

International Conference On Physical Protection of Nuclear  
Material and Nuclear Facilities  
November 2017  
**IAEA-CN-254-268**

Legal element for Physical protection  
regime Sudanese as case study

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# Abstract

This paper deals with legal bases for nuclear security focus on physical protection regime first, its analysis the international legal framework for nuclear security (PPS) and import and export control of nuclear or radioactive sources the purpose of the paper is to evaluation the Sudanese legal framework for physical protection regime ). Including requirements for PPNM

# Introduction

term ‘nuclear security’ is generally accepted to mean “the prevention and detection of, and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities”) The State responsibility is to establish and maintain legislative and regulatory framework for nuclear security, define what the nuclear security and establish or designate a competent Authority responsible to implement and

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control framework for nuclear security

- The operators' responsibility is to implement and enforce the laws and regulations, establish guidance documents implementing security requirements of national laws and regulations relevant to their specific activities, establish and implement security plans and procedures based on the national laws and regulations. There is a new international nuclear security framework is emerging , based on obligations contained in the Convention on the Physical Protection of Nuclear Material (CPPNM) and its Amendment, I .

## analysis the international legal framework for nuclear security (PPS)

- There is No Single international instrument that addresses nuclear Security
- The analysis of international legal framework on this paper it will bases on :
  - ❑ The legally binding international instrument
    - Convention on the physical protection of Nuclear Material (CPPNM) 1980- In force
    - Amendment to CPPNM(2005)- In force as of 8 may 2016
  - ❑ The legally Non binding international instrument
    - Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities

# Convention on the physical protection of Nuclear Material (CPPNM)

- Protection of NM during international transport at levels and categories specified in annex I & II  
mention on CPPNM
- States are not to authorize export unless they have assurance that NM is Protected at appropriate level
- Obligation to prosecute or extradite offenders of specified offences

# Convention on the physical protection of Nuclear Material (CPPNMa)

- Establish Legislative and regulatory Framework
- Designate a competent authority
- 4 physical Protection Regime Objective
  1. To protected against unauthorized removal
  2. To locate and recover missing nuclear material
  3. To protected against sabotage
  4. To mitigate or minimize effects of sabotage

# REQUIREMENTS FOR CPPNM

- ❑ General requirement for PPNM may be listed as follow:
  - Physical protection measures can be implemented by the state itself by an authorized person (e.g. the operator)
  - The state (through the regulatory body or otherwise) should verify continued compliance with physical protection requirement through periodic inspection and other monitoring procedures
  - The designated authority should be provided adequate authority to enforce physical security requirement
  - Essential for an effective physical protection system is the establishment by legislation of a well designed and well supported state system for recording and monitoring the quantities and location of the nuclear material under the state jurisdiction or control



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- legislation should contain provisions requiring the development and implantation of emergency plans for responding to the unauthorized removal and subsequent unauthorized use of nuclear material the sabotage of nuclear facilities and attempts to perpetrate such acts
- Protecting the confidentiality of information whose unauthorized disclosure could compromise the physical protection of nuclear material and nuclear facilities (PPNM)

# Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities

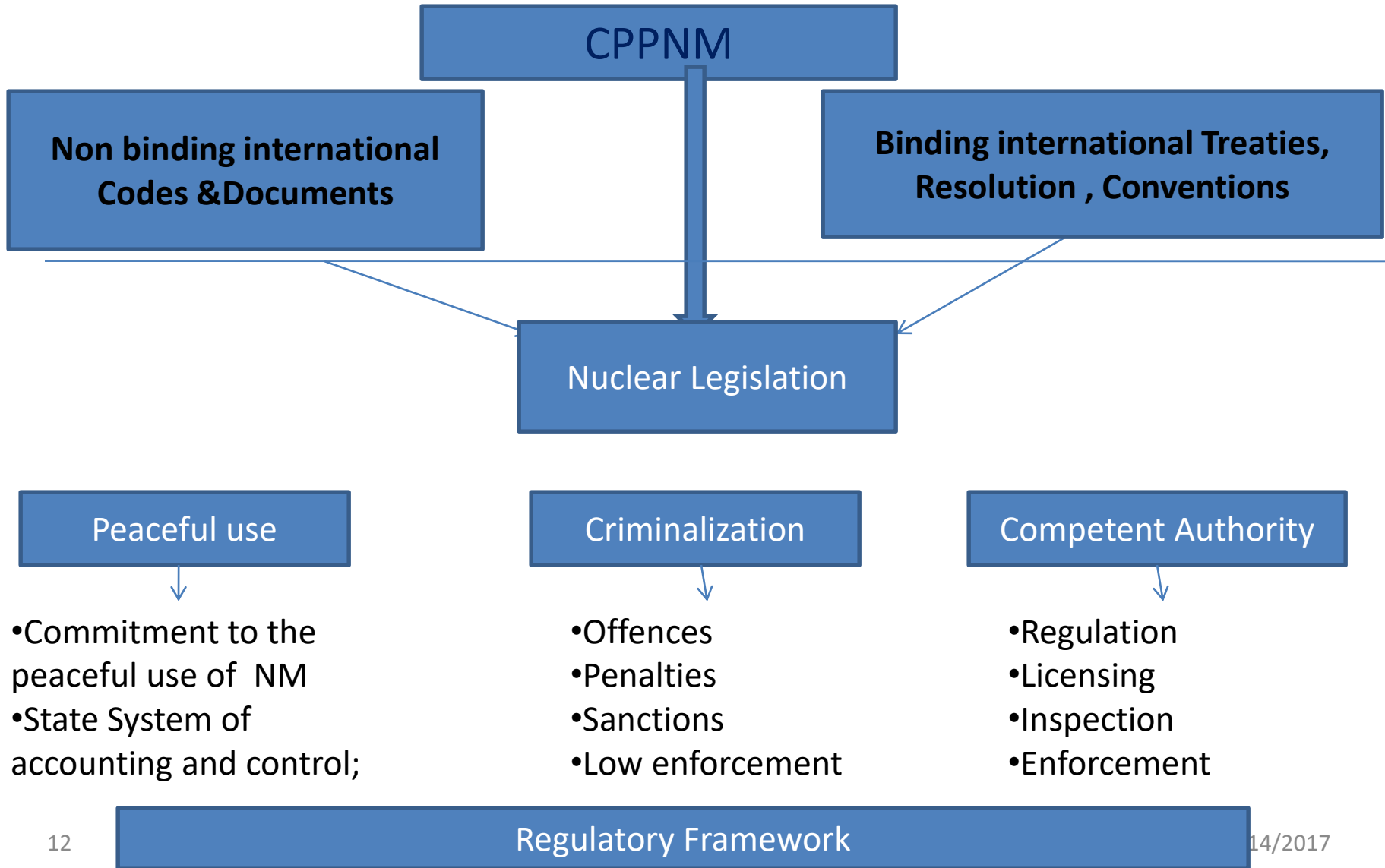
- reflect the recommendation of the national experts to assist states in implementing a comprehensive physical protection regime in respect of nuclear facilities and nuclear material including any obligation they may have under international agreement such as the 2005 amendment to the CPPNM.

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The guidelines developed element and protection requirements such as:

- Elements of a national system of physical protection and nuclear facilities.
- Requirements for the physical protection of nuclear material used and stored from unauthorized access.
- Requirement for physical protection of nuclear facilities from sabotage and terrorist operations involving nuclear material being stored and transport.
- Requirements for the physical protection of nuclear material during the transport.

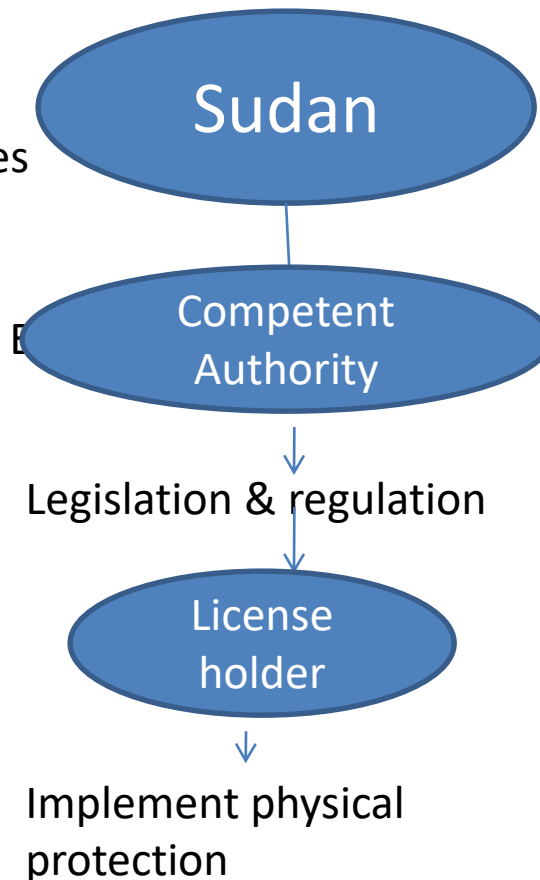
# Structure of Legal Framework for Nuclear Security



# evaluation the Sudanese legal framework for nuclear security (physical protection). Including requirements for PPNM

- The law defined Responsibilities of state , Competent authority and licences Holders

- Common responsibilities
  - ✓ Nuclear security culture
  - ✓ Quality assurance
  - ✓ Confidentiality
  - ✓ Sustainability program
  - ✓ Planning and preparedness



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The Nuclear and Radiological Regulatory control Act, 2017 apply to

safety, security and safeguards of the facilities, nuclear materials, radiation sources, and all activities involving peaceful uses of nuclear energy and radiation technology in Sudan , it's called law No 18 . It contains provisions govern all the elements of national nuclear legislation according to many the IAEA document.

The Sudanese Nuclear law establishes (in chapters No 2 ) a legislative framework for inspection , verification and monitoring and enforcement

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- The purpose of this paper to evaluation of Sudanese Nuclear law according to and legal framework base of physical protection regime. The Sudanese law deign to addressing national regulation of nuclear security , including the establishment of a competent authority , physical protection an security of nuclear material and other radioactive material and nuclear facilities security of radioactive sources , notification of incident
- Transport, import, export and transit of nuclear material and radioactive material, Confidentiality of information Offence and penalties, criminal proceedings and international co-operation

# Conclusion

- In simple terms the physical protection of nuclear material can be described as a set of legal administrative and technical measures including physical barriers to physically protect such material.
- The present convention and its amendment is a part of a set of rules –the overall objective of which is to have a strong physical protection regime, one in which security is everywhere and at an acceptable level .this regime also includes basic guidelines for the establishment of national physical protection systems



## In implementing this Sudanese Nuclear law undertaking

- Established and maintain legislative and regulatory framework for physical protection
- Designate a competent authority responsible for its implementing ;and
- Take other appropriate administrative measure necessary for physical protection such material and facilities.

# Reference

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- 7 Carlton Stoiber, Handbook on nuclear law” Op.Cit, p.127
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Thank you  
for your attention



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