing R&D products that has been proved and useful for public or communities. i.e : Food, Medicine, Agriculture and others proven products



Activities of public information



Training of Trainer

Workshop for training local figure as a “nuclear communicator” to deliver nuclear information for local societies.



Website

Provide nuclear up to date information and news for world wide public.
www.batan.go.id, www.infonuklir.com



Print Media

Information about nuclear also spread by using print media, i.e : flyers, magazines, etc

Tidak mudah untuk menghindari radiasi karena radiasi adalah bagian dari kehidupan kita sehari-hari. Karena radiasi tingkat rendah tidak berbahaya bagi kesehatan, tidak diperlukan perlindungan khusus. Namun, yang penting untuk diingat adalah bagaimana melindungi diri kita ketika kita berada dalam kondisi yang memungkinkannya kita terkena radiasi tingkat tinggi.

Tidak kita bisa menghindari radiasi dengan teknologi yang canggih. Tapi radiasi yang memancarkan radiasi dapat berbahaya apabila kita berada di dekatnya atau dalam waktu yang lama. Untuk itu, perlunya kita melakukan tindakan pencegahan atau melindungi diri.

Salah satu cara sederhana untuk melindungi diri dari radiasi adalah dengan menggunakan pakaian dan peralatan yang melindungi kita dari radiasi. Kita dapat melakukan tindakan pencegahan dengan menggunakan pakaian dan peralatan yang melindungi kita dari radiasi.

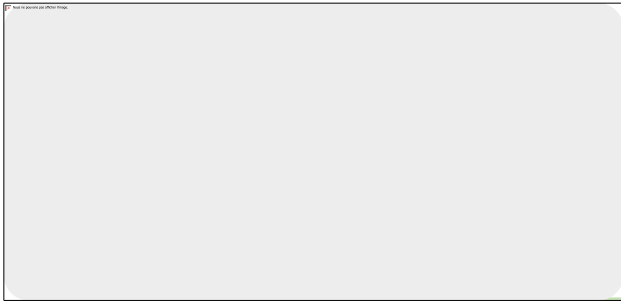
Bagi mereka yang memang bekerja di lingkungan radiasi, seperti seorang radioaktif atau pekerja di pembangkit listrik tenaga nuklir atau penelitian di bidang nuklir, sangat penting untuk selalu mengikuti dan mematuhi semua peraturan dan prosedur yang ditetapkan oleh otoritas yang bertanggung jawab untuk memastikan keselamatan mereka. Dalam kasus yang darurat terjadi, seperti kecelakaan nuklir, sangat penting untuk mengikuti semua prosedur yang ditetapkan oleh otoritas yang bertanggung jawab untuk memastikan keselamatan mereka.

■ menjaga jarak dari sumber radiasi
■ meminimalkan waktu paparan radiasi
■ menghalangi radiasi

Media campaign

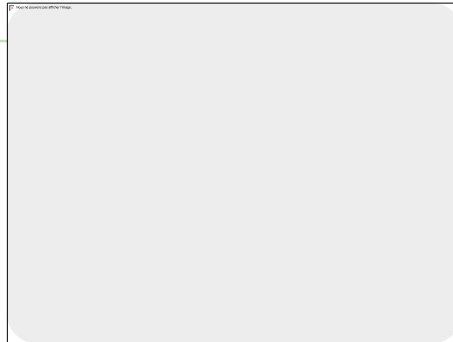
TV Commercial

Produce and placement tv commercial about nuclear energy, environment and technology achievement.



Variety Show on TV

Blocking time on TV show, i.e : talkshow or advetorial about nuclear safety issues, energy prospect, human resource and others.



Media campaign



Public Service Advertisement on Radio

Produce and placement commercial break and *bumper* with nuclear theme and news.

Radio Talkshow

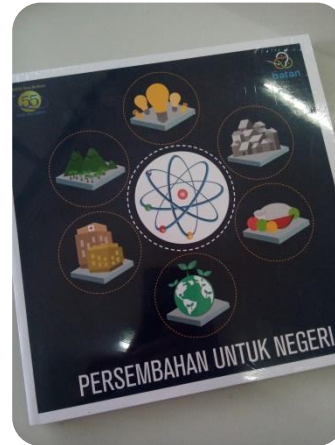
Talkshow and interactive discussion about Nuclear Safety Issues, Socialization Activities, Young Communities, Education, and Human Resourch.



Publication



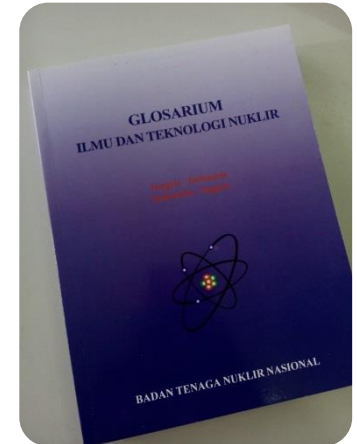
Thematical Flyer & Pamphlet



Book & Profile



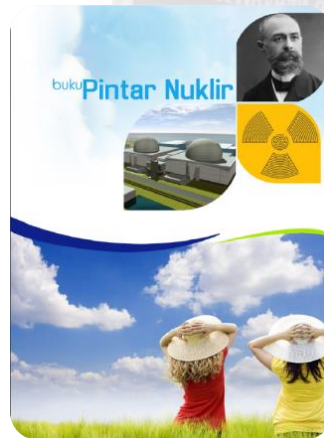
T-Shirt



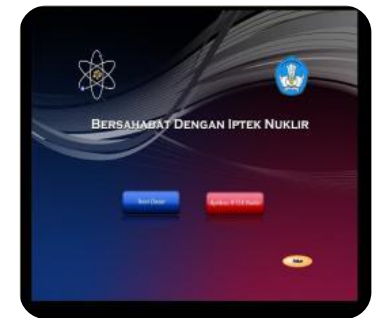
Glosarium



Sticker



Supplementary Material



CD & e-learning

Publication in mass transportation



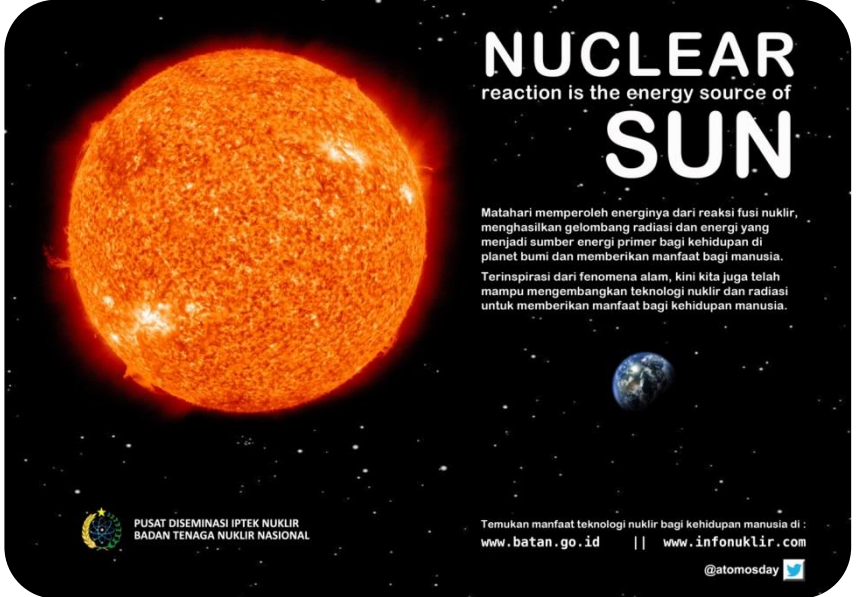
55 tahun kami mengabdikan dan akan terus mengabdikan

26 profesor riset 1072 ahli nuklir dan 3003 pegawai berdedikasi bekerja di 3 reaktor dan 5 kawasan riset mengembangkan teknologi nuklir untuk kemajuan bangsa. Dan kami terus mengharapkan dukungan 250 juta rakyat Indonesia untuk terus mengabdikan, mempersembahkan karya terbaik untuk negeri.

Energi Nuklir Untuk Kemajuan Bangsa
www.batan.go.id

Human resource & Nuclear Safety

Nuclear in Our life



- Use of IAEA e-learning system for national trainings
- Use of IAEA modules for national trainings
- Supports for IRL development & operation

E&T

- Use of IAEA resources
- support for capacity building to knowledge creation
- ToT for critical knowledges

NKM

- Capacity building on public information

Outreach

- The implementation of public education and outreach program showed successful achievements in increasing public understanding and knowledge on nuclear science and technology.
- This achievements are aligned with government program in increasing public acceptance on nuclear energy.
- The latest public opinion polling survey conducted in 2016 showed 77.5% of Indonesian public expressed their support on national energy program.
- Sustainable education and outreach program is needed to ensure the number of acceptance remains high and will support the establishment of nuclear energy program at Indonesia.

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