

INTERNATIONAL INSTITUTE FOR **IIASA** APPLIED SYSTEMS ANALYSIS
RESEARCH MEMORANDUM

WORLD ENERGY CONSUMPTION

J. P. Charpentier

December 1973

SCHLOSS LAXENBURG
2361 Laxenburg
AUSTRIA

Research Memoranda are informal publications relating to ongoing or projected areas of research at IIASA. The views expressed are those of the author, and do not necessarily reflect those of IIASA.

World Energy Consumption

J.P. Charpentier

The attached curves show the evolution (1960-2000) in different countries of:

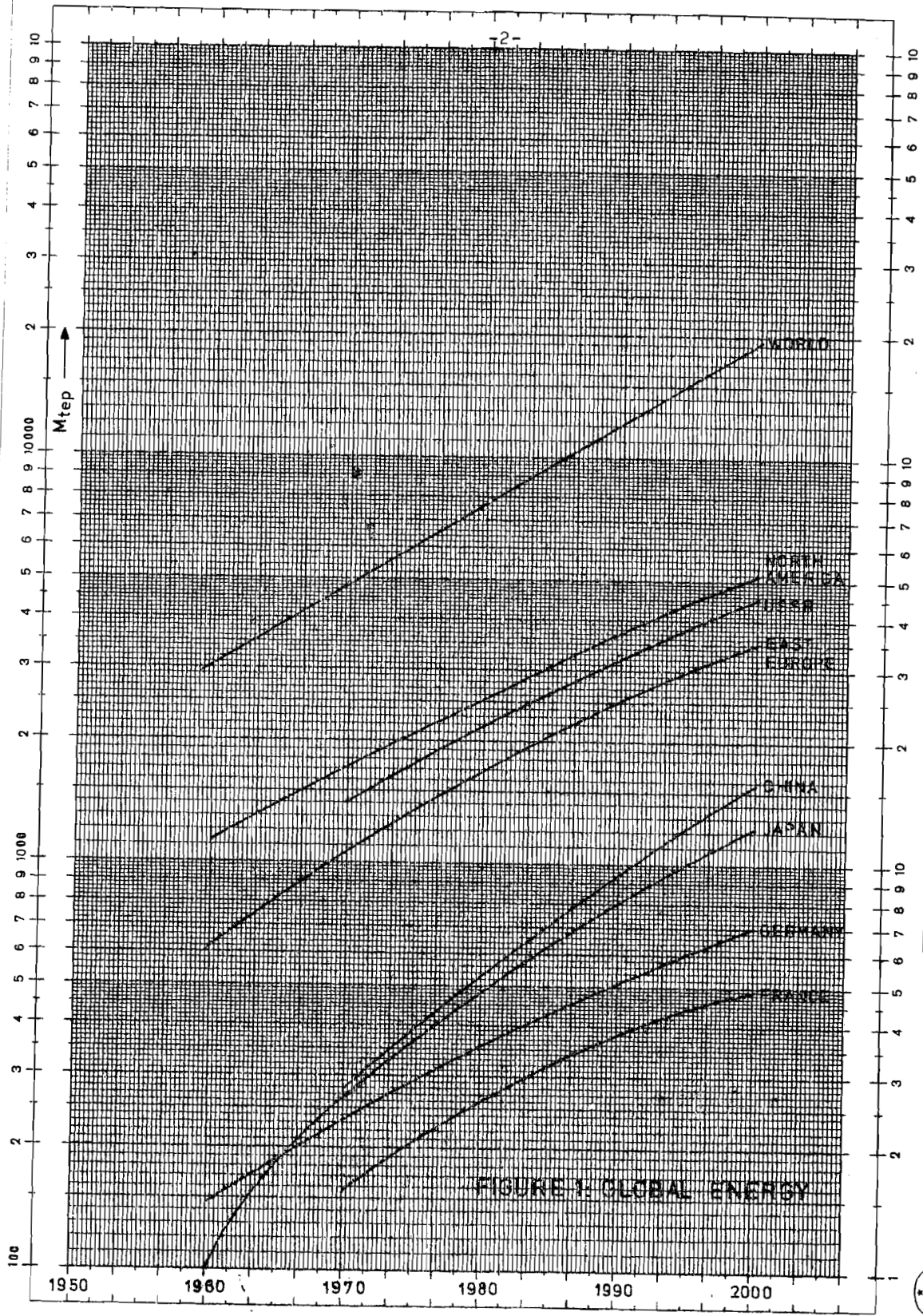
- the global energy consumption;
- the electric energy consumption; and
- the production of nuclear energy for electric consumption.

These curves have been obtained by arithmetic average of different literature sources.

The unit conversion table was:

$$1 \text{ Mtec} = 0.7 \text{ M tep}$$

$$1 \text{ Twh} = 0.23 \text{ M tep} .$$



SELEKTION COPYRIGHT SCHLEICHER & SCHÜLL, 3352 EINBECK Bestell-Nr. 667 006, Nr. 373 1/2 A 4 P. Maße in mm
 Eine Achse logar. geteilt von 1 bis 1000, Einheit 90 mm, die andere in mm

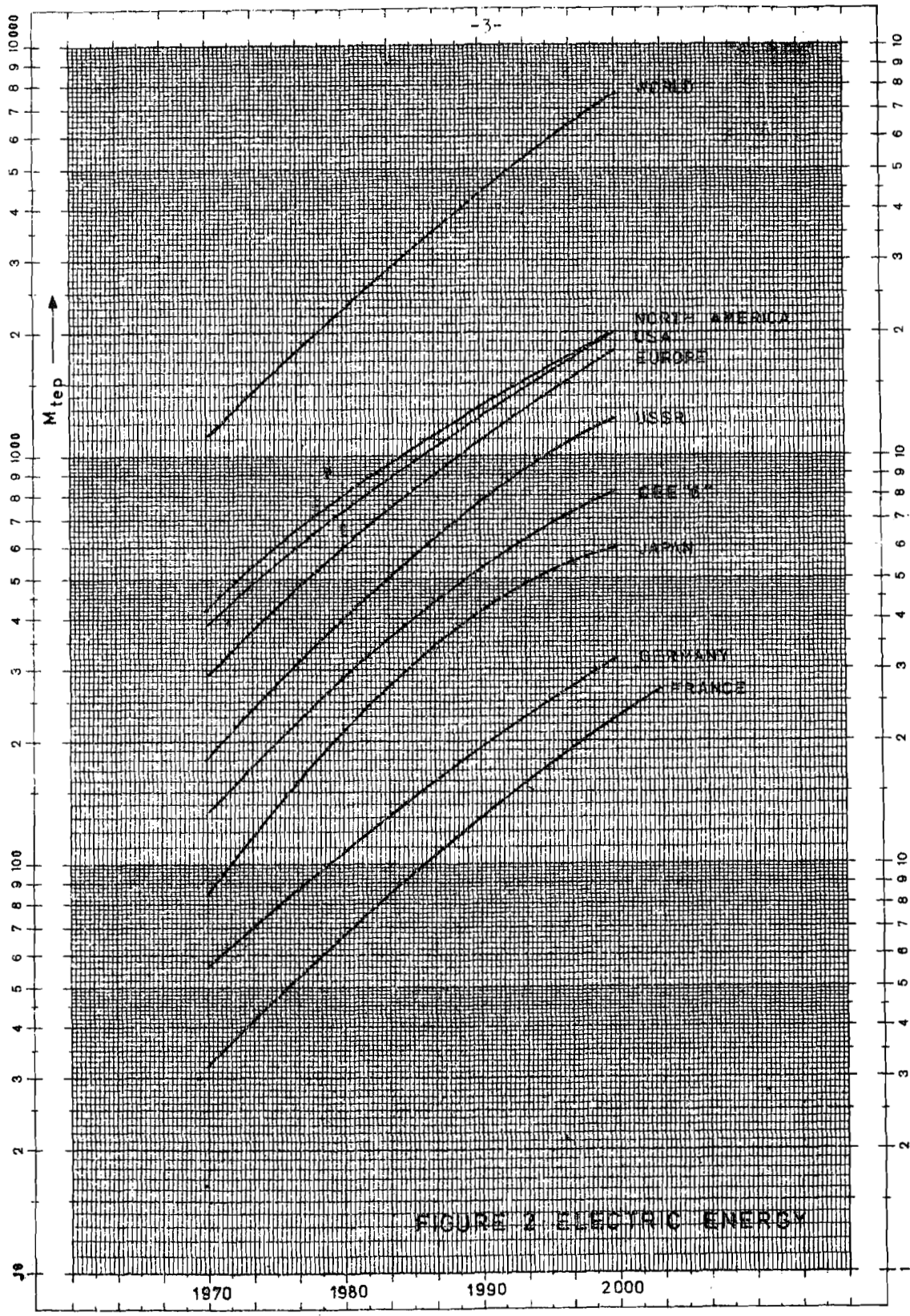


FIGURE 2 ELECTRIC ENERGY

Eine Achse logar. geteilt von 1 bis 1000. Einheit=60 mm, die andere in mm

Bestell-Nr. 667 006, Nr. 373, 1/4 A 4 P. MADE IN GERMANY



COPYRIGHT SCHLEICHER & SCHÜLL 3352 EINBECK



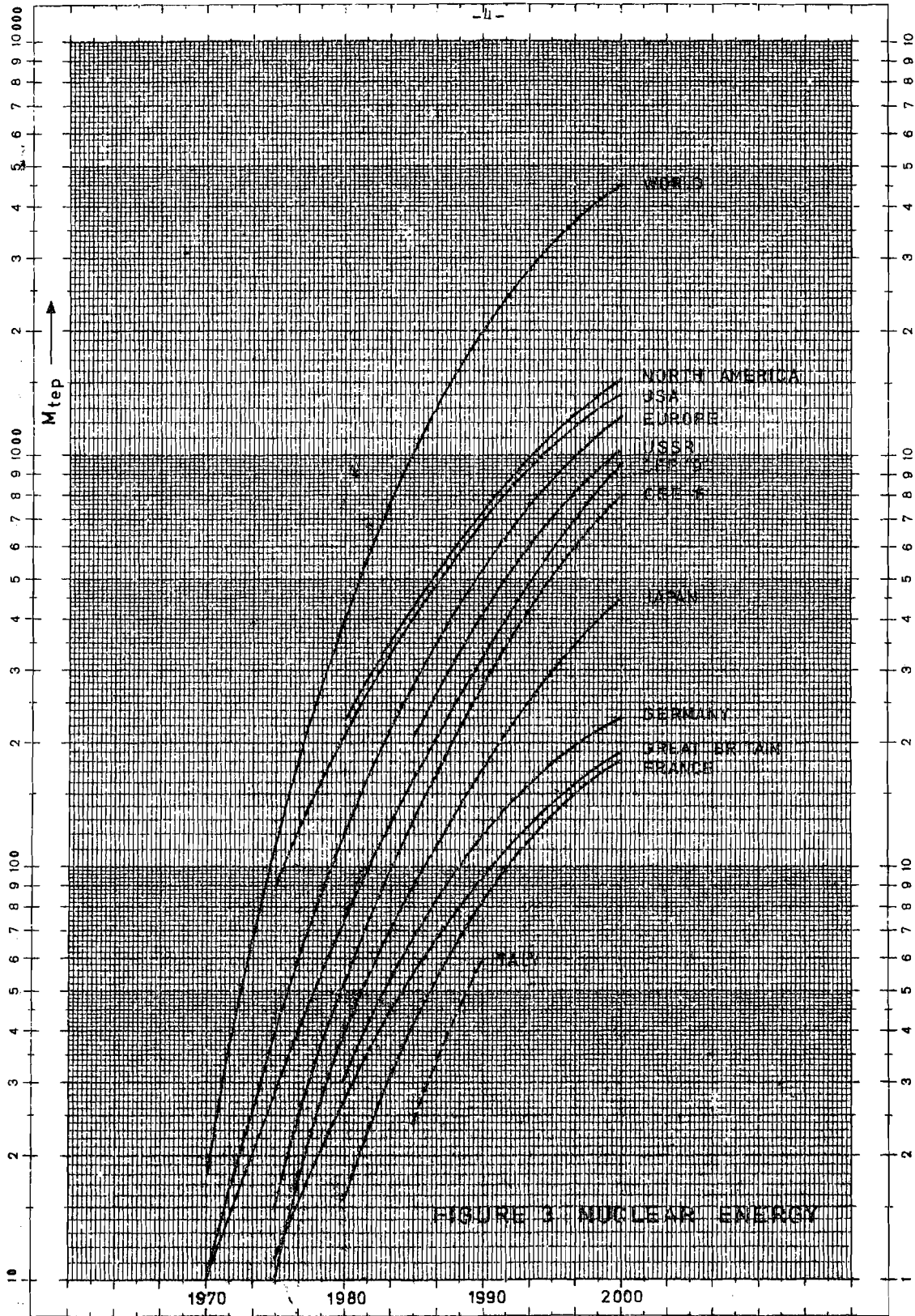


FIGURE 3 NUCLEAR ENERGY

Eine Achse logar. geteilt von 1 bis 1000, Einheit 90 mm, die andere in mm

Bastell-Nr. 667 006, Nr. 373 1/2, A 4 P max. 100 mm

COPYRIGHT SCHLEICHER & SCHÜLL, 3352 EINEBECK



Table 1. Evolution of the partition between the consumption of electricity and non-electricity energy.

	Total Energy Consumption 10 ³ tec		Electricity Consumption 10 ⁶ Kwh (10 ³ tec) * 1		Proportion of the electricity in the global consumption of energy	
	1961	1970	1961	1970	1961	1970
Canada	102 558	192 589	110 927 (36 939)	201 300 (67 033)	36%	35%
USA	1481 821	2278 966	883 750 (294 289)	1640 264 (546 208)	20%	24%
Japan	123 403	332 370	128 316 (42 729)	350 590 (116 746)	35%	35%
France	116 006	193 034	76 583 (25 502)	140 209 (46 690)	22%	24%
Italy	60 945	144 102	60 733 (20 224)	121 388 (40 422)	33%	28%
U.K.	260 433	299 143	145 954 (48 602)	249 222 (82 991)	19%	28%
USSR	630 774	1076 861	327 537 (109 070)	735 626 (244 963)	17%	23%
Germany 1960	209 772	337 154	↓ ¹⁹⁶⁰ 123 193 (41 023)	250 355 (83 368)	20%	25%

* 1:10³ Kwh = 0.333 tec.

World Energy Supplies 61-70: U.N.