

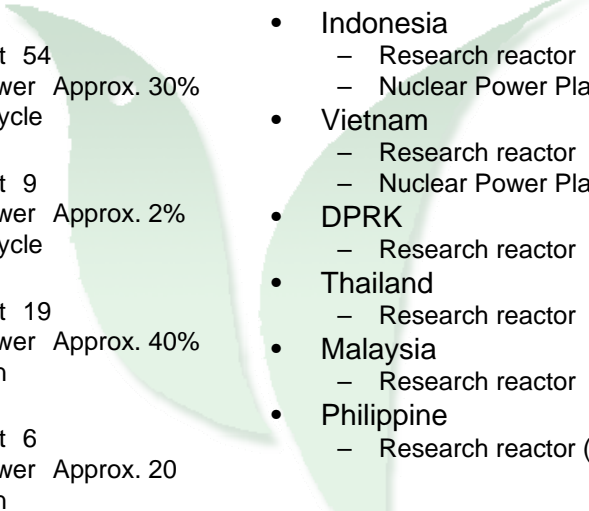


# Transparency of Nuclear Activity in Asia

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## Nuclear Energy in Asia

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- Japan
    - Nuclear Power Plant 54
    - Share of Nuclear Power Approx. 30%
    - Reprocess and Recycle
  - China
    - Nuclear Power Plant 9
    - Share of Nuclear Power Approx. 2%
    - Reprocess and Recycle
  - South Korea
    - Nuclear Power Plant 19
    - Share of Nuclear Power Approx. 40%
    - Under Consideration
  - Taiwan
    - Nuclear Power Plant 6
    - Share of Nuclear Power Approx. 20
    - Under Consideration
  - Indonesia
    - Research reactor
    - Nuclear Power Plant after 2016
  - Vietnam
    - Research reactor
    - Nuclear Power Plant after 2017
  - DPRK
    - Research reactor
  - Thailand
    - Research reactor
  - Malaysia
    - Research reactor
  - Philippine
    - Research reactor ( not in operation)

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# Chronology of DPRK

- 1985 Dec. Affiliation to NPT
- 1992 Jan. Joint Declaration of the Denuclearization
- Jan. IAEA Safeguard Agreement
- May Initial Declaration
- 1993 Feb. Request of Special Inspection
- Mar. Declaration of NPT withdrawal
- Apr. Remit to UNSC
- 1994 May Removal of Spent Nuclear Fuel
- Oct. Agreed Framework with US
- 1995 Mar. KEDO
- 2002 Oct. Uranium Enrichment Program
- 2003 Jan. Declaration of NPT withdrawal
- Oct. Completion of reprocessing 8000 Spent Fuels
- 2005 Feb. Declaration of Possession of Nuclear Weapon
- Nov. Agreed Disorganization of KEDO

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## Nuclear Non-proliferation in Regional Cooperation

- Association of Southeast Asian Nations (ASEAN, ASEAN+3)
  - Membership:10
    - Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Laos, Myanmar, Cambodia
  - Subject
    - Denuclearization of Korean Peninsula
    - Treaty on the Southeast Asia Nuclear Weapon-Free Zone (SEANWFZ)
- ASEAN Regional Forum (ARF)
  - Membership: 23+EU
    - 10 ASEAN countries, US, Canada, Australia, New Zealand, Korea, China, Russia, Papua New Guinea, India, Mongolia, Pakistan, DPRK, Japan, EU
  - Subject
    - Denuclearization of Korean Peninsula
    - Statement on nonproliferation of WMD

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# Cooperation in Nuclear Energy

- Forum for Nuclear Cooperation in Asia (FNCA)
  - Membership : 9
    - Australia, China, Korea, Indonesia, Malaysia, Philippine, Thailand, Vietnam, Japan,
  - Subject
    - Use of Research reactor
    - Application of radiation etc.
- Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA)
  - Membership : 17
    - India, Indonesia, Thailand, Vietnam, Philippine, Singapore, Bangladeshi, Korea, Pakistan, Malaysia, Sri Lanka, Australia, China, Mongolia, Myanmar, New Zealand, Japan,
  - Subject
    - Use of Research reactor
    - Application of radiation etc.

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# Cooperation in Nuclear Non-Proliferation

- Asian Senior-level Talks on Non-Proliferation (ASTOP)
  - Membership: 14
    - 10 ASEAN countries, US, Australia, Korea, China, Japan
  - Subject
    - Denuclearization of Korean Peninsula
    - PSI
    - Export Control etc.

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# Cooperation in Nuclear Non-Proliferation

- Council for Security Cooperation in the Asia Pacific (CSCAP)
  - Second track forum
  - Membership :
    - Australia, Brunei Darussalam, Cambodia, Canada, China, EU, India, Indonesia, Japan, DPRK, South Korea, Malaysia, Mongolia, New Zealand, Papa New Guinea, Philippines, Russia, Singapore, Thailand, USA, Vietnam
  - Confidence and Security Building Measures in the Asia Pacific
    - Building Confidence through Nuclear Transparency
    - Nuclear Transparency in the Asia Pacific

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# Cooperation in Nuclear Non-Proliferation

- East Asia Project on Nuclear Nonproliferation and the Civilian Nuclear Fuel Cycle
  - US Sandia National Lab. and Korean Nuclear Society
  - Korea, US, Japan, China, Indonesia, Vietnam
  - Subject
    - Analysis of Demand for Nuclear Fuel Cycle Services in East Asia
    - Analysis of the Current Nonproliferation Regime Governing Civilian Nuclear Energy etc.

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# Nuclear Energy and Cooperation in the region

- Nuclear Energy
  - Current
    - Only three countries and a region use Nuclear Power Generation
    - Backgrounds of Nuclear energy in each country are so different
  - Future
    - Expansion of Nuclear Power Generation is expected
    - Treatment or disposal of nuclear waste will be carried out
- International Cooperation
  - Radiation applications is main regional cooperation
  - Policy talks on Nuclear Nonproliferation is carrying out

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## Confidence on Nuclear Nonproliferation

- Manifesto for Peaceful Use of nuclear energy
- Obvious Need for nuclear energy program
- Transparency of nuclear energy program
- Excellent Record of Compliance with non-proliferation norms
- Proactive Contributions to Non-proliferation
- Transparency of Nuclear Activity

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# Activity in relation to Nuclear Proliferation

- Nuclear Power Generation and Fuel Cycle
- Research Reactor Utilization
- R&D on Nuclear Fuel Cycle
- Nuclear Material, Equipments and Technology Export

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# Measures for Transparency

- Cooperation, Exchange of information and Talks
- Information Discloser
- Regional Agreement or Regional Inspection

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# Transparency by International Cooperation

- Experience of JAEA
  - USDOE-JAEA Cooperation on Safeguards Technology (1988)
  - US, France, IAEA and Japan Cooperation on Safeguards Technology (1977)

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# Transparency by Information Discloser

- CSCAP Nuclear Transparency program is an example
- What Information and How disclose

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# Transparency by Regional Agreement

- Current System
  - EURATOM Safeguards
  - ABBAC Safeguards
- Past Study
  - ASIATOM
  - PACATOM

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## Future Study

- Viewpoint
  - Feasible Measure
  - Support political talk on nuclear non-proliferation
  - Support or assist introduction of Nuclear Power Generation
  - Consider International movement on nuclear non-proliferation and peaceful use of nuclear energy

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## New Policy or Initiative on Peaceful Use of Nuclear Energy

- US nuclear nonproliferation and energy policy
- Multilateral Nuclear Approaches
- US-India Nuclear Cooperation