

Country Presentation



Division of Atomic Energy
Ministry of Education, Myanmar

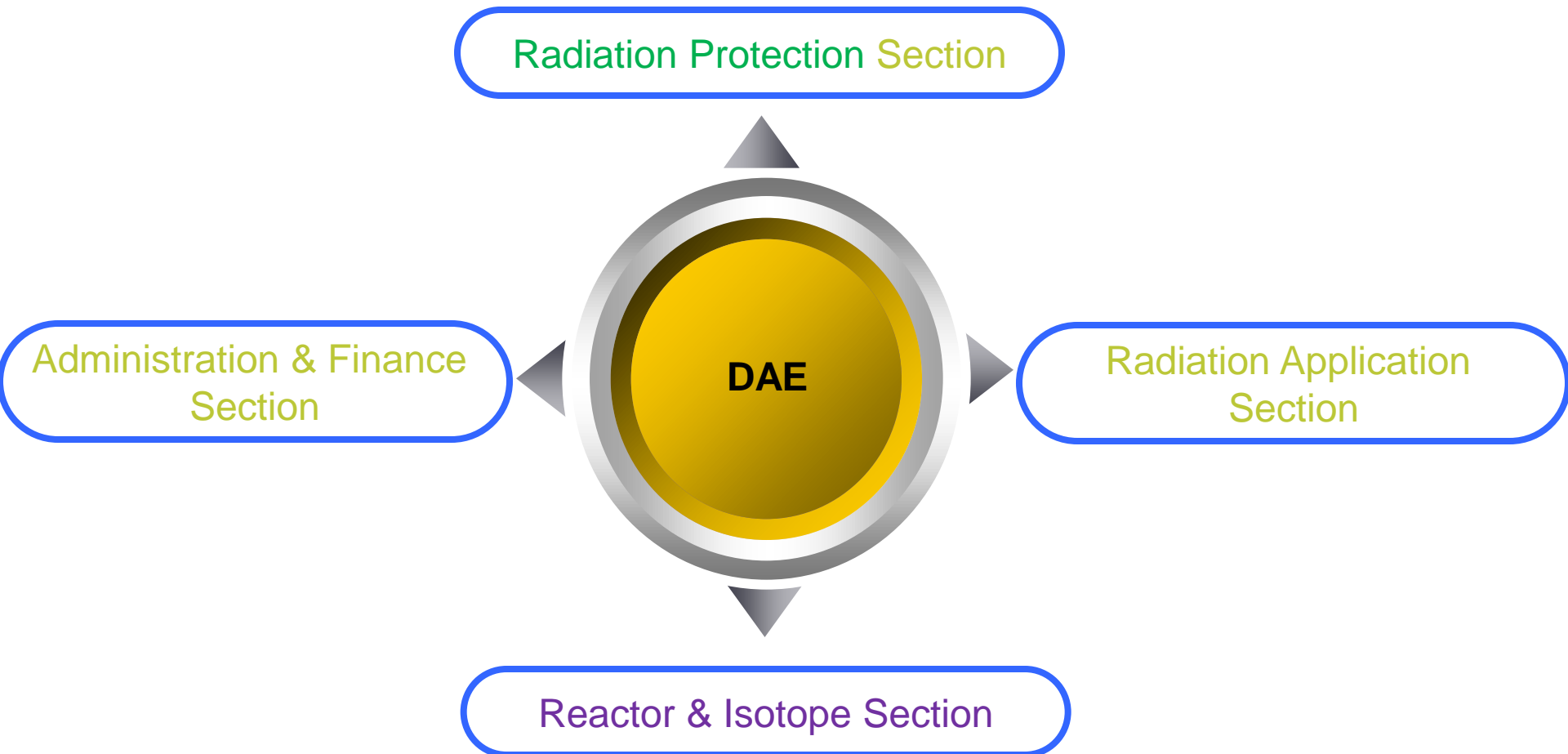
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1. Introduction

- ▶ Myanmar joined to ASEAN Association on 23 July 1997.
- ▶ Myanmar always participates in the Training, Workshop and Meeting of ASEAN + 3 Human Resources Development (HRD) Programme on Civilian Nuclear Energy (CNE) working-level and senior policy maker courses.
- ▶ Department of Atomic Energy (DAE) was established under Ministry of Science and Technology (MOST) in 1997 to carry out research, development and training in the field of atomic energy and to ensure the safety of radiation sources and protection from nuclear radiation hazards.
- ▶ In 2016, Ministry of Science and Technology (MOST) and Ministry of Education (MOE) was combined in one as Ministry of Education (MOE).

Organization Chart of the Division of Atomic Energy (DAE)



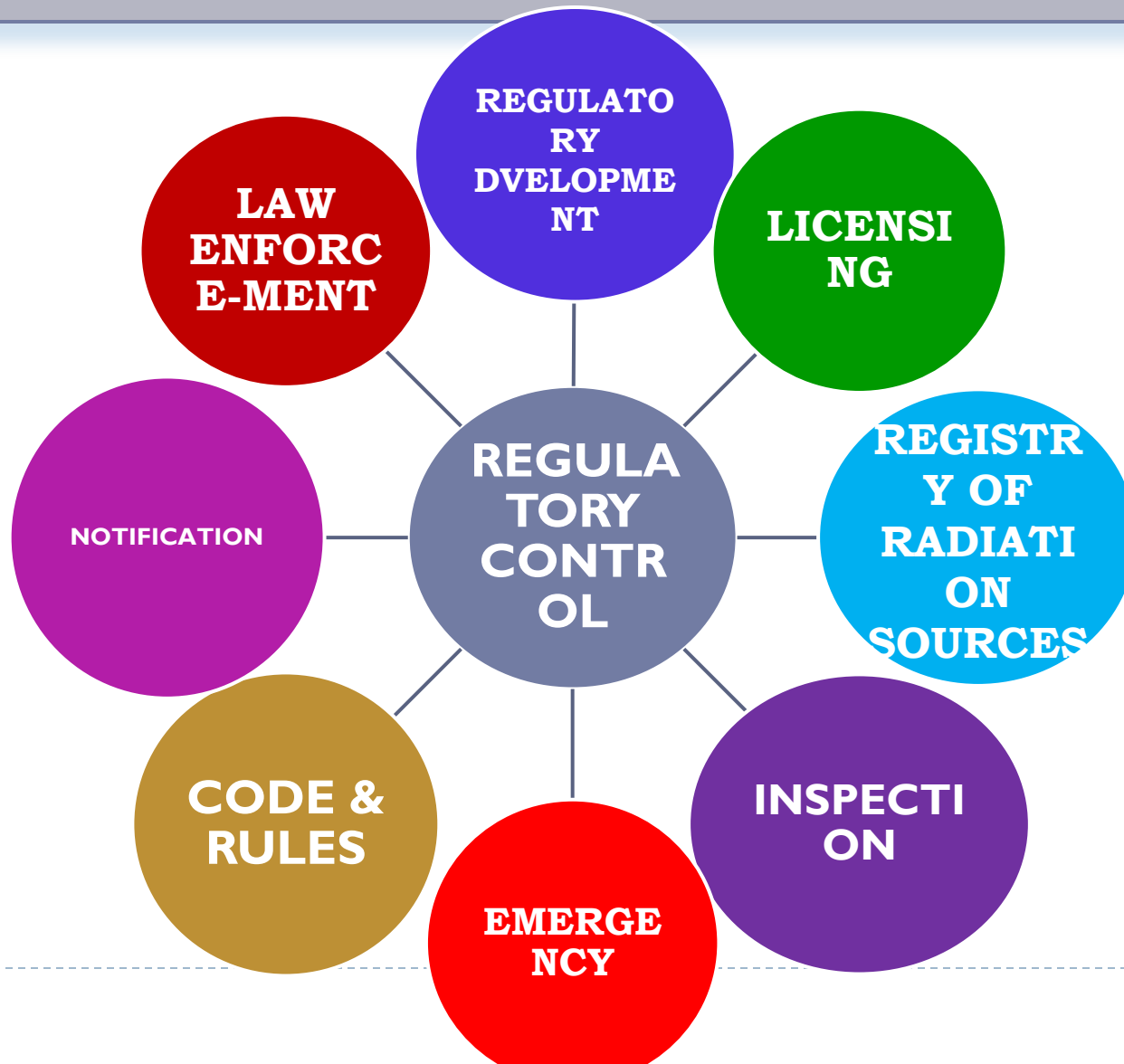
Reactor and Isotopes Section

Reactor Unit

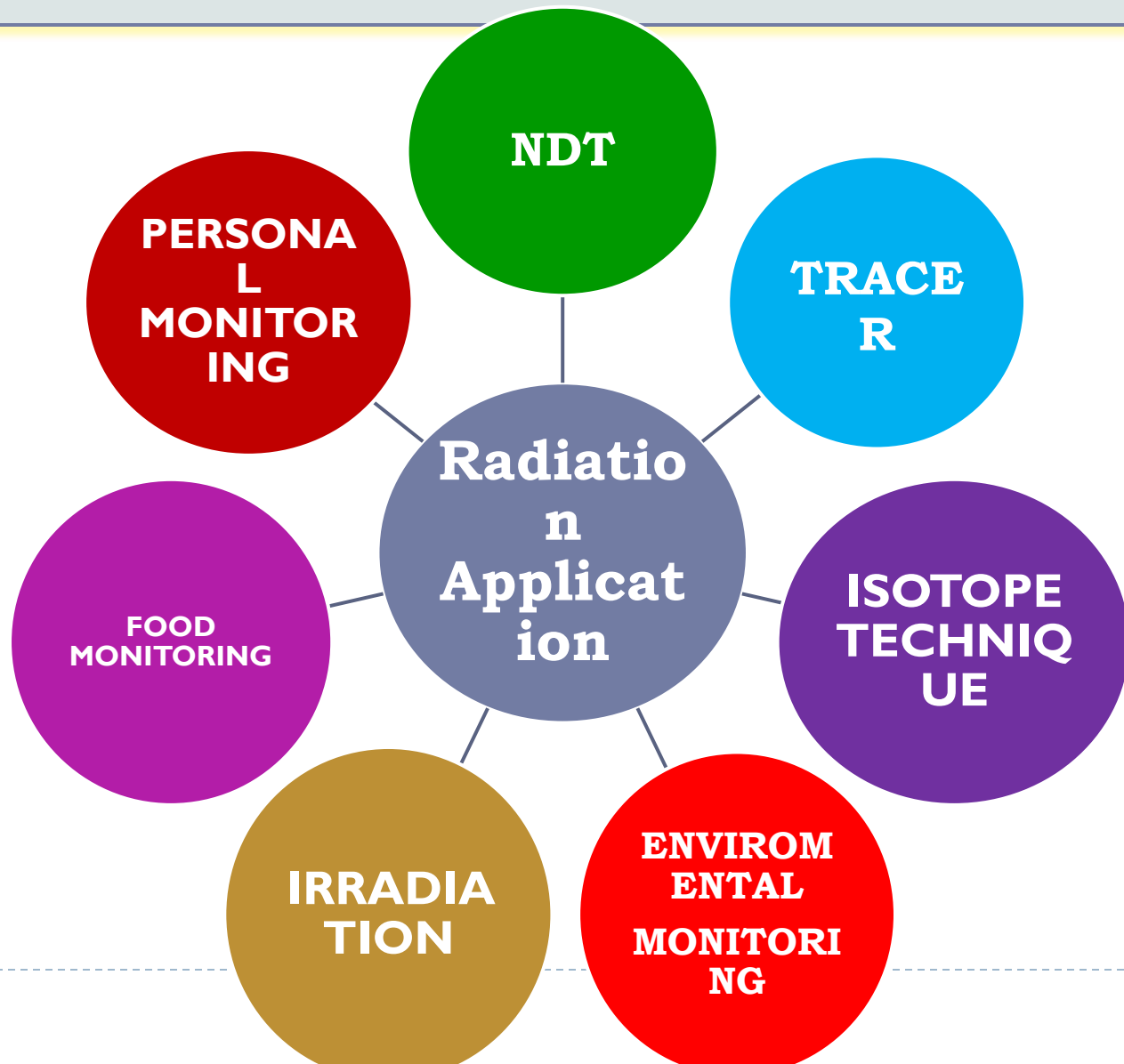
Radioisotopes
Unit

Education &
Training Unit

REGULATORY DUTIES are also assigned to the **DIVISION OF ATOMIC ENERGY (DAE)**”



“the Division (DAE) is MAINLY responsible for nuclear energy utilization and development



2. Atomic Energy Law and Myanmar Nuclear Law

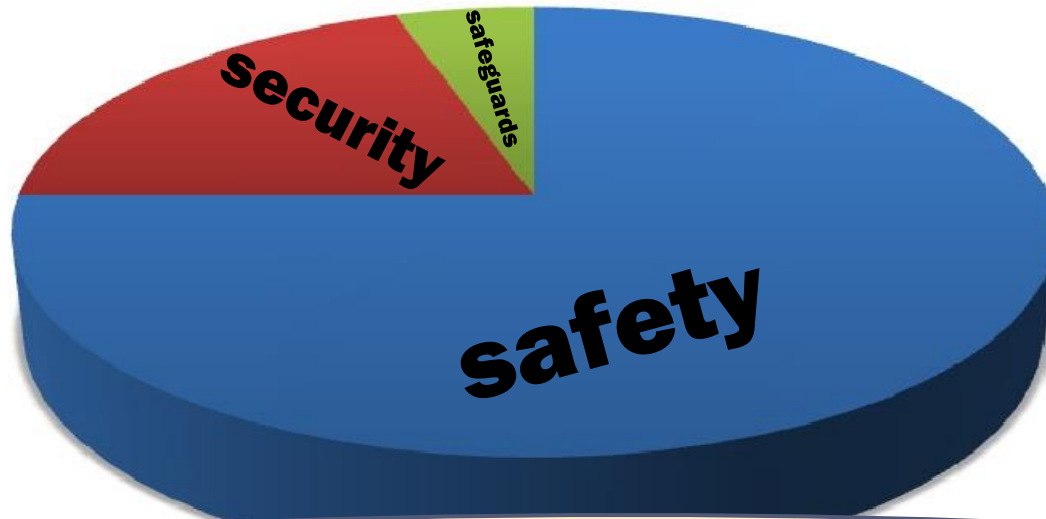


Atomic Energy Law (1998)

ပြည်ထောင်စုမြန်မာနိုင်ငံတော်
နိုင်ငံတော်အေးချမ်းသာယာရေးနှင့်ဖွံ့ဖြိုးရေးကောင်စီ

THE UNION OF MYANMAR
THE STATE PEACE AND DEVELOPMENT COUNCIL

အက်တမ်မြေဖွဲ့စည်းအင်ဥပဒေ
ATOMIC ENERGY LAW

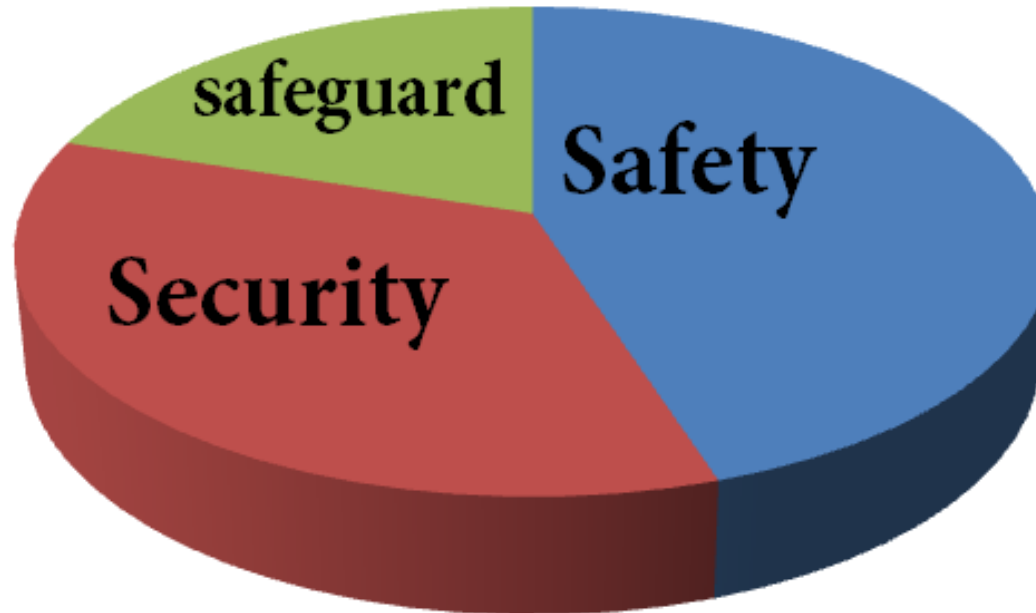


**Atomic Energy Law has
39 sections organized in 14
Chapters.**

The objectives of the law are

- to develop atomic energy utilization in the State (promotional)
- to ensure safety and protect people and the environment (regulatory).

Myanmar Nuclear Law (Draft)



Myanmar Nuclear Law (Draft) has 134 Sections and Organized in to 20 Chapters. To be comprehensive, Chapters are divided by subject matter category to enable stakeholders to efficiently reference those parts of the law

MYANMA NUCLEAR LAW (DRAFT)

The draft law was included provisions to be more comprehensive in order to address the following topics as recommended-

- ***Radiation Protection***
- ***Safety and Security of Radioactive Sources***
- ***Nuclear Safety***
- ***Emergency Preparedness and Response***
- ***Radioactive Waste Management***
- ***Transport of Radioactive Material***
- ***Nuclear Security and Physical Protection***
- ***Safeguards***

PROHIBITION

No person shall, without a license, utilize, produce, store, distribute or sell nuclear material, radioactive materials or irradiation apparatus.

No person shall without prior permission of the Department, import or export nuclear material, radioactive materials or irradiation apparatus.

Safety and Security of Radioactive Sources

- Being a regulatory authority, DAE is responsible for the safety and security of radioactive materials and irradiation apparatus used in the country.
- Efforts are being made for the safety of the public and the radiation workers as well as for the security of radiation sources used in the country.
- For safety and security of radiation sources, the use of nuclear material, radioactive material and irradiation apparatus is controlled by the Atomic Energy Law and related rules and guidance.

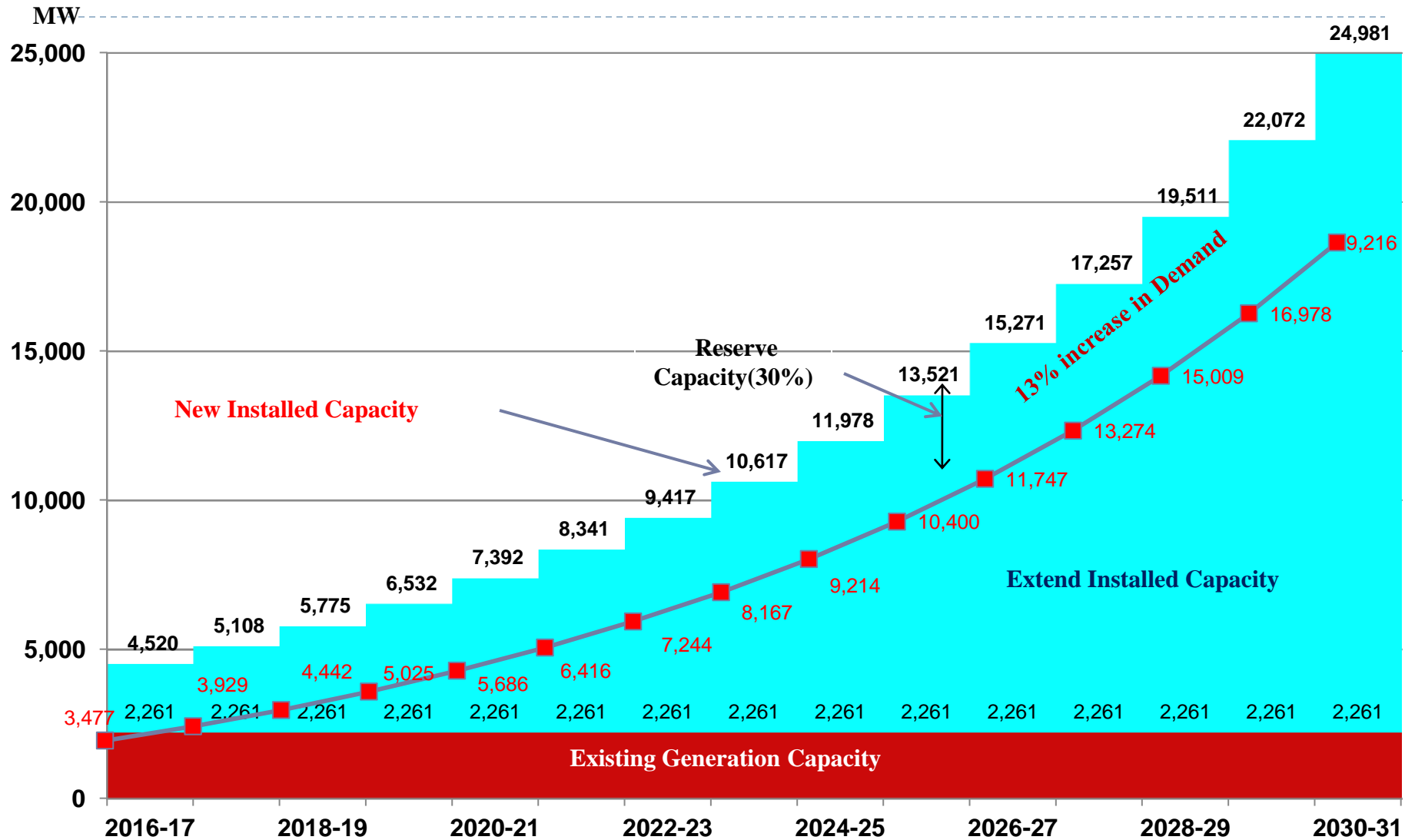
3. Electric Power in Myanmar

Demand Forecasting for Short Term Period

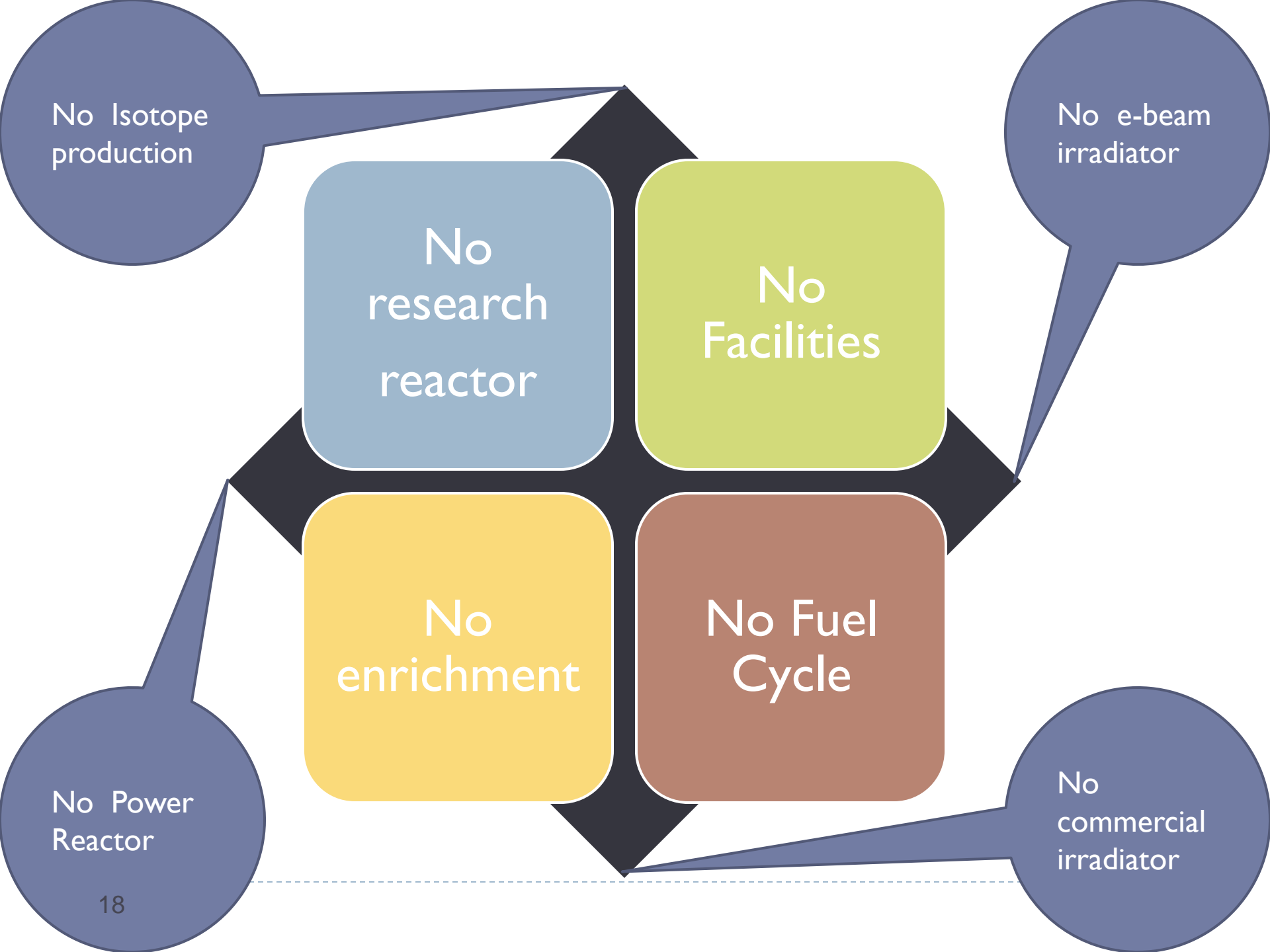
Sr. No.	Year	Demand (MW)	Increased Rate(%)
1	2013	2060	15 %
2	2014	2370	15 %
3	2015	2725	15 %
4	2016	3130	15 %

- Applied the trend of demand increase in past 3 years which was nearly 15%.
 - Based on the system peak load in year 2012 which was 1790 MW.
 - Excluded for industrial zones and special economic zones.
 - Myanmar mainly depends on Hydro Electric Power for the Electricity Generation.
-
- ¹⁵ Number of operating Hydro Power Plant is 19.

Long Term Demand Forecast and Required Generating Capacity (2017-2031)



4. Current Status



5. Nuclear Power in Myanmar

plant at present. That proposal was rejected with 29 “Yes” votes and 110 “No” votes. “It is not right time to carry out power generation from atomic energy. Priority should

No plan to build nuclear power plant: Dy EP Minister



18th day session of Amyotha Hluttaw in progress.—MNA

NAY PYI TAW, 21 Feb—Seven representatives held discussions on the proposal on urging the Union government to implement power generation from atomic energy in Myanmar as the country is not only a ASEAN member country as well as IAEA member, which is submitted by Dr Myint Kyi of Yangon Region Constituency No.8, at the 18th day session of Amyotha Hluttaw.

“Japan and the Republic of Korea have reached the developed countries status thanks to power generation from nuclear power plants. Myanmar should have at least one nuclear power plant

by taking the examples of other countries,” said U Win Naung of Yangon Region Constituency No.5.

U Hla Swe of Magway Region Constituency No.12 pointed out that Myanmar should build a nuclear power plant so as to have static electric power and to keep abreast of neighbouring countries. In the long run, it has cost-effectiveness. And it should be implemented as quickly as possible.

Deputy Minister for Electric Power U Aung Than Oosaid that although Myanmar has hydropower, wind power and other renewable energy sources, building up a

industrialized country might face difficulties in fulfilling high power demand in the long-run. Preliminary study should be conducted for construction of nuclear power plant although there is no plan to build a nuclear power plant at present. That proposal was rejected with 29 “Yes” votes and 110 “No” votes.

“It is not right time to carry out power generation from atomic energy. Priority should be given to establishment of industries and businesses and creation of job opportunities as it can cost a lot. Research on renewable energy and other energy sources should be conducted,” said U Tin

Maung Win of Mandalay Region Constituency No.3.

Dr Myint Kyi said that he submitted that proposal assuming that it can contribute much towards political and economic development of the country.

With regard to the question of U Saw Taw Pa Lae of Kayin State Constituency No.7 on Thaukyaykhat (1) hydro-power project, Deputy Minister for Electric Power U Myint Zaw replied that the ministry has no plan to implement Thaukyaykhat (1) hydropower project at present. The meeting continues at 10 am tomorrow.

MNA

Current Status for Nuclear Power Development Plan

HRD in Division of Atomic Energy (DAE)

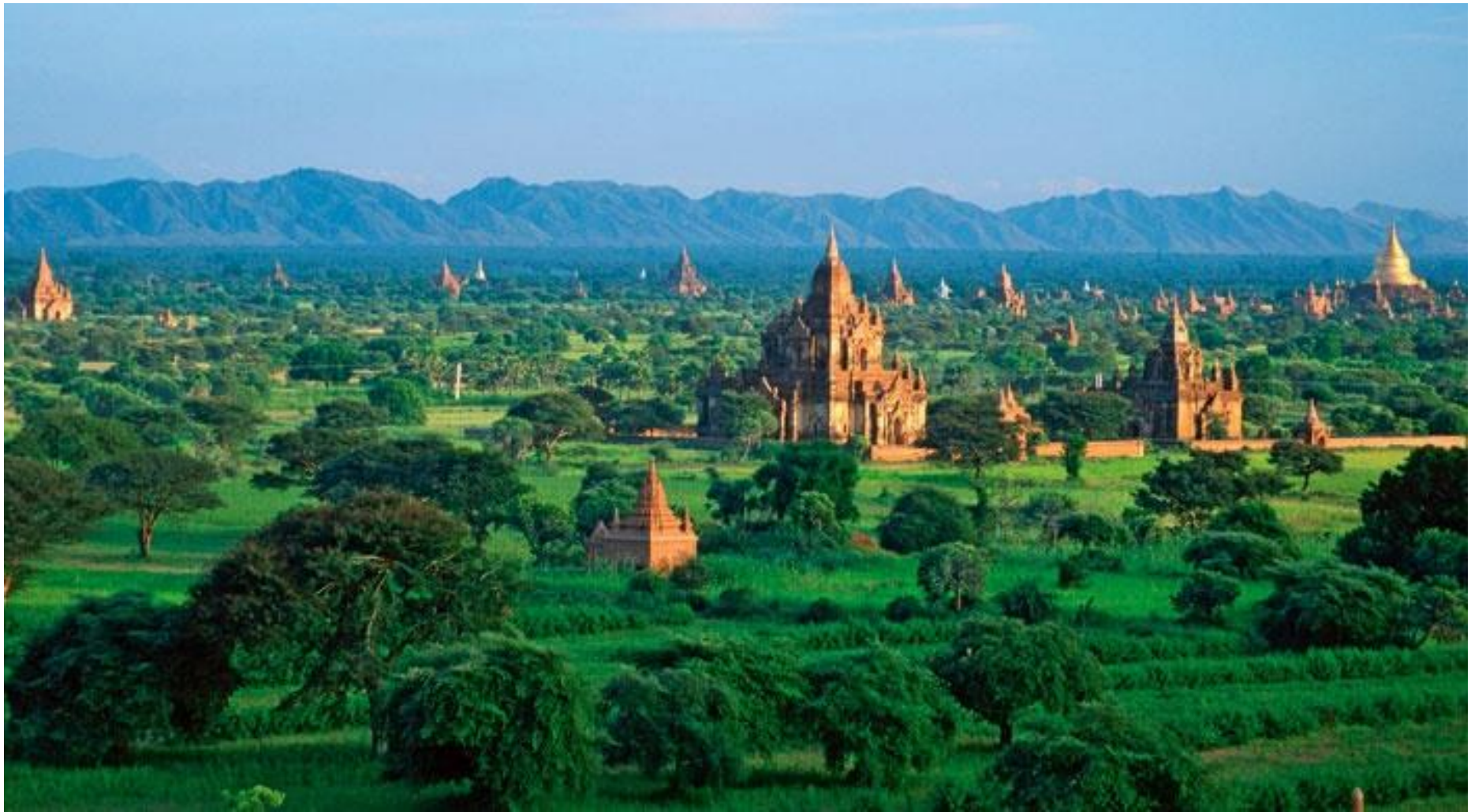
- At present, Myanmar do not have a plan to rely on nuclear power plant to generate electricity.
- We are lack of human resource and financial capabilities to do so. At this moment, DAE is acquiring experiences regarding other aspect of peaceful use of nuclear energy.
- On the other hand, DAE is promoting human resource development program in order to fulfill country needs in nuclear application regards.

6. Conclusion

- In now, the draft (Myanmar Nuclear Law) has been further improved to meet the basic safety standard requirements.
- Myanmar Nuclear Law is finalizing revised at Parliament and the regulation is at the preparation stage.
- Myanmar has abundant renewable energy sources.
- Small-scale and Large-scale hydro-power will surely continue to be developed as a main power source and rural electrification.

Cont'd

- Myanmar needs to improve its own energy infrastructure to meet the energy requirement of its economic development programs.
- Myanmar has a plan to study and implement civilian nuclear energy by cooperating with regional and international organizations.
- we can get valuable experiences participating civilian nuclear energy activities in ASEAN.
- The knowledge gained from those workshop and meeting will be valuable for the development of nuclear safety in our department and country.
- Myanmar actively participating in Regional and International activities regarding with Nuclear Safety



**THANK YOU
FOR YOUR KIND ATTENTION**