# Chapter 2. Country-by-Country Summary

# (1) NUCLEAR-WEAPON STATES

# 1. China (Nuclear-Weapon State)

Points / Full Points (%)

## Nuclear Disarmament

10/101 (9.9%)

China, possessing approximately 270 nuclear warheads, has promoted active modernization programs for its nuclear forces (particularly, ICBMs and SLBMs). It neither participated in the negotiation conference of the TPNW, nor signed the treaty. While reiterating a commitment toward a world without nuclear weapons, China is the only NWS that has not reduced its nuclear arsenals. China has neither ratified the CTBT nor declared a moratorium on production of fissile material for nuclear weapons. It has declared no first use of nuclear weapons and the unconditional negative security assurance. While arguing the importance of transparency in intention, China has maintained the least transparency about nuclear weapons capabilities among the NWS.

### Nuclear Non-Proliferation

31/47 (66.0%)

China acceded to the IAEA Additional Protocol, in which no provision for complementary access visits is stipulated. It has announced to take efforts to strengthen implementation of sanction measures vis-à-vis North Korea under the UN Security Council Resolutions, as well as its export-control mechanisms. Questions remain as to whether China is conducting adequate and strict implementation, however. China has also been criticized for exporting two nuclear power reactors to Pakistan, which may constitute a violation of the NSG guidelines.

## **Nuclear Security**

25/41 (61.0%)

China is advancing the introduction of the recommendation measures of INFCIRC/225/Rev.5, such as legislation and physical protection measures against sabotage acts. In addition, China is taking a positive attitude toward strengthening nuclear security, including efforts to minimize HEU, acceptance of IAEA IPPAS mission, and capacity building activities through newly established COE.

#### 2. France (Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

23/101 (22.8%)

France has announced its maximum number of nuclear warheads as 300, and has reduced its overall nuclear forces. It has also converted fissile material excess for military purpose to civilian purposes, which has been placed under the international safeguards. It voted against most of the UNGA Resolutions regarding nuclear disarmament, and showed a negative attitude to the issues on humanitarian dimensions, as well as legal prohibition of nuclear weapons, in particular. It neither participated in the negotiation conference of the TPNW, nor signed the treaty. There was little progress in diminishing the role of nuclear weapons. Meanwhile, France has engaged in promoting the CTBT's entry into force, and developing its verification systems.

#### Nuclear Non-Proliferation

40/47 (85.1%)

France acceded to the IAEA Additional Protocol, with the provision for complementary access visits. All of its civilian nuclear material covered by the EURATOM Treaty is subject to its safeguards. France has engaged in nuclear non-proliferation proactively, including contributions to the IAEA safeguards systems, and the establishment and implementation of its export control systems.

#### **Nuclear Security**

26/41 (63.4%)

France has ratified all relevant treaties and is involved in the prevention of illicit transfers and cooperation in nuclear forensics. France continues to implement the recommendation measures of INFCIRC/225/Rev.5, such as legislation development, transport safety and strengthening of physical protection of nuclear material.

# 3. Russia (Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

7.8/101 (7.7%)

The number of Russia's nuclear weapons has been reduced. It also continues to implement the New START. Still, it is estimated to possess approximately 7,000 nuclear warheads, and has actively developed and deployed new ICBMs and SLBMs for replacing aged delivery vehicles. Furthermore, Russia is alleged to have violated the INF Treaty. It voted against most of the UNGA Resolutions regarding nuclear disarmament, and showed a negative attitude to the issues on humanitarian dimensions as well as legal prohibition of nuclear weapons, in particular. It neither participated in the negotiation conference of the TPNW, nor signed the treaty. It continued to repeat nuclear saber-rattling vis-à-vis the U.S. and NATO.

# **Nuclear Non-Proliferation**

35/47 (74.5%)

Russia acceded to the IAEA Additional Protocol, in which no provision for complementary access visits is stipulated. It considers that the conclusion of an Additional Protocol should be voluntary. It has implemented measures on nuclear non-proliferation proactively, though to a lesser extent than the western countries.

### **Nuclear Security**

19/41 (46.3%)

Russia has ratified all relevant treaties, is involved in the prevention of illicit transfers and nuclear forensics cooperation, and the introduction of the recommended measures of INFCIRC/225/Rev.5 is proceeding. Russia carries out diverse education and training related activities under the ROSATOM Tech Academy, and its contribution to capacity building in the field of nuclear security is remarkable.

## 4. The United Kingdom (Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

25/101 (24.8%)

The size of the U.K. nuclear arsenal has decreased incrementally. The United Kingdom plans to reduce to no more than 120 operationally available warheads and a total stockpile of no more than 180 warheads by the mid-2020s. Construction of a new class of four SSBNs, as replacement for the existing Vanguard-class vessels, was commenced. It neither participated in the negotiation conference of the TPNW, nor signed the treaty. Meanwhile, the U.K. has engaged in promoting the CTBT's entry into force, and developing its verification systems.

# Nuclear Non-Proliferation

39/47 (83.0%)

The U.K. acceded to the IAEA Additional Protocol with the provision for complementary access visits. All of its civilian nuclear material is subject to the international safeguards. A Nuclear Safeguards Bill was introduced to U.K. parliament, whose purpose is to establish a system of domestic safeguards to replace the existing EURATOM safeguards when the United Kingdom will withdraw from it. It has proactively engaged in nuclear non-proliferation, including implementation of export controls.

### **Nuclear Security**

25/41 (61.0%)

The U.K. is advancing the introduction of the recommendation measures of INFCIRC/225/Rev.5, mainly focusing on legislation development and cyber threat countermeasures. In addition to hosting the IAEA's nuclear security related technical conferences, the U.K. also makes contributions such as financial commitment to the NSF. In addition, the U.K. is also focusing on multilateral cooperation in the field of nuclear security as seen in the involvement in the GINCT.

## 5. The United States (Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

16.7/101 (16.5%)

The U.S., possessing 6,800 nuclear warheads, continues to implement the New START. Its reports on nuclear weapons have been the most transparent among the NWS. The U.S. has established and led the "International Partnership for Nuclear Disarmament Verification (IPNDV)." On the other hand, it is pointed out the possibilities of an increasing role of nuclear weapons by the Trump administration. Negative responses to the CTBT has also gradually appeared, particularly compared to the U.S. previous administration. The United States neither participated in the negotiation conference of the TPNW, nor signed the treaty. The U.S. voted against most of the UNGA Resolutions regarding nuclear disarmament, except that proposed by Japan.

### **Nuclear Non-Proliferation**

41/47 (87.2%)

The U.S. has proactively led the efforts to bolster nuclear non-proliferation, including contributions to the IAEA safeguards systems and implementation of stringent export controls. It acceded to the IAEA Additional Protocol with the provision for complementary access visits. On the other hand, statements by the U.S. new administration raised concerns about the future of the JCPOA on the Iranian nuclear issue.

## Nuclear Security

24/41 (58.5%)

The U.S. has continued involvement in the IAEA's efforts to strengthen nuclear security and has hosted several international workshops related to nuclear security through 2017. It has also expressed its financial contribution to the NSF. On the other hand, from the contrast with the former Obama administration, which led the nuclear security summit process, attention is focused on the new nuclear security policy of the U.S. Trump administration. However, as of 2017, such a policy to strengthen nuclear security by the U.S. has not been announced.

# (2) NON-PARTIES TO THE NPT

## 6. India (Non-Party to the NPT)

Points / Full Points (%)

#### Nuclear Disarmament

4/98 (4.1%)

India is estimated to possess approximately 120-130 nuclear warheads, having added incrementally. It also continues to actively develop nuclear delivery vehicles, including ICBM and SLBM, and to produce fissile material for nuclear weapons. India voted positively to some extent in the UNGA Resolutions regarding nuclear disarmament. However, it neither participated in the negotiation conference of the TPNW, nor signed the treaty. India maintains a moratorium on nuclear test explosions, but refuses to sign the CTBT.

## **Nuclear Non-Proliferation**

15/43 (34.9%)

India acceded to the IAEA Additional Protocol, in which no provision for complementary access visits is stipulated. India's quest for membership in the NSG is supported by some member states, but the group has not yet made a decision.

## **Nuclear Security**

22/41 (53.7%)

India has ratified almost all nuclear security-related treaties. Also, India is advancing the introduction of the recommendation measures of INFCIRC/225/Rev.5, such as efforts to foster nuclear security culture. In addition, India makes financial contributions to the NSF as a contribution to the IAEA nuclear security program.

## 7. Israel (Non-Party to the NPT)

Points / Full Points (%)

#### Nuclear Disarmament

0/98 (0.0%)

Israel has consistently pursued the policy of "nuclear opacity" while estimated to possess approximately 80 nuclear warheads. Due to such a policy, its nuclear capabilities and posture remain unclear. Israel has yet to ratify the CTBT. Nor has it declared a moratorium on production of fissile material for nuclear weapons. It voted against most of the UNGA Resolutions regarding nuclear disarmament. Israel neither participated in the negotiation conference of the TPNW, nor signed the treaty.

#### **Nuclear Non-Proliferation**

13/43 (30.2%)

Israel argues that improvement of the regional security is imperative for establishing a Middle East Zone Free of WMD. It has established solid export control systems. However, Israel has not acceded to the IAEA Additional Protocol.

#### Nuclear Security

22/41 (53.7%)

Israel has implemented measures for prevention of illicit trafficking, nuclear forensic efforts, and multilateral cooperation through the GICNT. Also, Israel is advancing the introduction of the recommendation measures of INFCIRC/225/Rev.5.

## 8. Pakistan (Non-Party to the NPT)

Points / Full Points (%)

#### Nuclear Disarmament

2/98 (2.0%)

Pakistan seems to be increasing its nuclear arsenal incrementally, and is estimated to possess 130-140 nuclear warheads. In addition to continuing to develop short- and medium-range ballistic missiles, it revealed a possession of low-yield, small nuclear weapons. Such developments raise concerns about the increased possibility for early use of nuclear weapons. It neither participated in the negotiation conference of the TPNW, nor signed the treaty. While maintaining a moratorium on nuclear test explosions, it refuses to sign the CTBT. Pakistan continues to block the commencement of negotiations on an FMCT at the CD. It has yet to declare a moratorium on production of fissile material for nuclear weapons.

# Nuclear Non-Proliferation

10/43 (23.3%)

Pakistan has not yet acceded to the IAEA Additional Protocol. It argues that it has made efforts to enhance its export control systems: however, it is still unclear how robust or suc-cessfully implemented such export control systems are in practice.

**Nuclear Security** 

18/41 (43.9%)

Pakistan is advancing the introduction of the recommendation measures of INFCIRC/225/Rev.5 through the improvement of domestic laws and the strengthening of physical protection of nuclear material. Pakistan is also focusing on preventing illicit transfer and contributing to capacity building activities. In addition, Pakistan has announced its contribution to the IAEA's NSF in FY2018.

# (3) NON-NUCLEAR-WEAPON STATES

## 9. Australia (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

17.5/42 (41.7%)

Along with other U.S. allies, Australia advocates the "progressive approach" toward a world without nuclear weapons, through incremental, practical measures. Australia has engaged in promoting the CTBT's entry into force, and developing its verification systems. It neither participated in the negotiation conference of the TPNW, nor signed the treaty.

## Nuclear Non-Proliferation

56/61 (91.8%)

Australia is also a state party to the South Pacific Nuclear-Free Zone Treaty. It acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. Australia-India Nuclear Cooperation Agreement was adopted in 2015.

## **Nuclear Security**

32/41 (78.0%)

Australia has ratified all nuclear security-related conventions and is also focusing on international efforts on nuclear security. Australia completed accepting the IPPAS mission in 2017. Also, as an activity related to NFWG, Australia intends to coordinate for nuclear forensics cooperation with Southeast Asian countries from 2017 to 2018.

## 10. Austria (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

30/42 (71.4%)

Austria has played a leading role for promoting the issue on the humanitarian dimensions of nuclear weapons, and adopting the TPNW. It has also proactively engaged in cooperation with the civil society.

# Nuclear Non-Proliferation

52/61 (85.2%)

Austria has participated in and implemented the related treaties and measures. It acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards.

#### **Nuclear Security**

28/41 (68.3%)

Austria has ratified major conventions on nuclear security and nuclear safety and is also involved in minimizing HEU, measures to prevent illicit transfers, and capacity building-related activities.

#### 11. Belgium (Non-Nuclear-Weapon State)

Points / Full Points (%)

## Nuclear Disarmament

13.5/42 (32.1%)

Belgium is hosting U.S. non-strategic nuclear weapons as part of NATO's nuclear sharing policy. It neither participated in the negotiation conference of the TPNW, nor signed the treaty. Along with other U.S. allies, Belgium advocates the "progressive approach" toward a world without nuclear weapons, through implementing practical measures. It has engaged in promoting the CTBT's entry into force, and developing its verification systems.

## **Nuclear Non-Proliferation**

54/61 (88.5%)

Belgium acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. It has engaged in non-proliferation, including the establishment of the solid export control systems.

#### **Nuclear Security**

28/41 (68.3%)

Belgium has ratified all treaties related to nuclear security and is also working to minimize HEU and to prevent illicit transfers. In light of the attempted terrorist attacks on nuclear power plants that were discovered after the Brussels terror attack in March 2016, Belgium has been actively strengthening nuclear security, including provisionally placing domestic nuclear facilities under military guard.

### 12. Brazil (Non-Nuclear-Weapon State)

Points / Full Points (%)

# Nuclear Disarmament 27/42 (64.3%)

Brazil has played a leading role for adopting the TPNW. It voted for most of the UNGA Resolutions regarding nuclear disarmament.

## Nuclear Non-Proliferation

43/61 (70.5%)

Brazil is also a state party to the Latin America Nuclear-Weapon-Free Zone Treaty. While it complies with nuclear non-proliferation obligations, Brazil continues to be reluctant about accepting the IAEA Additional Protocol. It considers that the conclusion of an Additional Protocol should be voluntary.

Nuclear Security 28/41 (68.3%)

Brazil has signed a CPPNM Amendment and has undertaken the development of counter-terrorism legislation. In 2017 Brazil managed and removed high-level radioactive substances in the country, and held a regional training course on computer security organized by IAEA.

### 13. Canada (Non-Nuclear-Weapon State)

Points / Full Points (%)

# Nuclear Disarmament 19/42 (45.2%)

Along with other U.S. allies, it advocates the "progressive approach" toward a world without nuclear weapons, through implementing practical measures. It neither participated in the negotiation conference of the TPNW, nor signed the treaty. Canada has engaged in promoting the CTBT's entry into force, and developing its verification systems. Canada has also undertaken active cooperation with civil society.

## Nuclear Non-Proliferation

52/61 (85.2%)

Canada acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. Canada exported uranium to India, as their civil nuclear cooperation.

# Nuclear Security 33/41 (80.5%)

Canada has ratified all relevant treaties concerning nuclear security and is also implementing the recommendation measures of INFCIRC/225/Rev.5. In 2017, Canada provided nuclear security cooperation to Brazil, Jordan, Malaysia, Thailand, the Philippines and the Africa region, and made a financial contribution to the IAEA's NSF. In addition, Canada has also made remarkable efforts in the field of nuclear forensics.

## 14. Chile (Non-Nuclear-Weapon State)

Points / Full Points (%)

Nuclear Disarmament	26.5/42 (63.1%)
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Chile voted for most of the UNGA Resolutions regarding nuclear disarmament, and has expressed approval of the issues on the humanitarian dimensions and legal prohibition of nuclear weapons. It also signed the TPWN.

# Nuclear Non-Proliferation 52/61 (85.2%)

Chile is also a state party to the Latin America Nuclear-Weapon-Free Zone Treaty. It has acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. Meanwhile, more efforts are needed to strengthen its nuclear-related export controls sys-tem.

# Nuclear Security 30/41 (73.2%)

Chile has ratified major treaties on nuclear security and nuclear safety, and is actively contributing to prevention of illicit transfer, nuclear forensics and relevant capacity building activities. In addition, Chile has completed removal of domestic HEU.

## 15. Egypt (Non-Nuclear-Weapon State)

Points / Full Points (%)

## Nuclear Disarmament

17/42 (40.5%)

Egypt voted for most of the UNGA Resolutions regarding nuclear disarmament, and has expressed approval of the issues on the humanitarian dimensions and legal prohibition of nuclear weapons. However, it has not yet signed the TPNW. Nor has it actively engaged in promotion of nuclear disarmament. Egypt has not ratified the CTBT, either.

## **Nuclear Non-Proliferation**

37/61 (60.7%)

Egypt has been active toward establishing a WMD-free zone in the Middle East. Meanwhile, it has yet to conclude the IAEA Additional Protocol. Egypt has made efforts for, inter alia, putting export control legislation in place and setting enforcement agencies. Still, its export controls remain at an insufficient level, due to a lack of introduction of important elements including list control and catch-all control provisions. While signing, it has not yet ratified the Africa Nuclear-Weapon-Free Zone Treaty.

## **Nuclear Security**

14/41 (34.1%)

Egypt has signed the CPPNM and the CPPNM Amendment before 2017. In 2017, Egypt proceeded with the development of domestic law on prevention of illicit transfers, held an international training course organized by the IAEA, and worked to foster nuclear security culture utilizing its COE.

## 16. Germany (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

14/42 (33.3%)

While Germany has proactively engaged in nuclear disarmament, it was against, or abstained, in the votes on the other UNGA Resolutions related to the humanitarian dimensions as well as legal prohibition of nuclear weapons. It neither participated in the negotiation conference of the TPNW, nor signed the treaty. Along with other U.S. allies, Germany advocates the "progressive approach" toward a world without nuclear weapons, through incremental practical measures. Germany is hosting U.S. non-strategic nuclear weapons as part of NATO's nuclear sharing policy.

## **Nuclear Non-Proliferation**

56/61 (91.8%)

Germany acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. It has engaged in non-proliferation, including the establishment of solid export control systems.

#### Nuclear Security

28/41 (68.3%)

Germany has ratified all nuclear security-related conventions and is actively involved in international efforts such as capacity building and nuclear forensics. In 2017, Germany contributed to the IAEA's nuclear security strengthening efforts through the implementation of multiple training courses on computer security and transport safety, and hosted the ITWG annual meeting.

## 17. Indonesia (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

24/42 (57.1%)

Indonesia has actively advocated promotion of nuclear disarmament at various nuclear disarmament fora, including the OEWG and the UNGA. It voted for most of the UNGA Res-olutions regarding nuclear disarmament. Indonesia signed the TPNW.

# **Nuclear Non-Proliferation**

48/61 (78.7%)

Indonesia is also a state party to the Southeast Asia Nuclear-Weapon-Free Zone Treaty. It has concluded the IAEA Additional Protocol, of which the NAM countries are less enthusiastic about acceptance. Indonesia is applied the integrated safeguards. On export controls, however, Indonesia has yet to prepare a list of dual-use items and technologies, or to implement catch-all control.

## **Nuclear Security**

30/41 (73.2%)

Indonesia completed domestic removal of HEU in 2017. By doing this, Indonesia contributed to making Southeast Asia an area without risky nuclear material. In addition to implementing illicit transfer prevention measures, Indonesia is promoting capacity building-related activities through its COE (I-CoNSEP) for the nuclear security and emergency response.

## 18. Iran (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

15/42 (35.7%)

Iran voted for most of the UNGA Resolutions regarding nuclear disarmament, including the UNGA resolution titled "Taking forward multilateral nuclear disarmament ne-gotiations," and other UNGA Resolutions related to the humanitarian dimensions as well as legal prohibition of nuclear weapons. However, it has not actively engaged in promotion of nuclear disarmament. Iran has neither ratified the CTBT nor signed the TPNW.

# Nuclear Non-Proliferation

37/61 (60.7%)

Iran has complied with the Joint Comprehensive Plan of Action (JCPOA) agreed in July 2015. While Iran has not ratified the IAEA Additional Protocol, it has accepted its provisional application, under which the IAEA conducted complimentary access visits.

#### **Nuclear Security**

10/41 (24.4%)

In Iran, although application of the recommendation measures of INFCIRC/225/Rev.5 has been partially advanced, efforts such as ratification of related conventions, minimization of HEU, participation in Nuclear Security Initiative and prevention of illegal transfers have not progressed yet.

## 19. Japan (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

23.5/42 (56.0%)

Along with other U.S. allies, Japan advocates the "progressive approach" toward a world without nuclear weapons, through incremental practical measures. It neither participated in the negotiation conference of the TPNW, nor signed the treaty. Japan has proactively engaged in nuclear disarmament, as one of the countries that lead efforts to promote and strengthen those areas, particularly for achieving a world without nuclear weapons, promoting entry into force of the CTBT, and undertaking disarmament and non-proliferation education.

## **Nuclear Non-Proliferation**

53/61 (86.9%)

Japan has acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. It has proactively engaged in nuclear non-proliferation, including the establishment of solid export control systems and conducting outreach activities. In 2017 Japan ratified the Japan-India Nuclear Cooperation Agreement signed the previous year.

## **Nuclear Security**

29/41 (70.7%)

Japan contributed to the efforts to strengthen nuclear security by the IAEA, such as holding various workshops and training courses. There was also partial progress in the introduction of the recommendation measures of INFCIRC/255/Rev.5, such as adopting countermeasures against insider threats. In 2017, Japan carried out capacity building activities and multilateral cooperation to regional countries, using its experienced COE (JAEA-ISCN), and actively participated in international efforts through holding the GINCT plenary meeting.

### 20. Kazakhstan (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

24/42 (57.1%)

Kazakhstan has actively advocated the importance of the CTBT. It voted for the UNGA Resolutions regarding nuclear disarmament, and has expressed approval of the issues on the humanitarian dimensions and legal prohibition of nuclear weapons. It has not signed the TPNW.

## Nuclear Non-Proliferation

47/61 (77.0%)

Kazakhstan is also a state party to the Central Asia Nuclear-Weapon-Free Zone Treaty. It has acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. The IAEA LEU Fuel Bank established in Kazakhstan started to be opera-tional in 2017.

#### Nuclear Security

26/41 (63.4%)

Kazakhstan has ratified all the relevant treaties and the introduction of the recommendation measures of INFCIRC/225/Rev.5 is progressing, and it is also actively involved in international efforts to strengthen nuclear security. Kazakhstan is expressing an intention to hold a new Global Summit on Nuclear Security in the future.

### 21. South Korea (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

14/42 (33.3%)

South Korea was against, or abstained, in the voting on the UNGA Resolutions related to the humanitarian dimensions as well as legal prohibition of nuclear weapons. It neither par-ticipated in the negotiation conference of the TPNW, nor signed the treaty. Along with other U.S. allies, it advocates the "progressive approach" toward a world without nuclear weapons, through incremental practical measures. South Korea has engaged in promoting the CTBT's entry into force, and developing its verification systems.

## **Nuclear Non-Proliferation**

51/61 (83.6%)

South Korea acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. It has proactively engaged in the issue of how to make withdrawal from the NPT more difficult. Meanwhile, facing North Korea's nuclear and missile build-up, arguments for re-deployment of the U.S. nuclear arsenals and their sharing have been increasing from outside of the South Korean government.

## **Nuclear Security**

37/41 (90.2%)

South Korea has ratified all related treaties and actively participates in international efforts, in addition to minimizing the use of HEU and preventing illicit transfers. In 2017, South Korea contributed to the IAEA's efforts to strengthen nuclear security, including holding a training course on physical protection system evaluation. In addition, advanced measures such as development of an evaluation system for sabotage acts on nuclear facilities utilizing virtual reality technology were implemented.

## 22. Mexico (Non-Nuclear-Weapon State)

Points / Full Points (%)

# Nuclear Disarmament

27.5/42 (65.5%)

Mexico has played a leading role for promoting the issue on the humanitarian dimensions of nuclear weapons, as well as adopting the TPNW, which it has already signed.

# Nuclear Non-Proliferation

50/61 (82.0%)

Mexico is also a state party to the Latin America Nuclear-Weapon-Free Zone Treaty. Mexico acceded to the IAEA Additional Protocol, but has not yet been drawn a broader conclusion.

#### **Nuclear Security**

30/41 (73.2%)

Mexico held a Regional Meeting on Nuclear Security Information Exchange and Coordination in 2017, cooperating with the IAEA to strengthen nuclear security. In addition to ratifying nearly all related conventions, Mexico has introduced INFCIRC/255/Rev.5 recommended measures, minimizes the use of HEU, and making efforts to prevent illicit transfers.

#### 23. The Netherlands (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

15/42 (35.7%)

The Netherlands is the only U.S. ally that participated in the negotiation conference of the TPNW, at which it voted against its adoption. The Netherlands has not signed the treaty. Along with other U.S. allies, it advocates the "progressive approach" toward a world without nuclear weapons, through incremental practical measures. It is hosting U.S. non-strategic nuclear weapons as part of NATO's nuclear sharing policy.

#### **Nuclear Non-Proliferation**

55/61 (90.2%)

The Netherlands acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. It has actively engaged in non-proliferation activity, including the establishment of solid export control systems.

## **Nuclear Security**

32/41 (78.0%)

The Netherlands has ratified all relevant treaties and is actively involved in minimizing the use of HEU, preventing illicit transfers and international efforts to strengthen nuclear security. In particular, in the field of nuclear forensics, the Netherlands is leading a five-year project named "The Hague Innovations Pathway 2014-2019 on Forensics in Nuclear Security" under the Netherlands Forensic Institute (NFI).

### 24. New Zealand (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

30/42 (71.4%)

New Zealand was actively involved in the process of adopting the TPNW, and has already signed it. It has also proactively advocated promotion of nuclear disarmament at various fora, including the UN General Assembly. It has engaged in promoting the CTBT's entry into force, and developing its verification systems.

## **Nuclear Non-Proliferation**

55/61 (90.2%)

New Zealand is also a state party to the South Pacific Nuclear-Free Zone Treaty. It has acceded to the IAEA Additional Protocol, and has been drawn the broader conclusion.

# **Nuclear Security**

27/41 (65.9%)

New Zealand is advancing the introduction of the recommended measures of INFCIRC/225/Rev.5, and is working to minimize the use of HEU and to prevent illicit transfers. In 2017, New Zealand completed acceptance of the IPPAS mission and expressed its financial contribution to the NSF by the IAEA.

## 25. Nigeria (Non-Nuclear-Weapon State)

Points / Full Points (%)

Nuclear Disarmament 23.5/42 (56.0%)

Nigeria voted for most of the UNGA Resolutions regarding nuclear disarmament. It has already signed the TPNW.

## Nuclear Non-Proliferation

45/61 (73.8%)

Nigeria is also a state party to the Africa Nuclear-Weapon-Free Zone Treaty. It acceded to the IAEA Additional Protocol, and has not been drawn the broader conclusion. Its implementations on export controls and nuclear security-related measures are not necessarily adequate. Nigeria amended and withdrew the SQP.

#### **Nuclear Security**

23/41 (56.1%)

Nigeria has ratified all relevant treaties and is also working to minimize the use of HEU and to prevent illicit transfers. In 2017, Nigeria established an independent regulatory authority and made progress with the introduction of the recommended measures of INFCIRC/225/Rev.5, such as adopting the law on nuclear security and peaceful use of nuclear power. Nigeria also strengthened its involvement in international efforts by newly participating in the GICNT.

## 26. Norway (Non-Nuclear-Weapon State)

Points / Full Points (%)

## Nuclear Disarmament

15.5/42 (36.9%)

Along with other U.S. allies, Norway advocates the "progressive approach" toward a world without nuclear weapons, through incremental practical measures. It neither participated in the negotiation conference of the TPNW, nor signed the treaty.

## Nuclear Non-Proliferation

54/61 (88.5%)

Norway acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. It has engaged in non-proliferation, including the establishment of the solid export control systems.

# **Nuclear Security**

28/41 (68.3%)

Norway has ratified all relevant treaties and is actively involved in the prevention of illegal transfers and capacity building activities. Norway is scheduled to hold an International Symposium on HEU Minimization in 2018, in cooperation with the IAEA.

### 27. The Philippines (Non-Nuclear-Weapon State)

Points / Full Points (%)

Nuclear Disarmament 27/42 (64.3%)

The Philippines voted for most of the UNGA Resolutions regarding nuclear disarmament. It has already signed the TPNW.

## **Nuclear Non-Proliferation**

50/61 (82.0%)

The Philippines is also a state party to the Southeast Asia Nuclear-Weapon-Free Zone Treaty. It has concluded the IAEA Additional Protocol, and has been drawn the broader conclusion. The Philippines introduced list control and catch-all control in its export control system.

*Nuclear Security* 28/41 (68.3%)

The Philippines has completed the removal of domestic HEU, and is also working on illicit transfer prevention and capacity building activities. In addition, the Philippines is advancing the introduction of the recommendation measures of INFCIRC/225/Rev. 5 in the country.

### 28. Poland (Non-Nuclear-Weapon State)

Points / Full Points (%)

Nuclear Disarmament 12/42 (28.6%)

Like other NATO countries, Poland maintains a cautious stance on legally banning nuclear weapons. It neither participated in the negotiation conference of the TPNW, nor signed the treaty.

## Nuclear Non-Proliferation

52/61 (85.2%)

Poland acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. It has engaged in non-proliferation, including the establishment of solid export control systems.

Nuclear Security 30/41 (73.2%)

Poland has ratified all relevant treaties and is advancing the introduction of the recommendation measures of INFCIRC/225/Rev.5. As of 2017, Poland has completed the withdrawal of domestic HEU and operates all domestic research reactors with LEU fuel.

# 29. Saudi Arabia (Non-Nuclear-Weapon State)

Points / Full Points (%)

Nuclear Disarmament	13/42 (31.0%)
Tructeur Bibar mament	13/4= (31.0/0)

Saudi Arabia voted for most of the UNGA Resolutions regarding nuclear disarmament related to the humanitarian dimensions as well as legal prohibition of nuclear weapons. However, it has not signed the TPNW or the CTBT.

# Nuclear Non-Proliferation 36/61 (59.0%)

Saudi Arabia has not acceded to the IAEA Additional Protocol. Its national implementation regarding export controls also came up short.

Nuclear Security 21/41 (51.2%)

Saudi Arabia has ratified all relevant treaties and is also involved in capacity building activities. Saudi Arabia is planning to establish an independent regulatory authority on the safety of nuclear and radioactive materials in 2018 and is working to introduce the recommendation measures of INFCIRC/225/Rev.5, such as promoting related domestic legislation development. Saudi Arabia is also engaged in international efforts such as newly joining the GICNT.

### 30. South Africa (Non-Nuclear-Weapon State)

Points / Full Points (%)

# Nuclear Disarmament

25.5/42 (60.7%)

South Africa has played a leading role for promoting the issue on the humanitarian dimensions of nuclear weapons, as well as adopting the TPNW. It has already signed the treaty.

## Nuclear Non-Proliferation

*53/61 (86.9%)* 

South Africa is also a state party to the Africa Nuclear-Weapon-Free Zone Treaty. It acceded to the IAEA Additional Protocol, and has been drawn the broader conclusion. It considers that the conclusion of an Additional Protocol should be voluntary.

## **Nuclear Security**

25/41 (61.0%)

South Africa has ratified all major treaties on nuclear security and safety, except for the CPPNM amendment. It has been progressing to establish legal instruments, strengthen physical protection measures and transport security based on the INFCIRC/225/Rev.5. South Africa has set up a nuclear security COE in the country.

### 31. Sweden (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

26/42 (61.9%)

Sweden participated in the negotiation conference on the TPNW, at which it voted in favor of adopting the treaty. However, Sweden has not yet signed the TPNW. It has actively advocated promotion of nuclear disarmament. It has engaged in promoting the CTBT's entry into force, and developing its verification systems.

## **Nuclear Non-Proliferation**

53/61 (86.9%)

Sweden acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. It has engaged in non-proliferation, including the establishment of solid export control systems.

#### **Nuclear Security**

38/41 (92.7%)

In addition to ratifying all related treaties, Sweden is actively participating in international nuclear security efforts, in addition to minimizing HEU and preventing illicit transfers.

# 32. Switzerland (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

24.5/42 (58.3%)

Switzerland participated in the negotiation conference on the TPNW, at which it voted in favor of adopting the treaty. However, Switzerland had not yet signed the TPNW. It has actively advocated promotion of nuclear disarmament. It has engaged in promoting the CTBT's entry into force, and developing its verification systems. It has also taken a proac-tive attitude regarding cooperation with civil society. It enacted national laws, which restrict financing for nuclear weapons production.

#### **Nuclear Non-Proliferation**

50/61 (82.0%)

Switzerland acceded to the IAEA Additional Protocol. It was drawn the broader conclusion. It has engaged in non-proliferation, including the establishment of solid export control systems.

#### **Nuclear Security**

32/41 (78.0%)

Switzerland has ratified all the relevant treaties and is actively participating in contributions in the field of nuclear forensics and international nuclear security efforts. It has made a financial contribution to the IAEA's NSF and is planning to hold an ITWG plenary meeting in 2018.

## 33. Syria (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

8/42 (19.0%)

Syria voted for most of the UNGA Resolutions related to the humanitarian dimensions, as well as legal prohibition of nuclear weapons. However, Syria, which has not signed the TPNW or the CTBT, has not actively engaged in promotion of nuclear disarmament.

## **Nuclear Non-Proliferation**

21/61 (34.4%)

Syria has yet to address and resolve the allegation of constructing a clandestine nuclear power plant, despite repeated requests by the IAEA. Syria has not concluded the IAEA Additional Protocol, and has yet to take appropriate measures on export controls.

# **Nuclear Security**

3/41 (7.3%)

Syria ratified the Nuclear Safety Convention in 2017, while there has been no progress at the moment in preventing illicit transfers, applying the recommended measures of INFCIRC/225/Rev.5 and participating in international nuclear security efforts.

### 34. Turkey (Non-Nuclear-Weapon State)

Points / Full Points (%)

#### Nuclear Disarmament

8/42 (19.0%)

Along with other U.S. allies, Turkey advocates the "progressive approach" toward a world without nuclear weapons, through incremental practical measures. It neither participated in the negotiation conference of the TPNW, nor signed the treaty.

## **Nuclear Non-Proliferation**

50/61 (82.0%)

Turkey acceded to the IAEA Additional Protocol, and has been applied the integrated safeguards. It has engaged in non-proliferation, including the establishment of solid export control systems.

#### **Nuclear Security**

28/41 (68.3%)

Turkey has ratified almost all relevant treaties and is also involved in minimizing HEU usage and preventing illicit transfers. Turkey is advancing the introduction of the recommended measures of INFCIRC/225/Rev.5 and plans to accept the IPPAS mission in 2018.

## 35. UAE (Non-Nuclear-Weapon State)

Points / Full Points (%)

UAE voted for most of the UNGA Resolutions related to the humanitarian dimensions as well as legal prohibition of nuclear weapons. However, it has not yet signed the TPNW.

#### Nuclear Non-Proliferation

45/61 (73.8%)

UAE acceded to the IAEA Additional Protocol, but has not been drawn a broader conclusion. On export controls, it established national legislation, which includes a catch-all control, but it is not clear how effectively UAE has implemented such measures.

## **Nuclear Security**

28/41 (68.3%)

The UAE has ratified all relevant treaties, and is proceeding with the prevention of illicit transfers and the introduction of the recommended measures of INFCIRC/225/Rev.5. It also announced a new financial contribution to the NSF of the IAEA.

# (4) OTHER

## 36. North Korea (Other)

Points / Full Points (%)

#### Nuclear Disarmament

-8/98 (-8.2%)

North Korea continued to conduct activities for development of nuclear weapons and their delivery vehicles aggressively again in 2017, including the sixth nuclear test. It continued repeated nuclear provocations vis-à-vis Japan, the United States and South Korea. It has emphasized bolstering its nuclear deterrent and rejected its denuclearization. North Korea seemed to produce fissile material for nuclear weapons. It neither participated in the negotiation conference of the TPNW, nor signed the treaty. North Korea has not yet signed the CTBT.

## Nuclear Non-Proliferation

0/61 (0.0%)

North Korea, which declared to withdraw from the NPT in 2003, ignores or reneges on most of the nuclear-related treaties, agreements, obligations and norms. It is reported to actively engage in illicit transfers and procurements of nuclear and missile related items.

# **Nuclear Security**

-2/41 (-4.9%)

In North Korea, no noticeable progress has yet been observed in the areas such as ratification of nuclear security/safety related treaties, minimization of HEU, acceptance of measures recommended in the INFCIRC/225/Rev.5 and participation in nuclear security initiatives.