

Japan's failed nuclear fuel cycle

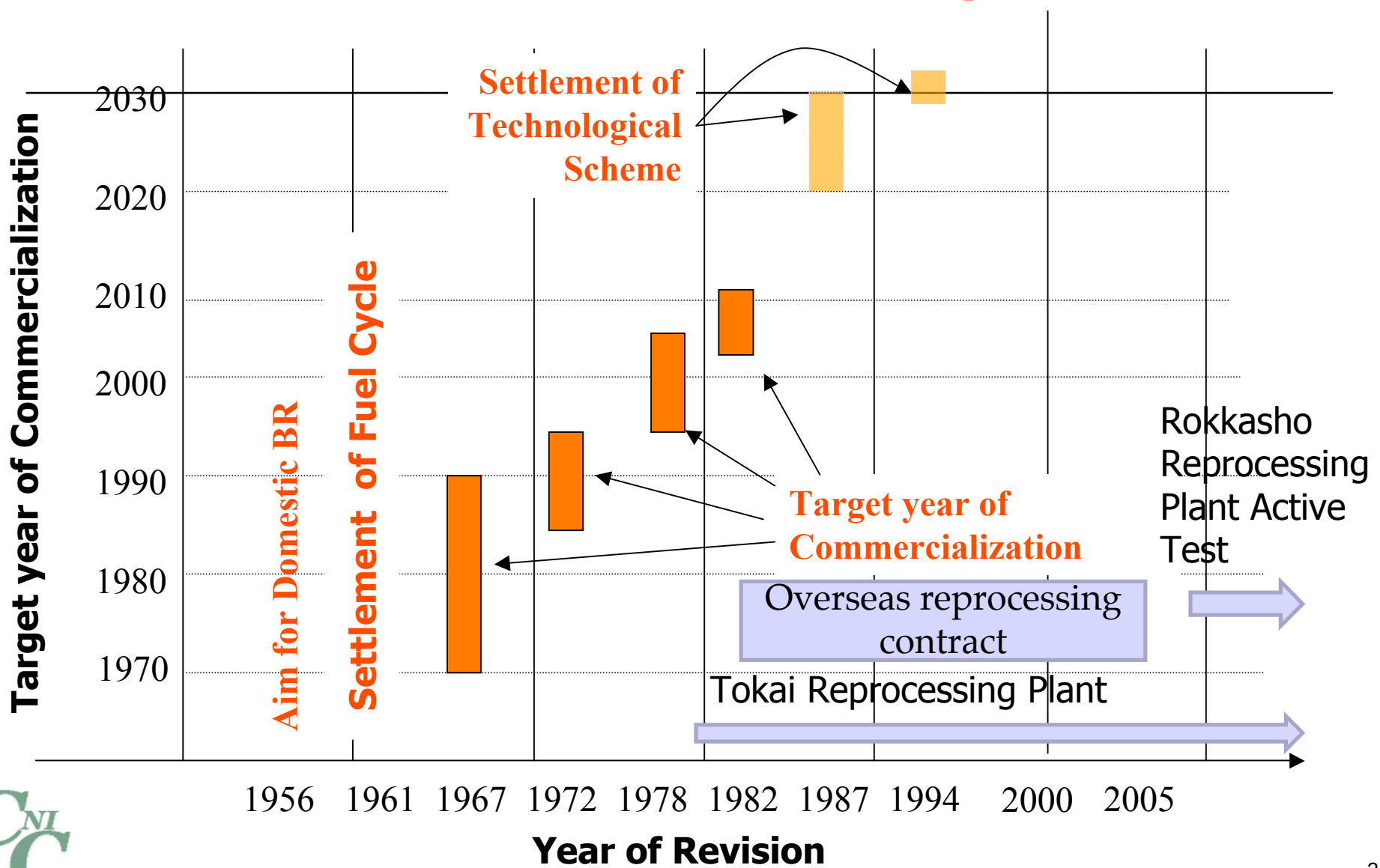
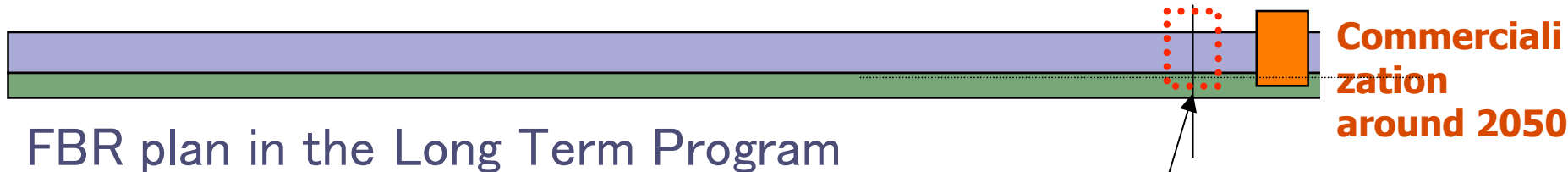
Hideyuki Ban

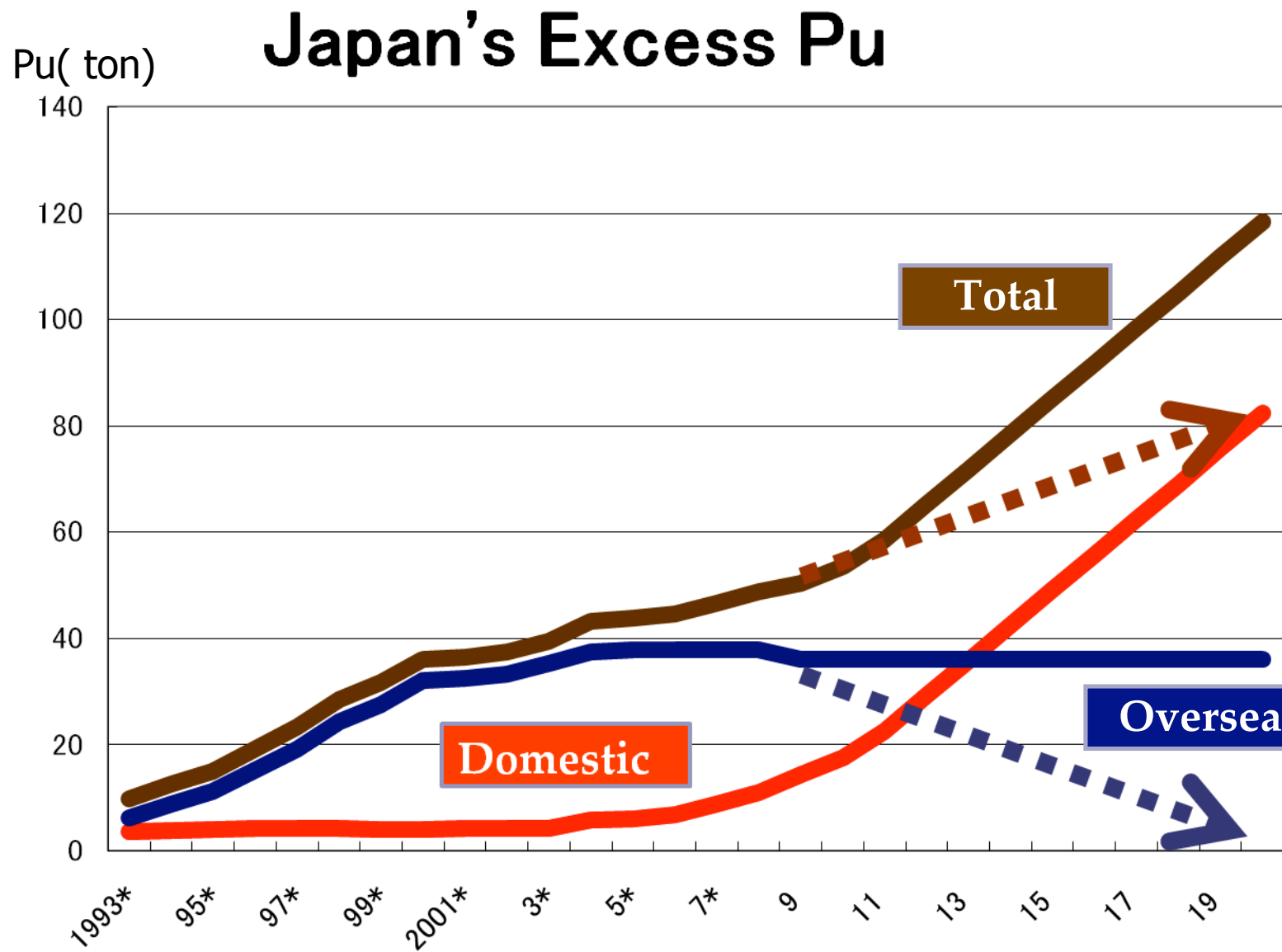
Co-Director

Citizens' Nuclear Information Center

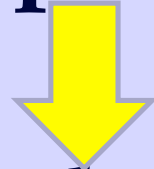
<http://cnic.jp> e-mail:cnic@nifty.com



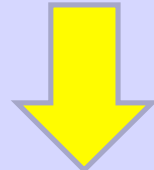




**Japan's FBR program fails
Reprocessing continues
Pu stockpile increases**



Pluthermal



MOX shipments are part of Japan's failed nuclear fuel cycle.



Pluthermal no value as resource

- ❑ Past propaganda said FBRs would increase the effective use of Uranium resources 60 times.
- ❑ However, now Pluthermal reduces use of Uranium resources by only 10% or less.
- ❑ Only 36 LWRs use MOX in the world.

Cost Comparison

(\ /kWh)

Items	Reprocessin g	Once through
Uranium fuel	0.57	0.61
MOX fuel	0.07	-
Reprocessing	0.63	-
HLW	0.16	-
TRU	0.11	-
SF Interim storage	0.04	0.14
SF direct disposal	-	0.19-0.32
Total(cycle cost)	1.60	0.9-1.1
Electricity cost	5.20	4.5-4.7



MOX and Proliferation

- Japan is a virtual nuclear weapons state
- MOX use increases proliferation risk
 - Reactor grade Pu is weapon usable material
- Japan keeps the economic and technical potential to produce nuclear weapons

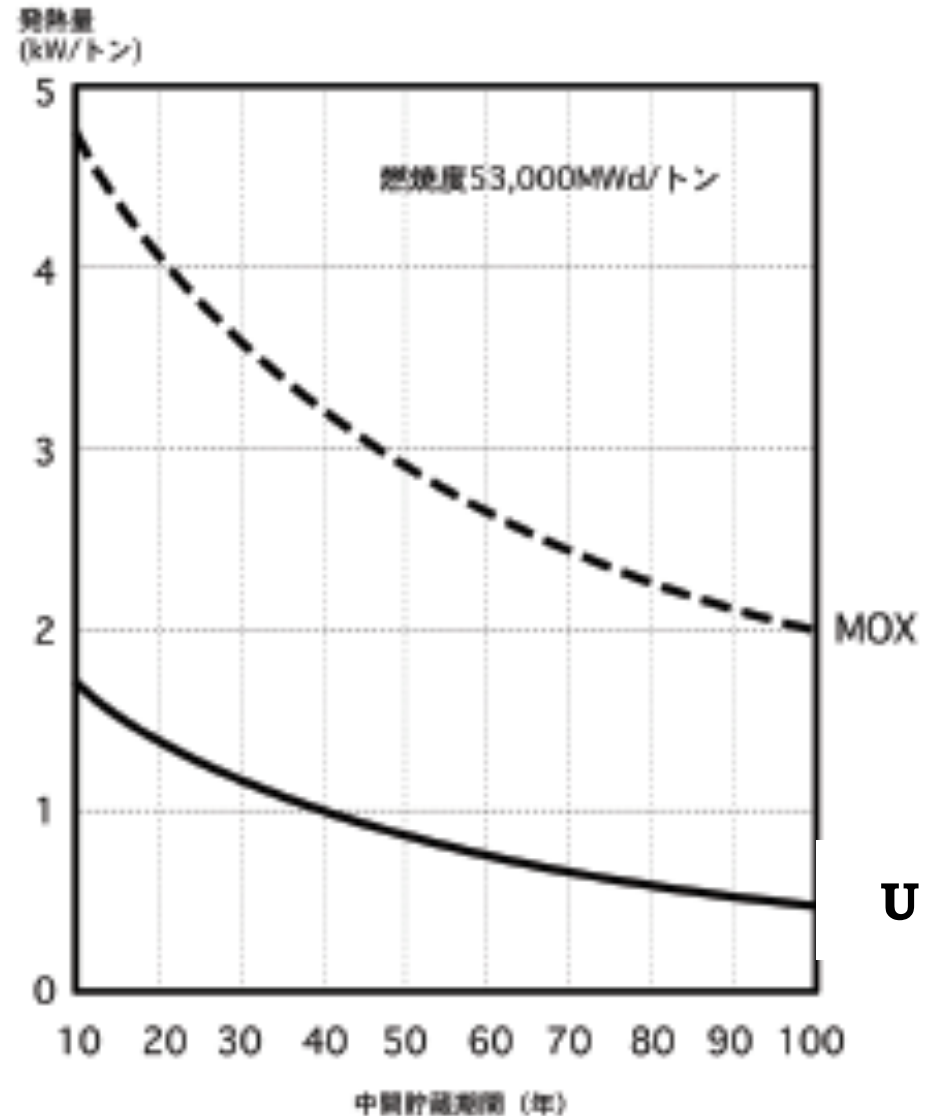


Spent MOX


Fuel

Heat
comparison
100 years !

使用済み燃料の発熱量



Pluthermal plan by FEPC

	1999	2000	early2000	2010
1997	TEPCO KEPCO	TEPCO KEPCO	TEPCO CHUBU KYUSHU JAPCO	+ HOKKAIDO TOHOKU,HOKURIK U CHUGOKU,SHIKOKU J-POWER
2009				KYUSHU SHIKOKU CHUBU