

IAEA Verification Under the NPT: Concluding Safeguards Agreements and Additional Protocols

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Outline of Presentation

- 1. Development of the IAEA's safeguards system for verification under the NPT**
- 2. Legal instruments and safeguards requirements for States with little or no nuclear material**
- 3. Efforts to encourage wider adherence to the Agency's safeguards system**
- 4. Status of adherence**
- 5. How to bring into force the legal instruments of the Agency's safeguards system**



Development of the Agency's safeguards system for verification under the NPT



Key Challenge:
HOW TO DISSEMINATE THE
BENEFITS OF NUCLEAR
ENERGY WHILE ENSURING
AGAINST ITS DESTRUCTIVE
CAPABILITIES

**December 1953: Atoms for
Peace speech at the UN
General Assembly**

1956/57: Founding of the IAEA



The IAEA's Verification Role

☰ **What:** *The IAEA verifies that States honour their nuclear non-proliferation undertakings*

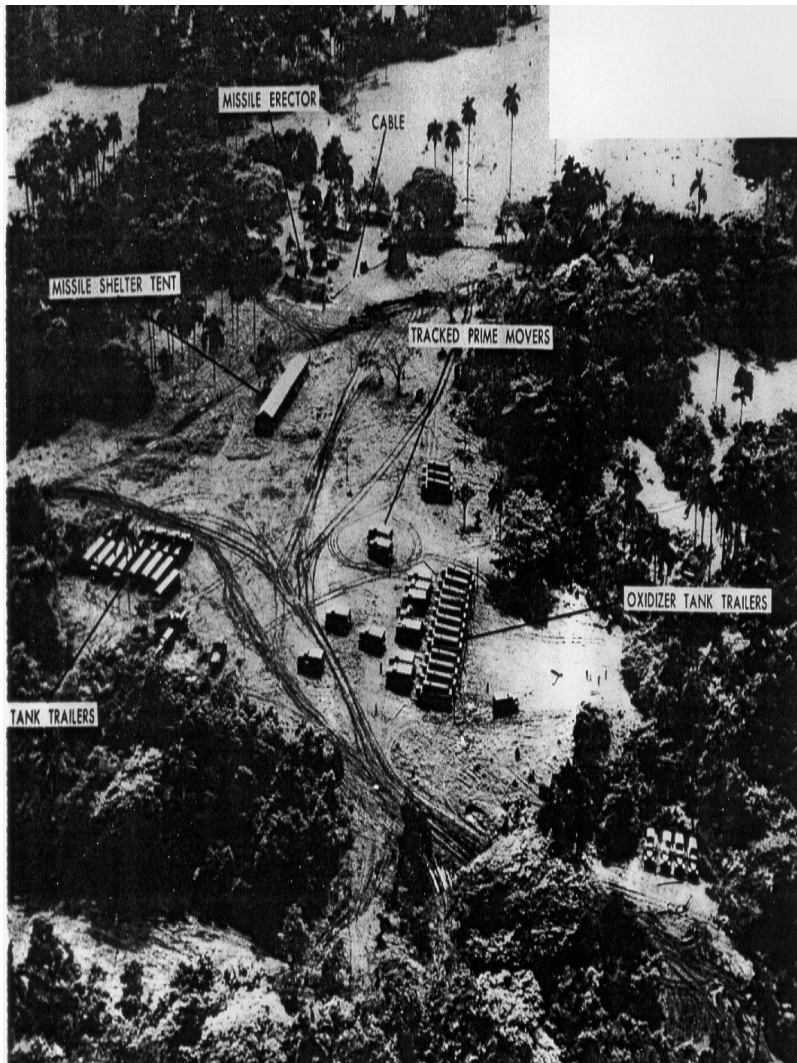
➤ *The Agency provides credible assurance to the international community that nuclear material under its verification is not diverted and regarding the peaceful nature of States' nuclear programmes*

(Compare IAEA cluster 2 presentation of 27 April, available at www.iaea.org, NPT pages)

☰ **How:** *This function is performed on the basis of safeguards agreements with States and through the technical measures available to inspectors*



The NPT: *Comprehensive Safeguards Agreements*



- NNWS undertake to accept safeguards, through an agreement with the IAEA in accordance with the Agency's safeguards system, for verification of the fulfillment of its obligations assumed under [the NPT]. (Art. III.1.)
- Safeguards to be applied to all nuclear material in all peaceful nuclear activities in the state. (ibid)
- NNWS undertake to bring into force a comprehensive safeguards agreement with the IAEA within 180 days. (Art. III.4)



Evolution of the Agency's safeguards system for verification under the NPT

All Regional Nuclear-Weapon-Free Zones require comprehensive safeguards agreements with the IAEA

- **Tlatelolco Treaty** (Latin America and the Caribbean)
- **Rarotonga Treaty** (South Pacific)
- **Bangkok Treaty** (Southeast Asia)
- **Pelindaba Treaty** (Africa)
- **[Central Asian Nuclear-Weapon-Free Zone]**

➤ Comprehensive safeguards agreements concluded pursuant to NWFZ, need to be confirmed under NPT



Evolution of the Agency's safeguards system for verification under the NPT

- **“The Structure and Content of Agreements Between the Agency and States Required in Connection with the NPT” (INFCIRC/153 (Corrected))**
- **Negotiated 1968-1971 in Vienna by IAEA Member States**
- **Confers upon the Agency the right and obligation to ensure that safeguards will be applied on all nuclear material in all peaceful nuclear activities of the State.**
 - **States report holdings of significant quantities of nuclear material and facilities containing such nuclear material**
 - **IAEA carries out inspections in accordance with the agreement at agreed strategic points in facilities and other declared locations**
- **149 States with safeguards agreements; 78 have no reported nuclear activities requiring routine safeguards inspections**



Iraq 1991

DPRK 1993

Uranium mining, production, processing sites

- Al Tuwaiha Nuclear Research Centre
- Al Jesira
- Al Mosul (processing)
- Al Qaim
- Tikrit (yellowcake storage)
- Akashat (phosphate & uranium processing)

Sites related to uranium enrichment

- Al Tuwaiha Nuclear Research Centre
- Al Tarmiya (EMIS)
- Ash Sharqat (planned)
- Al Jesira
- Al Radwan
- Al Amir
- Al Furat (centrifuge production)
- Daura (manufacturing)
- Badr (engineering complex)
- Salladine
- Nassar Works



Sites related to weaponization

- Al Tuwaiha Nuclear Research Centre
- Al Atheer
- Al Qa Qaa
- Hatteen (high explosives test site)
- Al Hadre (high explosives test site)



Evolution of the Agency's safeguards system for verification under the NPT

- Traditional safeguards focused on assuring against the possible diversion of declared nuclear material from peaceful uses
- Experience with *Iraq, DPRK and South Africa* underlined need to focus more on the possibility that States have undeclared nuclear material and activities

➔ **Model Additional Protocol, May 1997**



“I believe that, for the Agency to be able to fulfil its verification responsibilities in a credible manner, the additional protocol must become the standard for all countries that are party to the NPT”



***IAEA Director
General, Mohamed
ElBaradei***



Legal instruments and requirements of the safeguards system

Three legal instruments for States with minimal nuclear activities

1. **NPT Safeguards Agreement** (INFCIRC/153 (Corr.))
2. **Small Quantities Protocol** (in GOV/INF/276)
3. **Additional Protocol** (INFCIRC/540 (Corr.))



INFCIRC/153

Part 1 provides the general framework

- The States' basic NPT undertaking
- The Agency's "right and obligation"

Part 2 outlines the detailed reporting and inspection provisions for reporting and carrying out inspections related to nuclear material and facilities



Small Quantities Protocols

Hold in abeyance most of the detailed provisions of in part 2 of INFCIRC/153 as long as the State has little or no nuclear material, and no nuclear material in a “facility”. A State with an SQP is required to:

- Establish a State System for Accountancy and Control (safeguards focal point)
- Report in case of exports of source material (Uranium Ore) to a non-nuclear-weapon State
- Perform certain activities before it acquires significant amounts nuclear material or a facility
- Routine inspections are not anticipated, but the Agency retains the basic right to perform special inspections



Additional Protocols

Does not change the verification goal (non-diversion of declared and absence of undeclared nuclear material and activities) but provides the Agency with the right to receive:

1. **ADDITIONAL INFORMATION**

2. **BROADER ACCESS**

3. **STREAMLINED ADMINISTRATIVE PROCEDURES**



Additional Protocols

ADDITIONAL INFORMATION:

- 1. Initial declaration** on various aspects of the nuclear fuel cycle, including any uranium mining and any exports of specified items for weapons production to NNWS (also nil reports)
- 2. Yearly update** of any changes (also nil reports)
- 3. Quarterly reports** on imports/exports (also nil reports) → State control of nuclear activities



Additional Protocols

BROADER ACCESS:

- Focused on declared sites
 - Routine use of environmental sampling
1. Broader access at **declared locations** to ensure the absence of undeclared nuclear material and activities
 2. Additional access to resolve a **question or inconsistency** for environmental sampling



Efforts to encourage wider adherence to the IAEA safeguards system

- **The 2000 NPT Review Conference recommended that the Director General and IAEA Member States consider ways and means, which could include a possible plan of action, to promote and facilitate the conclusion and entry into force of [NPT] safeguards agreements and additional protocols, including, for example, specific measures to assist States with less experience in nuclear activities to implement legal requirements.**
- **The 2000 IAEA General Conference provided a number of “elements of an Action Plan”**



Secretariat efforts to encourage wider adherence to strengthened safeguards

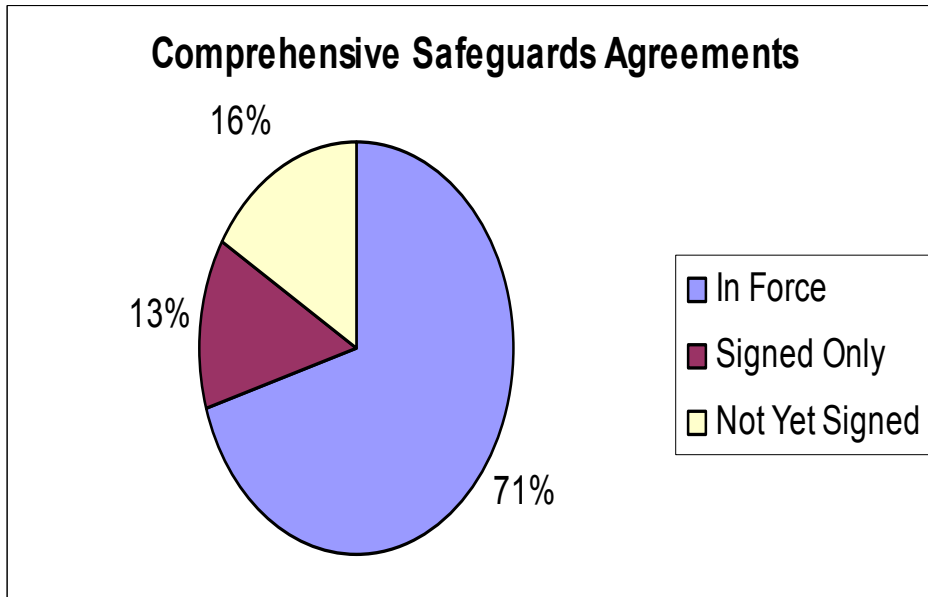
2003 Plan of Action: Three categories of States

- ✓ (1) Member States with nuclear material or facilities under routine safeguards (70 States)
 - Individual consultations, national seminars
- ✓ (2) Member States without such material or facilities (Small Quantity States) (67 States)
 - Co-operation within the Secretariat, outreach seminars
- ✓ (3) Non-Member States (55 States)
 - Co-operation with advocate States, presentations in the margins of regional meetings

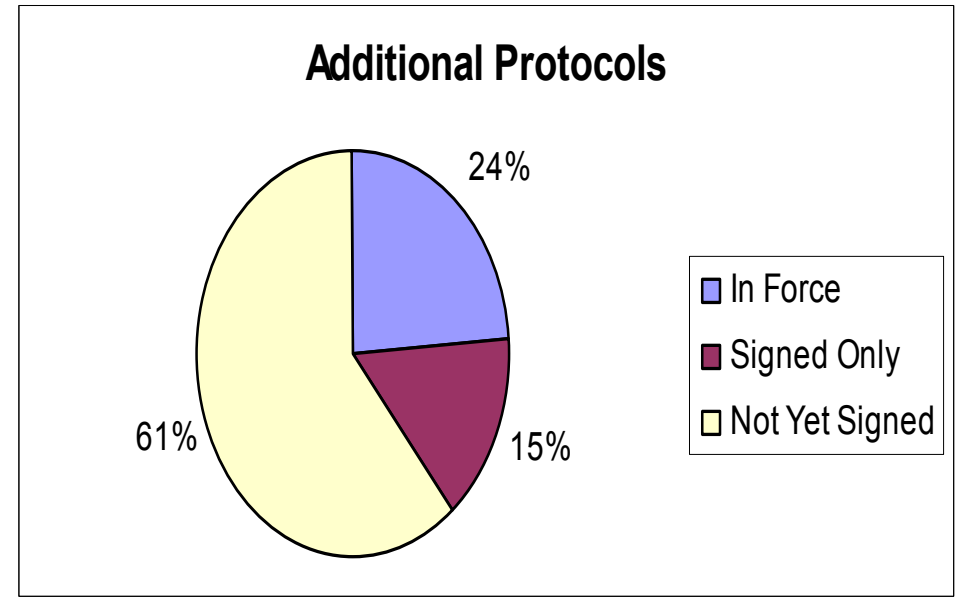


Status of CSA and AP

*- NPT Parties (and IAEA Member States)
w/o Significant Nuclear Activities –
(67 countries)*



In Force (47)
Signed Only (9)
Not Yet Signed (11)



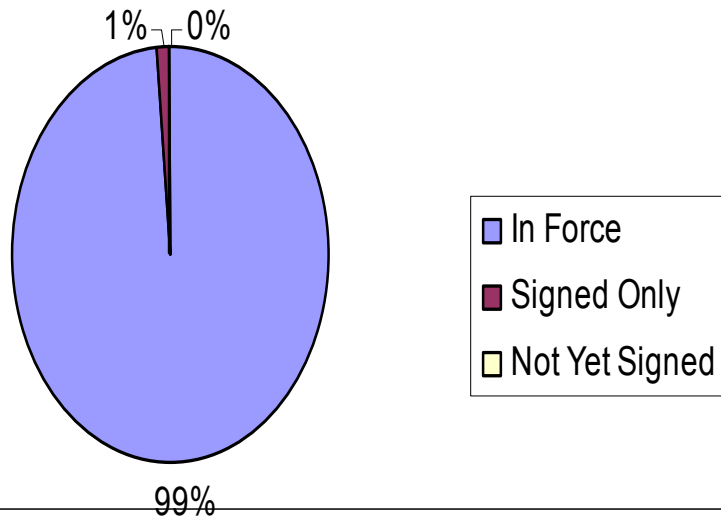
In Force (16)
Signed Only (10)
Not Yet Signed (41)



Status of CSA and AP

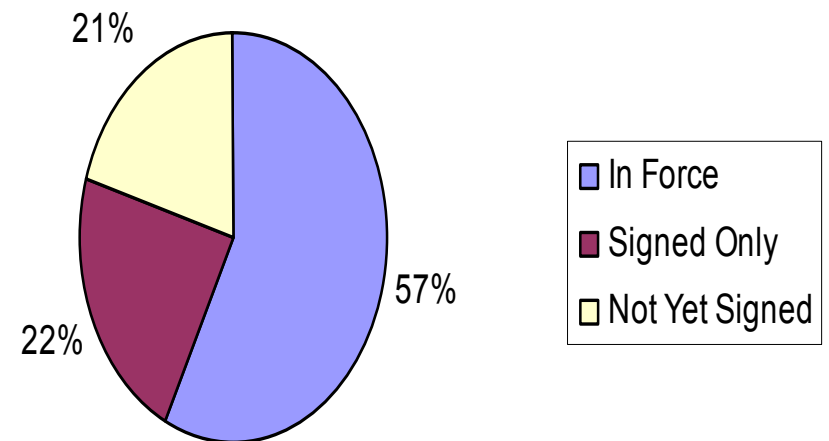
*- NPT Parties with Significant Nuclear Activities –
(68 countries)*

Comprehensive Safeguards Agreements



In Force (67)
Signed Only (1)
Not Yet Signed (0)

Additional Protocols



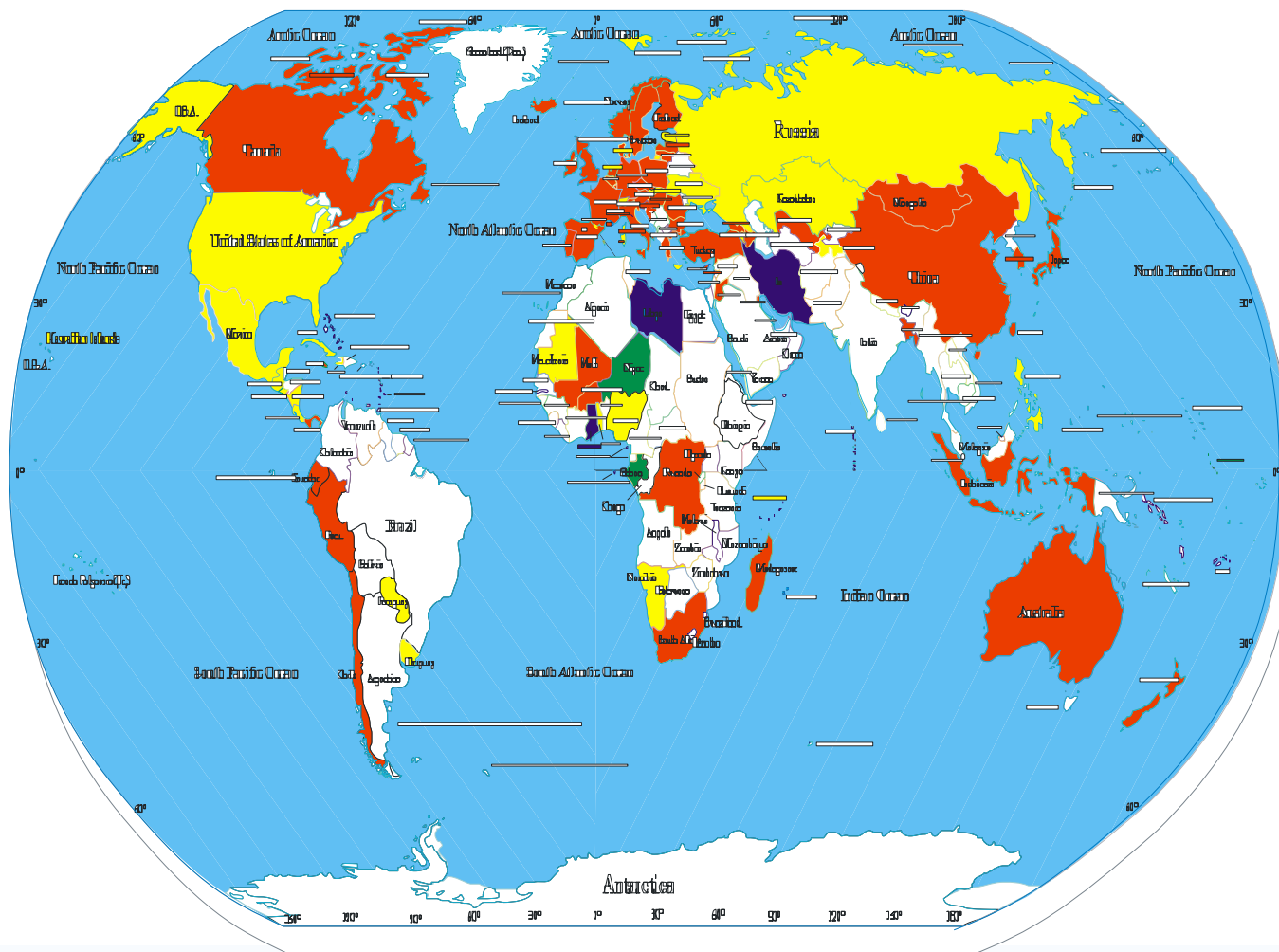
In Force (39)
Signed Only (15)
Not Yet Signed (14)



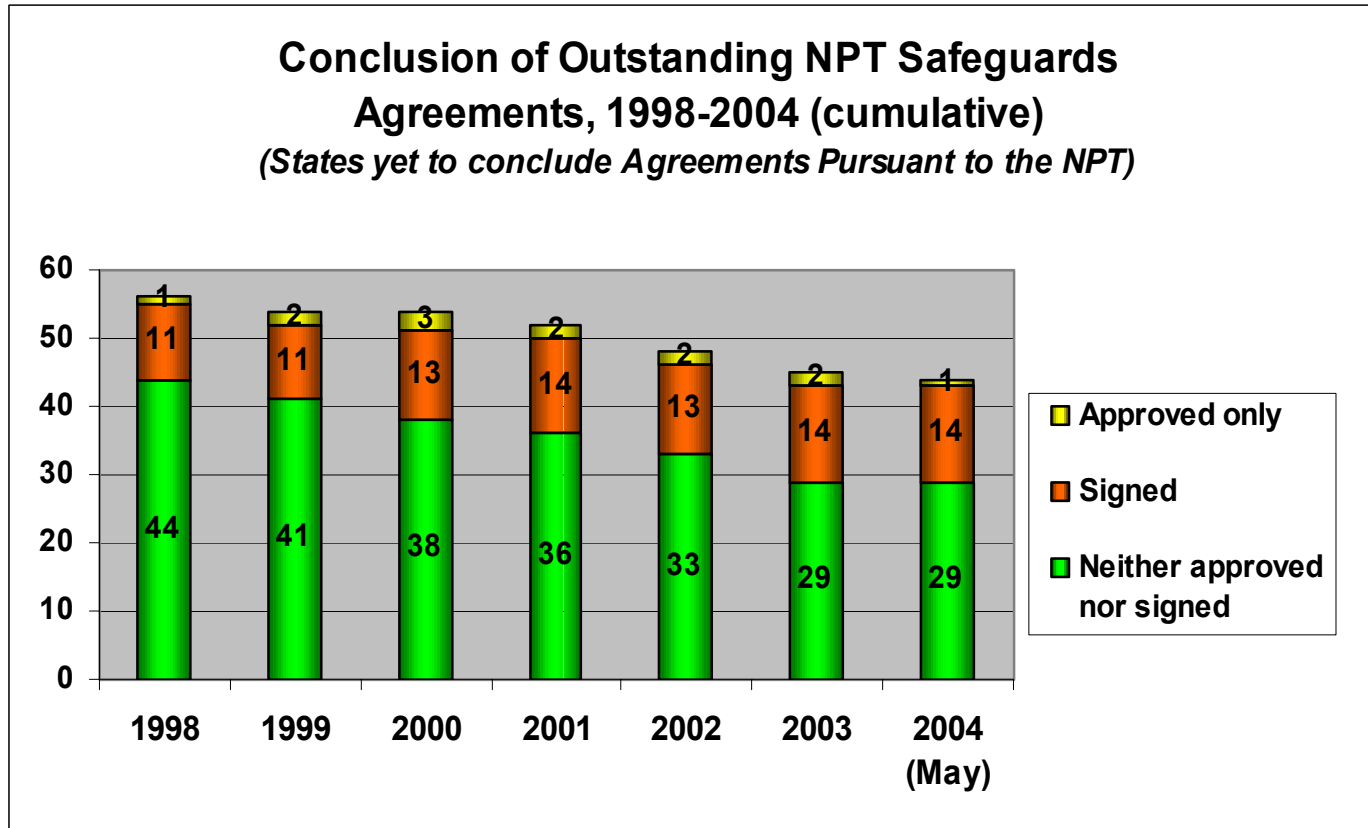
AP World Status

As of 1 May
2004:

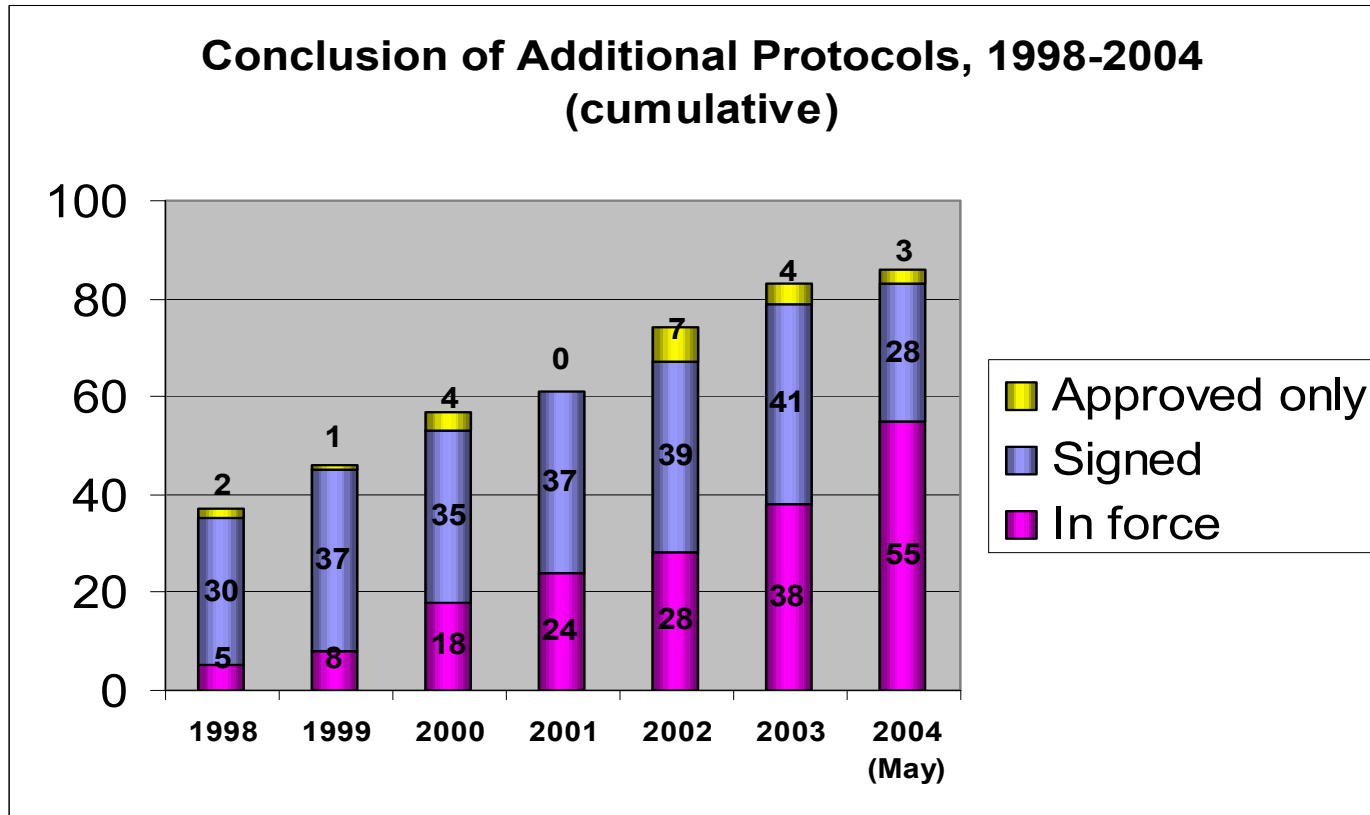
86 Signatures
55 In Force
3 Board
approved,
not yet signed
3 applied
pending entry
into force



Remaining NPT Parties Without NPT Safeguards Agreements with the Agency, 1998-2004 (cumulative)



Conclusion of Additional Protocols, 1998-2004 (cumulative)



How to bring into force the legal instruments of the Agency's safeguards system

Three Steps

- 1. The State notifies the Agency of its decision to conclude the agreement/protocol**
- 2. The IAEA Board of Governors authorizes the Director General to sign and implement the agreement/protocol**
- 3. The agreement/protocol is signed by the Director General and a duly authorized representative of the State**



How to bring into force the legal instruments of the Agency's safeguards system

- The agreement/protocol enters into force *either* upon signature *or* upon receipt, by the Agency, of a written notification that constitutional and statutory requirements for entry into force have been met, depending of the State's legal system.
- NPT Article III obligations are met only when the legal instruments formally enter into force, i.e. either through signature or through notification.



The Agency's safeguards system for verification under the NPT

Two interrelated roles of effective verification:

- 1. Confidence-building***
- 2. Deterrence***

“Trust but verify” (Doveray no proveryay)

Old Russian proverb, a favorite phrase of both Vladimir I. Lenin and Mikhail Gorbachev, quoted by Ronald Reagan during the disarmament talks with the Soviet Union in the 1980s.



How to bring into force the legal instruments of the safeguards system

- **Draft NPT safeguards agreements and additional protocols have been prepared for all remaining States**
- **It is recommended that the remaining NPT parties without safeguards agreements conclude both simultaneously**
- **The Agency can provide legislative and technical assistance to facilitate the conclusion of the instruments; regional seminars held recently in Latin America, Africa, Southeast Asia, Eastern Europe and Central Asia; next meetings for Caribbean and South Pacific regions**
- **Limited funding available for consultations at Vienna**



**Questions are
welcome!**

