

สำนักงานคณะกรรมการ
การอุดมศึกษา วิทยาศาสตร์
วิจัย และนวัตกรรม

อปร

Office of Atoms for Peace

Regional Workshop on the Development of a Nuclear Safety Knowledge Management Programme for the Regulatory Body

12-15 July 2022

a virtual IAEA event

Country Presentation : Thailand

By

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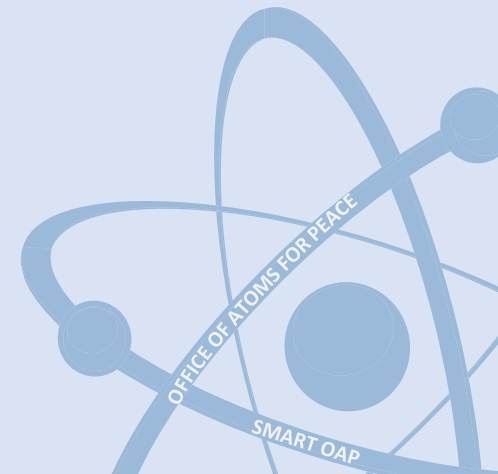
Ministry of Higher Education, Science, Research and





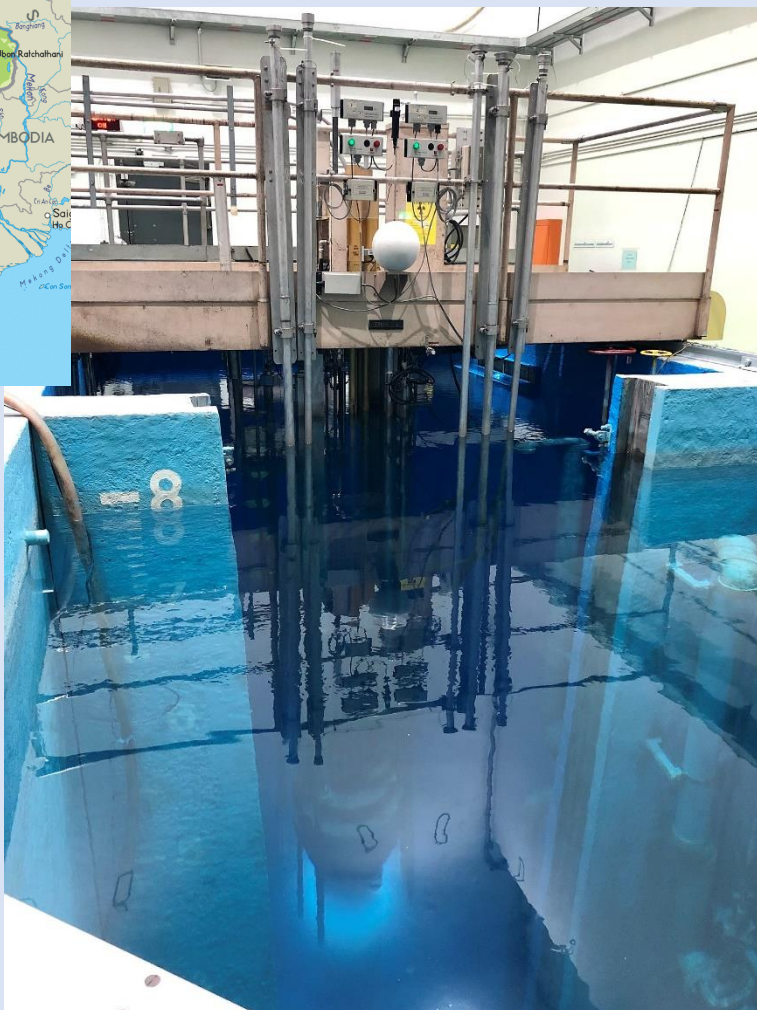
Outline

- Country overview
- Knowledge Management in Thailand
- Key Stakeholders & Responsibilities
- Initiating of NKM in RB in Thailand
- NKM Enhancement
- Ways of fostering a KM culture in OAP
- Nuclear Safety Knowledge Networks
- Challenges
- Conclusion





Country Overview



0 Nuclear Power Plant

1 Nuclear Research Reactor

- Thai Research Reactor -1/Modification 1 (TRR-1/M1)
- TRIGA Mark-III
- 2 MW
- R&D

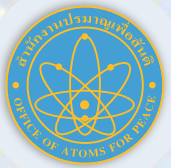
Upcoming Projects :

- **Miniature Neutron Source Reactor (MNSR) -**
Boron Neutron Capture Therapy (BNCT)
Research Facility, Suranaree University of
Technology

New Research Reactor

- Thailand Institute of Nuclear Technology (TINT)





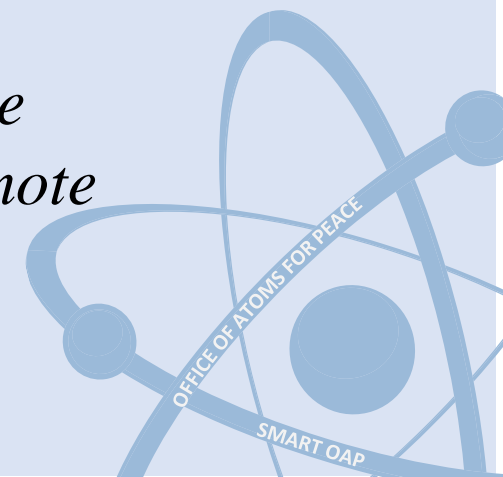
Knowledge Management in Thailand



Knowledge Management

First addressed in the Thai public sector formally in part III
“Result-Based Management”
section 11 of the Royal Decree on Criteria and Procedures
for Good Governance, B.E. 2546 (2003)

“The government agency, for result-based management under this Royal Decree, shall make itself to be global learning organization. For this purpose, the government agency shall acknowledge and analyse information in all aspects and shall then apply analytical result to its administration for correct, quick, and suitable service. The Government agency shall also promote and develop capability, vision, attitude and co-learning of its official”





Key Stakeholders

Office of Atoms for Peace (OAP) -- Regulatory Authority

Thailand Institute of Nuclear Technology (TINT) – Operator

- **Ministry of Higher Education, Science, Research and Innovation**
- **Ministry of Defence**
- **Ministry of Interior**
- **Ministry of Public Health**

- **Department of Disaster Prevention and Mitigation**
- **Department of Labour Protection and Welfare**
- **Office of National Security Council.**
- **National Intelligence Agency**
- **Budget Bureau**
- **Thai Customs**
- **Etc.**





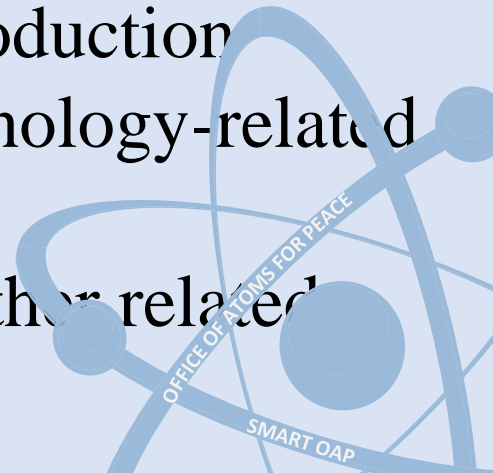
Key Stakeholders and Responsibilities

Thailand Institute of Nuclear Technology :TINT

Responsible for implementing research and development, providing services, and transferring knowledge on the utilization of nuclear technology in the areas of agriculture, industry, medicine as well as environment.

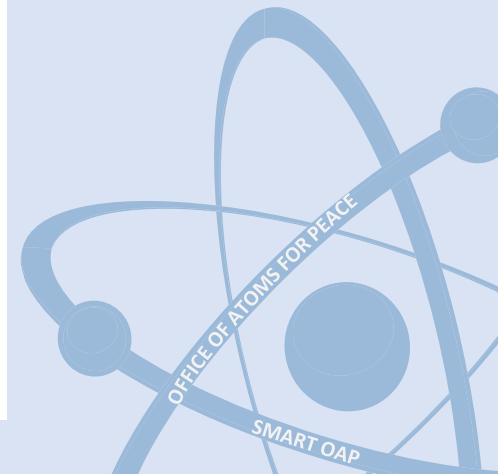
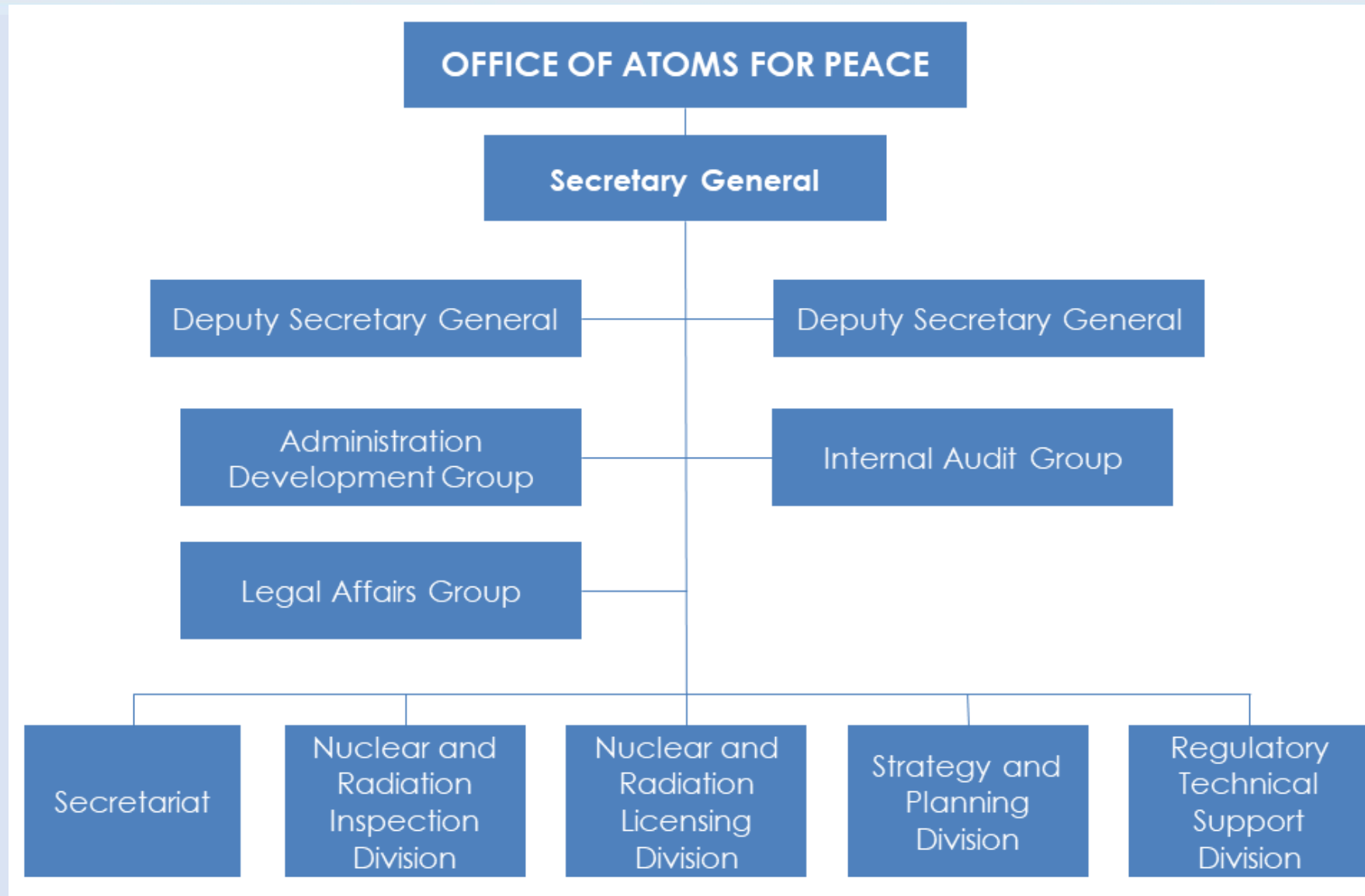
Main missions are listed as follows.

- Conducting research on nuclear science and technology and its applications
- Providing services on nuclear technology and on radioisotope production
- Providing technical services to promote nuclear science and technology-related knowledge transfer
- Implementing research on the utilization of nuclear energy and other related areas





Key Stakeholders and Responsibilities (Con't)





Key Stakeholders and Responsibilities (Con't)

Office of Atoms for Peace : OAP

Vision To Be One Of Excellent Nuclear Regulatory Bodies In ASEAN

Mission

- To formulate legislation, policies and strategic plans of atomic energy, as well as to coordinate the plans and hence move towards realistic practice.
- To regulate and control the peaceful use of nuclear energy and radiation in compliance with the international standards.
- To conduct the development and research on nuclear and radiation safety
- To coordinate and carry out cooperative activities in compliance with commitments to international organizations and foreign institutes
- To disseminate, create and promote public participation and awareness of the nuclear science and nuclear technology, as well as nuclear peaceful use and nuclear safety.



Initiating of NKM in RB in Thailand

In 2006, the Office of Atoms for Peace (OAP), a national regulatory body, has been initiating a knowledge management project that called

“Nuclear Science and Technology Knowledge-Base Development”.

The project was an activity plan during 2006–2016 which aim to promote and disseminate about nuclear knowledge such as nuclear application, safety, regulation, inspection, EPR to people all around Thailand such as

- Schoolchildren
- Teacher
- Local people
- Community leaders
- Media
- Entrepreneurs



through various form of activities such as nuclear exhibitions, nuclear youth camp, nuclear knowledge caravan, local seminar, nuclear knowledge corners





Self introduction

Knowledge
sharing

Learn directly
from scientists

Technical visit





NKM Enhancement

2012 - 2013

Improve the knowledge management project by established a knowledge management committee in order to develop an internal knowledge management plan and system.

The committee has been improved and updated the functional details and responsibilities and appointed in attempt to manage internal knowledge both tacit and explicit knowledge, systematically.

2016

2017

KM project specifies its maintaining knowledge goals, particularly of retiring experts and transferring this knowledge to the next generation

Several meetings were conducted and the committee identified by using 7 steps of OAP knowledge management process



**1. Knowledge
Identification**

**2. Knowledge
Creation &
Acquisition**

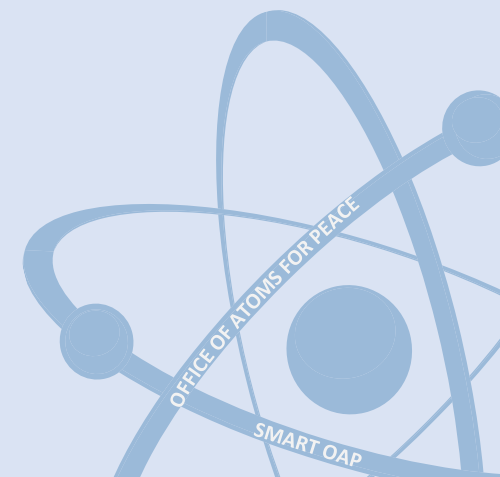
**3. Knowledge
Organization**

**4. Knowledge
Refinement**

**5. Knowledge
Access**

**6. Knowledge
Sharing**

7. Learning





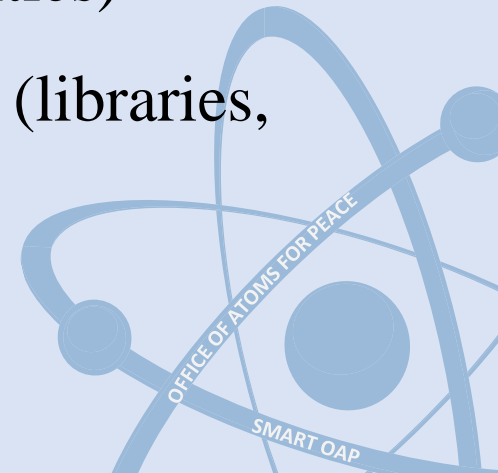
Ways of fostering a KM culture in OAP

at the national level

- + Royal Decree on Criteria and Procedures for Good Governance, B.E. 2546 (2003)

at the corporate level

- + Pushing forward OAP's personnel to be aware of the important of knowledge creation, transferring, collection and implementation (including the participation of executives both in terms of delivering policies and participating in activities)
- + Create channels to be easy to collect access and transfer of knowledge (libraries, museums, exhibitions, information database)





Nuclear Safety Knowledge Networks

Networks

- + INIS / IAEA / IAEA library / ASEANTOM / ANSN / TINT / APEC
- + Network of Science Information Coordination Centers (different university libraries)

Network's stakeholders

- + IAEA's member state
- + ASEAN countries
- + Countries in each regional such as ASIA , ASEAN, Asia-Pacific regional

Benefits of the network

meetings, building knowledge, creating policies, framing cooperation, being a source of knowledge base

What/who is missing from the information exchange :

- + Irrelevant operators
- + public relations activities / interest in information / access to information (difficult, complex) / skills and knowledge in accessing information / change of line of work - organizational structure - new recruiting in the agency.



Challenges

- Plan and strategy development and implementation.
- Correlation and consistency of KM strategic plan of the OAP to other national policy and strategy.
- How to implement and apply the knowledge with the works or assignments effectively.
- Expanding the scope of operations to other stakeholders other than the OAP.
- Knowledge and technology sharing methods.
- Knowledge assets that can be applied to the development of the organization (database).





Conclusions

- Thailand have only one nuclear research reactor and several kind radioactive activities and facilities.
- Aware of the important of nuclear and radiation knowledge management.
- Developing knowledge management plan and strategy.
- Participate in several nuclear safety and security network including learn and apply some methods and tools to the KM program in the country.
- There are several challenges that need to be fulfilled and implemented along with the 7 methods.

