
Preparatory Committee for the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

17 April 2013

Original: English

Second session

Geneva, 22 April-3 May 2013

Giving greater effect to the principle of irreversibility at the 2015 Review Conference

Working paper submitted by Switzerland

Background

1. States parties to the Treaty on the Non-Proliferation of Nuclear Weapons have collectively agreed that the principle of irreversibility should apply to nuclear disarmament efforts undertaken under article VI of the Treaty.
2. By agreeing on practical steps towards systematic and progressive efforts to implement article VI, the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons decided that the principle of irreversibility apply to nuclear disarmament, nuclear and other related arms control and reduction measures (article VI, paragraph 15.5). The 2010 Review Conference reaffirmed that nuclear disarmament has to be conducted in an irreversible manner, resolving that all States parties commit to apply the principles of irreversibility, verifiability and transparency in relation to the implementation of their treaty obligations (action 2, conclusions and recommendations for follow-on actions).
3. However, only limited practical consideration has been given to the implementation of the principle of irreversibility so far, and the measures adopted to date give only limited effect to its effective, appropriate and faithful application. This situation raises concerns, as efforts to achieve a world without nuclear weapons would be negatively affected by any reversal of the nuclear disarmament process.
4. Transparency and verification are key aspects in the application of the principle of irreversibility. Transparency measures are a necessary prerequisite to establish a baseline against which to assess whether nuclear disarmament is progressing irreversibly, as is the provision of accurate and comprehensive updates on a regular basis. Verification plays a host of roles in ensuring the irreversibility of nuclear disarmament. Verification measures play an important function in helping to deter reversals, through the consequences likely to follow from detection. They can also testify to the fact that actions taken have made any reversal impossible.
5. The practical link between the application of the principle of irreversibility and effective verification has been clearly established in some of the provisions adopted



in the framework of the Treaty review process. For instance, the Final Document of the 2000 Review Conference states that the Conference welcomes the efforts of several States to cooperate in making nuclear disarmament measures irreversible, in particular, through initiatives on the verification, management and disposition of fissile material declared excess to military purposes (article VI, paragraph 11). In addition, action 17 of the 2010 action plan indicates that all States are encouraged to support the development of appropriate legally binding verification arrangements, within the context of the International Atomic Energy Agency (IAEA), to ensure the irreversible removal of fissile material designated by each nuclear-weapon State as no longer required for military purposes. Verification mechanisms are also essential to ensure the irreversibility of other necessary nuclear disarmament measures.

State of play

6. All nuclear-weapon States bar China have declared an end to the production of fissile material for military purposes, and some nuclear-weapon States have dismantled or are in the process of dismantling facilities dedicated to the production of fissile material for weapons purposes. France invited international observers to witness the dismantlement of such facilities. However, nuclear-weapon States have never released information on the size of their military fissile material stockpiles. In addition, IAEA safeguards in nuclear-weapon States apply only to a select number of nuclear facilities and leave out a large segment of nuclear activities. Action 30 of the 2010 action plan calls for the wider application of safeguards to peaceful nuclear activities in the nuclear-weapon States, but no progress has been made in this area since the adoption of the action plan. Giving effect to the principle of irreversibility would require that nuclear-weapon States provide baseline information on their military fissile material stockpiles and update this information on a recurrent basis. It would also require that IAEA safeguards in nuclear-weapon States be gradually reinforced.

7. Three nuclear-weapon States have declared some fissile material excess to weapons requirements. The United Kingdom of Great Britain and Northern Ireland has not placed any of the fissile material that it has declared excess to military requirements under IAEA safeguards. Neither have the United States of America and the Russian Federation placed the fissile material that they have declared excess to military requirements under IAEA safeguards. It is true that arrangements are in the process of being developed between IAEA on the one hand and the United States and the Russian Federation on the other to verify the disposition of some of the plutonium declared in excess of military programmes. But even in this specific case, the role of IAEA will be limited to verifying the process of converting the weapon material to a non-weapon form, rather than take the form of an actual permanent safeguarding of this plutonium declared excess to military requirements before, during and after transformation. These different elements imply that fissile material may still be used for weapons purposes years after it has been declared excess to military requirements and that the partial measures adopted give only limited effect to the principle of irreversibility.

8. Measures adopted to date regarding nuclear warheads provide only limited assurance that the principle of irreversibility is applied thereto. It is true that the new START Treaty sets new limits in terms of deployed warheads and bombs and that these limits are accompanied by verification and transparency measures. But the new START Treaty does not require that the warheads removed from deployment to

meet the new ceiling be irreversibly dismantled and the fissile material that it contains be irreversibly withdrawn from military programmes. Warheads removed from deployment can simply be transferred to stockpiles. Ensuring that the size of warhead stockpiles irreversibly decreases would require that they be the subject of regular transparency measures (if not of verification measures), which has not been the case to date. In 2010, the United States indicated that as at September 2009 its total stockpile consisted of 5,113 warheads, but did not provide clear ulterior updates. In 2008, France announced that its arsenal would be reduced to fewer than 300 warheads and, in 2010, the United Kingdom announced that its stockpiles would not exceed 225 warheads, but neither country provided later updates. The Russian Federation and China have not provided information on their overall stockpiles.

9. The nuclear delivery vehicles of two nuclear-weapon States are subject to verification and transparency measures. Under the new START Treaty, the number of United States and Russian deployed delivery vehicles is monitored through a verification mechanism. Regular updates of this number are provided. However, the Treaty is time-limited and a party that has deployed fewer than the ceiling of 700 deployed delivery vehicles can, at any stage, increase its number of deployed vehicles back up to that ceiling. The United States and the Russian Federation have verifiably done away with their medium- and intermediate-range missiles pursuant to the Intermediate-Range Nuclear Forces Treaty. The delivery vehicles of the other nuclear-weapon States are not subject to treaty limitations or verification and transparency measures.

10. The Final Documents of the 2000 and 2010 Review Conferences indicate that the principle of irreversibility should apply to nuclear disarmament. It does not limit the applicability of this principle to the quantitative dimension of nuclear disarmament. The principle of irreversibility, therefore, also applies to dimensions other than the sole reduction of nuclear arsenals. This includes, for instance, the question of nuclear doctrines or nuclear forces modernization. Yet, little practical consideration has been given to the implication of the principle of irreversibility to these qualitative dimensions of nuclear disarmament.

Further action

11. Giving effect to the principle of irreversibility in nuclear disarmament will require that States parties to the Treaty on the Non-Proliferation of Nuclear Weapons take specific additional steps.

12. The 2015 Review Conference should result in a commitment by the nuclear-weapon States to submit regular, accurate and comprehensive information on their nuclear arsenals, including delivery vehicles and deployed and non-deployed warheads, as well as stockpiles of highly enriched uranium and plutonium.

13. The 2015 Review Conference should assess the implementation of action 30 of the 2010 action plan, which calls for the wider application of safeguards to peaceful nuclear activities in nuclear-weapon States, and, if necessary, agree on stronger and more ambitious measures in this area.

14. In order to give shape to action 17 of the 2010 action plan, the 2015 Review Conference should agree on the need to develop strengthened safeguards and enhanced verification arrangements within the context of IAEA that would ensure

the application of permanent safeguards on material irreversibly removed from nuclear weapons programmes.

15. The 2015 Review Conference should also consider the application of the principle of irreversibility to nuclear disarmament issues other than the quantitative reduction of nuclear-weapon arsenals. For instance, it could elaborate measures for the application of the principle of irreversibility to such issues as nuclear forces modernization and/or nuclear doctrines.
