

The Road to a Treaty Banning Nuclear Weapons

Claus Montonen
TEP-Technology for Life

INES – International network of engineers and scientists for
global responsibility

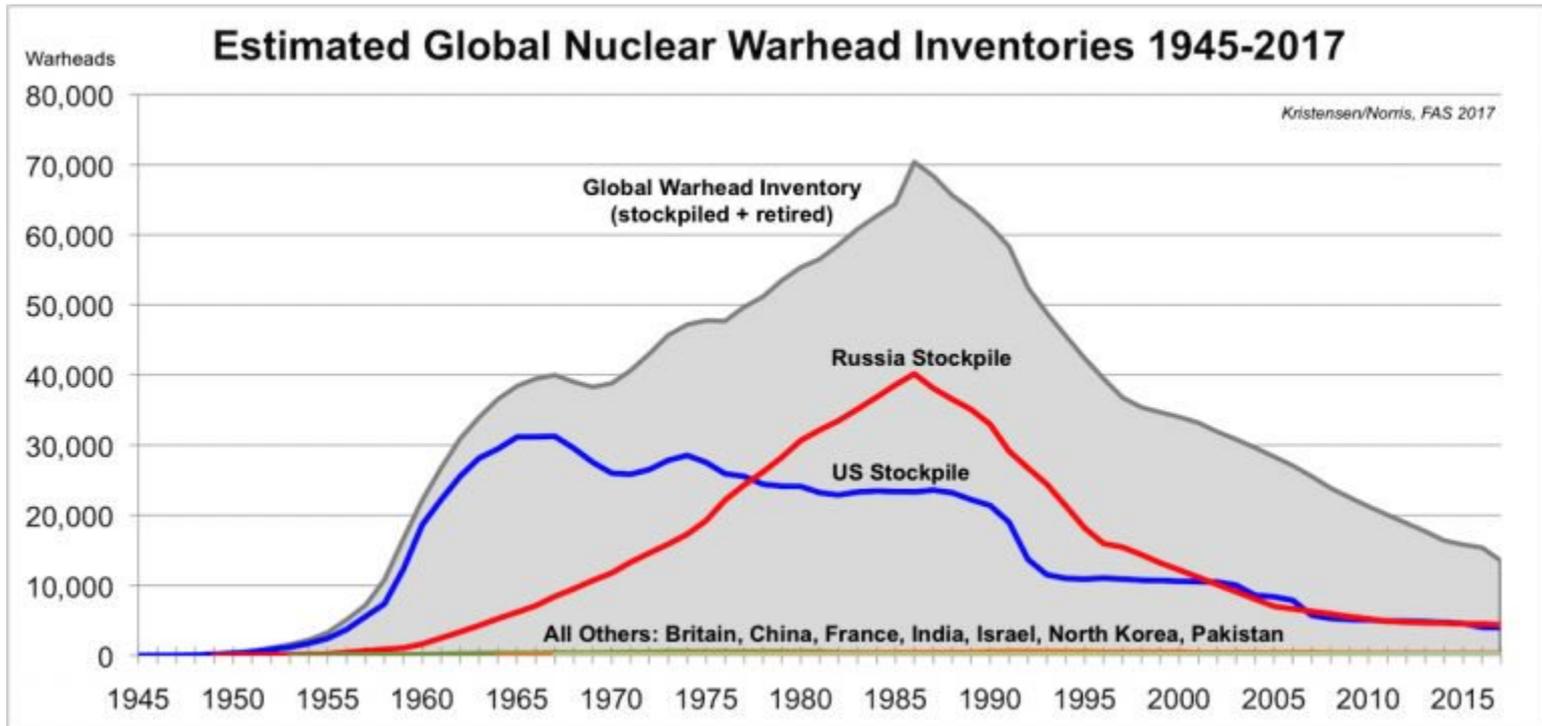
ICAN – International campaign to abolish nuclear weapons



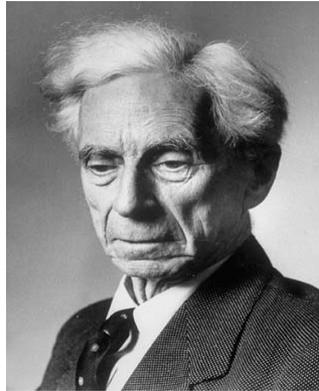
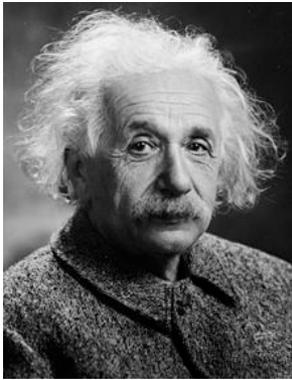


Hiroshima, August 6, 1945

A history of folly

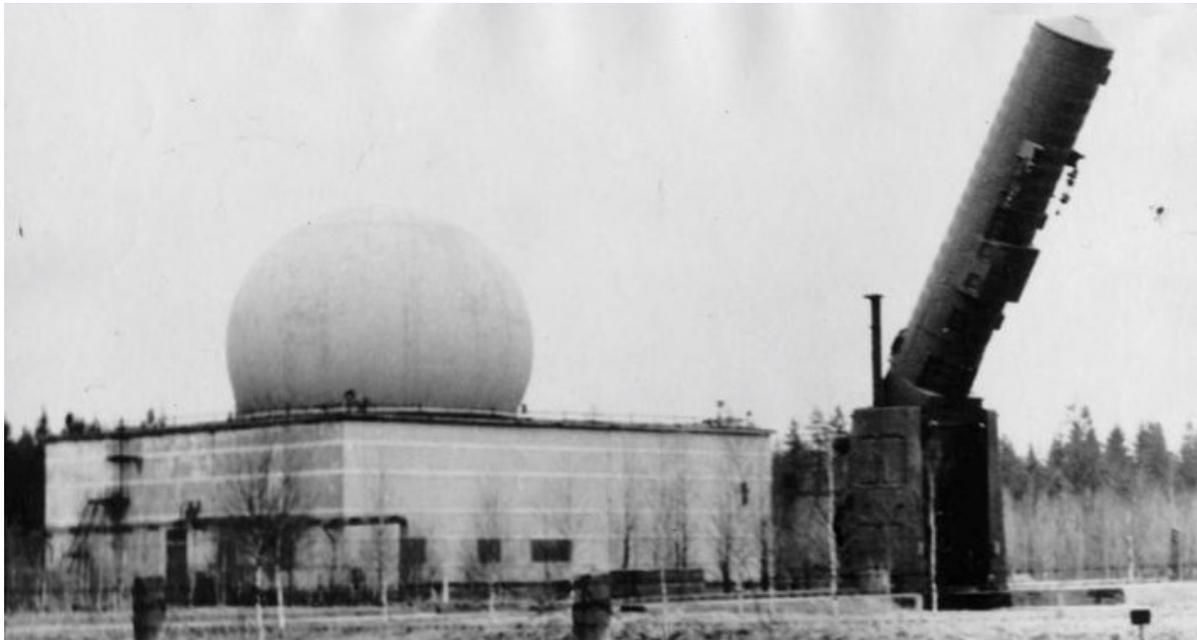


Scientists' movements: FAS, CND, Pugwash, Sadankomitea, ...



Personal engagement starts in 1969...

- Soviet plans to build an ABM system around Leningrad (St Petersburg today)



Interception with long-range nuclear-weapon-tipped missiles would take place above Finland.

What happens when a nuclear weapon explodes close to a warhead?

Saved by the ABM treaty 1972 – 2001.



Section on Nuclear Disarmament, Finnish Physical Society 1984-88

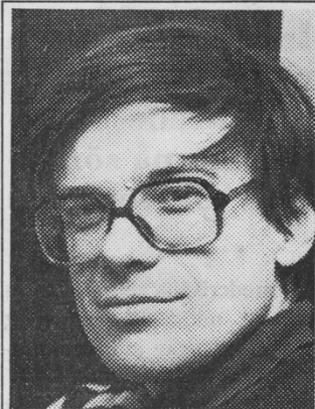
- Chair: CM
- Secretary: Antti Kupiainen
- Members: Jukka Tulkki, Stefan Forss,...
- Nuclear winter campaign
- Scandinavian professional peace group meeting meeting, Hanasaari 1988

1984

Vintern efter ett kärnvapenkrig

omedelbara verkningarna av en kärnvapenexplosion, d.v.s. värme- och strålningsverkningarna, är rätt välkända sedan Hiroshima, Nagasaki och därefter utförda kärnvapenprov. Dessa verkningar är så stora och iögonenfallande att man har ägnat eventuella långtidsverkningar (tidsskala dagar till år) mindre uppmärksamhet. Det största problemet är det radioaktiva nedfallet, för vars utbredning de i artikeln presenterade data. Medan de omedelbara verkningarna drabbar endast de områden som utsätts för kärnvapenrepp, är långtidsverkningarna globala och drabbar urskillningslöst den angripna, angriparen och tredje part.

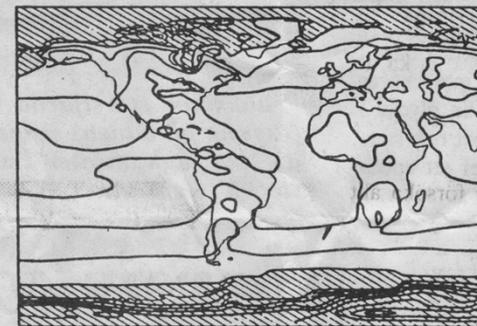
Först under de senaste åren har man börjat inse, att det finns långtidsverkningar av kärnvapen som omfattande att de, som utstrålar från hela mänsklighetens historia, överstyggar de omedelbara verkningarna. I mitten av 1950-talet fann en expertgrupp utsatt av Förenta staterna att de stora mängder radioaktivitet som kärnexplosioner skulle transportera till andra delar av världen kunde förstöra upp till sjuttio procent av det ozonlagret. Detta skulle leda till att intensiteten av ultraviolett ljus på jorden ökar betydligt vid jord-



Docent Claus Montonen

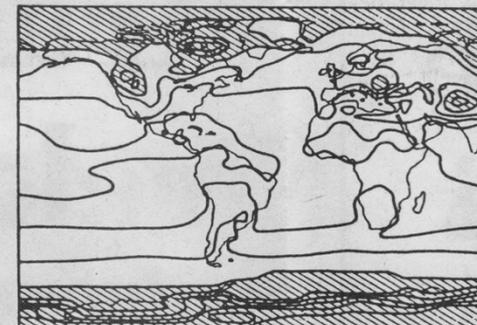
ton (supermakternas sammanlagda arsenal av strategiska kärnvapen uppgår för närvarande till cirka 12 000 megaton) skulle bringas att explodera, uppgå till flere tiotal grader i kontinenternas inre.

Den sovjetiska undersökning som presenterades av V. V. Aleksandrov vid läkarnas kongress mot kärnvapenkrig, och som refererats i Hufvudstadsbladet den 6 juni, förutspår ställvis en avkylning på rentav sextio grader. Motsvarande amerikanska beräkningar visar inte fullt så extrema resultat. Nedkylningen vore som starkast ett par veckor till en månad ef-



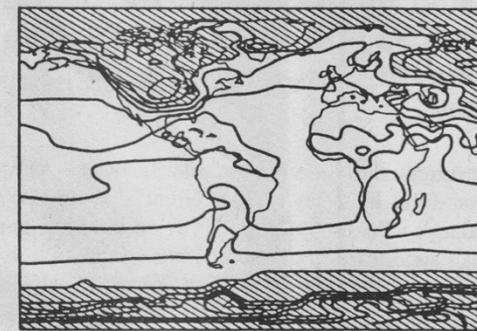
b

t = 2 days



c

t = 10 days

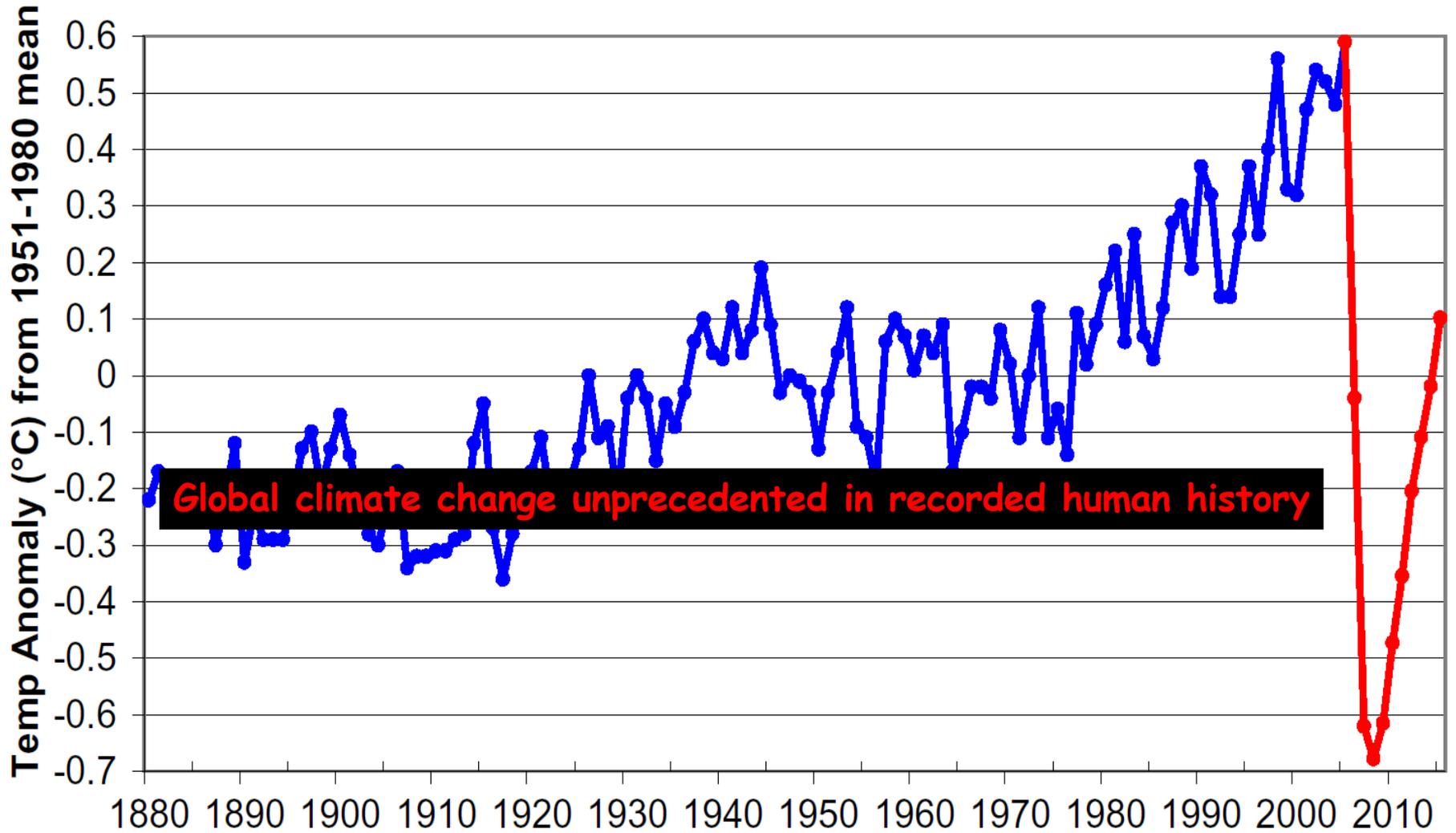


Nuclear winter today

- Modern climate models allow better estimates of effects.
- Example: regional nuclear war in South Asia: India and Pakistan use each half of their arsenals (50 + 50) on each other.

GISS Global Average Temperature Anomaly

+ 5 Tg smoke in 2006



Graph courtesy of Alan Robock

Decline in Rice Production Over Time

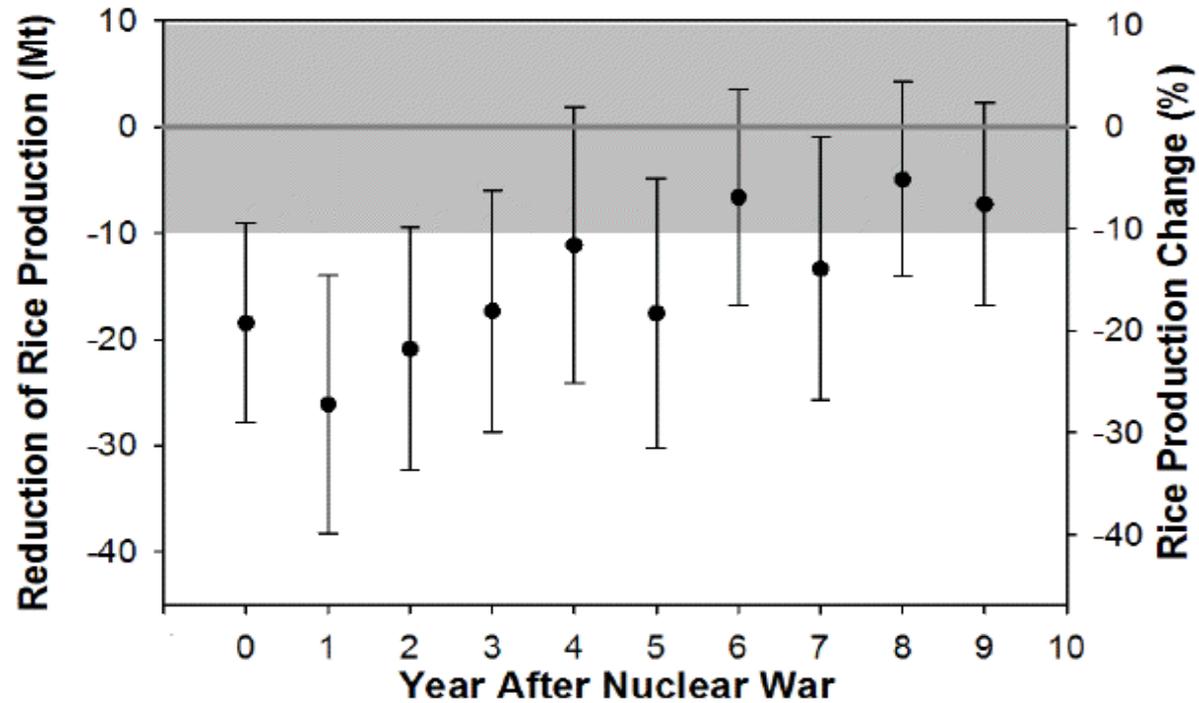


Figure 5: Reduction of rice production with whiskers showing one standard deviation for each nuclear war year. The gray area shows ± 1 standard deviation from the control runs, illustrating the effect of interannual weather variations.

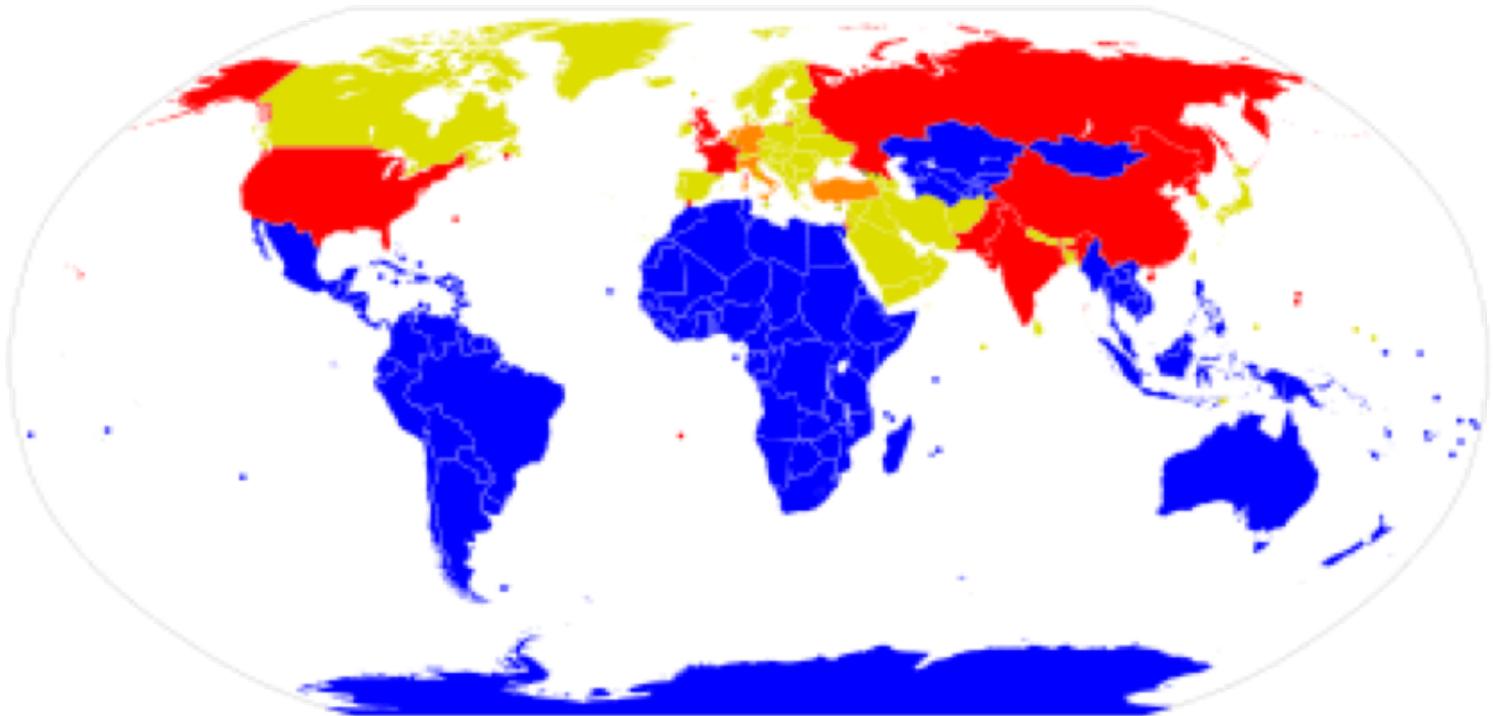
TEKNIikka ELÄMÄÄ PALVELEMAAN (TEP)
INTERNATIONAL NETWORK OF ENGINEERS AND SCIENTISTS FOR GLOBAL
RESPONSIBILITY (INES) 1991



Regulating nuclear weapons

- No ban in force (cf. chemical, biological weapons)
- Nuclear weapon free zones
- Comprehensive test ban treaty
- Non-proliferation treaty (NPT)

Nuclear weapon free zones



Regulating nuclear weapons

- No ban in force (cf. chemical, biological weapons)
- Nuclear weapon free zones
- Comprehensive test ban treaty
- Non-proliferation treaty (NPT)

NPT (1970, prolonged indef. 1995)

- All states except India, Israel, North Korea, Pakistan (all these have nukes).
- P5: China, France, Russia, U.K., USA have temporary right to possess nuclear weapons.
- Others pledge not to develop or possess nukes, in exchange for access to nuclear technology for peaceful purposes, and a promise by P5 to negotiate "in good faith" a complete nuclear disarmament (Article VI)

Optimism in the 1990's. Cold war ended. ICJ advisory opinion. Abolition 2000 network founded. Model nuclear weapons convention.



Disappointment with NPT process

- Failed in its basic purpose (Israel, South Africa, India, Pakistan, North Korea).
- Review conferences every 5 years.
- 2000, 2010 plans of action adopted; practically no items realized (e.g. Fissile materials cutoff treaty)
- Fiascos 2005, 2015.
- At present complete stagnation (e.g. NPT prepcom meeting Vienna May 2017).

Humanitarian initiative

- IRC, Ban Ki-moon, IPPNW, Austria, Mexico, Norway: A nuclear war a human health disaster. Nuclear famine.
- ICAN founded 2007.
- 3 conferences 2013-14.



A new start for nuclear disarmament

- "Coalition of the willing" (model: landmine treaty, cluster bomb treaty).
- Act through UN general assembly (no veto)
- "Legal gap" resolution 2014-2016
- UN Open ended working group 2016 recommends negotiations on a ban treaty.
- Negotiations in UN March, June-July 2017. NGOs in an active role.

Treaty text adopted July 7th, 2017 with 122
votes in favour



Nuclear weapons ban treaty

- Bans development, possession, use or threat of use of nuclear weapons.
- Forbids assistance to prohibited activities.
- A modern treaty: Takes into account the rights of women, of indigenous people, of victims, role of peace education, of civic society.
- Enters into force once 50 ratifications are deposited.
- Opened for signature September 2017. Now 56 signatures, 4 ratifications.

NWBT (2)

- No nuclear weapon state expected to sign soon, but establishes new international legal norm, moral pressure. Provides for different ways for NWstates to join the treaty.
- Disinformation: Weakens NPT (no: complementary), verification procedures weak (no: stronger than for NPT).
- Delegitimizes nuclear deterrence. Requires a new security paradigm.

A certain prize



And what about Finland?

- A long tradition of promoting nuclear disarmament.
- But now faltering resolve:
- Supports (finally) "legal gap" resolution.
- Participates in the open ended working group.
- Abstention in vote on starting ban negotiations.
- Does not participate in treaty negotiations (decision taken at highest level).
- Present government will not sign the treaty.
- In presidential elections 3 cand. for signing, 4 against, 1 does not wish to take stand.

Political lobbying

Take action: Urge
Finland to sign the
treaty!

Ydinaseet ja Suomi

tiistaina 12.12.2017 klo 14-16

Pikkuparlamentti, Kansalaisinfo
Arkadiankatu 3

14:00 Avaus:

✓ **Erkki Tuomioja**, kansanedustaja

**14:10 Perustietoja ydinasekiellosta ja
ydinsulkusopimuksesta**

✓ **Claus Montonen**, ydinfyysikko

**14:30 Paneelikeskustelu,
puhujia eri eduskuntaryhmistä**

✓ moderaattorina **Laura Lodenius**,
Rauhanliiton toiminnanjohtaja

**15:30 Loppupuheenvuoro ja
terveiset Oslon Nobel-juhlista**

✓ **Kati Juva**, ICAN Finland -koordinaattori

Kahvitarjoilu ennen tilaisuuden alkua.

TERVETULOA!



Erkki Tuomioja



Claus Montonen



Laura Lodenius



Kati Juva



Thanks to INES nuclear weapons campaigners

(Clockwise from top left: David Krieger, Jürgen Scheffran, Wolfgang Liebert, Reiner Braun, Martin Kalinowski.)

