



2021 Achievements and Planned Activities for 2022

The Forum of Nuclear Regulators in Africa (FNRBA)

Dr. Khammar Mrabit, Chairman of FNRBA

Monday, December 6th 2021

Overview



FNRBA was established in 2009 and became formally recognized as a regional inter-governmental organization in September 2019. It aims to:

- Strengthen and harmonize radiation and nuclear safety and security regulatory infrastructures ;
- Share lessons learned and exchange regulatory experiences and best practices among the nuclear regulatory bodies ;
- Improve capacity building and safety and security cultures in the region.

Creation of
FNRBA



2009

2019



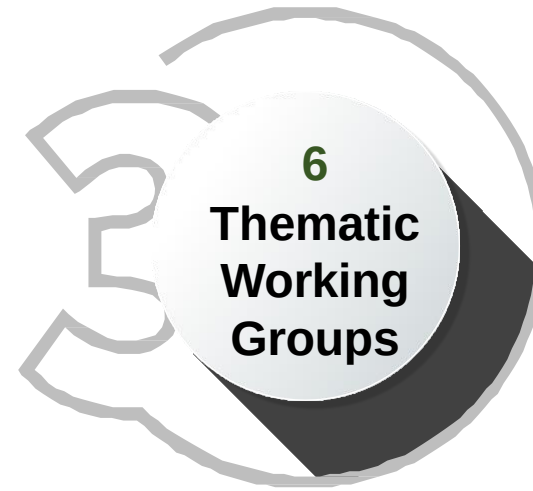
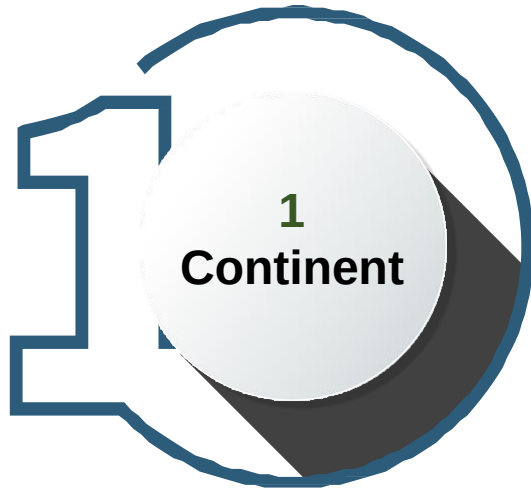
New
Charter &
New
Chairman

17th SC
Meeting
(December
15th)



2021

Key numbers





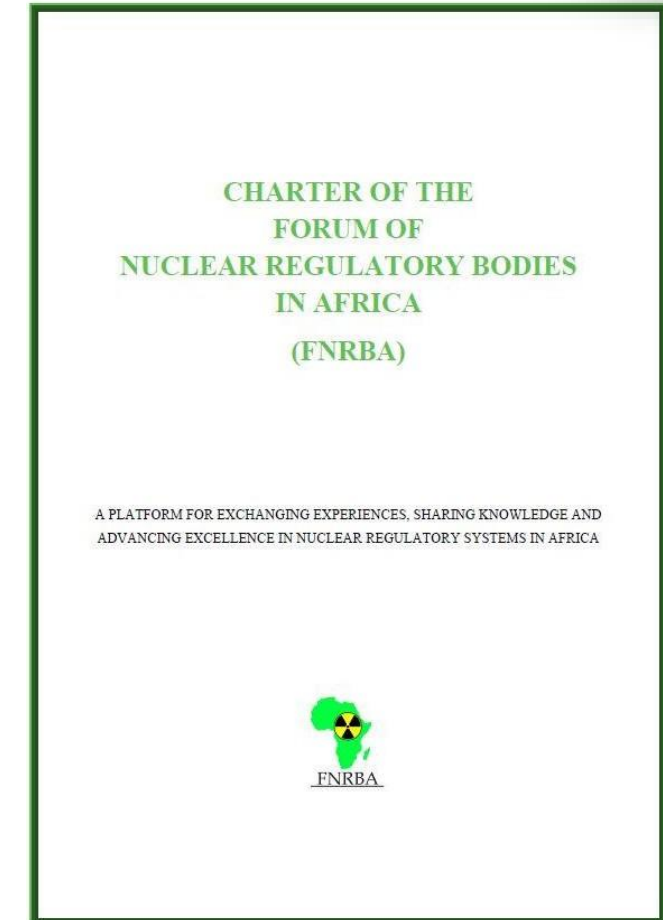
Charter, purpose, objectives, values and activities

Charter



Charter of the Forum of Nuclear Regulatory Bodies in Africa (FNRBA) is composed of 12 Articles :

- Article 1 : Establishment and name;
- Article 2 : Purpose;
- Article 3 : Objectives;
- Article 4 : Membership;
- Article 5 : Organs of the FNRBA;
- Article 6 : Plenary;
- Article 7 : Steering Committee;
- Article 8 : Thematic Working Groups;
- Article 9 : The Secretariat;
- Article 10 : Resources;
- Article 11 : Amendments of the charter;
- Article 12 : Entry into force.



Purpose



The purpose of FNRBA is :

- To be instrumental to the enhancement, strengthening and harmonization of the radiation protection, nuclear safety and security regulatory infrastructure and framework among its members in accordance with IAEA safety standards and security guidance documents among African Member States of the Regional Network; and
- To be an effective and efficient internationally recognized forum for the exchange of regulatory experiences and practices among the nuclear regulatory bodies in the IAEA African Member States.

Objectives



The main objectives of FNRBA are :

- To provide a platform for fostering regional cooperation and sharing good practices;
- Provide a forum for the exchange of expertise, information and experience;
- To develop proposals and tools for mutual support and harmonization of regional initiatives and approaches;
- To provide leverage for the development of regulatory activities and optimization of resources; and
- To raise awareness among policy-makers and other relevant stakeholders on nuclear regulatory issues in the IAEA African Member States.



Values



Professionalism

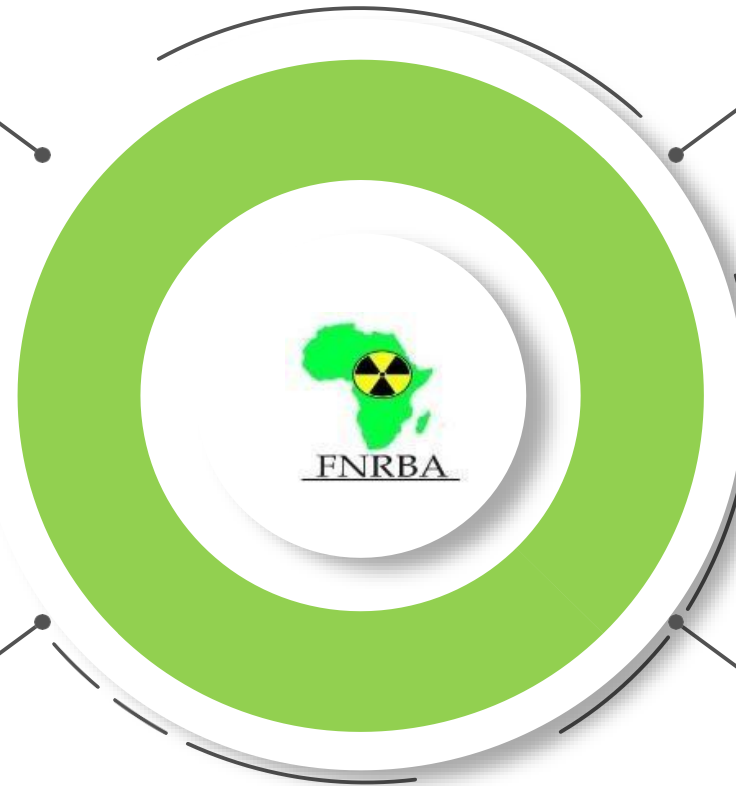
To deliver outputs of the highest possible quality in accordance with best international standards and to act with honesty and openness in accordance with the highest ethical standards.

Respect

To show mutual respect to the sovereignty, culture and language of each other and treat each person with dignity in implementing activities.

Excellence

To strive for scientific and technical excellence.



Transparency

To openly exchange information and share knowledge.

Self-initiative

To ensure effective planning and implementation of cooperative activities, on the basis of the network's own initiative.

Inclusiveness

To ensure that planning and implementation are open to all member countries.



FNRBA : Thematic Working Groups

Thematic Working Groups



- TWG 1 on Legislative and Regulatory Infrastructure;
- TWG 2 on Radiation and Waste Safety;
- TWG 3 on Nuclear Safety Infrastructure;
- TWG 4 on Regulatory Infrastructure for Emergency Preparedness and Response;
- TWG 5 on Upgrading Safety in the Transport of Radioactive Material;
- TWG 6 on Nuclear Security Infrastructure.



TWG : Responsibilities



- Performing activities of the Thematic Working Group in accordance with the scope of the Thematic Area(s) as defined by the Steering Committee, with the yearly action plan and the Strategic Action Plan as approved by the Plenary;
- Assessing the challenges in Africa and the needs regarding the Thematic Area(s);
- Proposing relevant activities, including reports and projects that comply with the needs and implementing activities as approved by the Steering Committee;
- Evaluating the relevance and the compliance of project designs with the identified needs; and
- Drafting and submitting the activity progress report of the Thematic Working Group at least twice a year to the Steering Committee or to the Plenary two weeks before they meet.

Events during 2021



- TWG 2 : Regional Workshop on the Development of National Policies and Strategies for Radioactive Waste Management;
- TWG 3 : Regional Workshop on Regulatory Review, Assessment and Licensing of Research Reactors;
- TWG 2 Training Course on the Development of Regulatory Requirements for Radioactive Waste
- Regional Workshop on Preparation on National Report for the Convention on Nuclear Safety (Open to FNRBAs Contracting Parties to the CNS).

TWG on Legislative and Regulatory Infrastructure (1)

2022 Activities (1/2)



NO.	ACTIVITY	PROPOSED DATE	OBJECTIVES	PARTICIPATING MSs	HOST MS	SPONSOR (S)
1	Development of Guidance and Capacity Building in authorization and inspection of radiotherapy facilities, new technologies and Awareness creation	2022	- To establish the best practices in the regulatory control of radiotherapy facilities using new technologies; - To provide guidance on the methodology for facility authorization and inspections - To provide the requirements for design and construction of such facilities; and - To establish the capacity building in order to get competent and knowledgeable staff for the implementation of the authorization and inspection process for such facilities.	Members of TWG1 & TWG2 Virtual (On line)	Nigeria	IAEA, USNRC
2	Regional Workshop on preparation of National Report for Convention on Nuclear Safety	2022	To provide the Guidelines regarding National Reports under the Convention on Nuclear Safety in particular to offer guidance to the Contracting Parties without nuclear installations, but planning to embark on a nuclear power programme, to draft their National Report, by identifying the main articles of the CNS to be reported on.	Members of TWG1 and Interested Members of FNRBA	Ghana Virtual (On line)	USNRC CNSC
3	Regional training course on stakeholder involvement for a regulator about licensing and regulations	2022 (with TWGs 2 & 3)	To equip regulators with practical instruments and recommendations, through sharing international examples of best practice and case studies of practical challenges in effective stakeholder involvement, to design their stakeholder involvement strategies, to make regulatory decisions more inclusive and as a result increasing the transparency and credibility of the regulatory decision-making process.	Members of TWG1 & TWG3	Nigeria Virtual (On-line)	IAEA-TC, RAS
4	Develop Catalogue of competencies in FNRBA MSs using template from PMO and Mentorship Scheme	2022	Assisting FNRBA MSs in planning the activities required throughout all phases of the introduction of a new nuclear power programme, as well as developing the competencies and capabilities required to implement these activities, in particular: .To identify activities of the key organizations in different phases; - To identify competencies/capabilities needed to perform the identified activities; - To provide examples on strategies to develop/acquire those competencies/capabilities.	Members of TWG1 and Interested Members of FNRBA	Morocco In-person	To be determined

TWG on Legislative and Regulatory Infrastructure (1)

2022 Activities (2/2)



NO.	ACTIVITY	PROPOSED DATE	OBJECTIVES	PARTICIPATING MSs	HOST MS	SPONSOR (S)
5	Expert Mission to Review Key Elements of Updated Management System	2022	ToR to be determined by each country	On request by MS	IAEA In-person	IAEA
6	IAEA School on Leadership for Safety	2022	- To strengthen participants' ability to apply IAEA safety standards on leadership for safety; - To strengthen participants' safety leadership skills in both normal and emergency situations; - To help FNRBA MSs foster a safety culture.	Members of TWG1 and Interested Members of FNRBA	IAEA In-person	IAEA
7	Regional WS on establishing an appropriate expansion of existing radiation protection program to address the requirements related to nuclear power.	2022	- To assess the existing radiation protection technical and organizational infrastructure for activities involving sources of radiation (research reactors, industrial and medical applications of radiation) for which legislation and other provisions for radiation protection have been established; - To identify how this existing program needs to be enhanced to address hazards arising from the potential implementation of the national nuclear power program; and - To provide recommendations on how the required enhancements will be delivered.	Members of TWG1 and Interested Members of FNRBA	Morocco In-person	To be determined

TWG on Radiation and Waste Safety (2)

2022 Activities



NO.	Title of activity	PARTICIPATING MSs	Expected outcome	HOST MS
1	Training course or workshop on development or review of regulations on radioactive waste management	Burkina Faso, Cameroon, Cote D'Ivoire, Egypt, Ethiopia, Ghana, Kenya, Mauritius, Morocco, Nigeria and Zimbabwe.	Sharing of Experience by FNRBA member states to help improved the import and export control of radiation sources.	Ethiopia
2	National Workshop on development/ review RWM and DSRS regulation through Expert Missions	Burkina Faso, Cameroon, Cote D'Ivoire, Egypt, Ethiopia, Ghana, Kenya, Mauritius, Morocco, Nigeria and Zimbabwe.	Improved regulatory framework for the management of radioactive waste	On request by members states with this need
3	IAEA Expert Mission to member states with specific needs in the development of their national radiation and waste safety infrastructure.	Burkina Faso, Cameroon, Cote D'Ivoire, Egypt, Ethiopia, Ghana, Kenya, Mauritius, Morocco, Nigeria and Zimbabwe.	Improved competent and motivated workforce of the regulatory body	On request by members states with this need

TWG on Nuclear Safety Infrastructure (3)

2022 Activities (1/3)



NO.	ACTIVITY	PARTICIPATING MSs	DATE	HOST MS	SPONSOR(S)	MS CONTRIBUTOR(S)	LEAD TWG(s)
1	Workshop on Regulatory Inspection of Research Reactors in Africa	DRC, Egypt, Ghana, Kenya, Libya, Morocco, Nigeria, South Africa, Sudan	2022	TBD In person	IAEA-RR		TWG 3
2	Regional Meeting on the Application of Code of Conduct on the Safety of RRs; covering Regulatory review and Assessment, Leadership and Management for safety	Egypt, Ghana, Morocco, South Africa, Libya, Algeria, DRC, Nigeria, Kenya, Sudan	2022	TBD	IAEA-EESS		TWG 3
3	Workshop on Development of National Safety Requirements for Research Reactors	DRC, Egypt, Ghana, Kenya, Libya, Morocco, Nigeria, South Africa, Sudan	2022	TBD In person	IAEA-RR		TWG 3
4	Hands-On Regulatory Inspector Training • <u>Responsible IAEA TO</u>: Mr. Zia Hussain • To be supported by US (EB) • Event to be conducted in South Africa in 2022	Nigeria, South Africa, Sudan, Morocco, Algeria, Egypt, DRC, Ghana	2022	South Africa, Cape Town	IAEA	South Africa	TWG 3

TWG on Nuclear Safety Infrastructure (3)

2022 Activities (2/3)



NO.	ACTIVITY	PARTICIPATING MSs	DATE	HOST MS	SPONSOR(S)	MS CONTRIBUTOR(S)	LEAD TWG(s)
5	Awareness Meeting on Global Nuclear Safety Regime • Scope to be fine tuned by TWG	DRC, Egypt, Ghana, Kenya, Libya, Morocco, Nigeria, South Africa, Sudan	2022		IAEA		TW3
6	International Meeting on Application of Code of Conduct on the Safety of RRs	DRC, Egypt, Ghana, Kenya, Libya, Morocco, Nigeria, South Africa, Sudan	2022		IAEA-RR Section		TWG 3
7	Basic Professional Safety Course (BPTC) • <u>Responsible IAEA TO</u> : Mr. Zia Hussain • KINS conducts this event annually and jointly for ANSN, FNRBA, ANNuR	DRC, Egypt, Ghana, Kenya, Libya, Morocco, Nigeria, South Africa, Sudan	2022	KINS	KINS	-	TWG 3
8	Safety Analysis Report Review Scope to be further cleared by TWG	TW3	2022		USNRC	Ghana	TWG 3

TWG on Nuclear Safety Infrastructure (3)

2022 Activities (3/3)



NO.	ACTIVITY	PARTICIPATING MSs	DATE	HOST MS/ SPONSOR	SPONSOR(S)	LEAD TWG(s)
9	Workshop on Safety Analysis and Safety Documentation for RRs	TW3	2222	Argonne, USA	IAEA-RR Section	TWG 3
10	International Meeting on Application of Code of Conduct on the Safety of RRs	TW3	2022		IAEA-RR Section	TWG 3
11	Training Course on Fundamentals of Regulatory Inspections using Zwentendorf NPP • <u>Responsible IAEA Technical Officer: Mr. Zia Hussain</u> • Normally IAEA hosts 2 training courses annually. • In 2022, face-to-face course planned in Q2 2022 (April) • Funding from TC International	TW3	2022	Vienna	IAEA	TWG 3
12	Radiological Environmental Impact Assessment for NPPs IAEA-NMPS to discuss this event with NSRW	TW3	2022	Ghana	USNRC	TWG 3

TWG on Regulatory Infrastructure for Emergency Preparedness and Response (4) **2022 Activities (1/2)**



#	Activity	Expected Outcome	Participants	Host Country	Support	Funding
1	Development of Regulations	School of Drafting Regulations workshop for operating organisations	All TWG4-EPR countries	Virtual	IAEA TC RAF9066	IAEA TC
2	Regulatory response to nuclear or radiological emergencies	Workshop on planning and drafting/review of response procedure(s)	Egypt, Mauritius, South Africa, Zimbabwe	Egypt	IAEA IEC	IAEA
3	Africa Regional emergency plan	Regional Workshop on development of Regional Emergency Plans	Burkina Faso, Cameroon, Ghana Kenya, Morocco Nigeria, South Africa	Vienna	IAEA TC RAF9066	IAEA TC
4	EPR for New Build Countries Regulators	EPR Embarking workshop and exchange workshop	Egypt, Ghana, Kenya, Morocco, Niger, Nigeria, South Africa	UAE / Belarus	IAEA TC RAF9066	IAEA TC

TWG on Regulatory Infrastructure for Emergency Preparedness and Response (4) 2022 Activities (2/2)



#	Activity	Expected Outcome	Participants	Host Country	Support	Funding
5	Capacity Building Centres on EPR (CBC-EPR)	Regional workshop on how to build a regional CBC-EPR	All TWG4-EPR countries	Virtual / Vienna	IAEA IEC	IAEA
6	Database of EPR regulatory experts	Upload, review and publishing of details on experts database	All TWG4-EPR countries	N/A	IAEA NSS	N/A
7	TWG4-EPR Meeting	Planning and monitoring of TWG4-EPR deliverables	All TWG4-EPR countries	Virtual	N/A	

TWG on the Transport of Radioactive Material (5)



Item	Activity	Time Frame	Status
1	Training Course on the Drafting of Transport Regulations	February 2022	In Planning
2	Training Course on the Safe Transport of Radioactive Material	May 2022	In Planning
3	Training Course on Inspections Related to Transport	August 2022	In Planning
4	Training Course on the Transport of NORM	TBD Face-to-Face	In Planning
5	Establishment of the Association of African Competent Authorities	TBD	Under negotiation

TWG on Nuclear Security Infrastructure (6)

2022 Activities (1/3)



N°	Activity title	participants	Expected outcomes	Host Country	SPONSOR
1	Training on Information and Computer Security for radiological facilities	Competent Authorities (e.g. policy makers, regulators, law enforcement), operators, and other entities within nuclear security that have information or computer security responsibilities.	Increased awareness of the importance of information and computer security as a key component of nuclear security. MS informed about the current computer security threats, current IAEA guidance and international standards related to developing comprehensive information and computer security programmes	TBD	TBD
2	Workshop on development of Nuclear Security Detection Architecture for nuclear and other radioactive material out of regulatory control	Senior officials and managers from the law enforcement/ intelligence community, Customs Border control, regulatory authorities and first responders.	The scope and framework of a national-level nuclear security detection architecture and the role of detection in the context of security measures for nuclear and other radioactive material out of regulatory control are understood.	TBD	TBD
3	Essential Elements of Nuclear Security for Material out of Regulatory Control	Senior officials and managers from the law enforcement/ intelligence community, regulatory authorities and first responders.	In deep understanding of issues and activities regarding the various aspects of nuclear security as it relates to Material out of regulatory control.	TBD	TBD
4	Designing Physical Protection Systems for Radioactive Material and Associated Facilities	Primarily operators and regulators.	Trained participants on basic aspects and practical fundamentals of the physical protection system design, functioning and performance testing.	TBD	TBD

TWG on Nuclear Security Infrastructure (6)

2022 Activities (2/3)



N°	Activity title	participants	Expected outcomes	Host Country	SPONSOR
5	Developing and Implementing Nuclear Security Systems and Measures for Major Public Events	Law enforcement, Customs, Border Security, Military; First responders, Regulatory Authority or other Technical Support Organizations	Trained participants informed about concepts for planning and developing an effective framework for nuclear security at an MPE; Enhanced awareness of the importance of preparedness and sustainability; and Increased awareness of international cooperation and assistance.	TBD	TBD
6	Developing and Managing an Inventory of Radioactive Material for Security Purposes	Regulatory body.	Increased understanding of the key role of a State's inventory of Radioactive Material in a State's Nuclear Security Regime; Understanding the different features of latest version of RAIS Web system and how these support the different steps of the authorization and inspection processes for the security of radioactive material and associated facilities. Participants informed about the importance of establishing a nuclear forensics library;	TBD	TBD
7	Training Course on the Safety and Security of Radioactive Material during transport		A clear understanding of the objectives of the IAEA safety requirements and security recommendations for radioactive material in transport. A general understanding of and appreciation for the similarities and differences between safety requirements and security recommendations for radioactive material in transport.	Morocco	TBD

TWG on Nuclear Security Infrastructure (6)

2022 Activities (3/3)



N°	Activity title	participants	Expected outcomes	Host Country	SPONSOR
			A greater appreciation of the interface between transport safety and security and potential impacts of this interface, on the efforts to strengthen the compliance assurance regime for the safe transport of radioactive material. A general understanding of assessing the transport security measures, and evaluating transport security plans		
8	Workshop on Threat Assessment and design basis threat	Senior officials and managers from the law enforcement/ intelligence community, Customs Border control, regulatory authorities and first responders	Train participants on the conduct of threat assessment. Issues and factors to be taken into consideration when assessing the threats Methodologies to be adopted to define the basis threat	TBD	TBD
9	Workshop on developing and implementing national nuclear security response plan	Law enforcement/ intelligence community, Customs, Border control, regulatory authorities and first responders	Train participant on the development of a national nuclear security response plan. Methodologies to be adopted for the development of national nuclear security response plan Knowledge sharing and lessons learned in the development and implementation of national nuclear security response plan. Issues and factors to be taken into consideration for the national nuclear security response plan.	TBD	TBD

How to join FNRBA ?



FNRBA portal is open to all African Member States of the IAEA with an established regulator body.

African regulators interested in joining FNRBA should endorse the new chart and inform the FNRBA Chairman and IAEA accordingly.

For more information, please visit the FNRBA website:

<https://gnssn.iaea.org/main/FNRBA/Pages/default.aspx>





**THANK YOU FOR
YOUR KIND
ATTENTION**

Monday, December 6th 2021