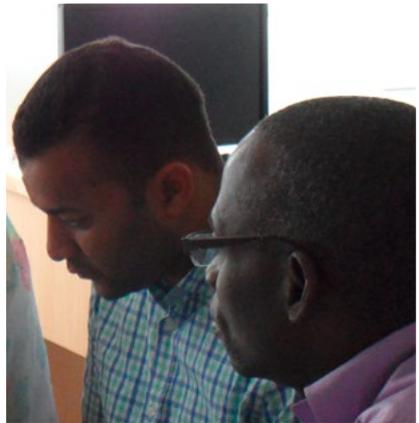
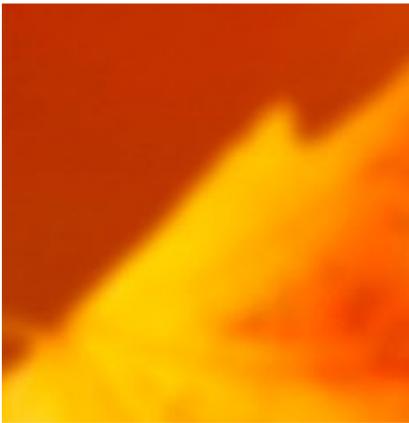




IAEA

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FORUM OF NUCLEAR REGULATORY BODIES IN AFRICA

STRATEGIC PLAN 2016 - 2021



INTRODUCTION

Countries expanding the uses of radiation (e.g. new radiotherapy or nuclear medicine programmes) and those expanding or embarking on nuclear power programmes are faced with increasing demands for regulatory staff to fulfil necessary regulatory functions (review of licence applications, regulatory inspections, environmental impact assessments, etc.) for nuclear and radiation facilities. Countries need to have and maintain an adequate national legislative and regulatory framework for radiation protection, nuclear safety and security.

The Forum of Nuclear Regulatory Bodies in Africa (FNRBA) was launched in 2009 to enhance, strengthen and harmonize the radiation protection, nuclear safety and security regulatory infrastructure and framework among the FNRBA members. The regional knowledge network functions as a platform facilitating sustainable regional cooperation focused on capacity building and infrastructure development. While regulation remains a national responsibility, FNRBA plays a key role in sharing and maintaining the knowledge in radiation protection, nuclear safety and security.

At the foundation of the global nuclear safety and security regime are the strong national infrastructures of the countries that actively participate in the international efforts to continuously improve nuclear safety and security. The other major elements of this framework include international legal instruments, safety standards, security guidance, peer reviews, advisory services and knowledge networks that support and strengthen existing national and regional infrastructures. The FNRBA recognises the importance of adherence to nuclear safety and security international binding and non-binding legal instruments.

The FNRBA functions through a Plenary Body, a Steering Committee, Thematic Working Groups and Technical Advisory Groups. Presently FNRBA consists of 10 thematic working groups of experts sharing issues and knowledge of common interest, and developing solutions to address common problems and gaps in specific Member countries. The FNRBA also serves as a forum for dialogue where ideas are generated and exchanged among members who share common interest with the intention to develop innovative approaches.



PURPOSE

The purpose of this document is to provide for the mid-term strategy, objectives and implementation activities for the enhancement, strengthening and harmonization of the radiation protection, nuclear safety and security regulatory infrastructure and framework among the members of FNRBA.

The document also serves to provide a clear strategy and plan to Governments, strategic and technical partners, donors and stakeholders to ensure the effective implementation and support for the planned activities of the FNRBA.

VISION

To be an efficient and effective regional network advancing excellence in regulatory systems for radiation protection, nuclear safety and security in Africa.

MISSION

To provide a platform and mechanism for exchanging experiences, sharing knowledge and capacity building thereby contributing to and promoting the development and harmonization of regulatory infrastructures in Africa for radiation protection, nuclear safety and security.



VALUES

The following core values underpin the way in which the network will deliver its strategic vision:

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; and

Inclusiveness

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

FRAMEWORK

REGIONAL CONTEXT

A wide range of nuclear and radiation technologies are applied in the region and Member States have different levels of regulatory and technology development.

One Member State is operating a nuclear power plant, while some countries have plans to embark on establishing nuclear power programmes. Several Member States are operating research reactors while others are considering the possibilities of expanding such programmes. Most of the

participating Member States are making use of radiation sources for medical, industrial and scientific applications.

FNRBA Member States have already established legal and regulatory infrastructures. To respond to the expanding regional use of nuclear technology and radiation sources, FNRBA Member States, are reviewing infrastructures to ensure the application of high safety and security standards.

The challenges experienced in the region include, but are not limited to:

- » Inadequate implementation of the legislative and regulatory frameworks due to lack of financial and human resources;
- » Lack of qualified and experienced work force;
- » Different levels of regulatory infrastructure development in Member States;
- » Competing priorities in Member states resulting in lack of resources for FNRBA activities;
- » Inconsistent implementation of thematic working group action plans;
- » Lack of involvement and awareness of political and policy makers of the need for nuclear and regulatory infrastructure and regional networking; and
- » Inadequate coordination, harmonisation and planning of thematic working group action plans and
- » Lack of coordination with existing regional forums and organisations such as AFCONE, AFRA, African Development Bank, and African Union.



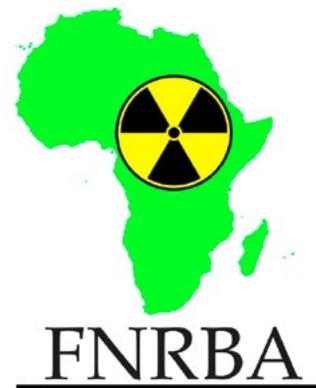
OBJECTIVES

The objectives of FNRBA are to:

- (a) Provide a platform for fostering regional cooperation;
- (b) Provide for the exchange of expertise, information and experience; and
- (c) Provide opportunity for mutual support and coordination of regional initiatives, and leverage the development and optimization of utilization resources.

The objectives will be achieved through:

- » Implementing capacity building activities, establishing capacity building centres and enhancing human resources in order to achieve a high level of radiation protection, nuclear safety and security regulatory infrastructure and framework among the FNRBA Member States.
- » Promoting sustainable regional cooperation, creating awareness of political and policy makers and coordinating activities with other regional forums and organisations to strengthen regulatory infrastructure and regional networking.
- » Providing an efficient and effective IT and capacity building common platform and maintaining an advanced scientific and knowledge base throughout the planning and implementation of the activities of the network;
- » Creating awareness of new technological and regulatory standards developments and promoting the national and regional nuclear safety and security framework;
- » Promoting self-assessment methodologies and best practices, and conducting self-assessment and peer reviews to identify common issues and gaps in the region; and
- » Networking and establishing agreements amongst Member States relating to transport, import and export of radioactive material and emergency planning and response.



IMPLEMENTATION

FNRBA supports its Member States in the development and implementation of safety and security infrastructure in line with the IAEA safety and security standards. FNRBA facilitates and coordinates support from Governments, strategic partners, donors and stakeholders to strengthen human resource development. Key strategic partners are requested to support the FNRBA by:

- » Establishing an effective regional capacity building system or platform;
- » Supporting national and regional capacity building activities; and
- » Promoting activities for the exchange, pooling and sharing of information and professional expertise in the relevant fields.

The following types of partnerships are being pursued:

Strategic: working with well established organizations in relevant fields (e.g. IAEA and other UN organisations) in an area where nuclear and radiation techniques have an advantage, can add credibility with governments and end users, and can raise the profile of the project. Such collaborations also assist to make decision makers aware

of the contributions that safe and secure use of nuclear and radiation technologies can make to development plans.

Financial: partnerships between the FNRBA and donor organizations provide a cost-effective means of achieving greater impact. These donors voluntarily contribute directly to the FNRBA programme.

Technical: partnerships often achieve synergy by transferring and sharing of knowledge, and regulatory practices between the FNRBA Member States and technical organisations.

AFRA contributed to the establishment of the FNRBA and supports the network through implementation of regional projects.

The IAEA further supports the FNRBA activities through its Technical Cooperation programmes and the Nuclear Safety and Security Department. Other partners include the US Nuclear Regulatory Commission (NRC), European Commission (EC), French Institute of Radiation Protection and Nuclear Safety (IRSN) and African Union.

The FNRBA has concluded cooperation agreements with the following strategic partners:

- » Korean Institute of Nuclear Safety (KINS, Memorandum of Understanding signed on 23 September 2010)
- » International Atomic Energy Agency (IAEA, practical arrangement signed on 17 September 2013)
- » Texas Agricultural and Mechanical University (TAMU, Letter of Intention submitted on 18 September 2013)

In order to meet the FNRBA objectives, the following strategic priorities have been identified for implementation:

Priority 1: Creating awareness of, and coordinating activities, amongst political and policy makers and other regional forums and organisations.

The main activity will be to engage with national policy makers and other regional bodies and organisations through:

- 1) Involving key stakeholders in FNRBA meetings and activities;
- 2) Communicating and notifying of FNRBA strategic plan;
- 3) Promoting of regional activities at international events such as IAEA GC, NRC RIC, etc. and
- 4) Developing mechanisms for sustainable financial support.

Priority 2: Establishment of an efficient and effective network of human resources supported by an IT platform to ensure sustainable regional cooperation and to align national strategies for capacity building with IAEA methodologies.

The main activity will be to promote the effective use of the knowledge network for sustainable sharing of knowledge and the continuous improvement of nuclear safety, security and radiation protection through:

- 1) Coordinating, reviewing and updating of thematic working group action plans, TWG participants lists and regional experts database;
- 2) Promoting and encouraging the use of experts from the region for international expert missions, and participation in IAEA safety standards committees;
- 3) Encouraging the use and updating of the FNRBA IT platform (and TWG websites) for communication, sharing of information and lessons learned; and
- 4) Developing of strategy for capacity building (education and training, HRD, knowledge management, IAEA SARCON, ETRES etc.).

Priority 3: To ensure understanding, development, promotion and implementation of high standards of radiation protection, nuclear safety and security in Member States.

The main activity will be to promote the establishment in all participating countries of a sustainable regulatory infrastructure through:

- 1) Encouraging Member States to join and effectively implement the international legal instruments on safety and security and to adopt IAEA safety standards and security guidance;
 - 2) Conducting high level surveys and benchmarking in TWGs identifying main gaps in safety standards and regulatory practices, to be followed by the conduct of self-assessments using IAEA methodologies, and IAEA advisory and peer review missions;
 - 3) Cooperating with other regional networks, international and national organisations to benchmark and strengthen regulatory practices and approaches; and
 - 4) Encouraging the improvement of organisational systems in regulatory bodies including establishment of management systems and promoting safety and security culture.
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In order to meet the FNRBA objectives, the following strategic priorities have been identified for implementation:

Priority 4: Implementing capacity building activities at the national and regional level in radiation protection, nuclear safety and security regulatory infrastructure and framework and promoting and supporting sustainable regional cooperation in developing needed human resources.

The main activity will be to continue developing technical capabilities in radiation protection, nuclear safety and security infrastructure through:

- 1) Identifying and developing a database of training and research institutions in FNRBA region, and mapping of training events and opportunities;
- 2) Implementing regional and inter-regional train-the-trainer courses and training workshops related to all thematic areas of FNRBA, and promoting the establishment of regional capacity building centres with a network of trainers ; and
- 3) Promoting web-based training and use of information and communication technologies.

Priority 5: Harmonization of the national plans for emergency preparedness and response, transport and security in line with international requirements to facilitate exchange of information and sharing of experience.

The main activity will be to strengthen and establish national/sub-regional systems for collaboration on preparedness and response, transport and security related to nuclear material and radiation sources through:

- 1) Facilitating the development of regional and sub-regional cooperation agreements for the collaboration and information sharing; and
Creating and increasing awareness of Member States about the need for cooperation, mutual collaboration, and assistance and sharing of experiences.



ACTION PLAN

PRIORITY 1

Creating awareness of, and coordinating activities, amongst political and policy makers and other regional forums and organisations.

Activities	Tasks	Deliverable	Target	Time lines
Participation of decision-makers, regional bodies and organisations in FNRBA meetings and activities;	Invite regional bodies and organisations to FNRBA Plenary meetings and activities;	Participation in Plenary/ Steering Committee meetings	At least 2 organisations participating	Annually
	Share meeting and annual reports with regional bodies and organisations	Distribute Meeting and annual reports	100%	Annually
Communication and notification of FNRBA strategic plan to regional and national policy makers;	Request endorsement of FNRBA Strategic Plan from Member States and notification to regional bodies and organisations	Letter to Member State permanent missions	All member states (100%)	2016
		Letter to regional bodies	At least 2 regional bodies	2016
Promotion of regional activities at international events such as IAEA GC, NRC RIC, MDEP, etc.	Presentations at conferences	Presentations and outreach material	2 Presentations	Annually
Developing mechanisms for sustainable financial support	Establish FNRBA fund	Develop Financial Model	Approved Financial Model	2017
		Mechanisms and organisation for managing the fund	Mechanism in place	2020
		Implement Financial Model	Operational Fund	2021

PRIORITY 2

Establishment of an efficient and effective network of human resources supported by an IT platform to ensure sustainable regional cooperation and to align national strategies for capacity building with IAEA methodologies.

Activities	Tasks	Deliverable	Target	Time lines	
Updated list of TWG participants	Request MS to provide and review representatives for TWGs	Revised list of TWG participants on IT platform	50% of MSs	2016	
			100% of MSs	2021	
List and database of regional experts	Develop criteria and template for regional expert data base Request and review nominations Compile expert database	Expert database for each TWG on IT platform	Established database and criteria	2017	
			Population of 2 TWG databases	2018	
			Population of 10 TWG databases	2021	
Coordination and review of thematic working group action plans;	Biennial Coordination meeting with all TWG Coordinators and Donors	Harmonised and effective TWG Work Plans	50% of Work Plans updated	Biennial update	
Promote the use of experts from the region for international expert missions	Communicate list of experts to Strategic Partners in line with agreements	Participation in peer reviews and expert missions	10 % participation	2017	
			20% participation	2021	
Encourage regional experts to participate in IAEA safety standards committees	Request IAEA to facilitate and coordinate participation of selected Member States in IAEA Safety standard committees	Participation in IAEA safety standards committees	Representation of all sub-regions of FNRBA	2021	
Encourage use of FNRBA IT platform (and TWG websites) for sharing of information and lessons learned	Training on updated GNSSN website	Training workshops for all TWG coordinators and SC members	50% TWG representation	Biennial	
	Establishment of National Nuclear Safety Portals on GNSSN and appointment of national coordinators	Updated National Portals and Coordinators nominated	60% updated 100% updated	2018 2021	
Updated FNRBA/ TWG websites and communication to WG members through FNRBA IT platform	Updated TWG websites and registration of FNRBA experts on website.	Functional TWG websites reviewed annually	50% reviewed annually	2018	
			100% reviewed annually	2021	
Development of strategy for capacity building (education and training, HRD, knowledge management, IAEA SARCON/ others methodologies and tools etc.)	Consultancy Meetings between IAEA and FNRBA TWG6 to draft Capacity Building Strategy based on IAEA methodologies and tools	Established FNRBA Model Capacity Building Strategy	Approved Capacity Building strategy	2018	
			Member States Capacity Building Strategy	20% strategies in place	2020
			Member States Capacity Building Strategy	50% strategies in place	2021

PRIORITY 3

To ensure understanding, development, promotion and implementation of high standards of radiation protection, nuclear safety and security in Member States.

Activities	Tasks	Deliverable	Target	Time lines
Encouraging Member States to join and effectively implement the international legal instruments on safety and security.	Awareness on international instruments	Awareness seminars on international instruments targeting Member State policy makers	Regional and sub-regional Seminars	Biennial
	Communicate the importance of participating in international instruments to Member States	Letter to Member State Permanent Missions to encourage participation in international instruments	10% increase in number of Member States participating	2018
			20% increase in number of Member States participating	2021
Conducting high level surveys and benchmarking in TWGs identifying main gaps in safety standards and regulatory practices	Development and implementation of questionnaires and surveys	Surveys Status Reports	2 reports	2016
			2 reports	2018
			2 reports	2020
			4 reports	2021
Encouraging Member States to conduct self-assessments using IAEA methodologies, to be followed by IAEA advisory and peer review missions	Coordinating training of IAEA self-assessment methodologies;	Training workshops	50% MS participation	Biennial
	Monitor and report on the status of self-assessment in the region;	Request for peer review missions	5 requests for peer review missions	2019
		Self-assessment reports	10 MS reports	2020
Conduct of peer review missions	Expert mission report	5 peer review mission reports	2021	
Cooperating with other regional networks, international and national organisations to benchmark and strengthen regulatory practices and approaches.	Participate in design of regional projects (AFRA, non - AFRA)	Work Plans	5 TWG's aligned with regional projects	2021
	Exchange of best practices with other regional networks and international organisations	Combined regional workshops	3 workshops	2021
Encouraging the improvement of organisational systems in regulatory bodies including establishment of management systems and promoting safety and security culture.	Coordinate training workshops on Management Systems and Safety and Security Culture	Training workshops	100% MS Management System, Safety Culture and Security Culture workshop participation	2021
Encouraging Member States to adopt IAEA safety standards and security guidance	Coordinate training on IAEA Safety Standards and security guidelines	Training workshops on IAEA Safety Standards	100% MS participation	2021
		Links to IAEA e-learning material on Safety Standards on FNRBA website	Available Materials linked	2018

PRIORITY 4

Implementing capacity building activities at the national and regional level in radiation protection, nuclear safety and security regulatory infrastructure and framework and promoting and supporting sustainable regional cooperation in developing needed human resources.

Activities	Tasks	Deliverable	Target	Time lines
Identifying and developing a database of training and research institutions in FNRBA region	Compile a lists of training and research institutions through collaboration with IAEA and AFRA NEST	List of training and research institutions on website	List available	2017
Implementing regional and inter-regional train-the-trainer and training workshops related to all thematic areas of FNRBA	Assessment of training needs for all thematic areas considering surveys, project designs, self-assessments, etc.;	TWG Work Plans	10 TWG Work Plans	2017
	Development and implementation of training initiatives	Training workshops	At least 2 training events	Annually
Promoting the establishment of regional capacity building centres for the thematic areas and establishing a network of trainers within the capacity building centres (CBC).	Use list of training and research institutions to identify potential sub-regional CBC's;	Prioritise areas to be covered by CBC's	Areas Prioritised	2018
	Develop criteria for the establishment of a CBC's and trainers	List of trainers for the CBC's and potential host countries	List of trainers and host countries	2019
	Agreement with potential host countries;	Agreement between FNRBA and potential host countries	At least 1 CBC established	2021
Promoting web-based training and use of information and communication technologies	Establish list of available e-learning courses and platforms and reconcile training needs with available e-learning courses;	Agreement for use of e-learning material and link of e-learning courses on FNRBA website	Available Material linked	2018

PRIORITY 5

Harmonization of the national plans for emergency preparedness and response, transport and security in line with international requirements to facilitate exchange of information and sharing of experience.

Activities	Tasks	Deliverable	Target	Time lines
Identifying and developing a database of training and research institutions in FNRBA region	Compile a lists of training and research institutions through collaboration with IAEA and AFRA NEST	List of training and research institutions on website	List available	2017
Implementing regional and inter-regional train-the-trainer and training workshops related to all thematic areas of FNRBA	Assessment of training needs for all thematic areas considering surveys, project designs, self-assessments, etc.;	TWG Work Plans	10 TWG Work Plans	2017
	Development and implementation of training initiatives	Training workshops	At least 2 training events	Annually
Promoting the establishment of regional capacity building centres for the thematic areas and establishing a network of trainers within the capacity building centres (CBC).	Use list of training and research institutions to identify potential sub-regional CBC's;	Prioritise areas to be covered by CBC's	Areas Prioritised	2018
	Develop criteria for the establishment of a CBC's and trainers	List of trainers for the CBC's and potential host countries	List of trainers and host countries	2019
	Agreement with potential host countries;	Agreement between FNRBA and potential host countries	At least 1 CBC established	2021
Promoting web-based training and use of information and communication technologies	Establish list of available e-learning courses and platforms and reconcile training needs with available e-learning courses;	Agreement for use of e-learning material and link of e-learning courses on FNRBA website	Available Material linked	2018