NTI NUCLEAR SECURITY INDEX

Theft / Sabotage / Radiological

JULY 2020

RADIOACTIVE SOURCE SECURITY ASSESSMENT EXCERPT

Losing Focus in a Disordered World

NTI BUILDING A SAFER WORLD

Index developed with The Economist INTELLIGENCE UNIT

The NTI Nuclear Security Index

The 2020 Nuclear Threat Initiative (NTI) Nuclear Security Index (NTI Index) assesses the security of some of the deadliest materials in the world—highly enriched uranium (HEU) and plutonium—against theft and the security of nuclear facilities against sabotage. Stolen HEU or plutonium could be used to build a nuclear bomb; the sabotage of a nuclear facility could result in a dangerous release of radiation.

The NTI Index uses public information to track country-level progress on nuclear security and recommends actions for governments to protect nuclear materials and facilities and to strengthen the global nuclear security architecture. Developed with the Economist Intelligence Unit (EIU) and informed by an international panel of respected nuclear security experts, the NTI Index has been released biennially since 2012. The NTI Index includes two theft rankings and one sabotage ranking:

- **Theft: Secure Materials**—A ranking of 22 countries with 1 kilogram or more of weapons-usable nuclear materials to assess actions related to securing those materials against theft
- **Theft: Support Global Efforts**—A ranking of 153 countries and Taiwan with less than 1 kilogram of or no weapons-usable nuclear materials to assess actions related to supporting global nuclear security efforts
- **Sabotage: Protect Facilities**—A ranking of 46 countries and Taiwan with nuclear facilities, such as nuclear power reactors and research reactors, to assess actions related to protecting those facilities against sabotage

For the first time, the 2020 NTI Index is accompanied by a separate **Radioactive Source Security Assessment** that assesses the national policies, commitments, and actions to secure radioactive sources and prevent a dirty bomb in 175 countries and Taiwan. This new assessment does not score or rank countries.

All data are available in Excel models and can be downloaded at **www.ntiindex.org**.

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FIFTH EDITION

JULY 2020

Index developed with

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Foreword

The world today faces complex and potentially catastrophic threats: the slow burn, quite literally, of climate change; a naturally occurring or manufactured virus that kills millions of people worldwide; a radiological dirty bomb explosion that renders a city center uninhabitable for years; a nuclear weapons exchange that could incinerate entire countries; or the detonation of a terrorist nuclear bomb built from stolen nuclear material that kills thousands of people in an instant. All would create additional, enormous consequences for our environment, global economies, and humanity as a whole.

This year, for the first time, the results show that progress to secure nuclear materials and facilities has slowed significantly.

The COVID-19 pandemic offers a window into the grave implications of poor planning to prevent a crisis from emerging and then escalating. Preventing a naturally occurring virus is tough, but there have been countless missed opportunities to slow the spread and stem the damage—and the unfolding disaster has offered a powerful lesson in the importance of prevention and preparation, coordination and cooperation, accountability and action—all grounded in attention to the science.

These fundamentals are the foundation for the NTI Nuclear Security Index, a biennial ranking of nuclear security conditions worldwide that recommends steps that countries and the global community should take to strengthen security of nuclear materials and nuclear facilities and evaluates progress against those steps. Born out of concern the world is not doing enough to prevent a terrorist attack with almost incomprehensible consequences, the NTI Index has tracked progress and provided guidance on nuclear security since 2012.

This year, for the first time, the results show that progress to secure nuclear materials and facilities has slowed significantly. This is an alarming development for a host of reasons. It comes at a time when the global risk environment is characterized by growing disorder and disruption and the international community's ability to manage cross-border threats is taxed. Disinformation and disruptive technologies have added to governments' challenges, and

NTI Vice President Laura S. H. Holgate (left) and Senior Director Samantha Neakrase (right) lead discussions with the International Panel of Experts.

intensified competition among major nuclear powers—particularly the United States, Russia, and China—has strained international institutions, treaties, and norms. Constant vigilance by nuclear operators, governments, and international organizations will be needed to keep pace with the threats in this increasingly dangerous risk environment.

The key finding of this year's NTI Index may be an outcome of the end of the series of Nuclear Security Summits—head-of-state events begun in 2010 and held every two years through 2016 that brought high-level attention to nuclear dangers, promoted efforts to reduce them, and resulted in important progress toward securing materials and facilities against nuclear terrorism and other threats.

Security improvements captured by the NTI Index between 2012 and 2018 reflected the work of the summits. Since the summit process ended in 2016, no comparable, cooperative global effort has emerged to replace the summits' role in galvanizing countries to take bold, ambitious actions—even as the terrorist threat and new concerns such as cyber attacks on nuclear facilities, continue to mount. Now, in the first reflection of the post-summit nuclear security landscape, it is no surprise that progress has slowed.

Given the challenging security backdrop for this key finding, it is more important than ever to identify shortfalls and to call for governments, industry, and the international community to once again step up their efforts to prevent a catastrophic attack or act of sabotage that could further shake global foundations.

We all know this work can be successful. In 2012, when the NTI Index was launched, 32 countries had 1 kilogram or more of weapons-usable nuclear materials; today, that number is 22, and the countries that have addressed the threat in the most permanent ways possible—by eliminating or disposing of all of their weapons-usable nuclear materials—are a model for the world. Scores of countries also have taken important steps to mitigate the threat of theft or sabotage by improving physical security around materials and facilities, tightening security during transport of materials, expanding cybersecurity practices, adopting new insider threat-prevention measures, and more.

No one should conclude, however, that progress has slowed because much of the work is completed. That is simply not the case. As the data show, large gaps remain across all the categories and indicators we examine—and the report shows major weaknesses in key areas such as insider threat prevention, security culture at facilities, and cybersecurity. More rigorous threat assessments, personnel vetting, and new regulations, among other steps, must be put in place before extremists exploit weaknesses in these areas and do real damage. Continuous improvement—even among high-performing

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countries—must also be a priority, not only to keep pace with, but to stay ahead of, evolving threats.

Thousands of radiological sources held in every country offer extremists another path to cause chaos—and in conjunction with the NTI Index, we are releasing a first-of-its-kind Radioactive Source Security Assessment that examines national policies and actions to secure these potentially dangerous sources. Typically used for research, medical, industrial, or agricultural purposes, the sources often are poorly secured and housed in areas open to the public, such as hospitals and universities. In the hands of an extremist, a radiological source can be used to build and detonate a radiation-spewing dirty bomb in the heart of a city.

Unlike weapons-usable nuclear materials, these sources don't pose an existential threat, and a dirty bomb would not cause mass casualties or injuries—but cleanup would be enormously costly, environmental and psychological consequences would be significant, and the area around a detonation would be uninhabitable for years.

The good news is that the risk can be eliminated by replacing the dangerous sources with equally effective alternative technologies. NTI has worked closely with New York City, Atlanta, and the state of California—along with Central Asia and the United Kingdom—to do just that. We hope the new assessment included in these pages will build increased awareness of the risk, start a broader discussion about alternatives, and highlight best practices for keeping sources secure.

As we've learned through the COVID-19 pandemic, global security is only as strong as the weakest link. When it comes to existential threats—and even to those that could do just serious damage—every country can do more and must do more. Leaders around the world have a responsibility to use all the tools at their disposal, from the adoption and enforcement of new security requirements to coordinating and cooperating with other countries, to protect against nuclear and radiological terrorism so that we never have to face the terrible consequences.

Ernest J. Moniz
Co-Chair and Chief Executive Officer
Nuclear Threat Initiative

Executive Summary

Losing Focus in a Disordered World

Progress on global nuclear security has slowed significantly over the past two years, despite sizeable gaps that continue to leave nuclear materials and facilities vulnerable to theft and acts of sabotage. The 2020 NTI Nuclear Security Index finds that although a great deal of work remains to protect materials and facilities against increasingly capable extremist groups, the rate of improvement to national regulatory structures and the global nuclear security architecture has declined since 2018. This reverses a trend of substantial improvements made between 2012 and 2018, and it comes at a time when prospects for improving efforts to prevent nuclear terrorism are complicated by growing global disorder and disruption.

The decline highlighted in the 2020 NTI Index suggests that without the driving force of the Nuclear Security Summits, which ended in 2016, or similar high-level events, attention to nuclear security has waned. This is a particularly dangerous development when terrorist capabilities and growing cyber threats contribute to a more complicated and unpredictable environment and geopolitical tensions and events such as the COVID-19 pandemic are challenging cooperation and exposing the limits of how countries cope with cross-border threats.

Recognized as the premier resource and tool for tracking progress on global nuclear security, the NTI Index assesses nuclear security conditions in 175 countries and Taiwan. It assesses (a) actions to secure nuclear materials in the 22 countries that have 1 kilogram or more of weapons-usable nuclear materials, the highly enriched uranium and plutonium that can be stolen and used to build nuclear bombs; (b) actions to protect nuclear facilities in 46 countries and Taiwan that have nuclear facilities at which an act of sabotage could result in a dangerous

Progress on global nuclear security has slowed significantly over the past two years, despite sizeable gaps that continue to leave nuclear materials and facilities vulnerable to theft and acts of sabotage.

To address the overall finding that progress has slowed significantly, countries must strengthen and sustain political attention on nuclear security to drive progress on adopting nuclear security regulations and on building a more effective global nuclear security architecture.

release of radiation; and (c) actions in 153 countries and Taiwan that have less than 1 kilogram of or no weapons-usable nuclear materials to determine how well they support global nuclear security efforts.

NTI Index results and recommendations, released biennially since 2012 and using publicly available information, help guide governments and industry on how best to develop and implement security measures around some of the world's deadliest materials. For each of the five editions of the Index, NTI and its partner, the Economist Intelligence Unit (EIU), have updated the categories and indicators to reflect changing global threat levels, risks posed by evolving practices and technologies, and input from an international panel of nuclear security experts. For the 2020 NTI Index, updates were made across all rankings to account for progress made over the past decade and the availability of new tools to address risks.

For the first time, NTI this year is releasing a separate Radioactive Source Security Assessment in conjunction with the NTI Index. The first-of-its-kind assessment, which does not rank or score countries, evaluates national policies, commitments, and actions taken in 175 countries and Taiwan to prevent the theft of radioactive materials that could be used to build dirty bombs. The key finding: the international architecture for radiological security is extremely weak, and thousands of radioactive sources remain vulnerable to theft from the hospitals, university labs, and industrial sites where they are used for a variety of beneficial purposes. Although the use of a radiological dirty bomb would not have consequences approaching the scale of those caused by a nuclear detonation, the likelihood that one will be detonated is far greater and the consequences would still be significant: environmental and psychological damage, enormous cleanup costs, and the inability to use the area around the explosion for years.

TOP RADIOACTIVE SOURCE SECURITY ASSESSMENT FINDINGS AND RECOMMENDATIONS

Countries in the Radioactive Source Security Assessment did not receive scores or ranks. **To address the overall finding that the international architecture for radiological security is extremely weak, countries should bolster the global radiological architecture by ratifying key international agreements, by making political commitments to the IAEA Code of Conduct and related Supplemental Guidance, and by participating in voluntary initiatives.**

The Radioactive Source Security Assessment includes four additional high-level findings and recommendations.

- **Most countries do not have the national regulatory regimes in place to secure and control radioactive sources and protect them from theft and unauthorized use.** Countries should establish the national legal framework necessary to effectively regulate and control radioactive sources, including an oversight body and requirements to secure radioactive sources.
- **Most countries do not have adequate regulatory requirements for tracking and controlling the movement of radioactive sources, both nationally and transnationally, so that only authorized recipients receive and possess radioactive sources.** Countries should put in place national measures to track and control the movement of radioactive sources domestically and internationally, to prevent them from falling into the wrong hands.
- **Countries are ill-equipped to regulate and control radioactive sources in their country at all stages of their life cycles, from production, manufacture, use, and transport to disposition.** Countries should establish regulatory measures and practices to track materials throughout their life cycles and follow relevant IAEA guidance on end-of-life management.
- **Very few countries have made public commitments to replace high-activity radioactive sources with alternative technology, and there is varying capacity around the world to implement and sustain the technology's use.** Countries should commit to replacing high-activity radioactive sources with alternative technologies where possible. They should work to identify and address challenges to adopting alternative technology and to share information that can help other countries adopt these technologies, if they have the capacity to do so.

TOP NTI INDEX FINDINGS AND RECOMMENDATIONS

Australia ranks first for its security practices for the fifth time among countries with weapons-usable nuclear materials and for the third time in the sabotage ranking. In the ranking for countries without materials, New Zealand and Sweden tie for first. Most improved among

KEY FACTS ABOUT THE NTI INDEX

- **Serves as an objective assessment of nuclear security conditions around the world**
- **Data gathered from publicly available information**
- **Researched by the Economist Intelligence Unit**
- **Advised by an international panel of experts**
- **Government input provided through data confirmation**

countries with materials in 2020 is Pakistan, which was credited with adopting new on-site physical protection and cybersecurity regulations, improving insider threat prevention measures, and more.

To address the overall finding that progress has slowed significantly, countries must strengthen and sustain political attention on nuclear security to drive progress on adopting nuclear security regulations and on building a more effective global nuclear security architecture. One way to do this is to send high-level delegations to upcoming conferences and meetings to make commitments and to report on progress.

The NTI Index includes nine additional high-level findings and recommendations.

- **No countries have eliminated their stocks of weapons-usable nuclear materials since 2016, and the number of countries with those materials has plateaued.** Decreases in quantities of materials also are slowing. Countries with materials should revive efforts to reduce stocks of highly enriched uranium and plutonium and should focus on long-term, sustainable stewardship of materials.
- **Regulatory requirements for nuclear security are not comprehensive, with significant weaknesses in key areas such as insider threat prevention, security culture, and cybersecurity.** Countries must strengthen these regimes; theft of nuclear materials or sabotage of a nuclear facility anywhere in the world would have significant implications for all countries, including potential public backlash against the use of peaceful nuclear technology, such as nuclear energy.
- **Countries do not have adequate measures in place to address the human factor of nuclear security.** Countries must strengthen insider threat-prevention measures and security culture.
- **Cybersecurity regulations are slowly adapting to the growing cyber threat to nuclear facilities, but the adoption of these requirements continues to trail the urgency of the threat.** Given the rapid evolution of cyber threats, countries must strengthen cybersecurity at nuclear facilities including through (a) integrating physical protection and cybersecurity; (b) protecting critical digital assets, such as systems related to physical protection, control, accounting, and safety; and (c) building greater awareness of cyber threats among facility personnel.
- **Despite continued actions to strengthen the global nuclear security architecture, the rate of improvement has slowed and significant gaps in the architecture remain.** Countries must work to strengthen and sustain political attention on nuclear security, the International Atomic Energy Agency (IAEA) and the United Nations should work to achieve universalization of key legal instruments governing nuclear security, and countries should implement their treaty obligations and participate in voluntary initiatives, among other steps.
- **Countries without nuclear materials are not sufficiently engaged in efforts to bolster the global nuclear security architecture.** To address regional disparities and conflicting priorities, the IAEA should work with countries to build a stronger, more inclusive narrative around nuclear security, stressing that nuclear security is critical to maintaining public support for peaceful uses of nuclear technology.
- **The IAEA still lacks the political and financial support it needs to fulfill its nuclear security mission.** Countries should increase support for the IAEA by contributing to its Nuclear Security Fund and supporting and participating in IAEA activities, and the IAEA should work to build awareness of those activities and of how it has helped countries benefit from peaceful nuclear use.

- **With the exception of publishing regulations, countries' actions to build confidence in nuclear security through information sharing and peer review remain limited.** Countries should increase transparency and confidence by publishing annual nuclear security reports, by making public declarations about their progress on nuclear security, and by participating regularly in peer reviews, among other steps.
- **More countries are interested in acquiring nuclear technology for research or energy purposes, but nine countries planning new nuclear power programs have varying levels of preparedness to take on nuclear security responsibilities.** To be responsible stewards, countries considering new nuclear energy capabilities should establish legal and regulatory frameworks that address insider threat prevention, cybersecurity, security culture, physical protection, control and accounting procedures, and response capabilities.

This report highlights key trends in global nuclear security and offers a host of recommendations for improvements at the country level and for ways to build a more effective global nuclear security architecture. It also provides rankings, country-level data, and detailed findings from the new Radioactive Source Security Assessment.

More information, including data to download in Excel models, is available at **www.ntiindex.org**.

This Radioactive Source Security Assessment excerpt provides results, methodology, findings and recommendations, and country summaries for the Radioactive Source Security Assessment only. The full NTI Nuclear Security Index report and rankings can be downloaded at **www.ntiindex.org**.

Results Tables

The tables on the following pages show the high-level results of the Radioactive Source Security Assessment. The Radioactive Source Security Assessment does not rank or score countries. Instead, the percentage of countries receiving each answer choice is shown. More detailed results for the NTI Nuclear Security Index and the Radioactive Source Security Assessment are available in Excel models, available at **www.ntiindex.org**.

RADIOLOGICAL

NATIONAL MEASURES

		No or no data available	Yes
Regulatory Oversight	Does the country maintain a radioactive source regulatory oversight body?	19%	81%
Security Measures	Are there regulations that require security measures to be in place to protect radioactive sources?	44%	56%
State Registry	Does the state maintain a registry of radioactive sources?	64%	36%
Inspection Authority	Does the state have authority to inspect facilities with radioactive sources?	49%	51%
Export Licenses	Are there licensing requirements for exporting IAEA Category 1 sources?	55%	45%

GLOBAL NORMS

		No	Yes
IAEA Code of Conduct Status	Has the state made a political commitment and notified the IAEA of their intent to abide by the Code of Conduct on the Safety and Security of Radioactive Sources?	22%	78%
	Has the state notified the IAEA of their intent to abide by the Guidance on the Import and Export of Radioactive Sources?	32%	68%
	Has the state nominated a Point of Contact to facilitate imports and exports of radioactive source material?	19%	81%
	Has the state made available their responses to the IAEA Importing and Exporting States Questionnaire?	40%	60%
	Has the state notified the IAEA of their commitment to implement the Guidance on the Management of Disused Radioactive Sources?	79%	21%
International Participation	Does the state participate in the Global Initiative to Combat Nuclear Terrorism (GICNT)?	51%	49%
	Did the state send an official delegation to the 2018 International Conference on the Security of Radioactive Material?	59%	41%
International Conventions	Is the country a state party to the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT)?	39%	61%
	Is the country a state party to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management?	54%	46%
	Is the country a state party to the Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency?	40%	60%

RADIOLOGICAL *(cont'd)*

COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES

		No	Yes
Intent	Has the state subscribed to INFCIRC/910?	82%	18%

		No or no data available	Yes
Implementation	Has the country publicly declared a regulatory requirement, policy, or commitment to implementing alternative technology to replace high-activity radioactive sources?	94%	6%

		No data available	Frequent power outages (80th–99th percentile)	60th–79th percentile	40th–59th percentile	20th–39th percentile	Infrequent power outages (0–19th percentile)
Capacity	What is the average percentage of businesses experiencing power outages each month?	26%	15%	15%	15%	14%	15%

		No data available	Few people with degrees (0–19th percentile)	20th–39th percentile	40th–59th percentile	60th–79th percentile	Many people with degrees (80th–99th percentile)
	What percentage of the population over 25 holds a tertiary degree or higher?	39%	13%	12%	13%	12%	13%

RISK ENVIRONMENT

		No data available	Very high	High	Moderate	Low	Very low
Political Stability	What is the risk of significant social unrest during the next two years?	4%	8%	24%	39%	19%	5%

		No data available	Not clear, established, or accepted	Two of the three criteria are absent	One of the three criteria is absent	Clear, established, and accepted	Very clear, established, and accepted
	How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?	5%	16%	23%	18%	22%	15%

		No data available	Very high	High	Moderate	Low	No threat
	Is there a risk that international disputes/ tensions will negatively affect the polity during the next two years?	5%	11%	19%	32%	30%	3%

RADIOLOGICAL *(cont'd)*

		No data available	Territorial conflict; opposition has effective control over a region or regions	Sporadic and incursive conflict	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists
Political Stability	Is this country presently subject to armed conflict, or is there at least a moderate risk of such conflict during the next two years?	5%	6%	8%	10%	30%	42%
		No data available	**Very high**	**High**	**Moderate**	**Low**	**Very low**
	Are violent demonstrations or violent civil/labor unrest likely to occur during the next two years?	5%	7%	20%	28%	33%	7%
		No data available	**Very low**	**Low**	**Moderate**	**High**	**Very high**
	How effective is the country's political system in formulating and executing policy?	54%	2%	13%	19%	11%	2%
	What is the quality of the country's bureaucracy and its ability to carry out government policy?	5%	18%	38%	26%	9%	5%
		No data available	**Very high**	**High**	**Moderate**	**Low**	**Very low**
Pervasiveness of Corruption	How pervasive is corruption among public officials?	5%	23%	30%	22%	12%	10%
		No data available	**Very high**	**High**	**Moderate**	**Low**	**Very low**
Illicit Activities by Non-State Actors	How likely is it that domestic or foreign terrorists will attack with a frequency or severity that causes substantial disruption to business operations?	3%	6%	6%	24%	39%	21%
	How likely is organized crime to be a problem for government and/or business?	0%	10%	19%	31%	32%	8%
	How many firearms were seized during the interdiction of illicit weapons trafficking?	51%	10%	10%	10%	10%	10%

Radioactive Source Security Assessment

Thousands of radioactive sources used in countries around the world for medical, industrial, agricultural, research, or other purposes could be stolen and used in a dirty bomb.

There is no existing global assessment of the security around radioactive sources. To fill this gap, this report includes a separate, first-of-its-kind Radioactive Source Security Assessment of national policies, commitments, and actions to secure radioactive sources and prevent a dirty bomb in 176 countries. This new assessment also uses publicly available information, but it does not score or rank countries.

THE RISK OF A DIRTY BOMB

Thousands of radioactive sources used in countries around the world for medical, industrial, agricultural, research, or other purposes could be stolen and used in a dirty bomb. Not only are these sources widely used, but they are housed in locations that lack high levels of security, such as hospitals and universities and other industrial settings. Because a dirty bomb is relatively easy to construct, its use is more likely than a nuclear weapon. It would not result in large numbers of deaths or injuries, but the consequences would still be serious: large-scale economic costs stemming from cleanup and inability to use the affected area for years, environmental damage, and significant psychological consequences.

ABOUT THE RADIOACTIVE SOURCE SECURITY ASSESSMENT

The Radioactive Source Security Assessment aims to do the following:

- Build greater awareness of the importance of securing radioactive sources.
- Catalyze a dialogue about priorities for strengthening radioactive source security.
- Promote progress in securing radioactive sources and in reducing the quantities of the most dangerous radioactive sources and applications, including through the use of alternative technologies.
- Highlight leading practices in radiological security, including supporting global norms.
- Provide a unique resource that sets a baseline understanding of the status of global radiological security.
- Promote reporting, information sharing, and benchmarking of national and international commitments and actions on radiological security.

Unlike the Nuclear Security Index, the new Radioactive Source Security Assessment does not score or rank countries. The methodology also does not involve in-depth country research. Instead, the assessment relies on existing databases and other sources of consolidated information. In future years, NTI may expand the assessment to include scores, ranks, and more in-depth research.

A separate panel of international radiological security experts advised the development of the Radioactive Source Security Assessment (see p. 28).

THE FRAMEWORK

The Radioactive Source Security Assessment includes four categories:

- **National Measures:** This category assesses a country's domestic policies, commitments, and actions for managing and securing radioactive sources. It asks (a) whether countries have an independent regulatory body to provide oversight over radioactive sources; (b) whether a country's domestic laws and regulations explicitly require security (not just safety) measures to be in place to protect radioactive sources; (c) whether the country maintains a national registry of radioactive sources, a key step in tracking and accounting for sources at the national level; (d) whether the country has authority to inspect facilities with radioactive sources; and (e) whether there are licensing requirements for the export of International Atomic Energy Agency (IAEA) Category 1 radioactive sources.[1]
- **Global Norms:** This category assesses a country's international commitments and support for global norms around radioactive sources. It examines each country's commitments in the context of the IAEA Code of Conduct on the Safety and Security of Radioactive Sources, including the Supplemental Guidance on the Import and Export of Radioactive Sources and Supplemental Guidance on the Management of Disused Radioactive Sources. It also asks whether a country participates in international organizations or conferences and is a party to key international legal agreements related to radiological security.
- **Alternative Technologies:** This category assesses a country's commitment to supporting the development and implementation of alternative technology to high-activity radioactive sources, as well as each country's capacity to sustainably implement alternative technologies to high-activity radioactive sources.
- **Risk Environment:** Similar to the NTI Index, the Radioactive Source Security Assessment includes indicators of a country's risk environment.

[1] Category 1 sources are radioactive materials that, according to the IAEA, "would be likely to cause permanent injury to a person who handled it, or were otherwise in contact with it, for more than a few minutes." IAEA Category 1 sources are as follows: radioisotope thermoelectric generators (RTGs); irradiators; teletherapy sources; and fixed, multibeam teletherapy (gamma knife) sources. See www-pub.iaea.org/MTCD/publications/PDF/Pub1227_web.pdf.

Framework for the Radioactive Source Security Assessment

See the Methodology FAQ on p. 30 and the full EIU methodology at www.ntiindex.org for more information on the methodology for the Radioactive Source Security Assessment.

Radioactive Source Security Assessment: Findings and Recommendations

FINDING

The international architecture for radiological security is extremely weak, and the IAEA Code of Conduct on the Safety and Security of Radioactive Sources, which is the foundation of that architecture but is voluntary and non-binding, is not universal.

The international architecture for radiological security is extremely weak. The International Atomic Energy Agency (IAEA) Code of Conduct on the Safety and Security of Radioactive Sources (Code of Conduct) and related Supplemental Guidance, which provides the foundation of the global radiological security architecture, is non-binding and is not universal (see sidebar "The IAEA Code of Conduct"). It does not provide a harmonized set of standards or rules with which countries, even those having expressed political commitment, are legally obligated to comply. Given the lack of standards or rules, national approaches to radiological security vary and countries are left to make their own interpretations of the provisions of this voluntary framework or to selectively apply the Code of Conduct and Supplemental Guidance.

Participation in other parts of the radiological security architecture beyond the Code of Conduct is also weak. Gaps in membership in international initiatives and inconsistent implementation of multilateral treaties and voluntary instruments contribute to variations in national approaches to radiological security that can be exploited by bad actors.

Given the lack of standards or rules, national approaches to radiological security vary and countries are left to make their own interpretations.

DATA HIGHLIGHTS

- 78% of countries have made a political commitment to the IAEA Code of Conduct, which is the cornerstone of the global radiological security architecture.
- 61% of countries have ratified the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT), which requires states parties to criminalize certain activities and cooperate with one another to prosecute those who commit those crimes.
- 60% of countries have ratified the Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency.

THE IAEA CODE OF CONDUCT

The IAEA Code of Conduct on the Safety and Security of Radioactive Sources (Code of Conduct)—along with the Supplemental Guidance on the Import and Export of Radioactive Sources and Supplemental Guidance on the Management of Disused Radioactive Sources—is a non-binding instrument that contains voluntary provisions to be implemented by subscribing states.

The Code of Conduct contains basic principles suggesting that states "take appropriate measures to ensure that the radioactive sources within their territory are safely managed and securely protected during their lifetime."[1] It also calls for effective national legislation and regulatory controls over radioactive sources. The objectives of the Code of Conduct are as follows:

- Help states to reach and maintain a high level of safety and security of radioactive sources, including at the end of their useful lives.
- Support states in establishing national legislative and regulatory systems of control by providing a basic governance framework for radioactive sources made up of key safety and security requirements that states should address in their laws and regulations as well as by their administrative bodies.
- Prevent unauthorized access, damage, theft, or unauthorized transfer of radioactive sources.
- Prevent malicious use of radioactive sources and mitigate and minimize the consequences of any accident or malevolent act involving radioactive sources.

The Code of Conduct does not provide a detailed or exhaustive list of measures, and it is not legally binding. Instead, the Code of Conduct proposes elements for a legislative framework for the safety and security of radioactive sources and elements for a regulatory body, including its powers and responsibilities.

The Supplemental Guidance on the Import and Export of Radioactive Sources provides guidance that is not legally binding for countries on how to regulate imports and exports of certain radioactive sources. It is intended to establish a common framework that states may apply to Category 1 and 2 radioactive sources, as well as to other types. According to this guidance, countries are requested to appoint a point of contact to facilitate import and export of radioactive sources. In addition, a country can provide the IAEA with its responses to the Importing and Exporting States Questionnaire to help facilitate the timely review of export requests and to further harmonize the application of the guidance.

The Supplemental Guidance on the Management of Disused Radioactive Sources provides further direction for establishing a national policy and strategy for the management of disused sources and for implementing management options such as recycling and reuse, long-term storage pending disposal, and return to a supplier.

[1] See paragraph 17 of the Code of Conduct, at www-pub.iaea.org/MTCD/publications/PDF/Code-2004_web.pdf.

- 46% of countries have ratified the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.
- 49% of countries are members of the Global Initiative to Combat Nuclear Terrorism (GICNT).
- 41% of countries sent an official delegation to the 2018 IAEA International Conference on the Security of Radioactive Sources.

RECOMMENDATION

Countries should bolster the global radiological security architecture by ratifying key international agreements, by making political commitments to the IAEA Code of Conduct and related Supplemental Guidance, and by participating in voluntary initiatives.

- Countries should work with the IAEA to universalize and strengthen implementation of the Code of Conduct and related Supplemental Guidance, including through sharing of best practices and assistance to countries, with the goal that all countries adhere to minimum standards.
- Countries should (a) ratify and fully implement ICSANT, the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, and the Convention on Spent Fuel Management; (b) join the GICNT; and (c) send delegations to key international conferences on radiological security, such as those hosted by the IAEA. Participation in key radiological security initiatives and conferences provides opportunities for countries to build awareness of radiological risks, share best practices and lessons learned, and strengthen professional networks.
- Countries should contribute to the IAEA's radiological security work through political, technical, and financial support to assist countries in their implementation of the Code of Conduct and Supplemental Guidance, as well as other IAEA guidance on radiological security.

FINDING

Most countries do not have adequate national regulatory frameworks for regulating and providing oversight of radioactive sources, including security requirements.

The foundation of a country's ability to secure and control radioactive sources is a robust regulatory framework. A legislative and regulatory framework forms the basis for effective control of radioactive sources. Regulatory oversight by competent authorities, security requirements, a state registry, inspection authority, and export licensing requirements provide for enforcement of security and control of radioactive sources at every stage of their life cycle. Inadequate national legislation and regulatory oversight creates dangerous gaps in the global radiological security regime.

The Radioactive Source Security Assessment finds that most countries do not have the national regulatory regimes in place to secure and control radioactive sources and protect them from theft and unauthorized use. In fact, only one-quarter of countries assessed have all the regulatory requirements included in the assessment, and just under one-fifth of countries have none. Only about half of countries have specific requirements to secure radioactive sources. These statistics uncovered by the new assessment are worrying given that radioactive sources are located in open environments across numerous facilities around the world, such as hospitals and research centers, and are vulnerable to theft and could be used to make a dirty bomb.

DATA HIGHLIGHTS

- Only 23% of countries have in place all five regulatory elements included within the National Measures category: a regulatory oversight body, required security measures, a state registry, inspection authority, and export licensing requirements. In 17% of countries, none of these measures are required.
- Though 81% of countries have established a regulatory oversight body for radioactive sources, only 56% of countries have a regulatory requirement to secure radioactive sources, and only 51% of countries have authority to inspect facilities with radioactive sources. These numbers indicate that many countries' oversight bodies deal only with safety, not security, of radioactive sources.
- Only 45% of countries have licensing requirements for exporting IAEA Category 1 sources,[2] the most dangerous kinds of sources.
- Only 36% of countries maintain an active national registry of radioactive sources.

RECOMMENDATION

Countries should establish the national legal framework necessary to effectively regulate and control radioactive sources, including an oversight body and requirements to secure radioactive sources.

- Countries should establish a national regulatory body to oversee security of radioactive sources through regulations, inspections, enforcement, and building human capacity.
- Countries should bridge regulatory gaps to address the security of radioactive sources and, if needed, integrate safety and security measures in their national framework.
- Countries should establish a minimum level of security to protect radioactive sources from theft, using a graded approach to securing different categories of sources.
- The regulatory body should have authority to inspect facilities with radioactive sources. Inspectors should be well trained and inspect against common standards, inspections should result in a set of recommended corrective actions, and processes should be in place to follow up on inspections to confirm that recommendations are met.
- The regulatory body should maintain a national registry of radioactive sources so it can effectively provide oversight of those sources and track them through their life cycle.

[2] See footnote 1.

FINDING

There are significant gaps in the ability of countries to track and regulate the movement of radioactive sources, both nationally and transnationally, so that only authorized recipients receive and possess radioactive sources.

Most countries do not have adequate regulatory requirements for tracking and controlling the movement of radioactive sources. The ability to track and control the location and movement of radioactive sources is the first line of defense in preventing unauthorized recipients from receiving and possessing these sources. Countries do not have the domestic regulatory tools necessary to be able to track sources through national registries or licensing requirements, and there are low rates of participation in voluntary actions under the IAEA's Supplemental Guidance on Import and Export of Radioactive Sources. This low rate of participation suggests that national regulatory environments lag behind the Import and Export Guidance, and countries are not yet equipped to engage in a standardized approach to imports and exports.

DATA HIGHLIGHTS

- Only 36% of countries maintain an active registry of radioactive sources that would enable a regulatory body to track those sources throughout their life cycle.
- Only 45% of countries have licensing requirements for the export of IAEA Category 1 sources, which are the most dangerous type of sources.
- Among the countries assessed, 68% have made a political commitment to the Supplemental Guidance on the Import and Export of Radioactive Sources, which is the component of the international radiological security regime under the IAEA Code of Conduct that attempts to harmonize export controls around the world.
- Though 81% of countries have nominated a point of contact to facilitate import and export of radioactive sources, a relatively easy action to take, only 60% of countries have made available to the IAEA their responses to the IAEA Importing and Exporting States Questionnaire.

RECOMMENDATION

Countries should put in place national measures to track and control the movement of radioactive sources domestically and internationally, to prevent them from falling into the wrong hands.

- Domestically, a national registry of radioactive sources allows regulators to follow transactions from origin, through transfer to another licensee or export, to final disposition. Countries should establish a national source tracking system that includes IAEA Category 1 and 2 sources at a minimum. Countries should update and verify the registry so that radioactive sources can be tracked from the time they are manufactured or imported through the time of their disposal or export.
- Countries should impose licensing requirements for the export of IAEA Category 1 sources. Stringent import and export controls are necessary to track the movement of radioactive sources around the world.
- Countries should make a political commitment to support the IAEA Supplemental Guidance on Import and Export of Radioactive Sources to enable global tracking and control of the movement of radioactive sources. Countries should implement those commitments and seek assistance from the IAEA where necessary.
- To facilitate the timely review of export authorizations and further harmonize the application of the Import and Export Guidance, countries should nominate a point of contact and make available their responses to the IAEA Importing and Exporting States Questionnaire.

FINDING

Cradle-to-grave controls on radioactive sources remain insufficient.

Countries are ill-equipped to regulate and control radioactive sources in their country at all stages of their life cycles, from production, manufacture, use, and transport to disposition. Strengthening chain-of-custody procedures and regulatory controls can prevent the loss of control of radioactive sources and avoid end users abandoning sources, owing to high disposal costs and lack of commercial disposition pathways or national repositories. The vast majority of countries do not have an active registry of radioactive sources, which means regulators cannot plan for end-of-life management strategies that would lead to safe and secure disposition pathways. Lack of preparedness to deal with end-of-life management is also evidenced by the extremely low number of countries that have made a political commitment to the IAEA Supplemental Guidance on Management of Disused Radioactive Sources.

DATA HIGHLIGHTS

- Only 36% of countries maintain an active registry of radioactive sources that would allow a regulatory body to track the sources and to identify appropriate disposition pathways.
- Only 21% of countries have made a political commitment to the IAEA Supplemental Guidance on Management of Disused Radioactive Sources. The significantly low rate of participation in this Supplemental Guidance, although a new instrument as of 2017, suggests that countries are not ready to implement the end-of-life management commitments it contains.

RECOMMENDATION

Countries should establish regulatory measures and practices to track materials throughout their life cycles and follow relevant IAEA guidance on end-of-life management.

- Countries should establish a robust and holistic regulatory framework for the security and control of radioactive sources throughout their life cycles, including transportation, possession, and disposition. The regulatory framework should be supported by a national registry of radioactive sources that can track sources through all stages of the life cycle. This tracking is necessary to support life-cycle management plans and to identify appropriate disposition pathways.
- Countries should develop national end-of-life policies and strategies, supported by the recent IAEA Supplemental Guidance, which include roles of suppliers, manufacturers, and governments.
- Countries should make a political commitment to the Supplemental Guidance on Management of Disused Radioactive Sources and take appropriate steps to implement those commitments, seeking assistance from the IAEA where necessary.

FINDING

Very few countries have made public commitments to replace high-activity radioactive sources with alternative technology, and there is varying capacity around the world to implement and sustain the technology's use.

Security of radioactive sources and their supply chains can and should be tightened, but the only way to eliminate the risk posed by these sources is to replace them with safe, effective alternative technologies that have equivalent, and in some applications better, outcomes. There are significant challenges to adopting alternative technology around the world. Critical obstacles in the developing world include a lack of skilled and trained people to operate and maintain new technologies, and challenges to national infrastructure, such as an unreliable electrical grid. As an example, replacing cobalt-60 teletherapy devices with linear accelerators (LINACs) can be very costly, require highly qualified personnel for successful operation, and require a stable power and reliable cooling water supply system for the sustainable operation of this equipment.

The Radioactive Source Security Assessment shows that only a few countries have made commitments to replace high-activity radioactive sources with equally effective, but less-dangerous, alternative technologies, as evidenced by a review of national regulations, policies, and international commitments. The Radioactive Source Security Assessment also found that the capacity to adopt new technologies is uneven around the world, owing to significant infrastructure and educational barriers.

DATA HIGHLIGHTS

- Only 6% of countries have publicly declared a regulatory requirement, policy, or commitment to implementing alternative technologies to high-activity radioactive sources.
- Only 18% of countries have subscribed to IAEA Information Circular (INFCIRC) 910, the Joint Statement on Strengthening the Security of High-Activity Sealed Radioactive Sources, which includes a commitment to support the development of alternative technologies that do not rely on high-activity sources, through research and development and the introduction of regulatory incentives.
- 15% of countries have frequent power outages and are in the 80th to 99th percentile of countries with businesses experiencing power outages each month.
- 13% of countries are in the 0 to 19th percentile for population over age 25 with a tertiary degree or higher. Only 13% are in the 80th to 99th percentile.

RECOMMENDATION

Countries should commit to replacing high-activity radioactive sources with alternative technologies where possible. They should work to identify and address challenges to adopting alternative technology and to share information that can help other countries adopt these technologies, if they have the capacity to do so.

- As progress on the technical, operational, and economic feasibility of replacement technology continues, countries should move to permanent risk reduction by transitioning to alternative technologies.
- Countries should subscribe to INFCIRC/910 and support other international initiatives to develop alternative technology.
- Countries should put in place policies and time lines to phase out high-activity radioactive sources and to replace them with alternative technology.
- To address barriers that will hinder these countries' readiness to adopt alternative technologies, countries should share information to overcome these barriers, such as user awareness and preference, costs, research standards and operating protocols, and effectiveness.
- Countries should support research and development to find solutions to national infrastructure barriers, particularly in regions where capacity to support alternative technologies remains a challenge. This includes more training and education resources to develop the skilled workforce needed to safely operate LINACs and more advanced alternative technologies.

About the Expert Panels

To develop each edition of the NTI Index, the Economist Intelligence Unit (EIU) and NTI convene a panel of highly respected nuclear security experts with a broad range of expertise from countries around the world. This year, NTI and the EIU also sought advice from experts for the new Radioactive Source Security Assessment and from experts on terrorism.

INTERNATIONAL PANEL OF EXPERTS

The International Panel of Experts was instrumental in considering options for strengthening the 2020 NTI Index as part of an effort to raise standards and promote continuous improvement. The panel's input also helps ensure that the NTI Index reflects an international point of view and ongoing international discussions about nuclear security priorities.

Panel members do not represent their country's interests, nor do they score individual countries. Instead, they play an advisory role in their personal, not professional, capacities. Participation in the NTI Index as a member of the International Panel of Experts does not imply endorsement of every aspect of the NTI Index, nor does it imply endorsement of the Index's findings and recommendations. On the contrary, panel meetings demonstrate a range of views and highlight the need for a continuing dialogue on nuclear security priorities.

Dauren Aben, Senior Research Fellow, Eurasian Research Institute

Irma Arguello, CEO, Nonproliferation for Global Security Foundation

Kelsey Davenport, Director, Nonproliferation Policy, Arms Control Association

Anna Ellis, Principal Consultant, Indigon Nuclear

Hubert Foy, Director and Senior Research Scientist, African Centre for Science and International Security (AFRICSIS)

The International Panel of Experts was instrumental in considering options for strengthening the 2020 NTI Index as part of an effort to raise standards and promote continuous improvement.

Roger Howsley, Executive Director, World Institute for Nuclear Security

Feroz Khan, Research Professor, U.S. Naval Postgraduate School

Masahiro Kikuchi, Former Executive Director of the Nuclear Material Control Center, Japan; CEO KIKURIN Institute of International Politics and Technology

Dmitry Kovchegin, Independent Consultant

Frans Mashilo, Head of Security, Council for Scientific and Industrial Research (CSIR)

Khammar Mrabit, Director General, Moroccan Agency for Nuclear and Radiological Safety and Security

Steve Nesbit, President, LMNT Consulting

Anita Nilsson, Executive Director, AN & Associates

Rajeswari Rajagopalan, Head, Nuclear and Space Policy Initiative, Observer Research Foundation

Nickolas Roth, Director, Nuclear Security Program, Stimson Center

Michael Rowland, Consultant, Practical Reason Inc.

Ta Minh Tuan, Associate Professor, Diplomatic Academy of Vietnam

Hui Zhang, Senior Research Associate, Belfer Center for Science and International Affairs, Harvard University

RADIOLOGICAL SECURITY EXPERTS

NTI and the EIU convened a separate group of experts to inform the development of the new Radioactive Source Security Assessment. The radiological security experts represented the scientific, technical, commercial, and regulatory communities involved in securing and using radioactive sources in various applications.

Tom Bielefeld, Nuclear Security Research and Consulting

Christopher Boyd, Consultant, Former Assistant Commissioner of NYC Department of Health

Nicholas Butler, Deputy Director, Office of Radiological Security, National Nuclear Security Administration

Martin Comben, General Manager, International Irradiation Association

Charles Ferguson, Director, Nuclear and Radiation Studies Board, The National Academies of Sciences, Engineering, and Medicine

Ourania (Rania) Kosti, Senior Program Officer, Nuclear and Radiation Studies Board, The National Academies of Sciences, Engineering, and Medicine

Pierre Legoux, Head of Programmes, World Institute for Nuclear Security

Frederic Morris, Research Scientist, Pacific Northwest National Laboratory

Anita Nilsson, Executive Director, AN & Associates

Nickolas Roth, Director, Nuclear Security Program, Stimson Center

Mary Vecellio, Research Associate, Partnerships in Proliferation Prevention, Stimson Center

Paul Wynne, Chairman, International Irradiation Association

TERRORISM EXPERTS

A third, smaller group of terrorism experts also was convened to provide input on adjustments to the indicator on non-state actors (Indicator 5.4).

Daniel Benjamin, Norman E. McCulloch Jr. Director, The John Sloan Dickey Center for International Understanding, Dartmouth College

Ambassador Susan Burk, Independent Consultant

Erin Miller, Principal Investigator, Global Terrorism Database, National Consortium for the Study of Terrorism and Responses to Terrorism (START), University of Maryland

Jeffrey Muller, CBRN Expert, Countering Terrorism Section, United Nations Office of Counter-Terrorism/ United Nations Counter-Terrorism Centre

Nickolas Roth, Director, Nuclear Security Program, Stimson Center

Anne Witkowsky, Consultant, Former Deputy Assistant Secretary of Defense for Stability and Humanitarian Affairs

About NTI and the EIU

NUCLEAR THREAT INITIATIVE

NTI is a nonpartisan, non-profit global security organization focused on reducing nuclear and biological threats imperiling humanity. Founded in 2001 by former U.S. Senator Sam Nunn and philanthropist Ted Turner, who continue to serve as co-chairs, NTI is guided by a prestigious international board of directors. Ernest J. Moniz serves as co-chair and chief executive officer; Joan Rohlfing is president and chief operating officer.

www.nti.org

ECONOMIST INTELLIGENCE UNIT

The Economist Intelligence Unit (EIU) is the research arm of The Economist Group, publisher of *The Economist*. As the world's leading provider of country intelligence, the EIU helps governments, institutions, and businesses by providing timely, reliable, and impartial analysis of economic and development strategies. Through our public policy practice, we provide evidence-based research for policymakers and stakeholders seeking measurable outcomes in fields ranging from technology and finance to energy and health. We conduct research through interviews, regulatory analysis, quantitative modeling, and forecasting, and we display the results through interactive data visualization tools. Through a global network of more than 900 analysts and contributors, the EIU continuously assesses and forecasts political, economic, and business conditions in more than 200 countries.

www.eiu.com

Methodology FAQ

This appendix summarizes the methodology for the Radioactive Source Security Assessment. More detailed information on both the NTI Nuclear Security Index and the Radioactive Source Security Assessment is available in the full methodology appendix prepared by the Economist Intelligence Unit (EIU) at **www.ntiindex.org**.

RADIOACTIVE SOURCE SECURITY ASSESSMENT METHODOLOGY

What does the Radioactive Source Security Assessment measure?

The Radioactive Source Security Assessment is the first worldwide assessment of radiological security based on publicly available information. The assessment measures national policies, commitments, and actions in 175 countries and Taiwan related to securing radioactive sources to prevent a dirty bomb. The framework includes the country's laws and regulations, its support for global norms, its commitment and capacity for replacing high-activity radioactive sources with alternative technology, and the risk environment.

Unlike the Nuclear Security Index rankings, the assessment's framework does not produce scores or rankings of countries. Together, however, these data points provide insight into priorities for improving the governance and security of radioactive sources, serve to reinforce global norms, and provide a foundation for future in-depth analysis.

How is the Radioactive Source Security Assessment developed?

NTI and the EIU convened a group of experts to guide the development of the Radioactive Source Security Assessment. The radiological security experts informed the development of the framework and its associated indicators. The experts helped identify priorities for radioactive source security and available data sources. Unlike the Nuclear Security Index, governments were not consulted in the development of the Radioactive Source Security Assessment.

How were the data gathered?

Like the Nuclear Security Index, the Radioactive Source Security Assessment relies on publicly available information. Unlike the research conducted for the Nuclear Security Index, for this initial assessment, the EIU did not conduct in-depth country research into laws and regulations and instead relied on publicly available information that is easily accessible from existing databases or other consolidated resources. As a result of these research constraints, certain factors relevant to radiological security, such as the number of IAEA Category 1 and 2 radioactive sources in each country (information that is not publicly available) or other regulatory requirements that might exist in some countries (requiring in-depth country research), were not included in the assessment.

What types of information were used to measure country policies, commitments, and actions?

The EIU relied on publicly available sources, including (a) IAEA and international organization publications and reports; (b) national statements at multilateral events such as the 2016 Nuclear Security Summit and the 2020 IAEA International Conference on Nuclear Security; (c) academic publications; (d) data collected by government authorities, international organizations, and non-governmental organizations such as the Stimson Center; (e) EIU proprietary country rankings and reports (specifically "Risk Briefing" and the "Business Environment Ranking"); and (f) interviews with experts.

Was information on radiological security easily accessible?

Limited information is available on radiological security worldwide, including baseline information on the number of radioactive sources. For a limited set of indicators, a result of "No" represents either a negative response to the question (e.g., the regulation in question does not exist) or that no data are available. This option has been applied to indicators where there is a clear lack of publicly accessible data. The assessment's limited scope precluded in-depth research for each country to determine the availability of data. However, in places where trusted secondary sources have conducted country-by-country research, such as the Stimson Center Radiological Sources Security Database, the assessment relied on those data. In those cases, an answer of "No" may indicate the unavailability of public information to that organization.

OTHER TOOLS AND RESOURCES

Where can I find all of the scores and data for the Nuclear Security Index and the Radioactive Source Security Assessment?

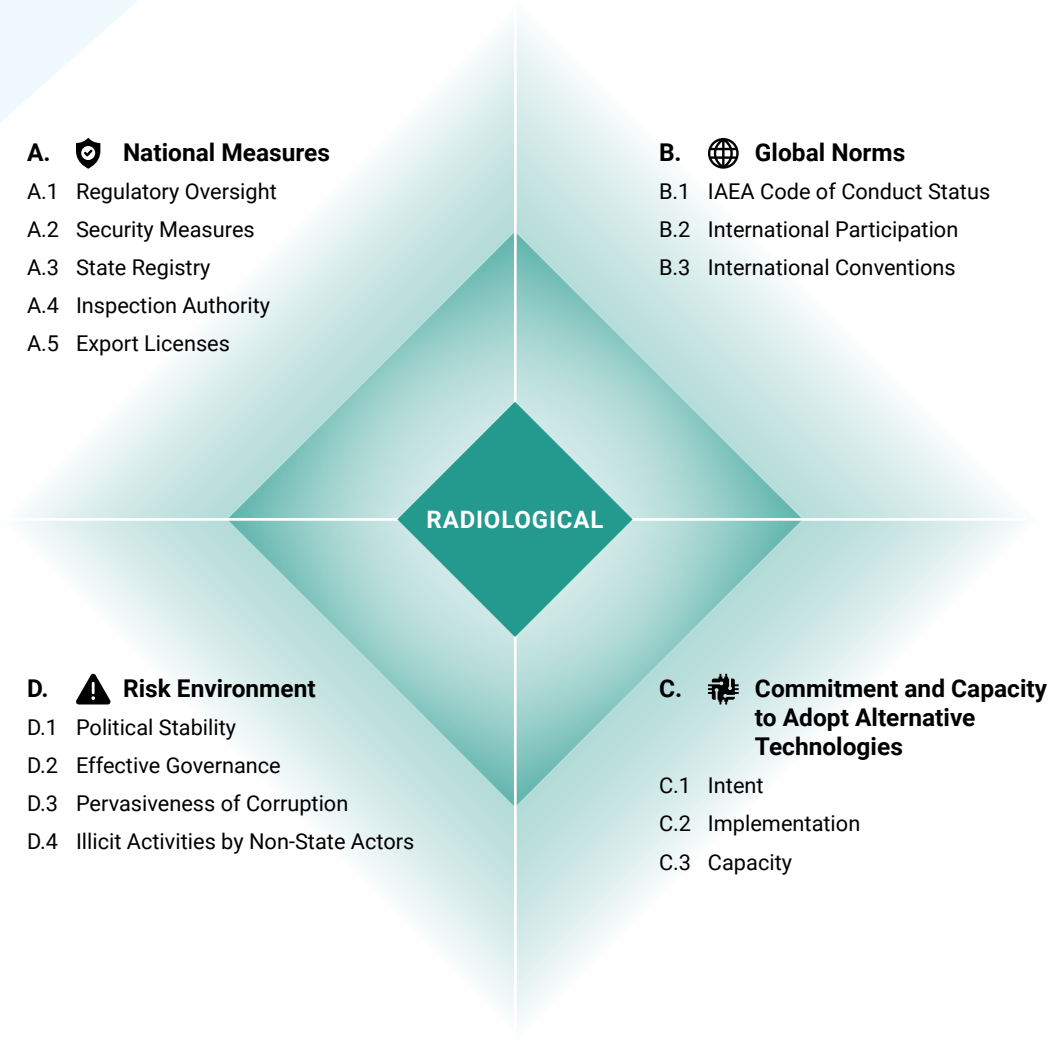
All information, including the report, the full EIU methodology, and the Excel models, are available on the NTI Index website, www.ntiindex.org. The website offers interactive viewing of the data for all three rankings of the Nuclear Security Index and the Radioactive Source Security Assessment, including country profiles. For the three rankings in the Nuclear Security Index, visitors can walk through scenarios to see how certain actions would increase a country's score. Visitors also can compare up to three countries' scores.

The scores for the three rankings in the Nuclear Security Index are included in three models that are available as Excel workbooks that can be downloaded. The models offer a wide range of analytic tools, allowing a deeper investigation of measures of nuclear security globally. Users can filter countries by region, for example, or by membership in international organizations or multilateral initiatives. They also can compare two or more countries and can examine correlations between indicators. In-depth country profiles are included in the models to enable a deeper dive into a given country's nuclear security conditions.

The weights assigned to each category and indicator can be changed to reflect different assumptions about the relative importance of the categories and indicators, including weighting categories and indicators at zero.

The model for the Radioactive Source Security Assessment does not include scores or ranks, but instead indicates the percentage of countries that have adopted certain policies, commitments, or actions. Separate country pages allow the user to take a deeper dive into a given country's actions related to radiological security.

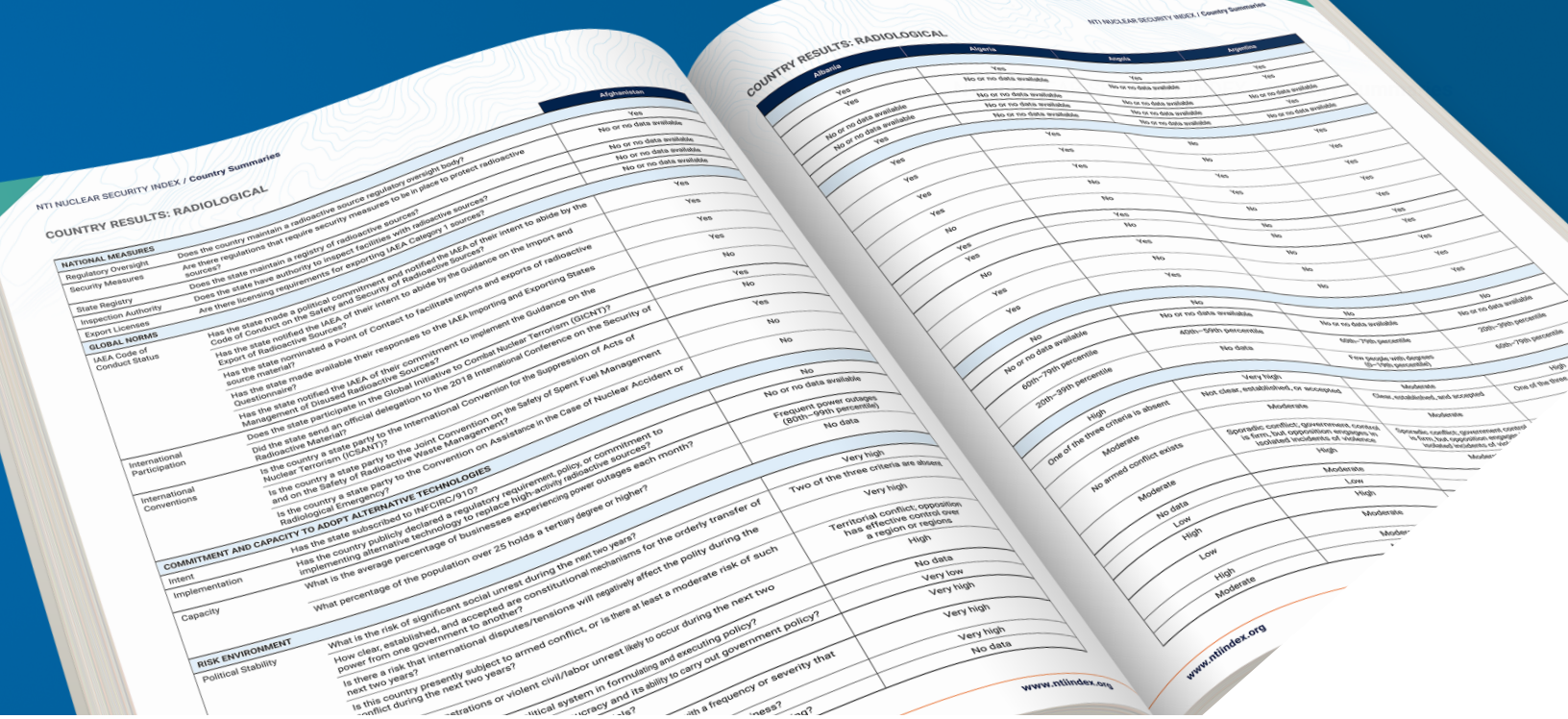
Framework for the Radioactive Source Security Assessment



FRAMEWORK FOR RADIOLOGICAL

A	NATIONAL MEASURES
A.1	**Regulatory Oversight**
A.1.1	Does the country maintain a radioactive source regulatory oversight body?
A.2	**Security Measures**
A.2.1	Are there regulations that require security measures to be in place to protect radioactive sources?
A.3	**State Registry**
A.3.1	Does the state maintain a registry of radioactive sources?
A.4	**Inspection Authority**
A.4.1	Does the state have authority to inspect facilities with radioactive sources?
A.5	**Export Licenses**
A.5.1	Are there licensing requirements for exporting IAEA Category 1 sources?
B	**GLOBAL NORMS**
B.1	**IAEA Code of Conduct Status**
B.1.1	Has the state made a political commitment and notified the IAEA of their intent to abide by the Code of Conduct on the Safety and Security of Radioactive Sources?
B.1.2	Has the state notified the IAEA of their intent to abide by the Guidance on the Import and Export of Radioactive Sources?
B.1.3	Has the state nominated a Point of Contact to facilitate imports and exports of radioactive source material?
B.1.4	Has the state made available their responses to the IAEA Importing and Exporting States Questionnaire?
B.1.5	Has the state notified the IAEA of their commitment to implement the Guidance on the Management of Disused Radioactive Sources?
B.2	**International Participation**
B.2.1	Does the state participate in the Global Initiative to Combat Nuclear Terrorism (GICNT)?
B.2.2	Did the state send an official delegation to the 2018 International Conference on the Security of Radioactive Material?
B.3	**International Conventions**
B.3.1	Is the country a state party to the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT)?
B.3.2	Is the country a state party to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management?

B.3.3	Is the country a state party to the Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency?
C	**COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES**
C.1	**Intent**
C.1.1	Has the state subscribed to INFCIRC/910?
C.2	**Implementation**
C.2.1	Has the country publicly declared a regulatory requirement, policy, or commitment to implementing alternative technology to replace high-activity radioactive sources?
C.3	**Capacity**
C.3.1	What is the average percentage of businesses experiencing power outages each month?
C.3.2	What percentage of the population over 25 holds a tertiary degree or higher?
D	**RISK ENVIRONMENT**
D.1	**Political Stability**
D.1.1	What is the risk of significant social unrest during the next two years?
D.1.2	How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?
D.1.3	Is there a risk that international disputes/tensions will negatively affect the polity during the next two years?
D.1.4	Is this country presently subject to armed conflict, or is there at least a moderate risk of such conflict during the next two years?
D.1.5	Are violent demonstrations or violent civil/labor unrest likely to occur during the next two years?
D.2	**Effective Governance**
D.2.1	How effective is the country's political system in formulating and executing policy?
D.2.2	What is the quality of the country's bureaucracy and its ability to carry out government policy?
D.3	**Pervasiveness of Corruption**
D.3.1	How pervasive is corruption among public officials?
D.4	**Illicit Activities by Non-State Actors**
D.4.1	How likely is it that domestic or foreign terrorists will attack with a frequency or severity that causes substantial disruption to business operations?
D.4.2	How likely is organized crime to be a problem for government and/or business?
D.4.3	How many firearms were seized during the interdiction of illicit weapons trafficking?



Country Summaries

This section includes a table showing the country results for the questions in the Radioactive Source Security Assessment. Individual country summaries for each of the 175 countries and Taiwan in that assessment are available at www.ntiindex.org.

COUNTRY RESULTS: RADIOLOGICAL

		Afghanistan
NATIONAL MEASURES		
Regulatory Oversight	Does the country maintain a radioactive source regulatory oversight body?	Yes
Security Measures	Are there regulations that require security measures to be in place to protect radioactive sources?	No or no data available
State Registry	Does the state maintain a registry of radioactive sources?	No or no data available
Inspection Authority	Does the state have authority to inspect facilities with radioactive sources?	No or no data available
Export Licenses	Are there licensing requirements for exporting IAEA Category 1 sources?	No or no data available
GLOBAL NORMS		
IAEA Code of Conduct Status	Has the state made a political commitment and notified the IAEA of their intent to abide by the Code of Conduct on the Safety and Security of Radioactive Sources?	Yes
	Has the state notified the IAEA of their intent to abide by the Guidance on the Import and Export of Radioactive Sources?	Yes
	Has the state nominated a Point of Contact to facilitate imports and exports of radioactive source material?	Yes
	Has the state made available their responses to the IAEA Importing and Exporting States Questionnaire?	Yes
	Has the state notified the IAEA of their commitment to implement the Guidance on the Management of Disused Radioactive Sources?	No
International Participation	Does the state participate in the Global Initiative to Combat Nuclear Terrorism (GICNT)?	Yes
	Did the state send an official delegation to the 2018 International Conference on the Security of Radioactive Material?	No
International Conventions	Is the country a state party to the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT)?	Yes
	Is the country a state party to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management?	No
	Is the country a state party to the Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency?	No
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES		
Intent	Has the state subscribed to INFCIRC/910?	No
Implementation	Has the country publicly declared a regulatory requirement, policy, or commitment to implementing alternative technology to replace high-activity radioactive sources?	No or no data available
Capacity	What is the average percentage of businesses experiencing power outages each month?	Frequent power outages (80th–99th percentile)
	What percentage of the population over 25 holds a tertiary degree or higher?	No data
RISK ENVIRONMENT		
Political Stability	What is the risk of significant social unrest during the next two years?	Very high
	How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?	Two of the three criteria are absent
	Is there a risk that international disputes/tensions will negatively affect the polity during the next two years?	Very high
	Is this country presently subject to armed conflict, or is there at least a moderate risk of such conflict during the next two years?	Territorial conflict; opposition has effective control over a region or regions
	Are violent demonstrations or violent civil/labor unrest likely to occur during the next two years?	High
Effective Governance	How effective is the country's political system in formulating and executing policy?	No data
	What is the quality of the country's bureaucracy and its ability to carry out government policy?	Very low
Pervasiveness of Corruption	How pervasive is corruption among public officials?	Very high
Illicit Activities by Non-State Actors	How likely is it that domestic or foreign terrorists will attack with a frequency or severity that causes substantial disruption to business operations?	Very high
	How likely is organized crime to be a problem for government and/or business?	Very high
	How many firearms were seized during the interdiction of illicit weapons trafficking?	No data

COUNTRY RESULTS: RADIOLOGICAL

Albania	Algeria	Angola	Argentina
Yes	Yes	Yes	Yes
Yes	No or no data available	No or no data available	Yes
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	No or no data available	No or no data available	Yes
Yes	No or no data available	No or no data available	No or no data available
Yes	Yes	No	Yes
Yes	Yes	No	Yes
Yes	Yes	Yes	Yes
Yes	No	Yes	Yes
No	No	No	Yes
Yes	Yes	No	Yes
Yes	No	No	Yes
No	Yes	No	Yes
Yes	No	No	Yes
Yes	Yes	No	Yes
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
60th–79th percentile	40th–59th percentile	60th–79th percentile	20th–39th percentile
20th–39th percentile	No data	Few people with degrees (0–19th percentile)	60th–79th percentile
High	Very high	Moderate	High
One of the three criteria is absent	Not clear, established, or accepted	Clear, established, and accepted	One of the three criteria is absent
Moderate	Moderate	Moderate	Low
No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists
Moderate	High	Moderate	High
No data	Moderate	Low	Moderate
Low	Low	Low	Moderate
High	High	Very high	Moderate
Low	Moderate	Low	Low
High	Moderate	Low	Moderate
Moderate	Moderate	Very high	Very high

COUNTRY RESULTS: RADIOLOGICAL

		Armenia	Australia	Austria
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	Yes	Yes
State Registry	Active registry	Yes	No or no data available	No or no data available
Inspection Authority	Inspection authority	Yes	Yes	Yes
Export Licenses	Licensing requirements	Yes	Yes	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	No
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	Yes	Yes
	Disused Sources Guidance	Yes	Yes	No
International Participation	GICNT	Yes	Yes	Yes
	Radioactive Material Conference	Yes	No	No
International Conventions	ICSANT	Yes	Yes	Yes
	Joint Convention	Yes	Yes	Yes
	Convention on Assistance	Yes	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	Yes	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	Infrequent power outages (0–19th percentile)	No data	No data
	Tertiary degrees	60th–79th percentile	Many people with degrees (80th–99th percentile)	60th–79th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Low	Low
	Transfers of power	One of the three criteria is absent	Very clear, established, and accepted	Very clear, established, and accepted
	International disputes	High	Low	Low
	Armed conflict	Sporadic and incursive conflict	No armed conflict exists	No armed conflict exists
	Violent demonstrations	Moderate	Low	Low
Effective Governance	Effectiveness of political system	No data	High	High
	Quality of bureaucracy	Low	Very high	High
Pervasiveness of Corruption	Pervasiveness of corruption	High	Very low	Low
Illicit Activities by Non-State Actors	Terrorism	Low	Low	Low
	Organized crime	Moderate	Low	Very low
	Illicit arms flows	No data	Very high	No data

COUNTRY RESULTS: RADIOLOGICAL

Azerbaijan	Bahamas	Bahrain	Bangladesh
Yes	Yes	Yes	Yes
No or no data available	No or no data available	No or no data available	Yes
No or no data available	No or no data available	No or no data available	Yes
No or no data available	No or no data available	No or no data available	Yes
Yes	No or no data available	No or no data available	Yes
Yes	No	No	Yes
Yes	No	No	No
Yes	No	No	Yes
Yes	No	No	No
No	No	No	No
Yes	No	Yes	No
Yes	No	No	Yes
Yes	No	Yes	Yes
No	No	No	No
No	No	No	Yes
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
20th–39th percentile	40th–59th percentile	No data	Frequent power outages (80th–99th percentile)
40th–59th percentile	40th–59th percentile	40th–59th percentile	20th–39th percentile
Moderate	Low	Very high	High
Not clear, established, or accepted	Clear, established, and accepted	Two of the three criteria are absent	One of the three criteria is absent
High	Low	High	Low
Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	No armed conflict exists	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
Moderate	Low	High	High
Low	No data	Moderate	Low
Low	Moderate	Moderate	Low
High	Very low	Moderate	Very high
Low	Very low	Moderate	Moderate
Moderate	Moderate	Very low	Moderate
Low	Low	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

		Barbados	Belarus	Belgium
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	No or no data available
Security Measures	Security requirement	No or no data available	Yes	Yes
State Registry	Active registry	No or no data available	No or no data available	No or no data available
Inspection Authority	Inspection authority	No or no data available	Yes	Yes
Export Licenses	Licensing requirements	Yes	Yes	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	No	Yes	Yes
	Import Export Guidance	No	Yes	No
	Point of Contact	No	Yes	Yes
	Questionnaire	No	Yes	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	No	Yes	Yes
	Radioactive Material Conference	No	Yes	Yes
International Conventions	ICSANT	No	Yes	Yes
	Joint Convention	No	Yes	Yes
	Convention on Assistance	No	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	Yes
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	20th–39th percentile	Infrequent power outages (0–19th percentile)	No data
	Tertiary degrees	No data	No data	Many people with degrees (80th–99th percentile)
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Low	Moderate
	Transfers of power	Very clear, established, and accepted	Not clear, established, or accepted	Clear, established, and accepted
	International disputes	No threat	High	Low
	Armed conflict	No armed conflict exists	No armed conflict exists	No armed conflict exists
	Violent demonstrations	Low	Low	Low
Effective Governance	Effectiveness of political system	No data	No data	High
	Quality of bureaucracy	Moderate	Low	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	Very low	Moderate	Low
Illicit Activities by Non-State Actors	Terrorism	Very low	Low	Moderate
	Organized crime	Low	Moderate	Low
	Illicit arms flows	No data	Very high	High

COUNTRY RESULTS: RADIOLOGICAL

Belize	Benin	Bhutan	Bolivia
No or no data available	No or no data available	No or no data available	Yes
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	No or no data available	No or no data available	No or no data available
Yes	Yes	No	Yes
Yes	Yes	No	Yes
Yes	Yes	No	Yes
Yes	No	No	Yes
No	No	No	No
No	No	No	No
No	No	No	No
No	Yes	No	No
No	Yes	No	Yes
No	Yes	No	Yes
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
40th–59th percentile	Frequent power outages (80th–99th percentile)	Infrequent power outages (0–19th percentile)	20th–39th percentile
No data	No data	20th–39th percentile	40th–59th percentile
Moderate	High	Very low	High
One of the three criteria is absent	One of the three criteria is absent	Clear, established, and accepted	Two of the three criteria are absent
Moderate	High	Moderate	Low
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
Moderate	Moderate	Very low	High
No data	No data	No data	No data
Low	Low	Moderate	Low
Moderate	High	Very low	High
Very low	Low	Very low	Low
Very high	Moderate	Low	High
No data	No data	No data	Low

COUNTRY RESULTS: RADIOLOGICAL

		Bosnia and Herzegovina	Botswana	Brazil
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	Yes	Yes
State Registry	Active registry	Yes	Yes	No or no data available
Inspection Authority	Inspection authority	Yes	Yes	No or no data available
Export Licenses	Licensing requirements	Yes	No or no data available	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	Yes	Yes
	Disused Sources Guidance	Yes	Yes	No
International Participation	GICNT	Yes	No	No
	Radioactive Material Conference	No	Yes	Yes
International Conventions	ICSANT	Yes	No	Yes
	Joint Convention	Yes	Yes	Yes
	Convention on Assistance	Yes	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	20th–39th percentile	60th–79th percentile	40th–59th percentile
	Tertiary degrees	20th–39th percentile	No data	40th–59th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Very high	Low	Moderate
	Transfers of power	Two of the three criteria are absent	Clear, established, and accepted	Two of the three criteria are absent
	International disputes	High	Low	Low
	Armed conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists	No armed conflict exists
	Violent demonstrations	High	Very low	Moderate
Effective Governance	Effectiveness of political system	No data	No data	Low
	Quality of bureaucracy	Very low	Moderate	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	High	Low	High
Illicit Activities by Non-State Actors	Terrorism	Moderate	Very low	Very low
	Organized crime	High	Low	High
	Illicit arms flows	No data	Very low	Very high

COUNTRY RESULTS: RADIOLOGICAL

Brunei	Bulgaria	Burkina Faso	Burundi
No or no data available	Yes	Yes	No or no data available
No or no data available	Yes	Yes	No or no data available
No or no data available	Yes	Yes	No or no data available
No or no data available	Yes	Yes	No or no data available
No or no data available	Yes	No or no data available	No or no data available
No	Yes	Yes	Yes
No	Yes	Yes	Yes
Yes	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	No	No
No	Yes	No	No
No	Yes	Yes	No
No	No	No	Yes
No	Yes	No	No
No	No	Yes	No
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
No data	20th–39th percentile	Frequent power outages (80th–99th percentile)	Frequent power outages (80th–99th percentile)
No data	60th–79th percentile	No data	Few people with degrees (0–19th percentile)
Very low	Moderate	High	High
Not clear, established, or accepted	Clear, established, and accepted	Two of the three criteria are absent	Not clear, established, or accepted
Low	Low	Moderate	Very high
No armed conflict exists	No armed conflict exists	Sporadic and incursive conflict	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions
Very low	Low	High	High
No data	Moderate	No data	No data
Moderate	Low	Low	Low
Low	High	Moderate	Very high
Very low	Low	Very high	High
Very low	High	Moderate	High
No data	No data	Moderate	Very low

COUNTRY RESULTS: RADIOLOGICAL

		Cambodia	Cameroon	Canada
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	No or no data available	Yes
State Registry	Active registry	No or no data available	No or no data available	Yes
Inspection Authority	Inspection authority	No or no data available	No or no data available	Yes
Export Licenses	Licensing requirements	No or no data available	No or no data available	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	No	Yes	Yes
	Import Export Guidance	No	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	No	Yes	Yes
	Disused Sources Guidance	No	No	Yes
International Participation	GICNT	Yes	No	Yes
	Radioactive Material Conference	No	Yes	Yes
International Conventions	ICSANT	No	No	Yes
	Joint Convention	No	No	Yes
	Convention on Assistance	No	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	Yes
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	40th–59th percentile	Frequent power outages (80th–99th percentile)	No data
	Tertiary degrees	No data	No data	Many people with degrees (80th–99th percentile)
RISK ENVIRONMENT				
Political Stability	Social unrest	High	High	Very low
	Transfers of power	Two of the three criteria are absent	Not clear, established, or accepted	Very clear, established, and accepted
	International disputes	High	High	Low
	Armed conflict	No armed conflict exists	Sporadic and incursive conflict	No armed conflict exists
	Violent demonstrations	High	High	Low
Effective Governance	Effectiveness of political system	No data	No data	High
	Quality of bureaucracy	Very low	Low	Very high
Pervasiveness of Corruption	Pervasiveness of corruption	Very high	Very high	Very low
Illicit Activities by Non-State Actors	Terrorism	Low	High	Low
	Organized crime	High	High	Low
	Illicit arms flows	No data	Very low	Very high

COUNTRY RESULTS: RADIOLOGICAL

Cape Verde	Central African Republic	Chad	Chile
No or no data available	Yes	Yes	Yes
No or no data available	No or no data available	Yes	Yes
No or no data available	No or no data available	Yes	No or no data available
No or no data available	No or no data available	Yes	Yes
No or no data available	No or no data available	No or no data available	No or no data available
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	No	No	Yes
No	No	Yes	No
Yes	No	No	Yes
No	No	No	No
No	Yes	No	Yes
No	No	No	Yes
No	No	No	Yes
No	No	No	Yes
No or no data available	No or no data available	No or no data available	No or no data available
40th–59th percentile	Frequent power outages (80th–99th percentile)	60th–79th percentile	20th–39th percentile
20th–39th percentile	No data	Few people with degrees (0–19th percentile)	60th–79th percentile
Moderate	Very high	High	Moderate
Clear, established, and accepted	Two of the three criteria are absent	Not clear, established, or accepted	Very clear, established, and accepted
No threat	High	Moderate	Low
No armed conflict exists	Territorial conflict; opposition has effective control over a region or regions	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	No armed conflict exists
Moderate	Very high	Moderate	Moderate
No data	No data	No data	High
Moderate	Very low	Very low	High
Low	Very high	Very high	Low
Very low	High	Very high	Low
Moderate	Very high	High	Low
Low	Low	No data	Very high

COUNTRY RESULTS: RADIOLOGICAL

		China	Colombia	Comoros
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	No or no data available
Security Measures	Security requirement	Yes	Yes	No or no data available
State Registry	Active registry	No or no data available	Yes	No or no data available
Inspection Authority	Inspection authority	Yes	Yes	No or no data available
Export Licenses	Licensing requirements	No or no data available	No or no data available	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	No
	Import Export Guidance	Yes	Yes	No
	Point of Contact	Yes	Yes	No
	Questionnaire	No	Yes	No
	Disused Sources Guidance	No	No	No
International Participation	GICNT	Yes	No	No
	Radioactive Material Conference	Yes	No	No
International Conventions	ICSANT	Yes	No	Yes
	Joint Convention	Yes	No	No
	Convention on Assistance	Yes	Yes	No
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	Infrequent power outages (0–19th percentile)	20th–39th percentile	No data
	Tertiary degrees	40th–59th percentile	60th–79th percentile	No data
RISK ENVIRONMENT				
Political Stability	Social unrest	Low	Moderate	No data
	Transfers of power	Two of the three criteria are absent	Very clear, established, and accepted	No data
	International disputes	High	Moderate	No data
	Armed conflict	No armed conflict exists	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	No data
	Violent demonstrations	Moderate	Low	No data
Effective Governance	Effectiveness of political system	Moderate	Moderate	No data
	Quality of bureaucracy	Moderate	Moderate	No data
Pervasiveness of Corruption	Pervasiveness of corruption	High	Moderate	No data
Illicit Activities by Non-State Actors	Terrorism	Low	Moderate	Moderate
	Organized crime	Moderate	High	High
	Illicit arms flows	No data	Very high	No data

COUNTRY RESULTS: RADIOLOGICAL

Congo (Brazzaville)	Congo (Dem. Rep. of)	Costa Rica	Côte d'Ivoire
No or no data available	Yes	Yes	Yes
Yes	Yes	Yes	Yes
No or no data available	No or no data available	Yes	Yes
No or no data available	Yes	Yes	Yes
No or no data available	No or no data available	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	No	Yes	Yes
No	No	No	Yes
No	No	No	Yes
No	No	No	No
No	Yes	Yes	Yes
No	No	No	No
No	No	Yes	No
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
Frequent power outages (80th–99th percentile)	Frequent power outages (80th–99th percentile)	40th–59th percentile	60th–79th percentile
No data	Few people with degrees (0–19th percentile)	60th–79th percentile	Few people with degrees (0–19th percentile)
High	Moderate	Moderate	High
Not clear, established, or accepted	Not clear, established, or accepted	Very clear, established, and accepted	Two of the three criteria are absent
Moderate	Moderate	Low	Low
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Territorial conflict; opposition has effective control over a region or regions	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
Moderate	High	Low	High
No data	No data	Moderate	No data
Low	Very low	Moderate	Low
Very high	Very high	Low	High
Low	Moderate	Very low	High
Moderate	Very high	Moderate	High
No data	No data	Very high	Low

COUNTRY RESULTS: RADIOLOGICAL

		Croatia	Cuba	Cyprus
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	Yes	No or no data available
State Registry	Active registry	Yes	No or no data available	No or no data available
Inspection Authority	Inspection authority	Yes	Yes	No or no data available
Export Licenses	Licensing requirements	Yes	No or no data available	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	Yes	Yes
	Disused Sources Guidance	No	Yes	No
International Participation	GICNT	Yes	No	Yes
	Radioactive Material Conference	Yes	Yes	No
International Conventions	ICSANT	Yes	Yes	Yes
	Joint Convention	Yes	Yes	Yes
	Convention on Assistance	Yes	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	20th–39th percentile	No data	No data
	Tertiary degrees	No data	20th–39th percentile	60th–79th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Low	Moderate	Low
	Transfers of power	Clear, established, and accepted	Two of the three criteria are absent	Clear, established, and accepted
	International disputes	Moderate	High	Moderate
	Armed conflict	No armed conflict exists	No armed conflict exists	No armed conflict exists
	Violent demonstrations	Low	Low	Low
Effective Governance	Effectiveness of political system	Low	Moderate	Moderate
	Quality of bureaucracy	Low	Moderate	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	Moderate	Moderate	Moderate
Illicit Activities by Non-State Actors	Terrorism	Very low	Very low	Low
	Organized crime	Moderate	Low	Low
	Illicit arms flows	High	Very low	No data

COUNTRY RESULTS: RADIOLOGICAL

Czech Republic	Denmark	Djibouti	Dominican Republic
Yes	Yes	No or no data available	Yes
Yes	Yes	No or no data available	Yes
No or no data available	No or no data available	No or no data available	Yes
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No	Yes
Yes	Yes	No	Yes
Yes	Yes	No	Yes
Yes	Yes	No	No
Yes	Yes	No	No
Yes	Yes	No	No
No	No	No	No
Yes	Yes	Yes	Yes
Yes	Yes	No	No
Yes	Yes	No	No
Yes	Yes	No	No
No or no data available	Yes	No or no data available	No or no data available
Infrequent power outages (0–19th percentile)	No data	40th–59th percentile	Frequent power outages (80th–99th percentile)
40th–59th percentile	Many people with degrees (80th–99th percentile)	No data	40th–59th percentile
Low	Low	Moderate	Low
Clear, established, and accepted	Very clear, established, and accepted	Not clear, established, or accepted	One of the three criteria is absent
Moderate	Low	Moderate	Moderate
No armed conflict exists	No armed conflict exists	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	No armed conflict exists
Low	Very low	Moderate	Moderate
Moderate	High	No data	Low
Moderate	High	Low	Low
Moderate	Low	High	High
Very low	Moderate	Moderate	Very low
Low	Very low	Moderate	Moderate
No data	Moderate	No data	High

COUNTRY RESULTS: RADIOLOGICAL

		Ecuador	Egypt	El Salvador
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	No or no data available	Yes
State Registry	Active registry	Yes	No or no data available	Yes
Inspection Authority	Inspection authority	Yes	No or no data available	Yes
Export Licenses	Licensing requirements	No or no data available	No or no data available	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	Yes	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	No	No	No
	Radioactive Material Conference	Yes	Yes	No
International Conventions	ICSANT	No	No	Yes
	Joint Convention	No	No	No
	Convention on Assistance	Yes	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	20th–39th percentile	40th–59th percentile	20th–39th percentile
	Tertiary degrees	20th–39th percentile	No data	Few people with degrees (0–19th percentile)
RISK ENVIRONMENT				
Political Stability	Social unrest	High	Moderate	Moderate
	Transfers of power	One of the three criteria is absent	Two of the three criteria are absent	Clear, established, and accepted
	International disputes	Low	Moderate	Low
	Armed conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists
	Violent demonstrations	High	Low	Low
Effective Governance	Effectiveness of political system	Low	Low	Low
	Quality of bureaucracy	Low	Low	Low
Pervasiveness of Corruption	Pervasiveness of corruption	High	Moderate	High
Illicit Activities by Non-State Actors	Terrorism	Low	Moderate	Very low
	Organized crime	Moderate	Low	Very high
	Illicit arms flows	Very high	No data	Very high

COUNTRY RESULTS: RADIOLOGICAL

Equatorial Guinea	Eritrea	Estonia	Ethiopia
No or no data available	Yes	Yes	Yes
No or no data available	No or no data available	Yes	Yes
No or no data available	No or no data available	Yes	Yes
No or no data available	No or no data available	No or no data available	Yes
No or no data available	No or no data available	Yes	No or no data available
No	No	Yes	Yes
No	No	Yes	Yes
No	No	Yes	Yes
No	No	Yes	Yes
No	No	No	No
No	No	Yes	No
No	No	No	No
No	No	No	No
No	No	Yes	No
No	No	Yes	No
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
No data	Infrequent power outages (0–19th percentile)	20th–39th percentile	Frequent power outages (80th–99th percentile)
No data	No data	No data	No data
Moderate	Low	Moderate	High
Not clear, established, or accepted	Not clear, established, or accepted	Clear, established, and accepted	Not clear, established, or accepted
Moderate	High	High	Moderate
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic and incursive conflict	No armed conflict exists	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions
Moderate	Low	Moderate	High
No data	No data	Moderate	No data
Very low	Low	High	Low
Very high	Very high	Very low	High
Low	Moderate	Low	Moderate
Moderate	Low	Low	Low
No data	No data	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

		Fiji	Finland	France
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	No or no data available	Yes	Yes
Security Measures	Security requirement	No or no data available	Yes	Yes
State Registry	Active registry	No or no data available	Yes	No or no data available
Inspection Authority	Inspection authority	No or no data available	Yes	Yes
Export Licenses	Licensing requirements	No or no data available	Yes	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	No	Yes	Yes
	Import Export Guidance	No	Yes	Yes
	Point of Contact	No	Yes	Yes
	Questionnaire	No	Yes	Yes
	Disused Sources Guidance	No	Yes	Yes
International Participation	GICNT	No	Yes	Yes
	Radioactive Material Conference	No	Yes	Yes
International Conventions	ICSANT	Yes	Yes	Yes
	Joint Convention	No	Yes	Yes
	Convention on Assistance	No	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	Yes	Yes
Implementation	Alternative technology commitment	No or no data available	Yes	Yes
Capacity	Power outages	40th–59th percentile	No data	No data
	Tertiary degrees	Few people with degrees (0–19th percentile)	Many people with degrees (80th–99th percentile)	Many people with degrees (80th–99th percentile)
RISK ENVIRONMENT				
Political Stability	Social unrest	No data	Moderate	Moderate
	Transfers of power	No data	Very clear, established, and accepted	Very clear, established, and accepted
	International disputes	No data	Moderate	Low
	Armed conflict	No data	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists
	Violent demonstrations	No data	Low	Low
Effective Governance	Effectiveness of political system	No data	High	Moderate
	Quality of bureaucracy	No data	Very high	Very high
Pervasiveness of Corruption	Pervasiveness of corruption	No data	Very low	Low
Illicit Activities by Non-State Actors	Terrorism	No data	Low	Moderate
	Organized crime	Low	Very low	Low
	Illicit arms flows	No data	High	Low

COUNTRY RESULTS: RADIOLOGICAL

Gabon	Gambia	Georgia	Germany
Yes	No or no data available	Yes	Yes
No or no data available	No or no data available	Yes	Yes
No or no data available	No or no data available	No or no data available	Yes
No or no data available	No or no data available	Yes	Yes
No or no data available	No or no data available	Yes	Yes
Yes	No	Yes	Yes
Yes	No	Yes	Yes
Yes	No	Yes	Yes
Yes	No	No	Yes
No	No	Yes	Yes
No	No	Yes	Yes
No	No	Yes	Yes
Yes	No	Yes	Yes
Yes	No	Yes	Yes
Yes	No	Yes	Yes
No	No	No	Yes
No or no data available	No or no data available	No or no data available	Yes
60th–79th percentile	Frequent power outages (80th–99th percentile)	20th–39th percentile	No data
No data	No data	60th–79th percentile	60th–79th percentile
High	Moderate	Moderate	Low
Two of the three criteria are absent	No data	One of the three criteria is absent	Very clear, established, and accepted
Low	No data	High	Moderate
No armed conflict exists	No data	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	No armed conflict exists
High	No data	Moderate	Low
No data	No data	No data	High
Low	No data	Moderate	Very high
High	No data	Low	Very low
Very low	Low	Low	Low
Moderate	Moderate	Low	Low
No data	No data	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

		Ghana	Greece	Guatemala
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	Yes	Yes
State Registry	Active registry	Yes	Yes	Yes
Inspection Authority	Inspection authority	Yes	Yes	Yes
Export Licenses	Licensing requirements	No or no data available	Yes	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	No	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	No	Yes	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	No	Yes	No
	Radioactive Material Conference	Yes	Yes	No
International Conventions	ICSANT	No	No	Yes
	Joint Convention	Yes	Yes	No
	Convention on Assistance	Yes	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	Frequent power outages (80th–99th percentile)	20th–39th percentile	40th–59th percentile
	Tertiary degrees	No data	Many people with degrees (80th–99th percentile)	Few people with degrees (0–19th percentile)
RISK ENVIRONMENT				
Political Stability	Social unrest	Low	Moderate	High
	Transfers of power	Clear, established, and accepted	Very clear, established, and accepted	One of the three criteria is absent
	International disputes	Low	Moderate	Low
	Armed conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
	Violent demonstrations	Low	Moderate	Moderate
Effective Governance	Effectiveness of political system	No data	Low	No data
	Quality of bureaucracy	Low	Moderate	Very low
Pervasiveness of Corruption	Pervasiveness of corruption	Moderate	High	High
Illicit Activities by Non-State Actors	Terrorism	Moderate	Moderate	Low
	Organized crime	Moderate	Moderate	Very high
	Illicit arms flows	Low	High	Very high

COUNTRY RESULTS: RADIOLOGICAL

Guinea	Guinea-Bissau	Guyana	Haiti
No or no data available	No or no data available	Yes	Yes
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	No or no data available	No or no data available	No or no data available
No	No	No	No
No	No	No	No
No	No	No	Yes
No	No	No	No
No	No	No	No
No	No	No	No
No	No	No	No
No	Yes	No	No
No	No	No	No
No	No	No	No
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
60th–79th percentile	60th–79th percentile	Frequent power outages (80th–99th percentile)	No data
Few people with degrees (0–19th percentile)	No data	No data	No data
High	No data	Moderate	High
One of the three criteria is absent	No data	Two of the three criteria are absent	Two of the three criteria are absent
Low	No data	High	Moderate
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No data	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
High	No data	Low	Very high
No data	No data	No data	No data
Very low	No data	Low	Very low
High	No data	Moderate	Very high
Moderate	No data	Very low	Low
High	Low	Moderate	Moderate
Very low	No data	Very low	No data

COUNTRY RESULTS: RADIOLOGICAL

		Honduras	Hungary	Iceland
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	Yes	No or no data available
State Registry	Active registry	Yes	Yes	No or no data available
Inspection Authority	Inspection authority	Yes	Yes	No or no data available
Export Licenses	Licensing requirements	Yes	Yes	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	Yes	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	No	Yes	Yes
	Radioactive Material Conference	No	Yes	No
International Conventions	ICSANT	No	Yes	No
	Joint Convention	No	Yes	Yes
	Convention on Assistance	No	No	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	Yes	No
Implementation	Alternative technology commitment	No or no data available	Yes	No or no data available
Capacity	Power outages	40th–59th percentile	Infrequent power outages (0–19th percentile)	No data
	Tertiary degrees	20th–39th percentile	60th–79th percentile	Many people with degrees (80th–99th percentile)
RISK ENVIRONMENT				
Political Stability	Social unrest	High	Low	Very low
	Transfers of power	Two of the three criteria are absent	Clear, established, and accepted	Very clear, established, and accepted
	International disputes	Moderate	Moderate	No threat
	Armed conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists	No armed conflict exists
	Violent demonstrations	Moderate	Low	Very low
Effective Governance	Effectiveness of political system	No data	Moderate	No data
	Quality of bureaucracy	Low	Moderate	High
Pervasiveness of Corruption	Pervasiveness of corruption	High	Moderate	Low
Illicit Activities by Non-State Actors	Terrorism	Very low	Low	Very low
	Organized crime	High	Moderate	Very low
	Illicit arms flows	High	Low	No data

COUNTRY RESULTS: RADIOLOGICAL

India	Indonesia	Iran	Iraq
Yes	Yes	Yes	Yes
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No or no data available	Yes
Yes	Yes	No	Yes
Yes	Yes	No	Yes
Yes	Yes	No	Yes
Yes	No	No	Yes
No	No	No	Yes
Yes	No	No	Yes
Yes	Yes	No	Yes
Yes	Yes	No	Yes
No	Yes	No	No
Yes	Yes	Yes	Yes
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
Frequent power outages (80th–99th percentile)	Infrequent power outages (0–19th percentile)	No data	Frequent power outages (80th–99th percentile)
20th–39th percentile	40th–59th percentile	40th–59th percentile	No data
Moderate	High	Very high	Very high
Very clear, established, and accepted	Clear, established, and accepted	Two of the three criteria are absent	Two of the three criteria are absent
Moderate	Moderate	Very high	Very high
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	Sporadic and incursive conflict
Moderate	Moderate	High	Very high
Moderate	Low	Moderate	No data
Moderate	Low	Low	Very low
High	High	Very high	Very high
Low	Moderate	Moderate	Very high
Moderate	Moderate	Low	Very high
No data	No data	No data	Very high

COUNTRY RESULTS: RADIOLOGICAL

		Ireland	Israel	Italy
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	No or no data available	Yes
State Registry	Active registry	No or no data available	No or no data available	No or no data available
Inspection Authority	Inspection authority	Yes	No or no data available	Yes
Export Licenses	Licensing requirements	Yes	Yes	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	No
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	No	No
	Disused Sources Guidance	Yes	No	No
International Participation	GICNT	Yes	Yes	Yes
	Radioactive Material Conference	No	Yes	Yes
International Conventions	ICSANT	No	No	Yes
	Joint Convention	Yes	No	Yes
	Convention on Assistance	Yes	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	Yes	Yes
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	No data	Infrequent power outages (0–19th percentile)	No data
	Tertiary degrees	Many people with degrees (80th–99th percentile)	Many people with degrees (80th–99th percentile)	60th–79th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Low	Moderate
	Transfers of power	Very clear, established, and accepted	Clear, established, and accepted	One of the three criteria is absent
	International disputes	Low	Very high	Low
	Armed conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists
	Violent demonstrations	Low	Moderate	Low
Effective Governance	Effectiveness of political system	Moderate	High	Low
	Quality of bureaucracy	Moderate	High	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	Low	Moderate	High
Illicit Activities by Non-State Actors	Terrorism	Low	Moderate	Moderate
	Organized crime	Moderate	Low	High
	Illicit arms flows	No data	No data	High

COUNTRY RESULTS: RADIOLOGICAL

Jamaica	Japan	Jordan	Kazakhstan
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	No or no data available	No or no data available	Yes
Yes	Yes	Yes	Yes
Yes	Yes	No or no data available	Yes
Yes	Yes	Yes	Yes
Yes	Yes	No	Yes
Yes	Yes	Yes	Yes
No	Yes	No	No
No	No	No	No
No	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	No	No	Yes
No or no data available	No or no data available	No or no data available	No or no data available
40th–59th percentile	No data	Infrequent power outages (0–19th percentile)	Infrequent power outages (0–19th percentile)
Few people with degrees (0–19th percentile)	Many people with degrees (80th–99th percentile)	No data	40th–59th percentile
Low	Low	Moderate	Moderate
Clear, established, and accepted	Very clear, established, and accepted	Two of the three criteria are absent	Not clear, established, or accepted
Low	Moderate	Very high	Moderate
No armed conflict exists	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists
Moderate	Low	Low	Low
No data	High	Moderate	Moderate
Moderate	High	Moderate	Low
Moderate	Low	Moderate	High
Very low	Low	Low	Moderate
Very high	Moderate	Moderate	Moderate
Moderate	Moderate	No data	High

COUNTRY RESULTS: RADIOLOGICAL

		Kenya	Kuwait	Kyrgyz Republic
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	No or no data available	Yes
State Registry	Active registry	No or no data available	No or no data available	No or no data available
Inspection Authority	Inspection authority	No or no data available	No or no data available	Yes
Export Licenses	Licensing requirements	Yes	No or no data available	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	No	No	Yes
	Import Export Guidance	No	No	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	No	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	No	No	Yes
	Radioactive Material Conference	Yes	Yes	No
International Conventions	ICSANT	Yes	Yes	Yes
	Joint Convention	No	No	Yes
	Convention on Assistance	No	Yes	No
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	60th–79th percentile	No data	20th–39th percentile
	Tertiary degrees	No data	20th–39th percentile	40th–59th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Low	Moderate	Moderate
	Transfers of power	One of the three criteria is absent	Two of the three criteria are absent	One of the three criteria is absent
	International disputes	High	Moderate	Moderate
	Armed conflict	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
	Violent demonstrations	Moderate	Low	Moderate
Effective Governance	Effectiveness of political system	Low	Low	No data
	Quality of bureaucracy	Very low	Low	Very low
Pervasiveness of Corruption	Pervasiveness of corruption	Very high	Moderate	Very high
Illicit Activities by Non-State Actors	Terrorism	High	Moderate	Low
	Organized crime	High	Low	Very high
	Illicit arms flows	High	Very low	Very low

COUNTRY RESULTS: RADIOLOGICAL

Laos	Latvia	Lebanon	Lesotho
No or no data available	Yes	Yes	No or no data available
No or no data available	Yes	No or no data available	No or no data available
No or no data available	Yes	No or no data available	No or no data available
No or no data available	Yes	No or no data available	No or no data available
No or no data available	Yes	No or no data available	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	No
No	Yes	Yes	No
No	No	Yes	No
No	Yes	No	No
No	No	Yes	No
No	Yes	Yes	Yes
No	Yes	No	Yes
Yes	Yes	Yes	Yes
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
Infrequent power outages (0–19th percentile)	Infrequent power outages (0–19th percentile)	Frequent power outages (80th–99th percentile)	40th–59th percentile
No data	60th–79th percentile	No data	No data
Low	Moderate	Very high	High
Not clear, established, or accepted	Clear, established, and accepted	Two of the three criteria are absent	Clear, established, and accepted
Low	High	Very high	High
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists	Sporadic and incursive conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
Low	Moderate	Very high	High
No data	Moderate	No data	No data
Low	Moderate	Low	Low
Very high	Low	Very high	Moderate
Low	Low	High	Very low
Moderate	Low	High	High
No data	Very low	Moderate	No data

COUNTRY RESULTS: RADIOLOGICAL

		Liberia	Libya	Lithuania
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	No or no data available	Yes	Yes
Security Measures	Security requirement	No or no data available	No or no data available	Yes
State Registry	Active registry	No or no data available	No or no data available	Yes
Inspection Authority	Inspection authority	No or no data available	No or no data available	Yes
Export Licenses	Licensing requirements	No or no data available	No or no data available	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	No	Yes	Yes
	Import Export Guidance	No	Yes	Yes
	Point of Contact	No	Yes	Yes
	Questionnaire	No	Yes	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	No	Yes	Yes
	Radioactive Material Conference	No	Yes	Yes
International Conventions	ICSANT	No	Yes	Yes
	Joint Convention	No	No	Yes
	Convention on Assistance	No	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	Yes
Implementation	Alternative technology commitment	No or no data available	No or no data available	Yes
Capacity	Power outages	60th–79th percentile	No data	Infrequent power outages (0–19th percentile)
	Tertiary degrees	No data	No data	60th–79th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Very high	Low
	Transfers of power	One of the three criteria is absent	Not clear, established, or accepted	Clear, established, and accepted
	International disputes	Low	Very high	High
	Armed conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Territorial conflict; opposition has effective control over a region or regions	No armed conflict exists
	Violent demonstrations	High	High	Low
Effective Governance	Effectiveness of political system	No data	Very low	Moderate
	Quality of bureaucracy	Very low	Very low	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	High	Very high	Moderate
Illicit Activities by Non-State Actors	Terrorism	Moderate	Very high	Low
	Organized crime	Moderate	Very high	Low
	Illicit arms flows	No data	Low	Moderate

COUNTRY RESULTS: RADIOLOGICAL

Luxembourg	Macedonia	Madagascar	Malawi
Yes	Yes	Yes	Yes
Yes	No or no data available	Yes	Yes
Yes	No or no data available	No or no data available	Yes
Yes	No or no data available	No or no data available	Yes
Yes	No or no data available	No or no data available	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	No	Yes
Yes	Yes	Yes	No
No	No	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	No
Yes	Yes	Yes	No
Yes	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
No data	20th–39th percentile	60th–79th percentile	60th–79th percentile
Many people with degrees (80th–99th percentile)	No data	No data	No data
Very low	Moderate	Moderate	High
Very clear, established, and accepted	Two of the three criteria are absent	One of the three criteria is absent	One of the three criteria is absent
Moderate	Moderate	Low	Low
No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists
Very low	Moderate	High	High
No data	No data	No data	No data
High	Low	Low	Very low
Very low	High	Very high	Very high
Low	Moderate	Low	Very low
Low	High	Very high	Low
Moderate	Moderate	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

		Malaysia	Mali	Malta
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	Yes	Yes
State Registry	Active registry	Yes	Yes	Yes
Inspection Authority	Inspection authority	No or no data available	Yes	Yes
Export Licenses	Licensing requirements	Yes	Yes	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	Yes	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	Yes	No	Yes
	Radioactive Material Conference	Yes	No	No
International Conventions	ICSANT	No	Yes	Yes
	Joint Convention	No	No	Yes
	Convention on Assistance	No	Yes	No
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	Yes	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	Infrequent power outages (0–19th percentile)	60th–79th percentile	No data
	Tertiary degrees	20th–39th percentile	Few people with degrees (0–19th percentile)	40th–59th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Moderate	Low
	Transfers of power	Clear, established, and accepted	One of the three criteria is absent	Clear, established, and accepted
	International disputes	Low	High	Low
	Armed conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic and incursive conflict	No armed conflict exists
	Violent demonstrations	Low	High	Low
Effective Governance	Effectiveness of political system	High	No data	No data
	Quality of bureaucracy	Moderate	Very low	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	Moderate	High	Moderate
Illicit Activities by Non-State Actors	Terrorism	Low	Very high	Low
	Organized crime	Low	High	Low
	Illicit arms flows	No data	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

Mauritania	Mauritius	Mexico	Moldova
Yes	Yes	Yes	Yes
Yes	No or no data available	Yes	Yes
Yes	No or no data available	Yes	Yes
Yes	No or no data available	Yes	Yes
No or no data available	Yes	Yes	No or no data available
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
No	Yes	No	No
No	Yes	Yes	No
No	No	Yes	Yes
Yes	No	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
No	No	No	No
No or no data available	No or no data available	No or no data available	Yes
60th–79th percentile	20th–39th percentile	40th–59th percentile	Infrequent power outages (0–19th percentile)
No data	20th–39th percentile	40th–59th percentile	40th–59th percentile
High	Low	Moderate	Moderate
Two of the three criteria are absent	Clear, established, and accepted	One of the three criteria is absent	Two of the three criteria are absent
Moderate	Low	High	High
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
High	Low	Moderate	Moderate
No data	No data	Moderate	No data
Low	Moderate	Moderate	Low
Very high	Moderate	High	High
Low	Low	Moderate	Very low
Moderate	Low	Very high	Very high
No data	Very low	Very high	Very low

COUNTRY RESULTS: RADIOLOGICAL

		Mongolia	Montenegro	Morocco
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	Yes	Yes
State Registry	Active registry	Yes	Yes	Yes
Inspection Authority	Inspection authority	Yes	Yes	Yes
Export Licenses	Licensing requirements	No or no data available	No or no data available	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	No	Yes	Yes
	Import Export Guidance	No	Yes	Yes
	Point of Contact	No	Yes	Yes
	Questionnaire	No	Yes	Yes
	Disused Sources Guidance	No	Yes	No
International Participation	GICNT	No	Yes	Yes
	Radioactive Material Conference	No	Yes	Yes
International Conventions	ICSANT	Yes	Yes	Yes
	Joint Convention	No	Yes	Yes
	Convention on Assistance	No	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	Yes
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	20th–39th percentile	40th–59th percentile	20th–39th percentile
	Tertiary degrees	60th–79th percentile	No data	No data
RISK ENVIRONMENT				
Political Stability	Social unrest	High	Moderate	High
	Transfers of power	Very clear, established, and accepted	One of the three criteria is absent	Two of the three criteria are absent
	International disputes	Moderate	Moderate	Moderate
	Armed conflict	No armed conflict exists	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
	Violent demonstrations	Low	Moderate	Moderate
Effective Governance	Effectiveness of political system	No data	No data	Low
	Quality of bureaucracy	Low	Low	Low
Pervasiveness of Corruption	Pervasiveness of corruption	High	High	High
Illicit Activities by Non-State Actors	Terrorism	Very low	Low	Moderate
	Organized crime	Low	Moderate	High
	Illicit arms flows	No data	Moderate	Low

COUNTRY RESULTS: RADIOLOGICAL

Mozambique	Myanmar	Namibia	Nepal
Yes	Yes	Yes	No or no data available
Yes	No or no data available	Yes	No or no data available
Yes	No or no data available	Yes	No or no data available
Yes	No or no data available	Yes	No or no data available
Yes	Yes	Yes	No or no data available
Yes	Yes	Yes	No
Yes	No	Yes	No
Yes	No	Yes	No
Yes	No	Yes	No
No	No	No	No
No	No	No	Yes
No	Yes	No	Yes
No	No	Yes	No
No	No	No	No
Yes	No	No	No
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
40th–59th percentile	Frequent power outages (80th–99th percentile)	20th–39th percentile	Frequent power outages (80th–99th percentile)
Few people with degrees (0–19th percentile)	No data	No data	Few people with degrees (0–19th percentile)
High	Moderate	Low	High
Two of the three criteria are absent	Two of the three criteria are absent	One of the three criteria is absent	Clear, established, and accepted
Low	High	Low	Moderate
Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	Sporadic and incursive conflict	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
Moderate	Moderate	Moderate	High
No data	No data	No data	No data
Low	Very low	Moderate	Very low
High	High	Moderate	High
Moderate	Moderate	Low	Moderate
High	High	Low	High
No data	Low	No data	Very low

COUNTRY RESULTS: RADIOLOGICAL

		Netherlands	New Zealand	Nicaragua
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	Yes	No or no data available
State Registry	Active registry	Yes	Yes	No or no data available
Inspection Authority	Inspection authority	No or no data available	Yes	No or no data available
Export Licenses	Licensing requirements	Yes	Yes	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	No	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	No	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	Yes	Yes	No
	Radioactive Material Conference	Yes	No	No
International Conventions	ICSANT	Yes	Yes	Yes
	Joint Convention	Yes	No	No
	Convention on Assistance	Yes	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	Yes	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	No data	No data	40th–59th percentile
	Tertiary degrees	Many people with degrees (80th–99th percentile)	Many people with degrees (80th–99th percentile)	No data
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Very low	High
	Transfers of power	Very clear, established, and accepted	Very clear, established, and accepted	Not clear, established, or accepted
	International disputes	Low	Low	Very high
	Armed conflict	No armed conflict exists	No armed conflict exists	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions
	Violent demonstrations	Low	Very low	High
Effective Governance	Effectiveness of political system	High	Very high	No data
	Quality of bureaucracy	High	High	Low
Pervasiveness of Corruption	Pervasiveness of corruption	Very low	Very low	Very high
Illicit Activities by Non-State Actors	Terrorism	Low	Low	Low
	Organized crime	Very low	Very low	Moderate
	Illicit arms flows	High	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

Niger	Nigeria	North Korea	Norway
Yes	Yes	No or no data available	Yes
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No or no data available	Yes
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No	Yes
Yes	No	No	Yes
Yes	Yes	Yes	Yes
Yes	No	No	Yes
No	Yes	No	No
No	Yes	No	Yes
Yes	Yes	No	No
Yes	Yes	No	Yes
Yes	Yes	No	Yes
Yes	Yes	No	No
No	No	No	Yes
No or no data available	No or no data available	No or no data available	Yes
Frequent power outages (80th–99th percentile)	Frequent power outages (80th–99th percentile)	No data	No data
Few people with degrees (0–19th percentile)	20th–39th percentile	No data	Many people with degrees (80th–99th percentile)
High	High	Moderate	Very low
Two of the three criteria are absent	Two of the three criteria are absent	Not clear, established, or accepted	Very clear, established, and accepted
High	Low	Very high	No threat
Sporadic and incursive conflict	Sporadic and incursive conflict	Sporadic and incursive conflict	No armed conflict exists
High	High	Low	Very low
No data	Low	No data	High
Low	Very low	Moderate	Very high
Moderate	Very high	Very high	Very low
Very high	High	Low	Low
Moderate	High	High	Very low
Very low	No data	No data	Low

COUNTRY RESULTS: RADIOLOGICAL

		Oman	Pakistan	Panama
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	No or no data available	Yes	No or no data available
State Registry	Active registry	No or no data available	Yes	No or no data available
Inspection Authority	Inspection authority	No or no data available	Yes	No or no data available
Export Licenses	Licensing requirements	No or no data available	Yes	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	No	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	No	No	Yes
	Disused Sources Guidance	No	Yes	No
International Participation	GICNT	No	Yes	Yes
	Radioactive Material Conference	No	Yes	No
International Conventions	ICSANT	No	No	Yes
	Joint Convention	Yes	No	No
	Convention on Assistance	Yes	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	No data	Frequent power outages (80th–99th percentile)	20th–39th percentile
	Tertiary degrees	20th–39th percentile	20th–39th percentile	40th–59th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	High	Moderate
	Transfers of power	Two of the three criteria are absent	One of the three criteria is absent	One of the three criteria is absent
	International disputes	Moderate	Very high	Moderate
	Armed conflict	No armed conflict exists	Territorial conflict; opposition has effective control over a region or regions	No armed conflict exists
	Violent demonstrations	Moderate	Very high	Low
Effective Governance	Effectiveness of political system	No data	Low	No data
	Quality of bureaucracy	Low	Low	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	Moderate	High	High
Illicit Activities by Non-State Actors	Terrorism	Low	Very high	Very low
	Organized crime	Very low	High	Moderate
	Illicit arms flows	No data	No data	High

COUNTRY RESULTS: RADIOLOGICAL

Papua New Guinea	Paraguay	Peru	Philippines
Yes	Yes	Yes	Yes
No or no data available	Yes	Yes	Yes
No or no data available	Yes	Yes	Yes
No or no data available	Yes	Yes	Yes
No or no data available	No or no data available	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	No	No	Yes
No	Yes	No	Yes
No	Yes	No	No
No	Yes	Yes	No
No	Yes	Yes	No
No	Yes	Yes	Yes
No	No	No	Yes
No or no data available	No or no data available	No or no data available	No or no data available
Frequent power outages (80th–99th percentile)	40th–59th percentile	Infrequent power outages (0–19th percentile)	Infrequent power outages (0–19th percentile)
No data	20th–39th percentile	No data	40th–59th percentile
High	Moderate	Moderate	Moderate
Two of the three criteria are absent	Two of the three criteria are absent	Very clear, established, and accepted	Clear, established, and accepted
Moderate	No threat	Low	Moderate
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Territorial conflict; opposition has effective control over a region or regions
High	Low	High	Moderate
No data	No data	Low	Low
Low	Low	Moderate	Moderate
Very high	High	High	Very high
Low	Low	Low	High
Moderate	Low	High	High
No data	Very low	Very high	Very low

COUNTRY RESULTS: RADIOLOGICAL

		Poland	Portugal	Qatar
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	No or no data available	Yes
State Registry	Active registry	Yes	No or no data available	No or no data available
Inspection Authority	Inspection authority	Yes	No or no data available	Yes
Export Licenses	Licensing requirements	Yes	Yes	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	Yes	No
	Disused Sources Guidance	No	No	No
International Participation	GICNT	Yes	Yes	No
	Radioactive Material Conference	Yes	No	No
International Conventions	ICSANT	Yes	Yes	Yes
	Joint Convention	Yes	Yes	No
	Convention on Assistance	No	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	Yes	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	Infrequent power outages (0–19th percentile)	No data	No data
	Tertiary degrees	Many people with degrees (80th–99th percentile)	60th–79th percentile	40th–59th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Low	Low
	Transfers of power	Clear, established, and accepted	Clear, established, and accepted	One of the three criteria is absent
	International disputes	Moderate	Low	High
	Armed conflict	No armed conflict exists	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
	Violent demonstrations	Moderate	Very low	Low
Effective Governance	Effectiveness of political system	Moderate	Moderate	Moderate
	Quality of bureaucracy	Moderate	Moderate	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	Moderate	Moderate	Low
Illicit Activities by Non-State Actors	Terrorism	Very low	Low	Low
	Organized crime	Low	Very low	Very low
	Illicit arms flows	High	High	Very low

COUNTRY RESULTS: RADIOLOGICAL

Romania	Russia	Rwanda	Samoa
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No or no data available	No or no data available
Yes	Yes	No or no data available	No or no data available
Yes	No or no data available	No or no data available	No or no data available
Yes	Yes	Yes	No
Yes	Yes	Yes	No
Yes	Yes	Yes	No
Yes	Yes	Yes	No
No	No	Yes	No
Yes	Yes	No	No
Yes	Yes	No	No
Yes	Yes	No	No
Yes	Yes	No	No
Yes	Yes	No	No
Yes	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
40th–59th percentile	Infrequent power outages (0–19th percentile)	60th–79th percentile	60th–79th percentile
20th–39th percentile	Few people with degrees (0–19th percentile)	Few people with degrees (0–19th percentile)	No data
Low	Low	Low	No data
Clear, established, and accepted	One of the three criteria is absent	Not clear, established, or accepted	No data
Low	Very high	High	No data
No armed conflict exists	Sporadic and incursive conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No data
Low	Low	Low	No data
Low	Moderate	No data	No data
Low	Low	Moderate	No data
High	Very high	Moderate	No data
Low	Low	Moderate	No data
Low	High	Low	Low
Low	Very high	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

		São Tomé and Príncipe	Saudi Arabia	Senegal
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	No or no data available	Yes	Yes
Security Measures	Security requirement	No or no data available	No or no data available	No or no data available
State Registry	Active registry	No or no data available	No or no data available	No or no data available
Inspection Authority	Inspection authority	No or no data available	No or no data available	No or no data available
Export Licenses	Licensing requirements	No or no data available	No or no data available	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	No	Yes	Yes
	Import Export Guidance	No	Yes	Yes
	Point of Contact	No	Yes	Yes
	Questionnaire	No	Yes	Yes
	Disused Sources Guidance	No	Yes	No
International Participation	GICNT	No	Yes	No
	Radioactive Material Conference	No	No	Yes
International Conventions	ICSANT	No	Yes	No
	Joint Convention	No	Yes	Yes
	Convention on Assistance	No	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	No data	No data	60th–79th percentile
	Tertiary degrees	Few people with degrees (0–19th percentile)	60th–79th percentile	Few people with degrees (0–19th percentile)
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Low	Moderate
	Transfers of power	Two of the three criteria are absent	One of the three criteria is absent	Clear, established, and accepted
	International disputes	Low	High	Moderate
	Armed conflict	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
	Violent demonstrations	Moderate	Low	Moderate
Effective Governance	Effectiveness of political system	No data	Low	No data
	Quality of bureaucracy	Low	Low	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	Moderate	Moderate	Moderate
Illicit Activities by Non-State Actors	Terrorism	Very low	Moderate	Moderate
	Organized crime	Moderate	Low	Low
	Illicit arms flows	No data	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

Serbia	Seychelles	Sierra Leone	Singapore
Yes	Yes	Yes	Yes
Yes	No or no data available	Yes	Yes
Yes	No or no data available	Yes	No or no data available
Yes	No or no data available	Yes	Yes
No or no data available	No or no data available	Yes	Yes
Yes	Yes	No	Yes
No	Yes	No	No
Yes	Yes	No	Yes
No	Yes	No	No
No	No	No	No
Yes	Yes	No	Yes
Yes	No	No	No
Yes	No	No	Yes
Yes	No	No	No
Yes	No	No	Yes
No	No	No	Yes
No or no data available	No or no data available	No or no data available	No or no data available
20th–39th percentile	No data	Frequent power outages (80th–99th percentile)	No data
40th–59th percentile	No data	No data	60th–79th percentile
Moderate	Moderate	Moderate	Very low
One of the three criteria is absent	Clear, established, and accepted	One of the three criteria is absent	Clear, established, and accepted
Moderate	Low	Moderate	Low
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists
Low	Low	Moderate	Very low
Low	No data	No data	Very high
Low	Moderate	Very low	Very high
High	Very low	High	Very low
Low	Very low	Moderate	Low
Moderate	Low	Moderate	Very low
High	No data	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

		Slovakia	Slovenia	Solomon Islands
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	No or no data available
Security Measures	Security requirement	Yes	Yes	No or no data available
State Registry	Active registry	Yes	Yes	No or no data available
Inspection Authority	Inspection authority	Yes	Yes	No or no data available
Export Licenses	Licensing requirements	Yes	Yes	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	No
	Import Export Guidance	No	Yes	No
	Point of Contact	Yes	Yes	Yes
	Questionnaire	No	Yes	No
	Disused Sources Guidance	No	No	No
International Participation	GICNT	Yes	Yes	No
	Radioactive Material Conference	No	No	No
International Conventions	ICSANT	Yes	Yes	Yes
	Joint Convention	Yes	Yes	No
	Convention on Assistance	Yes	Yes	No
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	Yes	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	Infrequent power outages (0–19th percentile)	Infrequent power outages (0–19th percentile)	60th–79th percentile
	Tertiary degrees	40th–59th percentile	40th–59th percentile	No data
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Moderate	No data
	Transfers of power	Clear, established, and accepted	Clear, established, and accepted	No data
	International disputes	Moderate	Low	No data
	Armed conflict	No armed conflict exists	No armed conflict exists	No data
	Violent demonstrations	Low	Low	No data
Effective Governance	Effectiveness of political system	High	Moderate	No data
	Quality of bureaucracy	Moderate	High	No data
Pervasiveness of Corruption	Pervasiveness of corruption	Low	Low	No data
Illicit Activities by Non-State Actors	Terrorism	Very low	Very low	No data
	Organized crime	Moderate	Low	Low
	Illicit arms flows	Moderate	Low	No data

COUNTRY RESULTS: RADIOLOGICAL

Somalia	South Africa	South Korea	Spain
No or no data available	Yes	Yes	Yes
No or no data available	Yes	Yes	Yes
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	Yes	Yes	Yes
No or no data available	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	No	No	Yes
No	No	Yes	Yes
No	No	Yes	No
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	No	Yes	Yes
No or no data available	No or no data available	No or no data available	No or no data available
No data	20th–39th percentile	No data	No data
No data	Few people with degrees (0–19th percentile)	60th–79th percentile	Many people with degrees (80th–99th percentile)
High	High	Moderate	Moderate
Two of the three criteria are absent	Clear, established, and accepted	Very clear, established, and accepted	Clear, established, and accepted
Very high	No threat	Very high	Low
Territorial conflict; opposition has effective control over a region or regions	No armed conflict exists	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	No armed conflict exists
Very high	High	Moderate	Low
No data	Moderate	High	Moderate
Very low	Moderate	Very high	High
Very high	Moderate	Moderate	Moderate
Very high	Low	Very low	Low
Very high	High	Low	Low
No data	No data	No data	Very high

COUNTRY RESULTS: RADIOLOGICAL

		Sri Lanka	Sudan	Suriname
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	No or no data available
Security Measures	Security requirement	Yes	No or no data available	No or no data available
State Registry	Active registry	Yes	No or no data available	No or no data available
Inspection Authority	Inspection authority	Yes	No or no data available	No or no data available
Export Licenses	Licensing requirements	Yes	No or no data available	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	No
	Import Export Guidance	Yes	Yes	No
	Point of Contact	Yes	Yes	No
	Questionnaire	Yes	Yes	No
	Disused Sources Guidance	No	Yes	No
International Participation	GICNT	Yes	No	No
	Radioactive Material Conference	Yes	Yes	No
International Conventions	ICSANT	Yes	No	No
	Joint Convention	No	No	No
	Convention on Assistance	Yes	No	No
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	60th–79th percentile	40th–59th percentile	40th–59th percentile
	Tertiary degrees	No data	No data	20th–39th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	High	High	Moderate
	Transfers of power	Two of the three criteria are absent	Not clear, established, or accepted	One of the three criteria is absent
	International disputes	Low	High	Low
	Armed conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic and incursive conflict	No armed conflict exists
	Violent demonstrations	Moderate	High	Low
Effective Governance	Effectiveness of political system	Moderate	No data	No data
	Quality of bureaucracy	Low	Low	Low
Pervasiveness of Corruption	Pervasiveness of corruption	Moderate	Very high	High
Illicit Activities by Non-State Actors	Terrorism	Moderate	Moderate	Very low
	Organized crime	Low	Moderate	Moderate
	Illicit arms flows	No data	Moderate	Low

COUNTRY RESULTS: RADIOLOGICAL

Swaziland	Sweden	Switzerland	Syria
No or no data available	Yes	Yes	Yes
No or no data available	No or no data available	Yes	No or no data available
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	No or no data available	No or no data available	No or no data available
No or no data available	Yes	Yes	No or no data available
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	No	Yes	No
No	Yes	Yes	No
No	Yes	Yes	No
No	Yes	Yes	No
No	Yes	Yes	No
No	Yes	Yes	Yes
No	Yes	Yes	No
No or no data available	Yes	No or no data available	No or no data available
60th–79th percentile	No data	No data	No data
No data	Many people with degrees (80th–99th percentile)	Many people with degrees (80th–99th percentile)	No data
High	Low	Low	Very high
Two of the three criteria are absent	Very clear, established, and accepted	Very clear, established, and accepted	Not clear, established, or accepted
Moderate	Low	Moderate	Very high
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists	No armed conflict exists	Territorial conflict; opposition has effective control over a region or regions
High	Very low	Very low	Very high
No data	Very high	High	No data
Low	Very high	High	Very low
Moderate	Very low	Very low	Very high
Very low	Low	Very low	Very high
Low	Very low	Low	Very high
No data	Moderate	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

		Taiwan	Tajikistan	Tanzania
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	No or no data available	Yes	Yes
Security Measures	Security requirement	No or no data available	No or no data available	No or no data available
State Registry	Active registry	No or no data available	No or no data available	No or no data available
Inspection Authority	Inspection authority	No or no data available	No or no data available	No or no data available
Export Licenses	Licensing requirements	No or no data available	Yes	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	No	Yes	Yes
	Import Export Guidance	No	Yes	Yes
	Point of Contact	No	Yes	Yes
	Questionnaire	No	Yes	No
	Disused Sources Guidance	No	Yes	No
International Participation	GICNT	No	Yes	No
	Radioactive Material Conference	No	No	Yes
International Conventions	ICSANT	No	No	No
	Joint Convention	No	Yes	No
	Convention on Assistance	No	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	No data	60th–79th percentile	Frequent power outages (80th–99th percentile)
	Tertiary degrees	No data	20th–39th percentile	No data
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	High	Moderate
	Transfers of power	Clear, established, and accepted	Not clear, established, or accepted	Two of the three criteria are absent
	International disputes	High	High	Low
	Armed conflict	No armed conflict exists	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence
	Violent demonstrations	Low	Moderate	Moderate
Effective Governance	Effectiveness of political system	High	No data	No data
	Quality of bureaucracy	High	Very low	Low
Pervasiveness of Corruption	Pervasiveness of corruption	Low	Very high	High
Illicit Activities by Non-State Actors	Terrorism	Very low	Moderate	Low
	Organized crime	Low	High	Moderate
	Illicit arms flows	No data	Very low	No data

COUNTRY RESULTS: RADIOLOGICAL

Thailand	Timor-Leste	Togo	Tonga
Yes	No or no data available	No or no data available	No or no data available
Yes	No or no data available	No or no data available	No or no data available
No or no data available	No or no data available	No or no data available	No or no data available
Yes	No or no data available	No or no data available	No or no data available
Yes	No or no data available	No or no data available	No or no data available
Yes	No	Yes	No
Yes	No	Yes	No
Yes	No	Yes	No
Yes	No	No	No
Yes	No	No	No
Yes	No	No	No
Yes	No	Yes	No
Yes	No	No	No
Yes	No	No	No
Yes	No	No	No
Yes	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
Infrequent power outages (0–19th percentile)	20th–39th percentile	60th–79th percentile	40th–59th percentile
20th–39th percentile	No data	No data	No data
Moderate	Moderate	High	No data
Two of the three criteria are absent	One of the three criteria is absent	Two of the three criteria are absent	No data
Moderate	Moderate	High	No data
Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No data
Moderate	Moderate	Very high	No data
Moderate	No data	No data	No data
Low	Very low	Very low	No data
High	High	High	No data
Moderate	Low	Low	No data
Moderate	Moderate	Moderate	Low
No data	No data	Low	No data

COUNTRY RESULTS: RADIOLOGICAL

		Trinidad and Tobago	Tunisia	Turkey
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	No or no data available	Yes	Yes
Security Measures	Security requirement	No or no data available	No or no data available	No or no data available
State Registry	Active registry	No or no data available	No or no data available	No or no data available
Inspection Authority	Inspection authority	No or no data available	No or no data available	No or no data available
Export Licenses	Licensing requirements	Yes	No or no data available	Yes
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	No	Yes	Yes
	Import Export Guidance	No	No	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	No	No	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	No	No	Yes
	Radioactive Material Conference	No	Yes	No
International Conventions	ICSANT	No	Yes	Yes
	Joint Convention	No	No	No
	Convention on Assistance	No	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	Infrequent power outages (0–19th percentile)	Infrequent power outages (0–19th percentile)	40th–59th percentile
	Tertiary degrees	Few people with degrees (0–19th percentile)	No data	60th–79th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	High	High
	Transfers of power	Clear, established, and accepted	One of the three criteria is absent	Two of the three criteria are absent
	International disputes	Moderate	High	Very high
	Armed conflict	No armed conflict exists	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions
	Violent demonstrations	Low	Very high	Moderate
Effective Governance	Effectiveness of political system	No data	Moderate	Moderate
	Quality of bureaucracy	Low	Moderate	Low
Pervasiveness of Corruption	Pervasiveness of corruption	Moderate	High	High
Illicit Activities by Non-State Actors	Terrorism	Low	High	Moderate
	Organized crime	High	Moderate	Moderate
	Illicit arms flows	Moderate	Moderate	High

COUNTRY RESULTS: RADIOLOGICAL

Turkmenistan	Uganda	Ukraine	United Arab Emirates
No or no data available	Yes	Yes	Yes
No or no data available	Yes	Yes	Yes
No or no data available	Yes	Yes	Yes
No or no data available	Yes	Yes	Yes
No or no data available	No or no data available	No or no data available	No or no data available
Yes	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	No
No	No	Yes	No
Yes	No	Yes	Yes
No	Yes	Yes	No
Yes	No	Yes	Yes
No	No	Yes	Yes
No	No	Yes	Yes
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
No data	60th–79th percentile	Infrequent power outages (0–19th percentile)	No data
No data	Few people with degrees (0–19th percentile)	No data	Many people with degrees (80th–99th percentile)
Moderate	High	Very high	Very low
Not clear, established, or accepted	Not clear, established, or accepted	Two of the three criteria are absent	Clear, established, and accepted
Moderate	High	Very high	Very high
Incursive conflict; government remains in control, but opposition engages in frequent armed incursions	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	Territorial conflict; opposition has effective control over a region or regions	No armed conflict exists
Low	Moderate	High	Very low
No data	No data	Very low	High
Very low	Low	Low	Moderate
Very high	Very high	Very high	Low
Low	High	Moderate	Low
Low	Low	High	Low
No data	No data	High	No data

COUNTRY RESULTS: RADIOLOGICAL

		United Kingdom	United States	Uruguay
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	Yes	Yes	Yes
State Registry	Active registry	No or no data available	No or no data available	No or no data available
Inspection Authority	Inspection authority	Yes	Yes	Yes
Export Licenses	Licensing requirements	Yes	Yes	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	Yes	Yes	Yes
	Disused Sources Guidance	No	Yes	Yes
International Participation	GICNT	Yes	Yes	No
	Radioactive Material Conference	Yes	Yes	No
International Conventions	ICSANT	Yes	Yes	Yes
	Joint Convention	Yes	Yes	Yes
	Convention on Assistance	Yes	Yes	Yes
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	Yes	Yes	No
Implementation	Alternative technology commitment	Yes	Yes	No or no data available
Capacity	Power outages	No data	No data	20th–39th percentile
	Tertiary degrees	Many people with degrees (80th–99th percentile)	Many people with degrees (80th–99th percentile)	20th–39th percentile
RISK ENVIRONMENT				
Political Stability	Social unrest	Moderate	Moderate	Low
	Transfers of power	Very clear, established, and accepted	Very clear, established, and accepted	Clear, established, and accepted
	International disputes	Moderate	Moderate	Low
	Armed conflict	Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No armed conflict exists	No armed conflict exists
	Violent demonstrations	Low	Low	Low
Effective Governance	Effectiveness of political system	High	High	No data
	Quality of bureaucracy	High	High	Moderate
Pervasiveness of Corruption	Pervasiveness of corruption	Very low	Low	Low
Illicit Activities by Non-State Actors	Terrorism	Low	Moderate	Very low
	Organized crime	Low	Low	Low
	Illicit arms flows	Moderate	Very high	High

COUNTRY RESULTS: RADIOLOGICAL

Uzbekistan	Vanuatu	Venezuela	Vietnam
Yes	No or no data available	Yes	Yes
Yes	No or no data available	No or no data available	Yes
No or no data available	No or no data available	No or no data available	Yes
Yes	No or no data available	No or no data available	Yes
No or no data available	No or no data available	No or no data available	Yes
Yes	No	Yes	Yes
No	No	No	Yes
No	No	Yes	Yes
No	No	Yes	No
No	No	No	No
Yes	No	No	Yes
No	No	No	Yes
Yes	No	No	Yes
Yes	No	No	Yes
No	No	No	Yes
No	No	No	No
No or no data available	No or no data available	No or no data available	No or no data available
60th–79th percentile	40th–59th percentile	40th–59th percentile	Infrequent power outages (0–19th percentile)
40th–59th percentile	No data	60th–79th percentile	No data
Moderate	No data	Very high	Low
Not clear, established, or accepted	No data	Not clear, established, or accepted	Not clear, established, or accepted
Moderate	No data	Very high	Moderate
Sporadic conflict; government control is firm, but opposition engages in isolated incidents of violence	No data	Sporadic and incursive conflict	No armed conflict exists
Low	No data	Very high	Low
No data	No data	Very low	Moderate
Very low	No data	Very low	Low
Very high	No data	Very high	High
Moderate	No data	Moderate	Very low
Moderate	Low	Very high	Moderate
No data	No data	No data	No data

COUNTRY RESULTS: RADIOLOGICAL

		Yemen	Zambia	Zimbabwe
NATIONAL MEASURES				
Regulatory Oversight	Oversight body	Yes	Yes	Yes
Security Measures	Security requirement	No or no data available	Yes	No or no data available
State Registry	Active registry	No or no data available	No or no data available	No or no data available
Inspection Authority	Inspection authority	No or no data available	Yes	No or no data available
Export Licenses	Licensing requirements	No or no data available	No or no data available	No or no data available
GLOBAL NORMS				
IAEA Code of Conduct Status	Political commitment	Yes	Yes	Yes
	Import Export Guidance	Yes	Yes	Yes
	Point of Contact	Yes	Yes	Yes
	Questionnaire	No	Yes	Yes
	Disused Sources Guidance	No	No	No
International Participation	GICNT	No	Yes	No
	Radioactive Material Conference	No	No	No
International Conventions	ICSANT	Yes	Yes	No
	Joint Convention	No	No	No
	Convention on Assistance	No	No	No
COMMITMENT AND CAPACITY TO ADOPT ALTERNATIVE TECHNOLOGIES				
Intent	INFCIRC/910	No	No	No
Implementation	Alternative technology commitment	No or no data available	No or no data available	No or no data available
Capacity	Power outages	Frequent power outages (80th–99th percentile)	60th–79th percentile	60th–79th percentile
	Tertiary degrees	No data	No data	Few people with degrees (0–19th percentile)
RISK ENVIRONMENT				
Political Stability	Social unrest	Very high	High	Very high
	Transfers of power	Not clear, established, or accepted	One of the three criteria is absent	Not clear, established, or accepted
	International disputes	Very high	Low	Moderate
	Armed conflict	Territorial conflict; opposition has effective control over a region or regions	No armed conflict exists	Incursive conflict; government remains in control, but opposition engages in frequent armed incursions
	Violent demonstrations	Very high	High	Very high
Effective Governance	Effectiveness of political system	No data	No data	No data
	Quality of bureaucracy	Very low	Low	Very low
Pervasiveness of Corruption	Pervasiveness of corruption	Very high	High	Very high
Illicit Activities by Non-State Actors	Terrorism	Very high	Very low	Low
	Organized crime	Very high	Moderate	Very high
	Illicit arms flows	No data	No data	No data

Explore the NTI Nuclear Security Index and the Radioactive Source Security Assessment at www.ntiindex.org

- See profiles for all countries in the NTI Index, including areas for improvement
- Explore how different actions would improve a country's score
- Compare country scores, ranks, and trends
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