(3) Shipping port: Vitoria port Espirito Santo State (Approx. 410 km distance from the factory. Products transport via rail-road upto shipping port.)

6-1-3 Forestation

Plantation of 400,000 ha in total area of eucalyptus trees was scheduled in 1974 in ESPIRITO SANTO State and BAHIA State. Upto 1978 plantation of 16,500 ha has been completed. According to the planned schedule $6,000,000~{\rm M}^3$ of woodchips will be produced permanently.

6-1-4 Summary of BKP Pulp Production Plant

(1) Production capacity : 750 t/d (at the time of installation)

900 t/d (at present)

(In short period it may possible to produce 1,000 T/D)

(2) Products: Eucalyptus BKP for paper making

(3) Raw woods factory : $100,000 \text{ m}^2$

Woodehips yard : 5,000 m²

(4) Woods processing facility

Chipper 96 inch dia

15 Blades : $480 \text{ chips } \text{m}^3/\text{h} \times 2 \text{ lines}$

Hydraulic reclaimer : $450 \text{ chips } \text{m}^3/\text{h} \times 2 \text{ lines}$

(5) Pulp wood processing equipment

Steam digester : Kamiya continuous steam 1 set

digesting kiln

1,200 m³ capacity

Washing equipment : Kamiya diffuser type 1 set

	Equipment for pre-	:	Knot screen Cowan PS-500	3	sets
	bleach treatments	٠	Five separation screen		
			Cowan KX-400	6	sets
			Thickener 40000 x 10,000L	1	set
	Bleaching equipment	:	Six stage continuous	1	line
			bleaching facility		
			Bleaching Tower	6	sets
			IMPCO type bleaching	6	sets
			filter		
	Scouring system after	:	Rotary screen JYLHA JS-150	4	sets
	bleached		Centrifugal cleaner	4	sets
			Thickener extractor	1	line
(6)	Pulp sheet making, pack	agi	ng and pulp machines		
	Pulp machine	:	Fourdrinies made by VOITH	2	sets
			width of wire; 5,200 mm		
. •	Dryer	:	Kraft dryer F.C. type	2	sets
			18 sections, 19 stops		
	Cutter-layboy	:	Made by LAMBGRAYSHARBOR	. 2	sets
	Finishing and packaging:		1,000 ton press AHLSTROH	2	sets
	(Baling) Equipment		Unitiser, unit scale	2	sets
			Wrapper, tying machine	2	sets
(7)	Recovery and power sup	ply	system		
	Evaporator	:	Model HPD 5 boilers,	1	set
	. 1		quintuple effect, made by		
			CONFAB Evaporating capacity		
		:	7,000 t/d		

Recovery boiler	`	Made by MHI, Treatment capacity of solid 1,440 t/d Evaporating capacity 190 t/d	1 set
Electric precipitator	:	Gas treatment capacity 350,000 Nm ³ /h	2 sets
Caustification equipment	:	Dolu type Continuous system white liquid production capacity 2,900 m ³ /d	1 set
Kiln	: '	Calcination capacity of line 270 t/d, 3.3 mø x 104 mL	1 set
Boiler (Heavy oil burning)	:	Made by MHI Evaporating capacity capacity; 200 t/h	1 set
Turbine generator	:	Toshiba double regenerative condensation system capacity; 40,000 kW	1 set
Chemical equipment	٠		
Electrolysis of Cl-Na	:	Diamond shamrock type capacity Cl ₂ 46 t/d NaOH 52 t/d	1 set
NaOH concentrator	:	Made by BLOWKNOX	1 set
Chlorate electrolysis equipment	:	Kemetex type 10 tanks x 4 chlorate Chlorate 12 t/d	1 set

(8)

	ClO ₂ manufacturing : equipment	$R-3$ method ClO_2 6.7 t/d	1	set
	Hypo manufacturing : equipment	Na-Hypo 12.5 t/d	1	set
	HC1 manufacturing :	HCl 10 t/d, made by	1	set
	equipment	LE CARBONE-LORRAINE		
	SO ₂ generating : equipment	5.5 t/d	1	set
(9)	Water treatment, protection	n of environment		
	Capacity of water : reservoir	225,000 m ³ /d	1	set
	Water treatment : equipment	Sand settling tanks $4,400 \text{ m}^3 \times 4$	1	set
		Condensation precipitating tanks 6,160 m ³ x 4	1	set
		Sand filter 84 m ³ x 16 cells	1	set
	Drainage water treat- : ment equipment	Neutralization tank 855 m ³	1	set
		Clarifier 2 sets		
		50 m/o x 3.75 mh		aata
		Sanlight drying floor 50 m x 100 m	4	sets
(10)	Additional equipment during	1982 - 1985		:
	Barque boiler :	Generating capacity 90 t/d	2	sets
	Drum barker :	5 mø x 24 mL	2	sets
	Bulk transport and chipping	equipment	1	set

Fuel chip and barley yard equipment

1 set

Pulpwood receiving facility

1 set

6-1-5 Construction and Production

In July of 1974 the construction of the factory was started but the first oil shock was also happend and as the result the construction cost was escalated. On the other hand, delivery of machines and equipment to Brazil was also delayed. By those reason the factory was completed in Sept. of 1977. It was delayed one year from the original scheme. As the consequent, the construction period was spent approx. 39 months in total.

Just after the start of commercial operation, production was suspended from time to time. In order to improve the defect, they had to replace defective machines and equipment and simultaneously they needed technical assistance from Japanese engineers. By the effect of those countermeasures they could produce 215,000 T/Y of L-BKP after three years from the start-up. As shown in Table II-89 production efficiency was improved constantly and finally it reached to 900 T/D in average (in short period 1,000 T/D). This is a fine record which is exceeding the original design of 750 T/D.

6-1-6 Organization

CENIEBRIA S.A. is a joint venture corp. between Japan and Brazil establised in Sept. 1973. (Investment is Brazil 51.5%, Japan 48.5%). Two directors each were nominated from both of Japan and Brazil. The total number of employees inclusive head office, factory and branch offices are 1,200.

CENIBRA S.A. is also operating business of afforestation, supply of woods and transportation through its subsidiary company. The subsidiary named CENIBRA FLORESTAL S.A. is 100% owned by CENIBRA S.A., however its directors were nominated two each from both of Japan and Brazil same as the case of CENIBRA S.A. The total number of employees are 2,900.

Separately from the above, there is another company in Japan, named Japan Brazil Paper and Pulp Resources Development Inc. in Japan. 13 staffs of this company were stationed in Brazil and supporting CENIBRA S.A. Figure II-33 shows organization chart of CENIBRA S.A.

6-1-7 Marketing

As shown in Figure II-33, marketing operation is controlled by superintendent who is under direct control of the President. There are three departments as substructures of the superintendent, which are Sales Planning, Sales and Traffic & Shipping but all of them are organized by small number of staffs. For instance the Sales Planning Dept. and the Sales Dept. are organized by one each of man and woman staff. It is also reported that the Traffic & Shipping Dept. is concerned about 10 staffs. Three staffs in the head office 2-3 in the factory and 4 persons in Victoria Harbor are engaged in the Dept.

In case of CENIBRA S.A., it is decided that the Japanese side has to buy 50% of their products and the Brazilian Government is obliged to sell 20% of their product in domestic market at the official control price. At the end of 1984, it is reported that they sold to the domestic market at the discounted rate about US\$100.00 per ton less than export price. In addition, Japan has optional right of 5%, so it is possible to purchase more than 50%, if necessary.

The remaining 30% of their products, after export to Japan (50%) and sales to domestic market (20%), are exporting to EC, U.S.A. and Southeastern countries. Approx. 30-60 thousand T/Y is exported to U.S.A. In U.S.A., C. Itoh & Co. acts as the sales agent. It is told that in U.S.A. certain higher class tissue paper manufacturer has signed long term contract through C. Itoh & Co. and continuously making shipment, on the basis of 3,000 - 5,000 T/Y.

In Europe, CENIBRA S.A. have a storage depot in Antwerpen themselves named FINNCELL corp. (a consortium of 30 paper mills in Finland) and they are selling the products to whole Europe as the sole agent. In Europe spot purchase is common and usually one contract is mainly less than 1,000 T. The storage Depot came to necessary by the reason. The shipment from Brazil to Antwerpen is done at a lot of more than 5,000 T. The standard payment in Europe is reported as each 1.5% less basis but it is fluctuated according to supply and demand situation.

In Japan and southeastern countries (Eastern area from Suez, including the Far East and China) Japan Brazil Paper and Pulp Resources Development Inc. has the sales right but sales small quantity to Southeastern countries such as Indonesia etc. For transportation from Brazil to Japan, there is long term contract with Mitsui-OSK Lines and 2-3 times of shipment per month has been made. The quantity of one shipment is approx. 5,000 T.

L-BKP product is transported from the factory of CENIBRA to VICTORIA Harbor via rail wagons for about 410 km and shipped from VICTORIA Harbor but after 1983 it was changed from new harbor of Port Cele. The rail-road from the factory to Port Cele is mainly used by Iron and Steel manufacturer operated by the investment from the Government. By these reasons, freight rate of the rail-road is seemed comparatively inexpensive i.e. US\$5.00/T of L-BKP.

Export sales records of CENIBRA S.A. classified by the destnation are shown in Table II-90.

During 2 years from the start of operation CENIBRA S.A. mark red figures and low productivity caused of trouble by domestic made machinery and unskilled operators etc. in addition to severe inflation and effect of oil shock etc. As the result their accumulated loss in 1980 was reached to approx. US\$ one hundred million.

Their earning was improved from 1981 and all accumulated loss was cleared by the end of 1984 and grown up to obtain profit of approx US\$20 million.

In 1985 the pulp market is very dull and price of pulp come down approx. US\$100/T in comparison in 1984 but now CENIBRA S.A. is so strong in productivity and was told that it is still possible to make fair profit in costwise.

6-2 RIOCELL S.A.

6-2-1 Background of Establishment and the Course of Event

Akitieselskapet Borregaard Co., in Norway made survey of Brazilian forest resources, climate and natural features for the purpose to secure stable supply of wood. As soon as the special act of taxation for forestation project was enacted in 1969, they have started the construction of UKP plant.

The name of company established in Brazil was Industria de Celulose Borregaard S.A. but was altered as RIOCELL at present who was owned and operated by Brazilian 100%.

Share holders at the time of establishment were Economic Development Bank Brazilian, the state of Rio Grande do Sal, Christiania Bank of Kreditkassa etc. and others than Borregaard Co., as shown the above, investment was made by Norwegian enterprise, bank, Brazilian State Government and bank etc.

The construction was planned by Akteselskapet Borregaard Co., engineering of pulp mill supporting by Technical Consultant Taakko Poyry and completed in 1972, then entered into commercial operation. It took about 3 years for construction.

They made forestation mainly eucalyptus trees, for self supply of raw material for the extent of 80% as the target.

6-2-2 Forestation

The forestation scheme at the time of establishment of RIOCELL in 1972 was to plant 23.5 million trees of eucalytus in the area of approx. 75,000 acres. Eucalytus trees, usually will graw up to the height of 17 meters in average during 7 years, the diameter of these, at the height of human breast, approx. 25 cm.

Other than eucalytus trees forestation of acacia trees also was made. In order to cover 80% of yearly consumption of wood at the factory, approx. 800,000 m³ of material, was the target of forestation.

The project was carried out by 1,800 number of workers hired from Rio Grande do Sul state. They were educated by Norwagian engineers on the latest technology for forestation and how to operate new model machinery.

6-2-3 Location of Pulp Plant and Outline of Equipment

Location : Guaiba state of Rio Gramde de sal

Number of workers: 2,300

The following capacity of plant was constructed at the beginning.

(1) Production capacity : 200,000 T/Y of Unbleached

Sulphate Pulp

(2) Wood Handling Department

with chipping : $1,000,000 \text{ m}^3/\text{Y}$

(3) Pulp Department with

continuous digester : UKP 200,000 T/Y

(4) Flash drying and baling Department

(5) Other plant

- a) Recovery Boiler
- b) Power Plant
- c) Consticizing Plant
- d) Lime Kiln
- e) Engineering Workshop
- f) Mobile Workshop

In 1983 Bleaching Equipment was additionaly installed. They are producing 220,000 T/Y of BKP for selling at present.

6-2-4 Transportation of Products

100% of the products UKP were exported to Borregaard Co. in Norway from Brazil until quite recently and converted it into BKP, B.P. and rayon staple fiber at Barregaard Co. for marketing. A transportation company named Borg was established to transport UKP made in Brazil for the purpose.

Specialized transportation company Borg is the joint venture in Norway between Aktieselskabet Borgestad (80%) and Aktieselskapet Borregaard (20%). The Borg built a ship exclusive carrier of pulp (28,000 DWT shallow draft vessel) which carries UKP from Rio Grande (Brazil) to Fredrikstad (Norway) and carries sodium sulphate from Norway to Brazil in return.

6-2-5 Marketing

At the time of establishment of Industria de Celulose Borregaard S.A. an agreement was made between Industria de Celulose Borregaard S.A. and Akitieselskapet Borregaard, which was promissed all UKP produced in Brazil shall be purchased by Akitieselskapet Borregaard. The effective period of the agreement was 15 years. All UKP produced in Brazil was exported to Norway accordingly and it was converted into BKP and others for sale to Europe and other districts.

While Brazil wished to sell products of increased in value and negotiated with Norway side but it was not succeeded and the co-operation between Norway and Brazil was breached. In 1983 Brazil extended bleaching plant and started production of BKP. At the same time, amended the name of Company as "RIOCELL". Sale of BKP is handled by ELOF HANSSEN (Sweden) as the exclusive agent over the world. It is presumed that the production of BKP is

220,000 T/Y. In Japan Marubeni is acting as a dealer of ELOF HANSSEN and import from Brazil, which quantity is approximately 3 - 5,000 T/Y.

6-3 Jari Florestal e Agropecuaria Ltda

6-3-1 Background of Establishment and Their History

Project of Jari Florestal e Agropecuaria Ltda so called as Jari was originated by the procurement of land for the extent of 15,000 km² by Mr. Daniel K. Ludwig an American Business man in Para State Rio Jari and Federal Territory of Amapa in Brazil in 1968 and planned a composite development of it.

The scheme of the project announced at that time was as follows:

(1) Plantation 90,000 ha gmelina and pine

(2) Saw mill $30,000 \text{ m}^3/\text{Y}$ (timber)

(3) BKP 260,000 T/Y
(4) Kaolin processing 220,000 T/Y
(5) Rice 60,000 T/Y

6-3-2 Forestation

The feature of Jari is planted "Gmelina arborea" of Southeastern Asia origin almost all of person does not know this name (from Burma and India). This kind of tree was not only very superior as the raw material of pulp but also very suitable to make various wood products (board, veneer, plywood, particleboard etc.). It was expected that the planting of Gmelina arborea in the area of (3.5 m x 3.5 m, 816 trees/ha) will grown up as the pulp material during 6-7 years and become timber after 10 years. Height of Gmelina arborea will reach 20 m after 6 - 7 years and 30 m after 10 years. For planting of pine, Pinus Caribaea was selected after long period of experiment. Upto 1983 it was schemed to plant on the area of 100,000 ha, in 1978 approx half area of it has already been planted. It is told that 2 -3,000 persons are working for this project. Actual growing rate of Gmelina is not officially announced but it is presumed that 25 - 35 m³/ha per year.

6-3-3 Location of Pulp Factory

Location of factory : Munguba Para State

Location of head office : Monte Dourado City Para State

6-3-4 Outline of Plant Equipment

It is a famous story that the type of the plant of Jari was the floating pulp plant (on board plant). Considering conditions of the site and careers of leaders, it might be understood that the selection of the floating pulp plant was very reasonable selection.

Plant of Jari is located at the bank of the Rio Jari River. The bank is 100 km northward from the confluence of its main stream of the Amazon River. This confluence is at 150 - 200 km distance from the mouth of the Amazon River. The plant site is also far from the nearest port of Macapa. When the project was planed there was no road and rail-road. There was no transport method also of plant equipment other than ship go-through the Amazon River and the Jari River. Installation of whole plant on the ship and settled the ship herself at the bank may save many problems such as procurement of construction materials, shortage of workers etc. and more over the arrival of power plant vessel at the same time, electricity became available instantly.

The owner of Jari, Mr. Daniel K. Ludwig, an American was a owner of Kure Shipyard in Japan after World War II, and already planned a factory on the vessel. (The Kure Shipyard was merged with IHI afterward). Jari floating factory was realized after such sort of background.

(1) Construction period

The contract was signed on Feb. 18, 1976 between Jari and IHI. Delivery date of pulp plant ship on which production equipment shall be insalled and power plant ship on which generator etc. shall be installed, was Jan. 31, 1978. Power plant ship was left on Feb. 1 1978, and Pulp plant ship was left on Feb. 10, 1978 from Japan and arrived April 28 and May 4 respectively at Rio Jari safely and settled there. Size of the plant ship was 230 mL, 45 mW, approx. 30,000 DWT, its size was almost same with super tanker of 150,000 DWT and depth of water was 11 meter which was the minimum requirement.

(2) Plant equipment

In order to establish all technical aspects of plant equipment, pulp making test was made at Oulu Oy company in Finland 1976, sending 12,000 ton of Gmelina arborea and produced 1,500 ton of pulp. In 1977 material wood was sent to Kaukas company in Finland and repeated same test and produced 1,600 ton of pulp. At the sametime, Jari made technical cooperation contract with two companies i.e. Kaukas and Kymi Kymmene and after that entered into commercial operation under guidance of 40 Finland engineers. (50 Finlanders and 70 Japanese from IHI were cooperated. Even now 50 Finlanders and 10 IHI staffs are still supervising.) It took about 5 years to satisfy the planned daily productivity after the operation.

(3) Production facilities

The outline of plant equipment is as under:

a) Pulp plant

Daily production : capacity: 750 ton

Raw material : Gmelina (Hard wood)

and Bicarilian-pine

(Soft wood)

Final products : Paper making bleached Kraft Sheet pulp

Digester : 8 sets, Vertical type fixed Batch system

(Capacity 207 m³/set) digesting pressure and temp. 8.0 kg/cm² and 174°C

respectively

Scouring before Bleach : Brown Stock washer 1 set

Inpuco triple washer cylinder

dia 4 m x 12 mL

Separation system

screen (model PSV 400) Secondary screen 1 set Hooper's pressurized screen (model PSV 200)

Bleaching equipment

Bleaching conditions

Bleaching stages: 5 steps

Whiteness

: 88 GE

Bleaching sequence;

d/e-E-D-E-D

Note): d.D = Bleaching stage

of ClO₂

E = Alkali extraction

stage

C = Chlorination

stage

Other equipment

Bleaching washer 5 sets

filters made by Impco

Chlorine Tower

1 set (5.2 mø x 25 mH)

Alkali Tower

2 sets (5.4 mg x 32 mH)

ClO₂ Tower

2 sets (6.6 mø x 40 mH)

Sheet machine dryer

Pulp making conditions

Weighing

 800 g/m^2

Trimming width

7,200 mm

: Delivery speed

150 m/min

: Theoritical production

(output)

750 A DMT/22Hr

Sheet dryness

90% B.D.

Baling equipment

Size of Finished Bale:

800 mm x 720 mm

Weight per Bale:

200-240 kg/bale

Unit of Bale: 8 Bales/unit

b) Recovery of chemicals and Power Generating Equipment

Thickneing equipment of black liquid:

Туре

: Hexa effect vacuum evaporator

Q'ty of liquid

: 402,400 kg/Hr 15 wt%

After thickened

95,810 kg/Hr 63 wt%

Caustification equipment:

Capacity of white liquid production

 $2,940 \text{ m}^3/\text{Hr}$

Lime Kiln

Capacity 294 t/d

Size

4,000 mmø x 89 mL

Fuel Bunker oil class C

(Heavy oil JIS C)

Power Boilers

2 sets

Type

IHI - FW Model SF

Natural circulation boiler

Capacity 140 t/Hr

Steam conditions

60 kg/cm² x 450°C

Fuel:

Barque and Bunker oil

Recovery Boiler

1 set

Type;

B&W Tomprimson

Capacity; 208 t/Hr

Solid quantity from Black liquid;

1.360 t/d

Steam conditions;

60 kg/cm² x 450°C

Electric Generator

1 set

Type

Turbine Generator

Voltage;

13,800 V 60 Hz

Capacity; 55 MW

6-3-5 Marketing

Sample pulp of approx 3,000 ton for testing was supplied to Europe paper mills from Jari (1,500 ton of test pulp of Oulu Oy company and 1,600 ton of test pulp of Kaukas company) which were produced in Finland as trial operation. It is told that the results were successful.

They started world wide marketing under the trade name of "Jari pulp" through Price & Pierce Co. their Sole Agent.

In Japan Sanmik Trading Co., Ltd. is importing "Jari pulp" as their dealer. The quantity imported is reported as less than ten thousand T/Y.

REAL GNP GROWTH RATES Table II-1

=
8
3-83
č
1963-83
Price
.ĕ
2
-3
Ā
4
Ξ
_
5
0
=
ن
anges
ਕੁ
Æ
\smile
Ś
ıntric
를
5
ō
U
C
ŝ
Ξ
Ĕ

(Unit: %)

5.2 1982 9.5 8.6 9.1 1980 Change from Preceding Year 1979 8 4 1978 9. 2 4.7 1977 6. 1976 1975 13.3 10.8 13.8 -10.7 -1.2 9.0 1974 2.0 1973 7.7 2.2 Average 1963 -72.2 5.0 4 All Industrial countries Of which, Seven larger coun-tries above European countries All Industrial countries Seven larger coun-tries above European countries Other industrial countries Other industrial countries Germany, Fed. Rep. of Italy 3 õ Germany, Fed. Rep. United Kingdom 3 United Kingdom 3 Of which, Canada United States Canada United States GNP defiator Real GNP France 3 France 3

¹ Composites for the country groups are averages of percentage changes for individual countries weighted by the average U.S. dollar value of their respective GNPs over the previous three years. For country classification, see the introduction to this appendix.

² Compound annual rates of change.

³ GDP at market prices.

Table II-2 GDP IN THE WORLD (1963-95) (1)

5 US\$)	ANNUAL	1995/83	3,5%	5, 4, 6, 8, 8, 8,	* ********	2 222222222222222222222222222222222222	\$ \$
in 197	SNOI	1995	11947.5	3105.0 2800.0 305.0	810.8 3.55.0 3.55.0 23.55.0 22.00 27.0 87.1	2305.7 102.0 102.0 141.5 145.0 345.0 345.0 345.0 345.0 675.0	576.0 57.0 55.0 55.0 180.0 181.0 78.0
111ion	AND PROJECT	1988	9271.5	2450.0 2215.0 235.0	263.6 264.0 264.0 133.6 150.0 170.0 731.0	1868.4 450.5 450.5 100.5 172.5 275.0 275.0 285.0 570.0 570.0	17.2 2.2.2.4 2.2.4 2.4.4
Unit: Bi	1983 A	1983	7922.1	2074.8 1882.1	461.1 176.5 176.5 17.2 17.3 13.3 13.3 82.3 82.3 82.3	25.55 27.55 27.55 27.55 25.55 25.56	3962 2336 3336 1251 7251 222
- 1		1982	7753.5	2011.1 1821.2 189.9	28. 28. 27. 20. 20. 20. 20. 20. 20. 20. 20. 20. 20	25.27.1.25.4.4.0.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3	291.1 232.3 232.3 77.60 29.1 29.1 23.1 23.1
		1861	7722.8	7055.0 1856.3 198.7	4894 1741 1341 1313 1313 6313 6313	25.5 25.5 25.5 25.5 25.5 25.5 26.5 26.5	388.8 4.4 32.6 36.2 76.1 76.1 20.2 20.2
		1978/80	7416.4	1804.2	2 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25.25 25.25 25.25 25.25 25.25 25.24 25.24 25.24	7.5.7.5 2.00.0 2.4.5.5.7.5.5 2.2.6.0 2.2.0 2.0.0 2
	EARS	1975/77	6639.9	1788.8	294.7 1400.7 1400.4 191.5 191.5 191.5 191.5 191.5	25.00.8 20.00.	349.4 39.4 30.18 105.7 723.3 54.2 1.8
	BASE YEARS	1972/74	6032.0	1680.7 1525.9 154.8	23.00 2.20 2.22 2.22 2.22 2.22 2.22 2.22	1373.2 97.0 97.7 375.4 19.7 18.7 80.3 228.9 420.0	328.2 36.7 26.7 26.0 14.8 97.6 57.7 1.6
-		12/6961	5218.5	1368.7	4.25 4.25 4.25 4.25 6.05 6.05 6.05 6.05 6.05 6.05 6.05 6.0	1215.5 52.3 52.3 16.3 16.3 16.3 2.0 70.4 206.8	282.4 20.1.4 20.1.6 20.1.4 662.2.4 56.2.4 56.2.4
		1966/68	4512.7	1268.7	220 527 527 528 528 528 528 528 528 528 528 528 528	1046.4 14.7 12.9 12.9 143.1 17.1 17.1 194.0	7.02 7.05 7.05 7.05 7.14 7.14 7.14
		1963/65	3865.1	1190.6	1888 247.7 49.7 7.0 7.10 7.10 8.0 8.0 93.7	226.7 203.7 203.7 10.6 10.6 12.3 12.3 17.8 28.1 288.4	2122 2322 16.0 17.7 49.4 40.9
	> season of	אינאסט	WORLD	NORTH AMERICA United States Canada	LATIN AMERICA Augentina Brozel Chile Cotombia Mexico Pere Venezuela Other Lotin America	EUROPEAN COMMUNITY Belgium Denmark fronce Greece Ireland Italy Isorembourg Notherlands United Kingdom West Germony	WEST EUROPE fox ECT Austria Finland Norway Potrway Potrway Potrway Potrway Spain Sweden Sweden Switzerland Other, West Europe fex ECT

Source: WORLD-Product-CASTS SUMMARY-ECONOMIC OUTLOOK

Table II-2 GDP IN THE WORLD (1963-95) (2)

.51 I	cki	1918.3 35.0 35.0 187.5 197.5 1	201.0 6 69.0 6 69.0 75.0 75.0 75.0 75.0 75.0 75.0 75.0 75	2264.1 510.0 510.0 185.0 185.0 10	2 150.0 3.1% 18.5 3.6% 1.55 3.6%
(Unit: Billion :		1334.4 1550.8 27.0 83.0 83.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95	493.2 579.6 24.4 30.0 45.6 520.0 14.8 16.5 46.8 54.0 361.7 427.3	1383.4 1674.6 265.0 345.0 128.4 150.0 51.2 62.0 712.1 830.0 18.3 23.0 23.0 22.9 28.0 24.7 38.0 78.4 46.5	121.4 137.0 103.8 117.5 14.8 16.3 2.8 3.2
, and		21.4 22.4 22.4 22.4 60.1 60.1 77.6 77.6 77.6 50.7 75.8 60.7 55.0 50.7 55.0 55.0 55.0 55.0 55.0 5	477.4 465.5 20.7 22.6 46.2 45.4 14.5 14.6 42.7 44.6 353.3 356.0	1265.6 245.2 245.2 118.2 48.1 48.1 46.3 666.3 666.3 18.4 18.4 18.4 18.4 18.4 18.4 18.4 22.3 22.4 22.4 23.4 73.8	120.7 103.6 103.6 14.4 14.4 2.7
EARS SOTETT SOTE/OR	11/0	1161.9 19.8 55.5 57.1 20.6 57.3 24.9 26.3 49.1 49.4 82.4 55.6 82.6 1.4	100.3 13.5 17.3 17.3 12.3 13.5 13.5 13.5 13.5 29.6 33.5.7	170.4 170.4 170.4 170.4 170.7 17.3 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9	106.2 90.1 97.4 13.8 2.3 2.6
BASE YEARS		893.7 15.3 16.0 17.3 17.3 17.3 23.5 23.7 23.7 23.7 23.7 23.9 1.0	261.9 9.8 30.7 30.7 8.6 11.1 166.8 241.3	712.9 119.7 75.0 75.0 79.1 79.1 79.1 79.1 79.1 10.5 11.8 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	86.1 98.4 73.0 82.9 11.4 13.1 1.8 2.4
3775701		668.0 788.2 11.1 13.5 13.7 13.5 17.5 50.6 17.6 57.2 21.0 26.1 17.2 55.1 17.2 55.1	180.3 7.9 7.9 7.9 8.2 8.2 8.2 8.3 17.9 17.9 148.4	435.3 77.1 77.1 59.7 63.9 16.8 46.8 7.2 7.2 7.2 7.2 7.3 6.4 6.4 6.4 6.4 6.4 6.4 6.3 7.4 6.3 6.3 7.2 7.2 7.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6	63.2 52.6 60.9 9.4 1.3
COUNTRY		EAST EUROPE Bulgaria Czechostowakia Czechostowakia East Germany Hungury Poland Romania USSR Yugostowia Other East Europe	AFRICA-MIDEAST Egypt South Africa Israel Turkey Other Africo-Mideast	ASIA China China Indonesto Indonesto Japon Malaysia Patiston Philippinest South Korea Totwon Theiland Other Asia	OCEANIA Australia New Zealand Other Oceania

Source: WORLD-Product-CASTS SUMMARY-ECONOMIC OUTLOOK

Table II-2 GDP IN THE WORLD (1963-95) (3)

Source: WORLD-Product-CASTS SUMMARY-ECONOMIC OUTLOOK

Table II-2 GDP IN THE WORLD (1963-95) (4)

US\$)	GROWTH	3	∡i ∧i √i % % % % ;	, , , , , , , , , , , , , , , , , , ,	8 8	* % % % % % %	8	% % % %	2888 8888	888	2.2% 2.5%	% % % % % % % % % % % % % % % % % % %	× % 9:
1975 L	T	╁				- Ed ton par he				*		, Act -	
حا	SNO		3365	3250 3250 3350 4544	2867	1250 1250 1250	808	232	436 8378 1579 244	1368	374	8333	7.50
Billion	AND PROJECTIONS	30.2	3667 2784 4571	27452 27452 2766 2766 2766	692	571 1444 3708 1029	700	313	363 6694 1254	1081 1081 1845	317	7165	652
	1983 AN		3261 2492 3975	24857 22158 23178 2519	\$207 \$29	532 1432 3630 988	682	340 256 182	328 5974 1095	1 4 9 N	492 280	67.43	7007 619
	1000		3208 2458 3902	4751 2622 2312 3471	2707	505 1471 3644	969	228 250 175	322 5809 1062	4 8 5 8 5 5 0 8 5 0 8 5	276	5312	455/ 618
	1001	10/1	3187 3929	22553 22553 2253 23553 23555 23555 23555 235 23	203¢ 6 43	768 477 1533 3663 942	709	243 175	320 3663 1044	820 820 1448	27.50	5406	633
	00/ 0101	20/0/4	2333	22434 22434 2371	638 638	766 1419 3577 941	715	227	282 5271 937	791	432	5224	631
	LARS Vork Orr	27.72	2257 37.19	2346 2352 3237 3231	1652 569	355 3483 3483 966	691	188 157	238 4657 798	387	370	5047	4436 591
	BASE YEARS	5//3/21	2721 2003 3485	3573 2210 2312 1744 1974	65.72 6 EE	671 1424 3403 644	. 	108	4392	0.4.0 0.0 0	232	4907	4415 658
	1040/73		2425 1801 3212	2010 2040 1478 2619	462	294 1367 2875	516	354	3764 634 634	319	267	5783	6043 5183
	1044.720	00/004	2195 1624 2978	2964 1922 1348 2356	407	293 1266 2278	448	116	2862 561	+ M + C	252 201 201	4068	3790
	1042744	50/50/1	1366	2010 2010 2010 2010 2010	988 988 888	3186 2099 2099	418	103	2136	2882		37.46	3626
	COUNTRY		EAST EUROPE Bulgario Czechorlovakia	Ecst Germany Hungary Poland Romania USSR	Tygoslavia Other fast Europe	AFRICA-MIDEAST Egypt South Alrica Israes	Other Altico-Mideast	ASIA China India	Indonesia Japan Malaysia	Philippines Squit Korea	Tower Theiland Other Asia	OCEANIA Ausirolia	New Zealand Other Oceania

Source: WPRLD-Product-CASTS SUMMARY-ECONOMIC OUTLOOK

Table II-3 WORLD SUPPLY/DEMAND OF PAPER AND PAPAERBOARD(1971-1982)

(Unit: 1,000 MT)

	Production	Import	Export	Consumption
1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981	128,557 137,582 147,118 149,356 130,709 147,265 151,895 158,178 170,447 172,301 172,471	23,867 25,175 27,009 28,937 23,002 26,551 27,733 30,346 32,181 33,574 33,804	23,526 25,247 27,522 29,962 25,479 27,092 28,293 30,326 33,341 35,088 35,559	128,898 137,510 146,605 148,331 128,232 146,724 151,335 158,198 169,287 170,787
1982	165,360	33,498	33,767	165,091

Source: Yearbook of Forest Products, 1982

Table II-4 WORLD SUPPLY/DEMAND OF WOODPULP (1971-1982)

(Unit: 1,000 MT)

	Production	Import	Export	Consumption
1971 1972 1973 1974 1975 1976 1977	102,147 108,018 114,311 117,851 102,932 115,189 116,695 121,502	14,589 16,361 18,019 18,899 14,718 16,620 16,691 18,662	14,928 16,456 18,494 19,164 15,113 16,948 17,105 19,057	101,808 107,923 113,836 117,586 102,537 114,861 116,281 121,107
1979 1980 1981 1982	123,504 126,031 126,609 120,517	20,001 20,579 19,562 18,093	20,203 21,222 20,236 18,477	123,302 125,388 125,935 120,133
			± =: = :	

Source: Yearbook of Forest Products, 1982

Table II-5 WORLD SUPPLY/DEMAND OF PULPWOOD (1971-1982)

(Unit: 1,000 CUM)

Source: Yearbook of Forest Products, 1982

Table II-6 WASTE PAPER RECYCLING STATISTICS

(Unit: 1,000 HT)

						, (ont			
	Amount Recovered	Amount Consumed	Amount Imported	Amount Exported	Amount of Paper and Paperboard Produced	Amount of Paper and Paperboard Consumed	Total Pulp Production	Utilized Rate for Waste Paper	Recovered West Paper Yield
Norway					: "	•			
1977	110	85	9	7	1,186	497	1,432	7%	22%
1980	116	105	15	33	1,373	497	494	8*	23%
1983	108	99	25	36	1,368	531	1,640	7%	20%
Finlend						* - V			
197 7	. 172	161	2	11	4,620	869	5,247	3%	20%
1980	244	214	1	31	5,915	1,163	7,234	44	21%
1983	286	268	9	17	6,388	1,182	7, 163	4%	24%
Sweden				•	•	1			
1977	505	482	81	102	5,060	1,496	7,656	10%	34%
1980	576	673	205	83	6,189	1,842	8,699	11%	31%
1983	665	661	136	106	6,350	1,858	8,668	10%	36%
Canada									
1977	_	84	330	123	12,441	4,218	10,168	1%	-
1980	- "	1,192	510	113	13,389	4,549	19,944	9%	-
1983	901	1,329	533	156	13,353	4,691	19,221	10%	19%
U.S.A.		•			***				
1977	14,835	12,960	83	1,372	56,267	60,445	45,364	23%	25%
1980	16,304	13,537	79	2,417	56,836	60,550	46,025	24%	27%
1983	16,753	14,065	91	2,335	58,849	63,216	47,661	24%	27%
W. Germa		,		-,		1	,		
1977	2,798	2,767	344	381	6,604	0,435	1,862	42%	33%
1980	3,298	3,168	412	527	7,580	9,642	1,995	42%	34%
1983	3,568	3,492	472*	536	8,272	9,822	2,081	42%	36%
França	2,500	2,472	77.2	220	0,212	71022	1,001	420	
1977	1,786	1,670	200	303	4,722	5,598	1,935	35%	32%
1980	1,710	1,906	196	0	5,151	6,220	1,829	37 %	27%
1983	1,818	2,035	217	. 0	5,261		1,862	39%	28%
	1,616	2,000	217	. •	7,201	6,516	1,001	27.0	204
England	20	2.004	301	**	A 003	(0) 1	306	516	0.46
1977	29	2,084	121	44	4,083	6,913		51%	0.4%
1980	2,167	2,009	32	210	3,793	6,837	286	53%	32%
1983	1,993	1,827	27	193	3,209	7,070	173	57%	28%
Italy	11 747		43.0		1 200		1 100	1.44	702
1977	1,343	1,952	610	1	4,288	4,219	1,190	46%	32%
1980	1,551	2,200	650	. 1	4,935	5,244	1,075	45%	30%
1983	-	-	-	-	4,259	4,854	787	-	-
U.S.S.R.									
1977		2,100	-		9,090	8,674	9,100	23%	
1980	1,500		0	200	8,732	8,731	8,950	-	17%
1983	1,600	1,600	. 0	200	9,556	9,455	7,913	17%	17%
Japan					4	12, 42%		.5	
1977	6,703	6,552	125	63	15,702	15,239	9,437	42%	44%
1980	8,079	7,857	224	20	18,088	17,926	9,788	43%	45%
1983	8,996	9,110	277	2	18,442	18,389	0,860	49%	49%
R. Korea								•	
1977	516	813	398		1,170	1,082	130	69%	48%
1980	593 .	1,160	598	0	1,693	1,561	186	69%	38%
1983	684	1,259	574	Q	1,982	1,935	242	64%	35%
Taiwen	-								
1977	- .	223	223		966	1,033	729	23%	- '
1980	691	1,247	556	0	1,479	1,412	276	84%	49%
1983				-	1,720	1,704	300	· ·	_
Theiland									
1977	_	141	-		221	346	33	64%	-
1980	99	258	159	-	355	471	63	73%	21%
1983	120	230	110	0	360	517	50	64%	23%
India		-,-		_				2	
1977	_	250	-		1,067	1,359	820	23%	_
1980	295	295	. 3	0	1,088	1,488	34**	27%	20%
1983	420	470	50	_	1,337	1,517	850	35%	28%
	420	4/0	υ	. -	4,771	1,711	DXG) <i>)</i> /a	40.4
lixe18		770			2 224	9 479	1 (17	710	
1977	-	750	-	-	2,234	2,472	1,617	34%	-
1980		1,450	1	-	3,468	3,496	3,507	42%	
1983		- 1 to 🗕 14	-	-	3,420	3,271	2,917	-	-

Notes: * Including from E. Germany
** Market Pulp Only
Source: PPI

RATE OF WOODPULP CONSUMPTION TO PAPER AND PAPERBOARD PRODUCTION Table II-7

		IN THE	WORLD	BY REGION	REGION (1972-1982)	982)		•	.*	(M	MT/MT)
1	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
י ש י	0.78	ı	0.79	0.78	0.78	0.77	0.77	0.72	0.73	0.73	0.73
North America	0.85	0.85	0.86	0.86	0.89				0.81	0.82	0.84
Latin America	0.57	0.55	0.59	0.55	0.57				0.53	0.53	0.53
EEC Total	0.62	0.60	0.61	0.60	0.57				0.57	0.56	0.54
Scandinavian 3	66.0	0.92	0.95	1.12	1.00				0.92	0.93	06.0
Other W.Europe	99.0	99.0	0.67	0.71	0.62				0.60	0.59	0.58
East Europe	0.89	0.89	0.92	0.91	06.0				0.88	0.87	0.86
Asia	0.67	0.64	0.65	0.60	09.0				0.55	0.55	0.54
Oceania	0.82	0.89	0.94	0.88	0.86	0.82	0.81	0.78	0.77	0.78	0.79
Africa	0.51	0.54	0.53	0.54	0.48				0.80	0.82	0.84

Note: "Woodpulp Apparent Consumption (metric tons)"/"Paper and Paperboard Production (metric tons)" (Based on the figures in FAO's Yerabook of Forest Products, 1982)

Table II-8 RATE OF PULPWOOD CONSUMPTION TO WOODPULP PRODUCTION IN THE WORLD BY REGION (1972-1982)

(CUM/MT)

	197	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
World Total	2.81	2.85	3.05	3.13	2.79	2.71	2.74	2.90	2.96	3.04	3.07
North America	2.40	2.40	2.60	2.48	2.19	2.09	2.18	2,32	2.40		2.56
Latin America	4.39	4.02	3.83	4.82	4.59	4.35	5.51	7.08	6.29		6.27
EEC Total	3.49	3.57	4.23	4.39	4.04	4.21	4.02	4.21	4.46		4.10
Scandinavian 3	3,08	2.90	3.19	3.89	3.38	3.00	2.87	3.01	2.90	3.40	3.41
Other W.Europe	4.25	4.29	4.22	4.65	4.66	4.73	4.48	4.49	4.79		4.5.1
East Europe	4.00	4.65	4.54	4.16	3.75	3.67	3.55	3.66	3.69		3.82
Asia	2.31	2.39	2.66	2.52	2.51	2.80	2.74	2.78	2.96		2.55
Oceania	2,30	2.39	1.42	3.05	2.00	1.91	1.92	1.76	1.64		1.78
Africa	4.84	4.73	4.62	4.94	5.48	5.04	4.97	4.30	3.45		3,36

"Pulpwood Apparent Consumption (cubic meters)"/"Woodpulp Production (metric tons)" (Based on the figures in FAO's Yearbook of Forest Products, 1982) Note:

Table II-9 ESTIMATED AVERAGE COSTS OF PRODUCING BLEACHED KRAFT PAPER-GRADE MARKET PULP (US\$/AIR DRY TON)

Softwood	First half 1982	First half 1981	Hardwood	First half 1982	First half 1981
Western Canada	(8,008C\$/	(8,375C\$/	Brazil (16	50.686cruz/	(93.96cruz/ US\$)
Fiber	US\$) \$138	US\$) \$138	million.	US\$) 60	43
Chemicals	37	32	Fiber Labor	29	32
Wages and			Energy	25	22
salaries	55	49	Chemicals	36	25
Energy	38	-	Total direc		122
Other direct	37	70*	Supplies, cap		
Total dire	et 305	289	misc.	177	191
Interest	24	25	Total	327	313
Depreciation	16	16	US South		
Other indire	ct 12	12	Fiber	101	96
Total	357	357	Chemicals	32	30
Sweden	(5.90SKr/ US\$)	(5.545Kr/ US\$)	Wages and salaries	58	55
Fiber	212	189	Energy	51	64
Wages and salaries	85	78	Other direct	•	42
	95	70	Total dire		287
Energy and chemicals	85	87	Interest	20	20
Total direc	et 382	354	Depreciation		18
Capital and			Other indire		17
misc.	101	99	Total	343	342
Total	483	453			······································
UŞ South					
Fiber	116	108	Note: * Incl	udes Energy	
Chemicals	45	43	Source: Mead		mates
Wages and salaries	58	54	Jour Go. Trade	. 00291 2502	
Energy	41	46			
Other direct	47	43			
Total direc	et 307	294	•		
Interest	20	20		-	
Depreciation	18	18			
Other indired	et 17	17			
Total	362	349	•		

Table II-10 EXCHANGE RATE OF EC COUNTRIES, SCANDINAVIAN COUNTRIES AND CANADA

101:0		2.622	2.362	2.105	1.828	1.731	1.959	2.255	2.376	2.724
		4.486	4.970	4.705	4.180	4.020	4.516	5.748	6.725	8.347
	ω	683, 55	875.00	871.55	829.75	804.00	930.50	1200.0	1370.0	1659.5
etherlands HFL 3.226 2.824		2.688	2.457	2.280	1.969	1.905	2.129	2:468	2.624	3.064
44.06	36.12	39.53	35,98	32.94	28.80	28.047	31.522	38.460	46.920	55.640
0.4259	0.4258	0.4942	0.5874	0.5247	0.4915	0.450	0.419	0.524	0.619	0.589
0.4263	0.4263	0.4941	0.5874	0.5232	0.4915	0.466	9.527	0.633	0.716	0.881
DXR 6.843	5.650	6.178	5.788	5.788	5.090	5.365	6.015	7.325	8.384	9.875
00 30 00	30.00	35,65	37.03	35.51	36.005	38.283	46.535	57.630	70.570	98.670
d MARKKA 4.17	3.55	3.85	3.77	4.02	3.926	3.711	3.848	4.357	5.291	5.818
lorway KRONE 6.64 5.73	5.21	5.58	5.18	5.14	5.022	4.926	5.180	5.807	7.054	7.742
KROWA 4.743 4	4.081	4.386	4.126	4.670	4.295	4.146	4.373	5.571	7.294	8.001
anada C\$ 0.9956 0.9958	0.9912	1.0164	1.0092	1.0944	1.186	1.168	1.195	1.186	1.229	1.244

Table II-11 WORLD PULP, PAPER AND PAPERBOARD CAPACITY, 1969-84 (1)

		(Un:	it: Mill:	ion MT)
	1969	1974	1979	1984
Total Woodpulp, Paper Grades	101.0	123.8	137.0	155.1
Mechanical*	26.4	30.0	33.0	38.7
Semichemical**	8.2	10.1	10.5	11.7
Chemical	66.4	83.7	93.5	104.7
Other Fiber Pulp	7.3	7.9	11.0	13.4
Dissolving Pulp	5.3	5.9	6.0	6.5
Total Paper, Paperboard	132.9	166.8	192.2	221.5
Newsprint	23.1	24.4	27.2	34.1
Printing, Writing	26.4	36.9	44.9	53.8
Other Paper and Board	83.4	105.5	120.1	133.6
			•	

Notes: * Including Thermomechanical Pulp

** Including Chemigroundwood

Table II-11 ANNUAL RATE OF INCREASES IN WORLD PULP, PAPER AND PAPERBOARD CAPACITY, 1979-84 (2)

	1979-80	1980-81	1981-82	1982-83	1983-84
Total Woodpulp,		***************************************			
Paper Grades	3.0%	2.7%	3.5%	2.2%	1.2%
Mechanical*	4.1	3.7	4.9	2.7	0.8
Semichemical**	1.1	3.8	1.9	3.0	1.3
Chemical	2.8	2.2	3.1	2.0	1.3
Other Fiber Pulp	7.3	3.6	3.1	3.2	2.9
Dissolving Pulp	0.8	2.0	1.5	1.7	1.0
Total Paper, Paperboard	3.1	3.6	3.5	2.4	1.8
Newsprint	4.4	6.0	5.7	3.9	3.0
Printing, Writing	4.7	4.4	3.9	3.0	2.5
Other Paper and board	2.3	2.7	2.7	1.8	1.3

Notes: * Including Thermomechanical Pulp
** Including Chemigroundwood

Source: PULP & PAPER WEEK/Sep. '80

Table II-12 WORLD PULP, PAPER AND PAPERBOARD CAPACITY, 1973-88 (1)

	-	(Uni	t: Mill	ion MT)
	1973	1978	1983	1988
Total Woodpulp,			•	
Paper Grades	119.8	134.9	144.0	154.8
Mechanical*	28.9	32.6	35.5	38.5
Semichemical**	9.9	10.5	9.6	10.1
Chemical	81.1	91.9	98.6	105.8
Other Fiber Pulp	8.2	10.4	9.2	10.6
Dissolving Pulp	5.9	6.1	6.1	6.3
Total Paper and				
Paperboard	160.7	167.6	205.9	224.1
Newsprint	24.7	26.4	30.8	33.5
Printing and Writing Other Paper and	35.7	42.8	51.3	57.4
Paperboard	100.3	118.4	123.8	133.1

Notes: * Including Thermomechanical Pulp
** Including Chemigroundwood

Source: PULP & PAPER WEEK/Aug. '84

Table II-12 CAPACITY INCREASES TO 1988: WORLD PAPER WOODPULP (2)

		city 0 MT)	Average Increa	
	1983	1988	1978-83	1983-88
World Total	144,007	154,773	1.3%	1.5%
Dev'ed Mkt. Economic	118,426	126,545	1.9	1.3
Northern America	72,749	76,415	1.7	1.0
Japan	12,006	12,158	-0.1	0.3
Western Europe	30,518	33,689	-0.6	2.0
Oceania	2,326	2,670	2.2	2.8
Others	827	1,613	3.9	14.3
Dev'ing Mkt. Economic	8,415	10,450	7.3	4.4
Africa	724	815	15.4	2.4
Latin America	5,800	7,113	5.6	4.2
Asia	1,891	2,522	10.7	5.9
Centrally Planned	·	.*		
Economic	17,166	17,778	1.7	0.7
Asía	1,167	1,282		1.9
Eastern Europe	4,354	4,446	3.5	0.4
U.S.S.R.	11.645	12,050	3.8	0.7
				

Source: PULP & PAPER WEEK/Aug. '84

Table II-12 CAPACITY INCREASES TO 1988: WORLD PAPER AND PAPERBOARD (3)

C				· · · · · · · · · · · · · · · · · · ·
	Capa	city	Average	Annual
	(1,00	0 MT)	Increa	se (%)
	1983	1988	1978-83	1983-88
		Control of the last of the las	***************************************	
World Total	205,933	224,079	1.9%	1.78
Dev'ed Mkt. Economic	161,377	174,338	1.7	1.6
Northern America	81,219	85,200	1.9	1.0
Japan	23,198	24,908	1.9	1.4
Western Europe	52,770	59,148	1.1	2.3
Oceania	2,509	2,807	1.8	2.3
Others	1,681	2,275	6.6	6.2
Dev'ing Mkt. Economic	18,783	22,583	6.6	3.8
Africa	924	1,115	5.4	3.8
Latin America	10,240	12,659	5.3	4.3
Asia	7,619	8,809	8.8	2.9
Centrally Planned	11.5			
Economic	25,773	27,158	0.1	1.1
Asia	5,837	6,284	-7.7	1.5
Eastern Europe	6,436	6,874	1.8	1.3
U.S.S.R.	13,500	14,000	4.2	0.7

Source: PULP & PAPER WEEK/Aug. '84

Table II-13 NUMBER OF PLANT AND CAPACITY OF PAPER AND PAPERBOARD

(Unit of Yearly cap.: 1,000 HT)

	1 9	7 8	1 9	7 9	1979- Diffe	-1978 erence	19	80	1980- Diff	-1979 erance	19	81_	1981- Diffe	1980 rence	19	8 2		-1981 erence	19	8 3	1983- Diffe			-1978 erence
	No.	Yearly	No.	Yearly	No.	Yearly	No.	Yearly	No.	Yearly	No.	Yearly	No.	Yearly	No.	Yearly	No.	Yearly	No.	Yearly	No.	Yearly	No.	Yearly
	Factory	Cep.	Factory	Csp.	Fectory	Cap.	Factory	Cep.	Factory	Cap.	Factory	Cap.	Factory	Cep.	Factory	Cap.	Factory	Свр.	Factory	Cep.	Fectory	Cap.	<u>Factory</u>	Cap.
World Total	4,649	182,093	4,462	185,343	-187	3,250	5,590	193,485	1,128	8,142	6,007	201,470	417	7,985	5,971	198,528	-36	-2,942	5,991	198,072	20	-456	1,342	15,979
EĊ	1,166	28,223	1,118	28,420	-48	197	1,100	28,658	-18	238	1,047	28,804	-53	148	1,010	27,385	-37	-1,421	981	27,405	-29	-20	-185	-818
Scandinavia	143	15,065	141	15,160	-2	95	138	15,425	-3	265	127	15,535	-11	110	126	15,740	-1	205	125	16,470	-1	730	-18	1,405
Other W. Europe	433	5,655	424	5,905	-9	250	416	6,246	8	341	385	6,699	-31	453	367	6,846	-18	147	356	6,945	-11	99	-77	1,290
East Europ	367	16,233	367	17,612	0	1,379	368	16,477	1	1,135	291	16,573	-77	96	292	15,594	. 1	-979	290	16,029	-2	435	-77	-204
North America	835	78,603	775	77,386	-60	-1,217	792	76,892	17	-494	724	81,607	68	4,715	691	78,952	-33	-2,655	688	79,639	-3	687	-147	1,036
Asis	1,230	27,760	1,155	28,944	-75	1,184	1,258	30,352	103	1,408	1,317	31,817	59	1,465	1,357	32,184	40	367	1,414	33,155	57	971	184	5,395
Oceania	22	1,450	22	2,295	0	845	22	2,495	0	200	22	2,528	0	33	21	2,546	-1	18	22	2,547	1	1	0	1,097
Letin America	394	7,603	399	7,812	5	209	435	9,548	36	1,736	425	9,617	-10	69	430	10,181	5	564	438	10,490	8	309	44	2,887
Africa	59	1,501	61	1,809	2	308	61	1,892	G	83	69	1,988	8	9 6	77	2,250	8	262	77	2,112	0	-138	18	611

Note: Excluding China in Asia Area Source: PPI

Table II-14 NUMBER PLANT AND CAPACITY OF PULP

(Unit of Yearly cap.: 1,000 MT)

	1 9	7.8	1 9	79	1979- Diffe	1978 rence	19	8 0	1980- Diffe		19	8 1	1981- Diffe	1980 rence	1 9	8 2	1982- Diffe	1981 rence	1 9	8 3	1983- Diffe	1982 Fence		-1978 erence
		Yearly	No. Factory	Yearly	No. Factory	Yearly Cap.	No. Fectory	Yearly Cep.	No. Factory	Yearly Cap.	No. Factory	Yearly Cap.	No. Factory	Yearly Cap.	No. Factory	Yearly Cap.	No. Factory	Yearly Cap.	No. Factory	Yearly Cap.	No. Factory	Yearly Cap.	No. Fectory	Yearly Cap.
World Total	1,576	142,445	1,666	143,882	90	1,437	1,287	146,663	-379	2,781	1,449	154,434	162	7,771	1,426	151,974	-23	-2,460	1,392	147,941	-34	-4,033	-184	5,496
EC	185	7,113	170	7,040	-15	-73	159	6,973	-11	-64	138	6,662	-21	-311	115	6,580	-23	-82	109	6,245	-6	-335	-76	868
Scandinavia	168	21,655	161	20,780	-7	-875	157	20,835	-4	55	143	20,080	-14	- 755	137	20,175	-6	95	135	20,485	-2	310	-33	-1,170
Other W. Europe	87	3,925	116	3,935	29	10	124	4,120	8	185	70	4,328	-54	208	68	4,348	-2	20	61	4,159	- 7	-189	-26	234
East Europ	185	14,200	184	15,428	-1	1,228	182	13,954	-2	-1,474	167	14,005	-15	51	163	12,466	-4	-1,539	164	13,646	1	1,188	-21	-554
North America	390	73,192	. 459	71,224	69	-1,968	262	70,401	-197	-823	284	76,080	22	5,679	227	74,131	-57	-1,949	229	74,404	2	273	-161	1,212
Asia	376	14,865	400	16,077	24	1,212	241	15,213	-159	-864	470	16,758	229	1,545	535	16,657	65	-101	515	15,016	-20	-1,641	139	151
Oceania	21	750	21	2,171	0	1,421	21	2,221	0	50	22	2,260	1	39	26	2,376	4	116	24	2,467	-2	91	3	1,717
Letin America	132	5,695	128	5,520	-4	-175	. 117	7,034	-11	1,514	126	6,764	9	-270	127	7,347	1	583	123	7,455	-4	708	-9	1,760
Africa	32	1,230	27	1,707	-5	477	24	1,912	-3	205	29	1,897	5	-15	28	1,924	-1	27	32	1,864	4	-60	0	634

Note: Excluding China in Asia Area Source: PPI

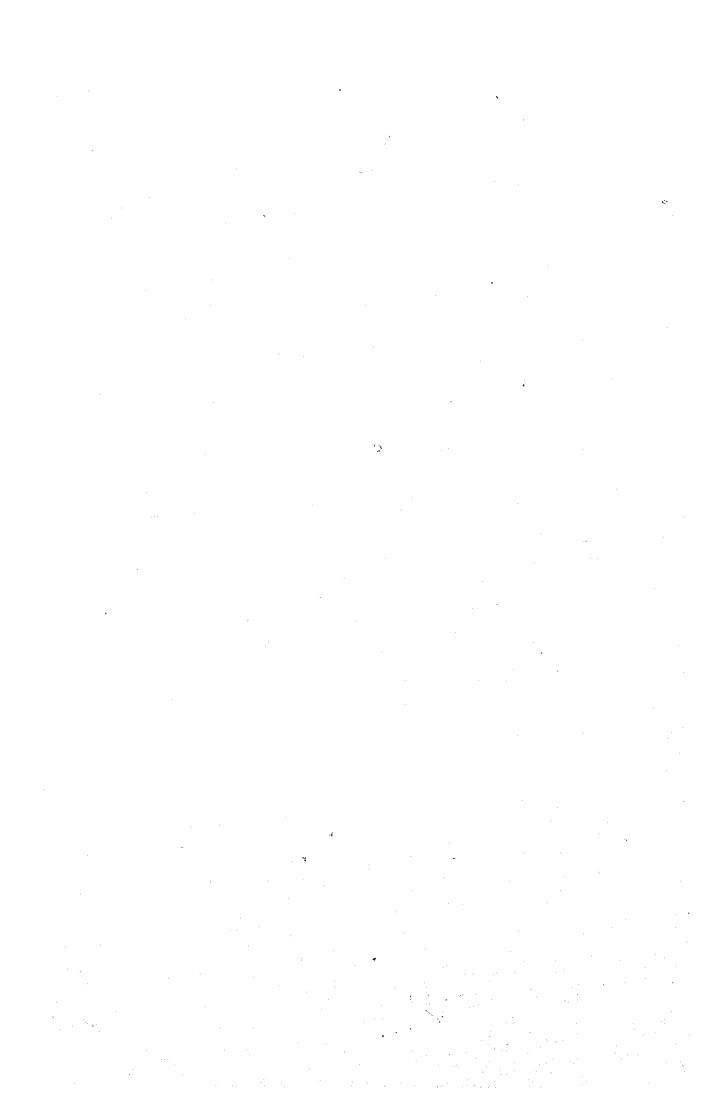


Table II-15 PRODUCTION CAPACITY/PRODUCTION/OPERATIONAL RATE

America America Appendentica Appendentica			1978			1979		•	1980			1981		İ	1982			1983	
Capacity tion Rate Capacity tion Rate Capacity tion Rate though T3,603 71,401 0.91 77,386 72,370 0.94 76,892 70,235 0.91 73,192 55,291 0.76 71,224 64,819 0.91 70,401 65,812 0.93 though 15,065 12,072 0.80 15,160 13,418 0.89 15,425 13,474 0.87			Produce	Opera-		Produc	Opera-		Produc	Opera-		Proden	Opera-		Produc	Cpera-		750010	Opera-
cboard 78,603 71,401 0.91 77,386 72,370 0.94 76,892 70,235 0.91 73,192 55,291 0.76 71,224 64,819 0.91 70,401 65,812 0.93 0.93 13,192 55,291 0.76 71,224 64,819 0.91 70,401 65,812 0.93 0.93 15,065 12,072 0.80 15,160 13,428 0.89 15,425 13,474 0.87		Capacity	tion	Rate		tion	Rate	Cepacity	tion		Capacity	tion	Rate	Cepacity	tion	Rate	Capacity	tion	Rate
Perboard 78,603 71,401 0.91 77,386 72,370 0.94 76,892 70,235 0.91 73,192 55,291 0.76 71,224 64,819 0.91 70,401 65,812 0.93 rerboard 15,065 12,072 0.80 15,160 13,418 0.89 15,425 13,474 0.87	orth America				•														
73,192 55,291 0.76 71,224 64,819 0.91 70,401 65,812 0.93 oerboard 15,065 12,072 0.80 15,160 13,418 0.89 15,425 13,474 0.87	Paper & Paperboard	78,603	71,401			72,370	0.94	76,892	70,235	0.91	81,607	71,295	0.87	78,952	66,539	0.84	79,639	72,202	0.91
rerboard 15,065 12,072 0.80 15,160 13,418 0.89 15,425 13,474 0.87	Pulp	73,192	55,291	92.0	71,224	64,819	0.91	70,401	65,812	0.93	76,080	66,432	0.87	74,131	61,774	0.83	74,404	66,882	0.90
& Peperboard 15,065 12,072 0.80 15,160 13,418 0.89 15,425 13,474 0.87	candinavia							٠.											
	Paper & Paperboard	15,065	12,072	0.80		13,418	68.0	15,425	13,474	0.87	15,535	13,639	0.88	15,740	13,127	0.83	16,470	14,106	0.86
21,655 16,019 0.74 20,780 17,649 0.85 20,835 14,427 0.69	Pulp	21,655	16,019	0.74	20,780	17,649	0.85	20,835	14,427	69.0	Z0,080	17,468	0.87	20,175	15,942	0.79	20,485	17,471	0.85

Source: PPI

(Unit: 1,000 MT) PRODUCTION/IMPORT/EXPORT/APPARENT CONSUMPTION OF PAPER AND PAPERBOARD TOTAL IN THE MORLD BY REGION (1) Table II-16

						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
							Sh	Share (%)		Average Growth Rate (%/y)	Growt8 e (%/y)
Region	Item	1972	1977	1980	1981	1982	1972	1877	1982	1977/72 1982/77	1982/7
World Total	Produc. Import	137,582 25,175	151,895	172,301	172,471 33,804	165,360 33,498	100.0	100.0	106.0	2.22	
	Export Consump.	25, 247 137, 510	28, 293 151, 335	35,088 170.787	35, 559 170, 716	33, 767 165, 091	180.0 106.0	180.0 106.8	100. p 100. 0	1.9	.
93	Produc.	21,415	22,634	24,606	24,205	23,341	15.6	14.9	14.1	00	6.6
	Export	2,926	4,071	5,347	5,631	5,651	11.6	14.4	16.7	8.8	ω.
	Consump.	28,897 74	29,969 76	32,907 75	32,675 74	31,714	21.0	19.8	19.2	9.7	
Scandinavian 3		10,861	10,866	13,474	13, 722	13,128	7.9	7.2	5	0.0	က်
	Import	241	292	399	10 645	18 275	 	20 7	3 3	თ <u>ლ</u>	7.7
	Wet Inc.	-8.648	-8, 198	-10.143	-10,232	-8.951	2	2		3	÷
	Consump. SS-Rate	2,813 386	2,768	3,331	3,490	3,177	2.0	∞ 	1.9	-0-3	2.8
Other W. Europe	Produc.	3, 798	4,810	5,559	5,665	5,764	2.8	3.2	3.5	4.8	<u>ښ</u>
	Import	697	810	965	1,094	1,141	တ လ	6.2	.4	ر د د	
	Export	728	1,212	1,428	1,696	1,716	2.9	 	 	10.7	~;
	Consume	3, 767	4.408 A.408	5. 196	5.063	5, 189	2.7	6	67	6	er
17.	SS-Rate	101	109	109	112	111				,	
Total W. Europe	Produc.	36, 074	38,310	43,639		42,233	26.2	25.2	25.5	1.2	જાં
	Import	11,346	12,508	15,012		15,589	45.1	45.1	46.5	2.8	4
	Export	11,943	13,673	17,317	17,973	17,742	47.3	2 α	52.5	2.7	rų.
	Net Imp.	786-	-1,165	-2,385		-2,153	e L	d			•
	Consump. SS-Rate	33,417	37, 145 183	41,334	106	40,080 105	8.62	6.42	. 84.3	n ::	1.5
Eastern Europe	i	12,260	15,348	15,390	15,569	15,630	8.9	10.1	9.5	4.6	6
	Export	1,527	733	2, 133	2,084	2,089	- C	o	D 10	. Q	7.0
	Net Imp.	258	102	344	246	256	;	;	;		۱.
	Consump.	12,518	15,450	15,734	15,815	15,886	9.1	10.2	9.6	4.3	ė.
		:		i '	,	-					

PRODUCTION/IMPORT/EXPORT/APPARENT CONSUMPTION OF PAPER AND PAPERBOARD TOTAL IN THE WORLD BY REGION (2) Table II-16

							Sh	Share (%)		Average Growth Rate (%/y)	Growth (%/y)
Region	Item	1972	1977	1980	1981	1982	1972	1977	1982 1	1977/72 1982/77	982/77
North America	Produc. Import Export Net Imp. Consump. SS-Rate	62,859 7,143 10,981 -3,838 59,021	64,946 7,017 11,232 -4,215 60,731	72,847 8,118 13,675 -5,557 67,290	74,066 7,595 13,134 -5,539 68,527	67,471 7,303 11,931 -4,628 62,843	45.7 28.4 43.5 42.9	42.8 25.3 39.7 46.1	46.8 21.8 35.3 38.1	0.7 0.4 0.5 0.6	0.8 0.8 1.2 0.7
Latin America	Produc. Import Export Net imp. Consump.	1,805 1,805 1,695 5,941	5,536 2,066 222 1,844 7,380 75	7,727 2,343 410 1,933 9,660 88	7,434 2,435 575 1,860 9,294 80	7,697 2,386 476 1,910 9,607 80	3.1	3.6 4.9 6.8	45-4	5.4 2.7 15.1 4.4	6.8 16.5 5.4
A51.a	Produc. import Export Net Imp. Consump. SS-Rate	19,533 2,219 695 1,524 21,057	24, 491 2, 832 939 1, 893 26, 384	28, 986 4, 253 1, 244 3, 609 31, 995 91	27, 948 4, 246 1, 318 2, 928 30, 876 91	28,454 4,256 1,170 3,086 31,540	2.88 8.25 5.38 8.39	16.1 10.2 3.3 17.4	17.2 12.7 3.5 19.1	4.00 6.20 6.20 6.20	ად.4. ა. ლ.ბ.ზ. ი.
Oceania	Produc. Import Export Net Imp. Consump. SS-Rate	1,546 505 202 303 1,849 84	1,890 660 302 358 2,248 2,248	2,104 751 418 333 2,437 86	2,151 748 447 401 301 2,452 88	2, 197 807 340 467 2, 664 83	1.1 2.0 0.8 1.3	1.2 2.4 1.1	1.3 2.4 1.0 1.6	8.5 8.4 4.0	3.1 2.4 3.5
Africa	Produc. Maport Export Net Imp. Consump. SS-Rate	1,064 630 47 583 1,647 65	1,374 815 193 622 1,996 69	1,608 965 235 736 2,338 69	1, 712 1,088 2,74 814 2,526 68	1,678 1,068 276 2,470 68	8 5 5 5	0.9 2.9 0.7 1.3	3.2 1.8 1.5	32 57.73 33 6.33 3.9	400 4

Source: Yearbook of Forest Products, 1982 (FAQ)
Notes: 1. SS-Rate: Self-sufficiency Rate (%)
2. Includes Newsprint, Printing and Writing Paper and Other Paper and Paperboard.

Table II-17 PRODUCTION/IMPORT/EXPORT/APPARENT CONSUMPTION OF TOTAL WOODPULP
IN THE WORLD BY REGION (1)
(Unit: I,000 MT)

							Sh	Share (%)		Average Rate	e Growth te (%/y)
Region	ltem	1972	1977	1980	1981	1982	1972	1977	1982	1977/72	1982/77
dorld Total	Produc.	108,018	116,695	126,031	126,609	120,517	100.0	100.0	100.0	1.6	0.6
	moort	16, 361	16,691	20.579	19,562	18,093	100	100.0	100.0	4	9.
	Export	15,455	17,105	21.222	20,236	18,477	100.0	100.8	108.0	20.0	-1
	Consumb.	107,923	116,281	125,388	125,935	120,133	100.0	101:0	100.0	1.5	0.7
ည္ဆ	Produce	5,601	5.522		5.323	5,348	5.2	4.7	4.4	-8.3	9.0-
	Import	8, 165	7,705	9,103	8,627	7,765	49.9	46.2	42.9	-1.2	8.2
	Export	643	508		201	492	2.7	e e	2.7	87	9
	Net Imp.	7,722	V. 197	8,519	8,126	7,273	·	:			
	Consump.	13,323	12,719	13.974	13,449	12,621	12.3	10.9	10.5	-6.9	-0.2
	SS-Rate	42	43	33	40	43					
Scandinavian 3	Produc.	16,590	14,411	17,427	7.7	15,943	15.4	12.3	13.2	-2.8	2.1
		251	226	438		371	1.5	7.	2.1	-2.1	10.4
	Export	6,130	4,968	5,520	ιώ	4,439	37.3	29.0	24.8	-4.1	-2.2
	Net Imp.	-5,879	-4,742	-5.082	1	-4.068					
	Consumb.	10,711	9,669	12,345		11,875	6.6	დ ლ	9.9	-2.0	4.2
	SS-Rate	155	149	141		134	1				
Other W. Europe	Produc.	2,418	2,951	3,421	3,483	3,440	2.2	2.5	2.9	4.1	3.1
	Import	694	763	808	774	784	4.2	4.6	4.3	1.9	
	Export	265	547	913	929	888	3.6	3.2	8	-1.6	18.2
	Net Imp.	102	216	-105		-185					•
	Consump. SS-Rate	2,520 96	3, 167 93	3,316 103	3,328 105	3,335 103	2	2.1	% %	7.4	0
Contract to Contract to	D-c-d	003 70	700 66	686 36	000 30	94.791	0 66	10 5	7 00	7 .	,
מלסוחתיש ופזס	_	200	700.00	200	007.0	100.00	100) r	2 6	* 0	4 6
	napor c	3,110	0,00	7 0 17	3, (30	0000	- u		5 U) r
	Not I'm	277	0,065	600	9,00	100	2	3		7	5
1	Contraction of the contraction o	755 96	97.75	20,00	20 502	27.831	2 76	92.0	92.9	=	,
	SS-Rate	88	96	68	68	88	,		3	;	•
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Desdisc	10 552	19 106	12 825	12 150	12 203	0	11 2		7 7	6
משובנו וישוגע		200	10110			200) -	1		* 1	
	Inport	666	1,311	1,439	1,323	907.1	- · ·		- r	00	. v
	Not I'm	900	0 6	4 000	1000	168	7.5	-	2	- 3	.
:	Concessor.	10.960	13, 720	13, 481	13. 477	13.471	2	-	11.2	-	7 11-
	SS-Rate	97	98	97	86	66) •		<u>:</u>	\$

Table II-17 PRODUCTION/IMPORT/EXPORT/APPARENT CONSUMPTION OF TOTAL WOODPULP IN THE WORLD BY REGION (2)

							Sh	Share (%)	-	Rate	(%/y)
Region	12 0) 11	1972	1977	1980	1981	1982	1972	1977	1982	1977/72 1982/77	982/77
North America	Produc.	57,321	62, 255	66,124	66,880	62, 151	53.1	53.3	51.6	1.7	0.0
	Import	3,455	3.545	3, 794	3,824	3,442	21.1	21.2	19.0	3	-0.6
	Export	7.581	8.509	10.636	19.074	9, 183	46.1	49.7	49.7	2	1.5
	Net Inc	-4.126	-4.964	-6.842	-6.250	-5.741				;	
	Consumb	53, 195	57, 291	59.282	60,630	56,410	49.3	49.3	47.0	.5	-0.3
	SS-Rate	108	109	112	110	110					
Latin America	Produc.	1.977	3, 133	4.652	4.516	4.574	8.1	2.7	83	9.6	7.9
	Import	787	501	753	784	756	4	- -	2.2	-6.7	8
	Export	262	433	1,306	1,362	1,287	9	2	. 0	10.6	24.3
	Net lap	445	68	-553	-578	-531					
	Consumb	2,422	3,201	4,099	3,938	4,043	2:5	8,	3.4	5	4.8
	SS-Rate	83	86	114	115	113					
Asia	Produc	11.391	12.328	12.459	12.184	12, 185	10.5	18.6	10.1	1.6	-0.2
	Boort	1.702	2,143	3.654	3.275	3,185	10.4	12.8	17.6	7	8
	Export	102	182	134	182	138	9.0	7.	0.3	12.3	-51
	Net Imp.	1,600	1,961	3,520	3, 093	3,047					
٠	Consumb.	12,991	14,289	15,979	15,277	15,232	12.0	12.3	12.3	<u></u>	
	SS-Rate	88	98	78	80	80					
Oceania	Produc.	1,127	1,712	1,819	1,908	1,887	1.0	1.5	1.6	8.7	2.0
	Import	247	282	285	287	264	1.5		 	2.7	-1.3
	Export	114	452	475	518	421	9.7	2.6	د. د.	31.1	-1.4
	Net imp.	133	-170	-190	-231	-157					
-	Consumb.	1,260	1.542	1,629	1,677	1,730	1.2	 63	1.4	4.1	2.3
	SS-Rate	တ္ထ	111	112	114	109					
ifrica	Produc.	941	1,188	1,649	1,682	1,686	6.9	1.0	1.4	4.8	7.3
	Import	145	216	307	273	268	ъ. Э	1.3	 	დ ლ	4.4
-	Export	544	719	670	543	540		4.2	2.9	5.7	-5.6
	Net Imp.	-399	-503	-363	-270	-272					
	Consumb.	542	685	1,286	1.412	1,414	0.5	9.6	1.2	8	15.6

Source: Yearbook of Forest Products, 1982 (FAO) Note: SS-Rate: Self-sufficiency Rate (%)

Table II-18 PRODUCTION/IMPORT/EXPORT/APPARENT CONSUMPTION OF PULPHGOD IN THE WORLD BY REGION (1)

			·				Sh	Share (%)		Average Rate	Growth (X/y)
Region] tem	1972	1977	1980	1981	1982	1972	1977	1982 1	1977/72	1982/77
forld Total	Produc. Import Export Consump.	303,542 22,879 23,071 303,350	315,612 36,158 35,121 316,649	371,629 42,329 41,101 372,857	382,395 42,384 39,939 384,840	368,483 36,585 34,712 370,356	100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0	8.00 8.00 9.00	3.5.2 3.2.2
ວສ	Produc. Import Export Net imp. Consump.	16, 487 5, 438 2, 384 3, 054 19, 541	21,648 6,645 5,060 1,585 23,233	22,517 7,664 5,849 1,815 24,332 24,332	21, 618 6, 895 6, 552 6, 552 21, 951	22, 025 6, 660 6, 761 -101 21, 924	23.88 18.38 6.4	6.9 18.4 14.4 7.3	0.00 TO 0.00 T	5.6 4.1 16.2 3.5	6.0
Scandinavian 3	Produc. Import Export Net Imp. Consump.	49,541 4,672 3,078 1,594 51,135	37, 392 7, 605 1, 772 5, 833 43, 225 87	45,515 8,457 3,411 5,046 50,561	49, 265 13, 909 3, 681 16, 228 59, 493	46,435 10,187 2,276 7,911 54,346	16.3 20.4 13.3 16.9	11.8 21.0 5.0 5.0	12.6 27.8 6.6 14.7	10.2	4.050 4 20.00 F.
Other W. Europe	Produc. Import Export Net imp. Consump.	9.654 1,048 419 629 10,283	12,941 1,481 462 1,019 13,960	14,253 3,240 1,110 2,130 16,383	14, 016 2, 463 636 1, 777 15, 793 89	13,947 2,233 667 1,566 15,513	3.2 4.6	4.1	3.8 6.1 1.9 4.2	6.8 2.0 6.3	7.5 7.6 2.1
Total W.Europe	Produc. Import Export Net imp. Consump. SS-Rate	75,682 11,158 5,881 5,277 80,959	71,981 15,731 7,294 8,437 80,418	82,285 19,361 10,370 8,991 91,276	84,889 23,267 10,919 12,348 97,237	82,407 19,080 9,704 9,376 91,783	24.9 48.8 25.5 26.7	22.8 43.5 20.8 25.4	22.4 52.2 28.0 24.8	-1.8 7.1 4.4	5.9
Eastern Europe	Produc. Import Export Net Imp. Consump. SS-Rate	48,728 2,121 8,229 -6,108 42,620	58,490 2,426 12,436 -10,018 48,480	57,495 3,130 12,510 -9,380 48,115	57,348 2,902 12,642 -9,740 47,608	58,925 2,755 10,812 -8,057 50,868	16.1 9.3 35.7 14.0	18.5 6.7 35.4 15.3	16.0 7.5 31.1 13.7	8 8 8 7 4 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	2.6 -2.8 1.0

Table II-18 PRODUCTION/IMPORT/EXPORT/APPARENT CONSUMPTION OF PULPHOOD IN THE WORLD BY REGION (2)

		٠				i	Sh	Share (%)		Average Rate	(%/y)
Region	Item	1972	1977	1980	1881	1982	1972	1977	1982	1977/72 1982/77	177/2861
North America	Produc.	142,366	136, 788	166,323	175,915	153,620	46.9	43.3	44.4	-0.8	3.6
	Import	2,081	2,273	2,249	2,348	2,000	9.1	6.3	5.5	1.8	-2.5
	Export	6, 768	8.710	9,887	8,382	6,605	29.3	24.8	19.8	5.2	-5.4
	Net Imp.	-4,687	-6,437	-7.638	-6,034	-4,605				1	
	Consump.	137,679	130,351	158,685	169,881	159,015	45.4	41.2	42.9	-1:1	4.1
	SS-Kate	103	105	185	104	103					
Latin America	Produc.	9,056	13,667	29,264	29,076	28,697	3.0	3	 00	8	16.8
	Import	5	0	35	24	24	0.0	0.0		1	1
	Export	382	53	53	53	53	1.7	0.5	0.2	-32.6	0,0
	Net lap.	-385	-53	-18	-29	62-					
	Consump.	8,674	13,614	29,246	29,047	28,668	2.9	4.3	<u></u>	9.4	16.1
	SS-Rate	104	100	100	100	100					
Asia	Produc.	19,519	19,827	20,305	18,977	19, 285	6.4	6.3	5.2	9.3	-0.6
	Import	7,514	15,728	17,553	13,843	12,726	32.8	43.5	34.8	15.9	-4,
	Export	763	1,033	1,003	1.000	1,000	ლ	2.9	5.9	6.2	-0. 9.
	Net Imp.	6,751	14,695	16,550	12,843	11,726					
	Consump.	26,270	34,522	36,855	31,820	31,011	.~ ∞	19.9	∞.	S. O	-2.1
	SS-Rate	74	21	22	99	29					
Oceania	Produc.	3,540	8,767	10,178	10,395	9.717	1.2	2.8	2.6	19.2	2.1
	Import	8	0	0	-	.	0.0	0.0	e. 0	•	.1
	Export	1,047	5,497	7,195	6,771	6,365	4.5	15.7	18.3	39.3	3.0
	Wet Imp.	-1,047	-5,497	-7,195	-6,771	-6,365			•		
	Consump.	2,593	3,270	2,983	3,624	3,352	0.9	1.0	9.9	4.7	6.5
	SS-Rate	140	268	341	287	290				İ	
Africa	Produc.	4,551	6, 092	5,779	5, 795	5,832	1.5	1.9	1.6	6.8	6.0-
	Import	ι¢	-	0	0	9	0.0	0.0	0.3	1	1
	Export	-	100	84	173	173	0.0	6.3	0.5	151.2	11.6
	Net Imp.	**	-100	-84	-173	-173				,	,
	Consump.	4,555	5,992	5,695	5.622	5,659	.5	1.9	1.5	ທີ່	-1.1
		•	•								

Source: Yearbook of Forest Products, 1982 (FAO) Note: SS-Rate: Self-sufficiency Rate (%)

WORLD SUPPLY/DEMAND OF PAPER AND PAPERBOARD Table II-19 BY KIND IN 1972 AND 1982

						Ave.Growth
						Rate during
			Share		Share	1982/72
		1972	(%)	1982	(%)	(%/y)
Paper & Paper-	Produc.	137,582	100.0	165,360	100.0	1.9
board Total	Import	25, 175	100.0	33,498	100.0	2.9
	Export	25,247	100.0	33,767	100.0	3.0
4	Consump.	137,510	100.0	165,091	100.0	1.8
Newsprint	Produc.	21,678	15.8	25,966	15.7	1.8
	lmport	11,175	44.4	12,409	37.0	1.1
	Export	10,752	42.6	11,559	34.2	0.7
	Consump.	22,101	16.1	26,816	16.2	2.0
Printing &	Produc.	29,733	21.6	42,103	25.5	3.5
Writing Paper	Import	3,655	14.5	7,108	21.2	6.9
	Export	4,268	16.9	7,786	23.1	6.2
	Consump.	29,120	21.2	41,425	25.1	3.6
Other Paper &	Produc.	86,172	62.6	97,292	58.8	1.2
Paperboard	Import	10,346	41.1	13,981	41.7	3.1
	Export	10,227	40.5	14,422	42.7	3.5
1.	Consump.	86,291	62.8	96,851	58.7	1.2
Household &	Produc.	6,863	5.0	8,817	5.3	2.5
Sanitary Paper		253	1.0	335	1.0	2.8
• •	Export	272	1.1	383	1.1	3.5
	Consump.	6,844	5.0	8,769	5.3	2.5
Wrapping &	Produc.	59,438	43.2	68.294	41.3	1.4
Packing Paper	Import	5,230	20.8	8,442	25.2	4.9
& Paperboard	Export	4,808	19.0	10,083	29.9	7.7
•	Consump.	59,860	43.5	66.653	40.4	1.1
Paper & Paper-	Produc.	10,453	7.6	8.696	5.3	-1.8
board NES	Import	2,653	10.5	4,568	13.6	5.6
	Export	1,503	6.0	3,703	11.0	9.4
	Consump.	11,603	8.4	9,561	5.8	-1.9

[&]quot;Paper & Paperboard Total" includes "Newsprint", "Printing & Writing Paper" and "Other Paper & Paperboard".
"Other Paper & Paperboard" includes "Household & Sanitary Notes: 1.

Sources: Yearbook of Forest Products, 1972-1982

Table II-20 WORLD SUPPLY/DEMAND OF WOODPULP BY KIND IN 1972 AND 1982

		1972	Share (%)	1982	Share (%)	Ave.Growth Rate during 1982/72 (%/y)
Woodpulp Total	Produc.	108,018	100.0	120,517	100.0	1,1
-	Import	16,361	100.0	18,093	100.0	1.0
	Export	16,456	100.0	18,477	100.0	1.2
	Consump.	107,923	100.0	120,133	100.0	1.1
Mechanical	Produc.	24,330	22.5	26,566	22.0	0.9
Woodpulp	Import	1.245	7.6	1,090	6.0	-1.3
	Export	1,143	6.9	1,004	5.4	-1.3
·	Consump.	24,432	22.6	26,652	22.2	0.9
Semi-chemical	Produc.	7,953	7.4	6,652	5.5	-1.8
Woodpulp	Import	132	0.8	150	0.8	1.3
	Export	128	0.8	95	0.5	-2.9
:	Consump.	7,957	7.4	6.707	5.6	-1.7
Chemical Wood-	Produc.	70,718	65.5	82,976	68.9	1.6
pulp	Import	13,505	82.5	15,650	86.5	1.5
	Export	13.309	80.9	16,003	86.6	1.9
·	Consump.	70,914	65.7	82,623	-68.8	1.5
Unbleached	Produc.	6,734	6.2	5,333	4.4	-2.3
Sulphite Pulp	Import	642	3.9	445	2.5	-3.6
	Export	882	5.4	505	2.7	-5.4
	Consump.	6,494	6.0	5,273	4.4	-2.1
Bleached Sul-	Produc.	5,635	5.2	4,298	3.6	-2.7
phite Pulp	Import	2,243	13.7	2,025	11.2	-1.0
	Export	1,806	11.0	1,282	6.9	-3.4
	Consump.	6.072	5.6	5.041	4.2	-1.8
Unbleached	Produc.	29,132	27.0	31.376	26.0	0.7
Sulphate Pulp	Import	1.622	9.9	1,353	7.5	-1.8
	Export	1,914	11.6	2,131	11.5	1.1
	Consump.	28,840	26.7	30,598	25.5	0.6
Bleached Sul-	Produc.	28,114	26.0	40,084	33.3	3.6
phate Pulp	Import	8.109	49.6	11,127	61.5	3.2
	Export	8.322	50.6	12,062	65.3	3.8
	Consump.	27,901	25.9	39,149	32.6	3.4
Dissolving	Produc.	5,018	4.6	4.324	3.6	
Hoodpulp	Import	1,480	9.0	1,204	6.7	-2.0
	Export	1,876	11.4	1.377	7.5	
	Consump.	4.622	4.3	4, 151	3.5	-1.1
Other Fiber	Produc.	6,010	5.6	8,626	7.2	
Pulp	Import	147	0.9	193	1.1	2.8
	Export	176	1.1	139	0.8	
	Consump.	5,981	5.5	8,680	7.2	3.8

Notes: 1. Woodpulp Total Includes Mechanical Pulp, Semi-Chemical Pulp, Chemical Pulp and Dissolving Pulp.

Source: Yearbook of Forest Products, 1977,1982 (FAO)

^{2.} Chemical Woodpulp Includes Unbleached Sulphite Pulp, Bleached Sulphite Pulp, Unbleached Sulphate Pulp, Bleached Sulphate Pulp and Other Chemical Pulp.

Table II-21 RELATION BETWEEN ECONOMIC SITUATION AND PAPER/PULP INDUSTRY

Pulp (BKP)	170	17	172	773	47,	5	92,	17	178	179	180	181	182	. 83	98.	*85
Quantity Export from Grazil1) Export from U.S.A.1)	; ;	919	, 1,045	14,117	1,389	1,377	12, 1388	19	135	1,578	766	762	738 2,196	955	i i	
<pre>Import to U.S.A.1) Export from N.W.1)</pre>	1 I	2,078	2,269	2,482	2,494	2,029	2,423 2,465	2,474	2,670	2,869	2,762	2,765 3,200	2,576	1 1	1 1	1 1
Exchange Rate of Sweden Krona to US\$ Change Rate in Index (1971=100)	1 1	4,858	4,743	4,588	4,081 84.0	4,386 90.3	4,126 84.9	4,670 96.1	4,295 88.4	4,146 85.3	90.0	5,571	7,294 150.1	8,001 164,7)	8,802	ŀ
Pulp Constant Price Indexes 2)4)	104	103	85	107	142	133	130	105	112	116	133	119	104	90	124	t
Paper Constant Price Indexes 3)4)	96	8	8	\$6	92	93	75		93	25	8	06	8	78	16	1
Market Pulp Inventories1)4)	1	1	t	1,190	550	1,175	2,430	3,000	3,800	1,000	730	1,100	1,680	1,560	1,000	1,750
Rate of Pulp Consump. to Paper MI/MI	1	1	0.78	0.77	0.79	0.78	0.78	77.0	0.77	0.72	0.73	0.73	0.73	•	1	1
Production1)																٠.
Pulp Difference Rate(%)	1 1	102,147	108,018 5.7	114,311	117,851	102,932	115,189	116,695	121,502	123,504	126,031 2.0	126,609	1 1	1 1	1 1	' '
Paper and Paperboard Difference Rate(%) Capacity1) Capacity Growth Rate	- - 1.61-170 3.6%	128,557	137,582	147,118 6.9 160,700	149,356 1.5 166,800	130,709 -12.5 175,002	147,265	3.1	158,178 4.1 187,600	170,447 7.6 192,200	172,301 1.1 198,001 '71-'80 2.1%	172,471 0.1	165, X60	205,900 +81'33	1 1 1	1 1 1
GNP World U.S.A. in 1975 ⁵⁾ U.S.A. GDP Growth Rate(%)	3,895	3,594 1,010 -25.8	5,418 1,478 46.3	5,902 1,560 5.5	6,039 1,550 -0.6	6,152	6,471	6,760 1,701 5.4	7,201 1,778 4.5	7,445	7,586	7,711	7,726	3.7	7.3	4

Notes: 1) Unit: 1,000 MT
2) Price of 1972
3) Price of 1967
4) Prices in Quarter of Each Year
5) Billion US\$

Source: PPI

PROJECTION OF PAPER & PAPERBOARD PRODUCTION AND WOODPULP CONSUMPTION IN THE WORLD Table II-22

Year	GI in 1975 US (billion	DP :	Paper Paperbos onsumpti (1,000 M	& ird on IT)	Pape Paperbo Product (1,000	r & ard ion MT)	Const	oodg Jogni J	oulp ion MT)	
Actual				*****						
1072	e 4:		137 6	10	122	ean		107	077	
1972 1973	5,41 5,90		137,5 146,6		137, 147,				923 836	
1974	6,0	39	148,3	31	149,	356		117	586	
1975 1976	6,15 6,41		128,2 146,7		130, 147,				,537 ,861	
1977	6,76		151,3		151,	895		116,	281	
1978 1979	7,20 7,44		158,1 169,2		158, 170,				,107 ,302	
1980	7,58	86	170,7			301			388	
1981	7,7	23	170,7	116	172,	471			935	
1982 	7,75	54	165,0		, 165 	360		120,	,133	
Forecast										
1988	9,2	7-2	188,1	46	188,	146		136.	406	
1990	9,90	59	195,6	28	195,	628		140	,852	
1995 2000	11,9	48 21	212,3 224.8	304 386	212, 224,	304 886		,	,736 ,420	
										
Annual Ave Growth Rat										
	=====									
1988/1982	3.6	03	2.	20	-	.18		•	2.14	
1000/1000	. 2	c n								
1990/1988 1990/1982		69	1.	97	1	.97		-	1.62 2.01	
1990/1982 1995/1990	3.1	69 19 69	1. 2. 1.	.97 .14 .65	1 2 1	.97 .12 .65		. 1	1.62 2.01 1.37	
1990/1982	3.1 3.6 3.6	69 19 69 69	1. 2. 1.	97	1 2 1 1	.97		. 1	1.62 2.01	
1990/1982 1995/1990 2000/1995 2000/1982 	3.6 3.6 3.6 9jection Med & Paperboarssion Form	69 19 69 47 thod) rd Co	1. 2. 1. 1. 1. : nsumptic	97 14 65 16 73	1 2 1 1	.97 .12 .65		. 1	1.62 2.01 1.37 0.87	
1990/1982 1995/1990 2000/1995 2000/1982 2000/1982 Notes (Pro 1. Paper Regre	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	69 19 69 47 thod) rd Co ula:	1. 2. 1. 1. 1. : : :nsumptic	.97 .14 .65 .16 .73 	1 2 1 1 1	.97 .12 .65 .16 .72		1	1.62 2.01 1.37 0.87	·
1990/1982 1995/1990 2000/1995 2000/1982 2000/1982 Notes (Pro 1. Paper Regre	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	69 19 69 67 thod) rd Co ula: 931 e c & P.	1. 2. 1. 1. 1. : nsumptic -0.27949	.97 .14 .65 .16 .73 	1 2 1 1 1 1 1 0 0 0 0 0 1 0 0 1 0 1	.97 .12 .65 .16 .72		1	1.62 2.01 1.37 0.87	
1990/1982 1995/1990 2000/1995 2000/1982 2000/1982 Notes (Pro 1. Paper Regre	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	69 19 69 69 47 thod) rd Co ula: 931 e r & P Tabl	1. 2. 1. 1. 1. : nsumptic -0.27949 aperboar e	97 114 65 16 73 on: 98x rd Co	1 2 1 1 1 1 2 2 3 3 5 5 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	.97 .12 .65 .16 .72		1	1.62 2.01 1.37 0.87	
1990/1982 1995/1990 2000/1995 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 69 47 	1. 2. 1. 1. 1. : nsumptic -0.27949 aperboar e 75 US\$ (e alue (24	97 14 65 16 73 on: 98x cd Cd (1,0)) bonsumptic) 00 billic) 00,000 M1 "Paper &	.97 .12 .65 .16 .72 	,000 i	i (di Co	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1992 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 69 47 	1. 2. 1. 1. 1. 1. 1. 2. 2. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	97 14 65 16 73 on: 98x cd Cd (1,0)) onsumptic) 00 billic) 00,000 M1 "Paper &	.97 .12 .65 .16 .72 	,000 i	i (di Co	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1995 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 69 47 	1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 16 73) onsumptic) on billic) 00 billic) 00,000 MT "Paper & D Paper &	.97 .12 .65 .16 .72 	,000 i	i (di Co	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1995 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 69 47 	1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 16 73) onsumptic) 00 billic) 00,000 M1 "Paper &	.97 .12 .65 .16 .72 	,000 i	i (di Co	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1995 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 69 47 	1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 16 73) ponsumptic) on billic) 00 billic) 00,000 MT "Paper & 0 Paper &	.97 .12 .65 .16 .72	,000 i	MT)	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1992 2000/1982 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio ducti	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 69 47 	1. 2. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 16 73 73 73 6d Co (1,0)) onsumptic) on billic) 00,000 M1 "Paper & 0 Paper & 2000 0.70	.97 .12 .65 .16 .72 .72	,000 i	MT)	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1992 2000/1982 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio ducti	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 69 47 	1. 2. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 16 73 73 73 6d Co (1,0)) onsumptic) on billic) 00,000 M1 "Paper & 0 Paper & 2000 0.70	.97 .12 .65 .16 .72 .72	,000 i	MT)	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1995 2000/1992 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio ducti 4.	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 59 47 	1. 2. 1. 1. 1. 1. 1. 1. 1. 2. 1. 1. 1. 1. 1. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 16 73) ponsumptic) on billic) 00,000 M1 "Paper & 2000 0.70	.97 .12 .65 .16 .72 .72	,000 i	MT)	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1982 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio ducti	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 59 47 	1. 2. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 16 73)))))))))))))))))))	.97 .12 .65 .70 .72 .72 .72 .72 .72 .73	,000 i	d Cord I	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1992 2000/1982 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio ducti 4	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 59 47 	1. 2. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 16 73)))))))))))))))))))	.97 .12 .65 .16 .72 .72 .72 .72 .72 .72 .70 .70 .70 .70 .70 .70 .70 .70 .70 .70	,000 rboarderboa	MT) d Co	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1995 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio ducti	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 59 47 	1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 16 73)))))))))))))))))))	.97 .12 .65 .72 .16 .72 .72 .72 .72 .73 .70 .70 .70 .70 .70 .70 .70 .70 .70 .70	,000 i	d Co	0.62 2.01 1.37 0.87 1.51	
1990/1982 1995/1990 2000/1982 2000/1982 2000/1982 Notes (Pro 1. Paper Regre Where 2. "Paper 3. Woodpu Ratio ducti	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	59 19 59 59 47 	1. 2. 1. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	97 14 65 73 0n: 88x d C (1,0 00n" =) onsumptic) on billic) on on on Mn "Paper & 2000 0.70	.97 .12 .65 .16 .72 .72 .77 .79 .70 .70 .70 .70 .70 .70 .70 .70 .70 .70	,000 rboarderboa.	MT) d Co on on 23 67	0.62 2.01 1.37 0.87 1.51	

Notes: y = Paper & Paperboard Consumption
(1,000 MT)

x = GDP in 1975 US\$
(No.1: in 1,000 billion, No.2-5: in billion)

K = Ceiling Value (1,000 MT)

Table II-23 COMPARISON OF PAPER CONSUMPTION FORECASTS

	FAO Indus	Industry Working 1977	ing Party			Jaakko	Our
	Pessi- mistic	Medium	Opti- mistic	FAO 1977	Valmet 1982	Poyry 1982	Forecast 1983
Quantities (1,000 T)							
1975 Trend	146,200	146,200	146,200	146,200	146,200	146,200	146,200
1980 Trend	ı	i	i	ı	174,560	174,560	174,560
Forecast	169,900	180,200	189,800	182,500	ì	1	ι
1985 Forecast	190,600	271,700	246,300	223,900	į	(200,700)	188,700
1990 Forecast	211,400	259,300	316,300	280,450	235,000	(235,000)	207,700
1995 Forecast		ı	ŀ	t	267,500	276,000	217,000
Growth Rates(%)							
1970-75 Trend	2.8	2.8	2.8	2.8	(4.3)	(4.3)	(4.3)
1975-80 Trend	1	i	ı	1	3.6	3.6	3.6
Forecast	5. L	6.4	7.5	9.9	ı	1	ŧ
1980-85 Forecast	2.9	3.6	5.3	4.2	(3.0)	(3.2)	1.6
1985-90 Forecast	1.5	3.5	5.1	4.6	(3.0)	(3.2)	1.9
1990-95 Forecast	ì		ı	1	(2.7)	(3.2)	0.9
1978-95 Forecast	1	i	ı	ı	3.0	3.2	1.5

Source: PPI/May '83

Table 11-24 SUPPLY/DEMAND OF PAPER AND PAPERBOARD IN THE EC COUNTRIES (1)

(Unit: 1,008 MI)

EC Total											
EC Total		1972	1977	1980	1981	1982	1972	1977	1982	1977/72 1982/77	1982/77
	Produc. Import Export	21,415 10,408 2,926	22,634 11,406 4,071	24,606 13,648 5,347	24,205 14,101 5,631	23,341 14,024 5,651	15.6 41.3 11.6	14.9 41.1 14.4	14.1 41.9 16.7	1.1.8.8.9	G. 44.0
	Net Imp. Consump. SS-Rate	7,482 28,897 74	7,335 29,969 76	8.301 32,907 75	8,470 32,675	8,373 31,714 74	21.0	19.8	19.2	0.7	1.1
West Germany	Produc. Import Export	5,959 2,983 825	6,604 3,147 1,315	7.588 3.740 1.692	3,733	7,796 3,713 2,234	11.8	11.3	11.1	1.1.0	3.4
	Net lap. Consump. SS-Rate	2,158 8,117 73	1.832 8.436 78	2.048 9.628 79	1,791 9,587 81	1,479 9,275 84	5.9	5.6	5.8	8.0	1.9
France	Produc. Import Export	4,530 1,498 507	1.611	5,152 2,109 1,064	5,156 2,070 1,082	5, 067 2, 084 1, 051	3.3 6.0 2.0	2.53	3.2	1.5	8.55
	Nat Imp. Consump. SS-Rate	5,521 82	8/6 5,518 84	1, 145 6, 197 83	988 6, 144 84	6, 100 83	4.0	3.6	3.7	0.0	2.8
l ta l y	Produc. Export	3,723 502 356	4,288	4,934 861 501	4,854 816 619	4,323 859 449	2.2.7	8 9 9	2.3.1.1.6.8	2.2.4 4.5.3	13.9
	Consump. SS-Rate	3,869 96	4, 291 100	360 5,294 93	5, 051 5, 051 96	4,733 91	2.8	2.8	8.2	2.1	2.0
Netherlands	Produc. Import Export	1,571 763 476	1,625	1,701	1.590 1.434 936	1.590 1.411 891	 	3.9	1.0 4.2 2.6	0.7 7.0 7.8	5.5.7
	Consump. SS-Rate	28/ 1,858 85	378 2, 903 81	482 2,183 78	2,088 76	2,110 75	1.4	1.3	3.3	1.5	1.0
Вејци	Produc. Import Export	783 796 435	743 856 398	864 484	864 968 484	864 1,011 484	0.6 3.2 1.7	0.5 3.1 1.4	0.5 3.0 1.4	5.50	3.1
:	Consump. SS-Rate	351 1,144 68	1,201	1,363	1,348	1,391 1,391 62	9.8	8.8	9.8	1.0	හ ස

Table II-24 SUPPLY/DEMAND OF PAPER AND PAPERBOARD IN THE EC COUNTRIES (2)

				-			S	Share (%)		**************************************	(X/y)
		1972	1977	1980	1981	1982	1972	1977	1982	1977/72	1982/77
United Kingdom	Produc.	4,338	4.145	3,788	3,379	3,186	3.2	2.7	1.9	6.0-	-5.1
	Import	3,054	3,394	3,510	4,034	3,887	12.1	12.2	11.6	2.1	2.8
	Export	246	388	466	357	334	1.0	1.4	1.8	9.5	-3.8
	Net Imp.	2,808	3,006	3.044	3,677	3, 553					
	Consump.	7,146	7,151	6,832	7,056	6,739	5.2	4.7	4.1	g.	-1.2
	SS-Rate	61	28	22	43	47					
reland	Produc.	115	131	55	52	20	0.1	0.1	9.0	2.6	-31.3
	Import	161	186	222	231	237	9.0	C	0.7	3.1	5.0
	Export	36	27	22	24	12	0.1		0.0	-5.6	-15.0
	Net Imp.	124	159	200	207	225					
	Consump.	239	290	255	259	245	0.5	0.2	6.1	с С	ري دي
	SS-Rate	48	45	22	20	00		٠		ļ	
Denmark	Produc.	236	243	225	227	229	0.2	0.2	9.1	0.6	-1.2
	Import	514	564	625	640	647	ۍ د.	2.0	ا	1.9	8.3
	Export	37	. 99	121	144	153	0.1	en 63	ص د	တ	22.3
	Net imp.	477	588	504	496	494					
	Consump.	713	751	729	723	723	3.5	e . 5	0.4	1.0	∞.
	SS-Rate	33	32	31	31	32				1	
reece	Produc.	160	213	307	287	266	0.1	0.1	9.5	υ. 0	4.5
	Import	138	129	163	175	175	0.5	0.5	es N	-1.3	6.3
	Export	∞	74	44	43	43	0.0	0.0		11.8	25.2
	Net Imp.	130	115	119	132	132		•			
	Consump.	290	328	426	419	338	8.5	8.9	0.3	2.5	3.9
	C+-0-55	ď	ď	2.5	ä	7.5					

Source: Yearbook of Forest Products, 1982 (FAO).
Notes: 1. SS-Rate: Self-sufficiency Rate (%)
2. Share: EC total or each country's share to world total
3. In this table, EC includes, above ten countries though United Kingdom, Ireland
and Denmark joined in 1973 and Greece joined in 1981.

Table II-24 SUPPLY/DEMAND OF PAPER AND PAPERBOARD IN THE LATIN AMERICAN COUNTRIES (3)

								e Growth e (%/y)
		1972	1977	1980	1981	1982	1977/72	1982/77
Latin America	Produc.	4.246	5.536	7,727	7,434	7,697	5.4	6.8
Total	Import	1,805	2,066	2.343	2,435	2.386	2.7	2.9
	Export	110	222	410	575	476	15.1	16.5
	Net lmp.	1,695	1.844	1.933	1,860	1,910	P	•
	Consump.	5,941	7.380	9,660	9,294	9,607	4.4	5.4
	SS-Rate	71	75	80	80	80		
Mexico	Produc.	981	1,463	1,979	1,893	1,914	8.3	5.5
	laport	189	570	588	625	625	24.7	1.9
	Export	2	6	9	13	13	24.6	16.7
	Net Imp.	187	564	579	612	612		
	Consump.	1,168	2.027	2.558	2,505	2,526	11.7	4.5
	SS-Rate	84	72	77	76	76		
Argentina	Produc.	748	539	713	669	745	-6.3	6.7
	lmport	220	181	247	208	95	-3.8	-12.1
	Export	11	26	15	. 9	7.	18.8	-23.1
	Net Imp.	209	155	232	199	. 88	:	
	Consump.	957	694	945	868	833	-6.2	3.7
	SS-Rate	78	78	75	. 77	89		
Bolivia	Produc.	1	1	1	1	1	0.0	0.0
•	lmport	- 13	16	18	18	18	4.2	2.4
	Export	0	.0	D.	0	0	-	-
	Net Imp.	13	16	18	18	-18		
•	Consump.	14	17	19	19	19	4.0	2.2
<u> </u>	SS-Rate	7	. 6	5	5	5		
Brazil	Produc.	1,345	2.135	3,362	3,103	3,228	9.7	8.8
•	lmport	255	270	266	242	225	1.2	-3.€
	Export	10	39	191	329	270	31.3	47.3
	Net Imp.	245	231	75	-87	-45		1,
	Consump.	1,590	2.366	3.437	3.016	3,183	8.3	6.1
	SS-Rate	85	90	98	103	101		
Chile :	Produc.	281	296	374	327	317	1.0	1.4
	Import	12	Ü	· • • 0	0	, C		-
	Export	47	100	89	65	73		-6.1
•	Net Imp.	-35	-100	-89	-65	-73		
	Consump.	246	196	285	252	244	-4.4	4.5
	SS-Rate	114	. 151	131	125	130	•	

Table I1-24 SUPPLY/DEMAND OF PAPER AND PAPERBOARD IN THE LATIN AMERICAN COUNTRIES (4)

				·				Growth (%/y)
		1972	1977	1980	1981	1982	1977/72	1982/77
Colombia	Produc.	250	281	351	407	366	2.4	5.4
00104515	Import	80	74	151	213	186	-1.5	20.2
	Export	6	i	43	106	68	-30.1	132.5
	Net lmp.	74	73	108	107	118		
	Consump.	324	354	459	514	484	1.8	6.5
•	SS-Rate	2	1	1	1	1		
Ecuador	Produc.	13	34	26	31	34	21.2	0.0
	Import	163	67	65	66	- 66	-16.3	-0.3
	Export	B	0	8	0	0	_	-
	Net Imp.	163	67	65	66	66		
	Consump.	176	101	91	97	100	-10.5	-0.2
	SS-Rate	7	34	29	32	34		
Paraguay	Produc.	8	1	13	13	13	0.0	67.0
	Import	6	13	16	13	13	16.7	0.0
	Export	·Ď	Õ	Ō	. 0	Û		
	Net Imp.	6	13	16	13	13		
	Consump.	6	14	29	26	26		13.2
	SS-Rate	ŏ	. 7	45	58	50		
Peru	Produc.	155	149	205	272	357	-0.8	19.1
	Import	73	62	19	47	54	-3.2	-2.7
Impor Expor	Export	21	12	2	2	2	-10.6	-30.1
Expor	Net lmp.	52	50	17	45	52		
	Consump,	207	199	222	317	409	-0.8	15.5
V 2	SS-Rate	75	75	92	86	87		
Vruguay	Produc.	37	35	52	44	44		4.7
	Import	14	13	25	26	26	-1.5	14.9
•	Export		4	9	7	7	0.0	11.8
	Net lmp.	14	9	16	19	19		
	Consump,	51	44	68	63	63	-2.9	7.4
	SS-Rate	73	80	76	70	70		
Venezuela	Produc.	276	464	479	479	479		0.6
	Import	132	196	226	226	226		2.9
	Export	D	0	, D	Đ	D		-
	Net Imp.	132	196	226	226	226		-
	Consump.	408	660	705	705	785		1.3
	SS-Rate	68	70	68	68	- 68		

Source: Yearbook of Forest Products, 1982 (FAD) Note: SS-Rate: Self-sufficiency Rate (%)

Table II-25 PRODUCTION/IMPORT/EXPORT/APPARENT CONSUMPTION OF PAPER AND PAPERBOARD BY KIND IN MEXICO

					• .			
							Ave. Growth	Rate (%/y)
		1972	1977	1980	1981	1982	1977/72	1982/77
Paper & Paper-	Produc.	981	1.463	1,979	1,893	1.914	8.3	5.5
board Total	Import	189	570	588	625	625	24.7	1.9
	Export	2	. 8	9	13	13	24.6	16.7
	Net Imp.	187	564	579	612	612		
	Consump.	1,168	2,027	2.558	2,505	2,526	11.7	4.5
	SS-Rate	84	72	77	76	76		
Newsprint	Produc.	40	90	116	129	125	17.6	6.8
	Import	55	297	200	351	351	40.1	3.4
	Export	0	0	0	0	0	**	-
	Net Imp.	55	297	200	351	351		
	Consump.	95	387	316	480	476	32.4	4.2
	SS-Rate	42	- 23	37	27	- 26		
Data Ata a 8	0	1 / 3	20.4	526	197	452	16.6	8.3
Printing &	Produc.	141	304	65	. 427 46	452	13.3	-27.7
Writing Paper	Import	125	233	03	40	40	10.0	-21.1
	Export	105	0 233	65		46	· -	
	Net Imp.	125			46		15.1	-1.5
	Consump.	266	537	591	473	498	19.1	-1.5
	SS-Rate	53	57	89	90	91		
Other Paper &	Produc.	800	1,069	1,337	1,337	1,337	6.0	4.6
Paperboard	lmport	8	39	322	228	228	37.3	42.4
	Export	2.	6	9	13	13	24.6	16.7
	Net lmp.	6	33	313	215	215		
	Consump.	806	1,102	1.650	1.552	1,552	6.5	7.1
	SS-Rate	99	97	81	86	86		
Household &	Produc.	71	126	184	224	248	12.2	14.5
Samitary Paper	laport	. 0	0	0	0	0		-
	Export	0	0	0	0	0	-	-
	Net Imp.	0	0	0	0	0		
	Consump.	71	126	184	224	248	12.2	14.5
	SS-Rate	100	100	100	100	100		· .
Wrapping &	Produc.	616	881	1,109	1,120	1,186	7.4	4.7
Packing Paper	laport	0	35	250	177	177	-	38.3
& Paperboard	Export	ū	0	0	0	0	-	_
	Net Imp.	Ō	35	250	177	177		
	Consump.	61 6	916	1,359	1.297	1.283	8.3	7.0
: .	SS-Rate	100	96	82	86	86		,
Paper & Paper-	Produc	113	44	44	51	55	-17.2	4.6
board NES	laport	ũ	4	72	50	50	-	65.7
	Export	ů	Ô	0	8	0	_	
	Net Imp.	Ô	4	72	50	50		
•	Consump.	113	48	116	101	105	-15.7	16.9
	SS-Rate	100	92	38	50	52	1011	AU1 J
		100	. 36	30	. 00	02		

Table II-26 WORLDWIDE PAPER AND BOARD CAPACITY ADDITION, 1982-85 (1)

· ·		4			Other	Case-		
	Newsprint	Pr/Wr	Pkg Paper	<u>Tissue</u>	Paper	making	Board	Total
Firm Projects								
Africa	285	189	80	8	0	190	- 0	752
Asia	550	617	82	96	43	475	33	1,896
Australia	180	0	0	0	0	40	0	220
Europe	. 760	1,433	84	404	59	195	284	3,219
Latin America	406	552	378	165	48	341	109	1,999
North America	1,603	1,763	210	91	38	771	40	4,516
Total	3, 784	4,554	834	764	188	2,012	466	12,602
Advanced Plann-								
ing Stage*								
Asía	140	150	180	25	30	344	59	928
Australasi	0	0	- 80	. 0	0	0	0	80
Europe	330	620	220	75	0.	255	118	1,618
Latin America	0	84	48	45	0	53	140	370
North America	470	135	500	0	0	. 0	0	1,105
Total	940	989	1,028	145	30	652	317	4,101

Note: * No African Pulp Project Falls in This Category.

Table II-26 WORLDWIDE PULP CAPACITY ADDITIONS, 1982-85 (2)

(Unit: 1,000 MT)

				Mechani-	·····	Semi-	 	
	Bl.Kraft	Unbl.Kraft	Sulfite	cal	TMP	chem.	Other	Total
Firm Projects								
Africa	400	115	0	245	0	0	. 50	810
Asia	480	363	0	-80	45	0	417	1,385
Australasia	0	140	0	109	265	0	0	514
Europe	1,170	120	330	600	280	110	0	2,610
Latin Americ	747	473	0	70	97	121	226	1,734
North America	1,715	195	39	555	1,426	100	0	4,030
Totla	4,512	1,406	369	1,659	2,113	331	693	11,083
Advanced Plann	1-		•			•		
ing Stage*								
Africa	0	0	0	0	0	0	300	300
Asia	716	0	66	0	. 0	0	20	802
Europe	320	195	50	0	80	0	0	645
Latin America	134	34	0	0	. 0	0	. 0	168
North America		410	0	0	125	0	0	606
World Total	1,240	639	116	0	205	0	320	2,520

Note: * No Australasian Pulp Project Falls in This Category.

Source: PULP & PAPER WEEK/May '82

Table II-27 PROJECTION OF PAPER & PAPERBOARD PRODUCTION AND WOODPULP CONSUMPTION IN THE WORLD

Year	GDP in 1975 US\$ (billion)		Paperboard Production	Woodpulp Consumption (1,000 MT)
Actual	~~~~~~	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		
=====				
1972	5,418	137,510	137,582	107,923
1973	5,902	146,605	147,118	113,836
1974	6,039	148,331	149,356	117,586
1975	6,152	128,232		102,537
1976	6,471	146,724		114,861
1977	6,760	151,335		116,281
1978 1979	7,201 7,445	158,198 169,287		121,107 123,302
1980	7,586	170,787		125,388
1981	7,723	170,716	172,471	125,935
1982	7,754	165,091	165,360	120,133
				~~~~~~
Forecast				
1000	9,272	188,146	188,146	136,406
1988 1990	9,969	195,628		140,852
1995	11,948	212,304		150,736
2000	14,321	224,886		157,420
Annual Ave				
Growth Rat				
1988/1982		2.20	2.18	2.14
1990/1988		1.97		1.62
1990/1982		2.14		2.01
1995/1990	3.69	1.65		1.37
2000/1995		1.16		0.87
2000/1982	3.47	1.73	1.72	1.51
1. Paper	jection Metho & Paperboard ssion Formula	Consumption:		*** ** ** ** ** ** ** ** ** ** ** ** **
	K/(1+3.6793	-0.279498x		
			Consumption (1	-000 MT)
unere	. y - raper o	able	)	,000 114,
		1975 US\$ (1,		
	(See Ta	able	)	•
3. Woodpu	<pre>K = Ceiling &amp; Paperboard lp Consumption</pre>	g Value (240, d Production" on:	000,000 MT) ="Paper & Pape to Paper & Pap	rboard Consumptio
ductio		COMPUMPLIAN	co reser a res	CANORIG TIO-
44001		990 1995	2000	
	0.725	70 0 71	0.70	
	0.725 0	.72 0.71	0.70	

Table 11-28 SUPPLY/DEMAND OF MOODPULP IN THE EC COUNTRIES (1)

	5.611 8.165 8.165 3.323 3.323 1.707 1.709 1.614 3.321 5.1	5,522 7,705 508			•	;				
Produc. Import Export Net Imp. Consump. SS-Rate Export Ret Imp. Consump. SS-Rate Produc. Import Export Export Froduc. Import Export Export Froduc. Import Export Net Imp. SS-Rate Froduc. Import Export Net Imp. SS-Rate Froduc. Import Export Net Imp. SS-Rate	165 165 1722 323 323 707 709 514 513 513 513 513	5, 522 7, 705 508	1980	1981	1982	1972	1977	1982	1977/72	1982/77
Export Net lap. Consump. SS-Rate Export Export Export Export Export Import Export Export Import Impo	443 323 323 42 42 321 51 51 51 51 51	508	5,455	5,323	5,348	5 2	4.7	4.4	-6.3	-0.5
Net lap. Consump. SS-Rate Export Ret lap. Consump. SS-Rate SS-Rate Froduc. Import Export Net lap. Consump. SS-Rate Froduc. Import Export Export Net lap. Consump. SS-Rate Froduc. Import Export Froduc. Import Consump. SS-Rate	323 323 42 42 42 42 42 42 323 51 51 51		584	501	492	2.7	3.0	2.1	8.2	9.0-
SS-Rate Not Import Export Ret Imp. SS-Rate SS-Rate Froduc. Import Export Net Imp. SS-Rate Produc. Import Export Net Import Export Net Import Froduc. Import Froduc. Import Froduc. Import Froduc. Import Froduc. Import Froduc. Import Froduc. Import Froduc. Import Froduc. Import Froduc. Import Froduc. Import Froduc. Import	325 42 707 709 95 95 913 913	7, 197	8 519	8,126	7,273				c	
Produc. Export Export Consump. SS-Rate Produc. Import Export Net Imp. Gonsump. SS-Rate Produc. Import Export Froduc. Import Consump. SS-Rate Froduc. Import Consump. Onsump.	707 709 95 95 321 51 51 321	43	39	40.449	17,071	0.91	6.11	C.UI	ñ = 1	3
Export Export Ret lap. Consump. SS-Rate Export Export Consump. SS-Rate Produc. Import Export Import Export Consump. SS-Rate Consump.	.614 321 51 51 321 51	1,862	1,996	2,021	2,021	1.6	9.1	1.7	8:	1.7
Ret lap. Consump. SS-Rate Produc. Import Export Net lap. Gonsump. SS-Rate Produc. Import Export Not lap. Consump.	.913 51 51 51 321 321	1.927	2,435	2,415	2,397	10.4	11.5	33.0	2.0	4
Consump. SS-Rate Export Export Consump. SS-Rate Consump. SS-Rate Froduc. Import Export Net Imp.	321 51 913 321	1.817	2 210	201	202	0.0	5	o.,	•	2.1
SS-Rate Produc. Import Export Not Imp. Consump. SS-Rate Froduc. Import Export Export Not Imp. Consump.	51 .913 .321	3,679	4,315	4,325	4,316	3.1	3.2	3.6	2.1	3.2
Produc. Import Export Net Imp. Consump. SS-Bate Produc. Import Export Export Net Imp. Consump.	913	51	46	47	47					
lmport Export Net lmp. Gonsump. SS-Rate Produc. Import Export Net lmp. Consump.	321	2,017	1,815	1,793	1,843	1.8	1.7	1.5	1.1	-1
Export Net Imp. Consump. SS-Rate Produc. Import Export Net Imp. Consump.		1, 339	1,755	1,708	1,469		ထို	 	e e	o (
Consump. SS-Rate Produc. Import Export Net Imp. Consump.	06.	28	187	200 120 120 1	152	ວາ ⇔	 	× ×	n . 2	X
SS-Retg SS-Retg Produc. Import Export Net Imp.	2.5	1,101	1,000	2,333	2 161	0	0	6	6	6 6
Produc. Import Export Net Imp. Consump.	62	53 53	54	54	23, 20		•			3
	126	736	889	969	704	0.9	9.0	9.0	-4.5	-9.9
	. 309	1,190	1,769	1,541	1,362	8.	7.1	7.	-1.9	2.1
	တ	2 5	;	, 14	02°	0.0	0.0	G, 1	~ ~	58.5
	386	1,188	200	1,527	1,342	ç	F		c	-
	42	38	28	31.	34	.,	:	-	· 1	3:1
Netherlands Produc.	172	152	201	208	200	0.2	0.1		-2.4	5.8
	636	296	651	282	530	9.0	3.6	2.9	-1.3	-2.3
Export	~	<u>.</u>	ထ	4	<b>*</b>	0.0	0.0		œ 4	-7
Net Emp.	632	590	643	581	226	2		ć		
Consump.	894 21	742 21	844 24	58 28 38	88	).0	0.0	۵.۵	4.1-	
			979	2	600		6	•		6
Belux Freduc.	402	3/2	200	202	200	e c	, c		- 6	o -
Export	382	137	143	143	143	9.5	9 60 9 60	່ອ	9 67	÷ 6.
Net lap	285	328	280	280	280		ı		•	
Consumb	670	598	638 53	838 1	938	9.0	0.5	9.5	-2.2	1.3

Table 11-28 SUPPLY/DEMAND OF WOODPULP IN THE EC COUNTRIES (2)

(Vait: 1,000 MT)

						•	Sh	Share (%)		Rate (X/y)	Rate (X/y)
- 1		1972	1977	1980	1981	1982	1972	1977	1982	1977/72	1982/77
United Kingdom	Produc.	357	306	286	168	144	9.3	0.3	0.1	-3.0	-14,0
	mport	2,590	2,152	1,857	1,727	1,390	55.8	12.9		-3.6	% 4,4
	Export	က	22	36	15	12	0.0	0.1	 	49.0	-7.4
	Net Imp.	2,587	2,130	1,821	1,712	1,375					
	Consumb.	2,944	2,436	2,107	1,880	1,519	2.1	2.1		-3.7	9,6
	SS-Rate	75	23	14	57	10					
Ireland	Produc.	98	19	19			0.0	0.0	0.0	-12.0	
	Import	41	25	33	34	හ	0.3	 	9	-9.4	-18,5
	Export	•	56	31	•		0.0	ص د.	a.	. 1	-47.9
	Net Imp.	41	7	ò	34	œ					
	Consump	7.5	18	21	34	∞		9.0	0.0	-25.2	-15.0
	SS-Rate	47	106	31	 	0					
Denmark	Produc.	84	28	64	65	57	0.1	0.0	0.0	-7.1	-03
	Import	93	26	97	112	103	9.0	0.3	0 6	9.6	13.0
	Export	3.8	47	29	61	22	5	0.3	3	-9.6	3.2
	Net Imp.	2	on	32	21	48					
	Consump.	<del>6</del> 6	67	66	116	105	1.0	6.1	6.1	-7.5	e,
	SS-Rate	52	87	. 65	56	54			,		l
Greece	Produc.	0	0	28	22	21	0.0	0.0	0.0	1	
	Import	84	57	95	82	85	6.5		0.5	<u>-</u> .5	^{بر} ئ
	Export	O)	0	<b>=</b>	<b>-</b>	-	0.0	⊕.	es 	1	•
	Net imp.	8	2,	95	83	83					
	Consump.	8	51	120	104	103	0	9.0	8. ì	-7.5	12.6
	SS-Rate	=	Œ	20	7	30					

Source: Yearbook of Forest Products, 1982 (FAO)
Notes: 1. SS-Rate: Self-sufficiency Rate (%)
2. Share: EC total or each country's share to world total
3. In this table, EC includes above ten countries though United Kingdom, Ireland,
and Denmark joined in 1973 and Greece joined in 1981.

Table II-29 SUPPLY/DEMAND OF PULP BY KIND IN LATIN AMERICA (1)

							Sh	are (%)			Growth te (%/y)
		1972	1977	1980	: 1981	1982	1972	1977	1982	1977/72	1982/77
Woodpulp	Produc,	1,977	3,133	4,652	4,516	4,574	1.8	2.7	3.8	9.6	7.9
Total	Import	707	501	753	784	756	4.3	3.0	4.2	-6.7	8.6
	Export	262	433	1,306	1,362	1,287	1.6	2.5	7.0	10.6	24.3
	Net Imp.	445	68	-553	-578	-531					
	Consump.	2.422	3,201	4,099	3,938	4.043	2.2	2.8	3.4	5.7	4.8
	SS-Rate	82	98	114	115	113					
Mechanical	Produc.	387	359	418	407	410	1.6	1.3	1.5	-1.5	2.7
Hoodpulp	Import	34	19	51	102	96	2.7	1.6	8.8	-11.0	38.3
No cap	Export	7	2	4	4	5	0.6	0.2	0.5	-22.2	20.1
	Net Imp.	27	17	47	98	91				*	
	Consump.	414	376	465	505	501	1.7	1.4	1.9	-1.9	5.9
	SS-Rate	94	96	- 90	81	82					
Semi-chemical	Produc.	205	205	304	312	293	2.6	2.8	4.4	0.0	7.4
Hoodpulp	laport	5	3	9	6	6	3.8	2.2	4.0	-9.7	14.9
	Export	O.	0	0	. 0	0	0.0	0.0	0.0	-	-
	Net lap.	5	3	9	6	6					
	Consump.	210	208	313	318	299	2.6	2.8	4.5	-0.2	7.5
	SS-Rate	98	99	97	98	98					
Chemical Wood-	Produc.	1,384	2,517	3,883	3,750	3,824	2.0	3.3	4.6	12.7	8.7
pulp	Import	597	439	666	660	638	4.4	3.1	4.1	-6.0	7.8
	Export	256	431	1,302	1,358	1,282	1.9	3.0	8.0	11.0	24.4
	Net Imp.	341	8	-636	-698	-644					
	Consump.	1,725	2,525	3,247	3,052	3,180	2.4	3.3	3.8	7.9	4.7
	SS-Rate	80	100	120	123	120		:			
Unbleached	Produc.	. 65	64	104	97	101	1.0	1,1	1.9	-0.3	9.6
Sulphite	lmport	8	1	3	1 .	• 1	1.2	0.2	0.2	-34.0	0.0
Pulp	Export	6	1	1	1	2	0.7	0.2	0.4	-30.1	14.9
•	Net Imp.	2	0	2	0	-1					
•	Consumo.	67	64	106	97	100	1.0	1.1	1.9	-0.9	9.3
	SS-Rate	97	100	98	100	101	` <u>.</u>				
Bleached	Produc.	91	103	120	107	120	1.6	2.0	2.8	2.5	3.1
Sulphite	lmport	22	9	7	9	9	1.0	0.4	0.4	-16.4	0 (
Pulp	Export	0	1	. 1	2	3	0.0	0.0	0.2	0.0	24.6
- •	Net Imp.	22	8	6	. 7	6					
	Consump.	113	111	126	114	126	1.9	2.1	2.5	-0.4	2.6
	SS-Rate	81	93	95	94	95					

Table II-29 SUPPLY/DEMAND OF PULP BY KIND IN LATIN AMERICA (2)

		:					Sh	are (%)		_	e Growth te (%/y)
		1972	1977	1980	1981	1982	1972	1977	1982	1977/72	1982/77
Unbleached	Produc.	608	1,188	1,427	1,685	1,684	2.1	3.7	5.4	14.3	7.2
Sulphate	Import	104	57	64	59	55	6.4	3.6	4.1	-11.3	-0.7
Pulp	Export	123	236	318	391	314	6.4	10.6	14.7	13.9	5.9
,	Net Imp.	-19	-179	-254	-332	-259					
•	Consump.	589	1,009	1,173	1,353	1,425	2.0	3.2	4.7	11.4	7.1
	SS-Rate	103	118	122	125	118		-	٠.	-	
Bleached	Produc.	603	1.114	2,177	1,798	1,856	2.1	3.4	4.6	13.1	10.7
Sulphate	Import	157	131	202	188	177	1.9	1.4	1.6		6.2
Pulp	Export	6	194	983	964	962	0.1	2.1	8.0	100.4	37.7
<b>.</b>	Net Imp.	151	-63	-781	-776	-785	*				
	Consump.	754	1.051	1,396	1,022	1.071	2.7	3.3	2.7	6.9	0.4
•	SS-Rate	80	106	156	176	173	:	1 .			
Dissolving	Produc,	0	52	47	47	47	0.0	1.1	1.1		-2.0
Woodpulp	laport	72	39	27	16	16	4.9	2.9	1.3		-16.3
	Export	0	0	0	. 0	0	0.0	0.0	0.0		-
	Net Imp.	72	39	27	16	16					
	Consump.	72	91	74	63	63	1.6	2.1	1.5	4.8	-7.1
	SS-Rate	. 0	57	64	75	75					
Other Fiber	Produc.	492	662	746	805	807	8.2	8.9	9.4	6.1	4.0
Pulp	lmport	1	1	í	. 2	1	0.7	0.5	0.5		0.0
	Export	.4	9	õ	: 0	Ō	2.3	4.0	0.0		_
	Net lmp.	.4 -3	-8	i	2	1					
	Consump.	489	654	747	807	808	8.2	8.8	9.3	6.0	4.3
	SS-Rate	101	101	100	100	100					

Notes: 1. Produc.: Production

Net Imp.: Net import = Import - Export

Consump.: Apparent Consumption = Production + Import - Export
SS-Rate: Self-sufficiency Rate (%)

SS-Rate: Self-sufficiency Rate (%)
Share: Share to world total
"Woodpulp Total" includes "Chemical Woodpulp", "Mechanical Woodpulp", "Semi-chemical
Woodpulp" and "Dissolving Woodpulp".
"Chemical Woodpulp" includes "Unbleached Sulphite Pulp", "Bleached Sulphite Pulp",
"Unbleached Sulphate Pulp", "Bleached Sulphate Pulp", and other chemical woodpulp.

Table II-29 SUPPLU/DEMAND OF WOODPULP IN THE LATIN AMERICAN COUNTRIES (3)

(Unit: 1.000 HT)

						()	Unit: 1,(	100 417
								Growth (%/y)
		1972	1977	1980	1981	1982	1977/72	1982/77
Latin America	Produc.	1,977	3,133	4,652	4,516	4,574	9.6	7.9
Total	Import	707	501	753	784	756	-6.7	8.6
	Export	262	433	1,306	1,362	1.287	18.6	24.3
	Net Imp.	445	- 68	-553	-578	-531		
	Consump.	2,422	3,201	4.099	3.938	4,043	5.7	4.8
	SS-Rate	. 82	98	113	115	113		
Mexico	Produc.	328	437	447	462	457	5.9	0.9
	Import	113	70	208	223	214	-9.1	25.0
	Export	0	0	Q	8	. 0	~	~
	Net Imp.	113	70	208	223	214		
•	Consump.	441	507	655	685	671	2.8	5.8
	SS-Rate	74	86	68	67	68		
Argentina	Produc.	239	265	309	254	388	2.1	3.1
•	Import	149	86	116	128	148	-10.4	11.5
	Export	0	0	0	. 0	0		_
	Het Imp.	149	86	116	128	148		
	Соляцир,	388	351	425	382	456	-2.0	5.4
	SS-Rate	62	75	73	66	68		
Brazil	Produc.	974	1,649	2,911	2,833	2,929	11.1	12.2
•	Import	148	68	60	33	. 15	-14.4	-26.1
irazil	Export	141	95	890	951	825	-7.6	54.1
orazii	Net Imp.	7	~27	-830	~918	-810		
	Consump.	981	1,622	2.081	1,915	2,119	10.6	5.5
	SS-Rate	99	102	140	148	138		,*
Chile	Produc.	345	599	763	743	667	11.7	2.2
	Import	7	3	0	0	0	~15.6	0.0
	Export	121	339	416	411	462	22.9	6.4
	Net Imp.	-114	-336	-416	-411	-462		
	Consump.	231	263	347	332	205	2.6	-4.9
	SS-Rate	149	228	220	224	325		
Colombia	Produc.	70	110	123	126	115	9.5	0.9
	Import	52	20	52	66	55		22.4
	Export	Ō	Õ	0	Ô	8	-	
	Net Imp.	52	. 20	52	66	55		
	Consump.	122	130	175	192	170	1.3	5.5
	SS-Rate	57	85	70	66	68	<del>-</del>	

SUPPLY/DEMAND OF WOODPULP IN THE LATIN AMERICAN AMERICAN COUNTRIES (4) Table 11-29

		<u> </u>						••••
		·						Growth (%/y)
		1972	1977	1980	1981	1982	1977/72	1982/77
Ecuador	Produc.	0	0	0	0	0	_	_
	Import	. 0	2	8	57	57	-	95.4
	Export	. 0	0	G	0	0	-	-
	Net Imp.	0	2	8	5 <b>7</b>	57		
	Consump.	g	2	8	57	57	-	95.4
	SS-Rate	. 0	0	: 0	0	0	: <u>.</u> _	
Peru	Produc.	Û	13	15	15	15	-	2.9
	Import	43	39	32	24	24	-1.9	~9.3
	Export	1	0	0	Û	. 0	-	_
	Net Imp.	42	39	32	24	24		
	Consump.	42	52	47	39	39	4.4	-5.8
	SS-Rate	· ()	25	32	38	38		
Uruguay	Produc.	5	14	24	24	24	22.9	11.4
	Import	9	8 .	9	. 7	7	-2.3	-2.6
	Export	0	0	0	0	0		· -
	Net Imp.	9	8	9	7	7	•	
	Consump.	14	22	33	31	31	9.5	7.1
	SS-Rate	36	64	73	77	77		
Venezuela	Produc.	16	46	56	56	56	23.5	4.0
	Import	133	151	173	173	173		2.8
	Export	0	0	0	0	0	-	-
	Net Imp.	133	151	173	173	173		
	Consump.	149	197	229	229	229	5.7	3.1
	SS-Rate	11	23	24	24	24		

Source: Yearbook of Forest Products, 1982 (FAO) Note: SS-Rate: Self-sufficiency Rate (%)

Table II-30 WORLD ESTIMATED DEMAND ON THE FOREST FOR INDUSTRIAL SOFTWOOD (1)

	•		(	Unit: Mil	lion m ³ )
	1960	1970	1980	1990	2000
Sawlog Demand					
Sawnwood & Sleepers					
Product Volume	252.1	300.6	329.5	368.6	399.4
Residuals Created Gross Wood in the	222.3	<u>262.0</u>	<u>293.5</u>	341.8	<u>387.9</u>
Rough	474.4	562.6	623.0	710.4	787.3
Solidwood Panels				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Product Volume	10.0	18.7	24.3	30.6	34.5
Residuals Created	11.8	<u>21.5</u>	28.2	35.3	40.2
Gross Wood in the	22.1	40.3	52.5	66.0	74.7
Rough	44.1	40.3	32.5	00.0	/4./
Dom. Sawlog Demand	496.4	602.9	675.5	776.4	862.0
Sawlog Trade-Exp(Imp)	406.4	<del></del>		776 4	062.0
Total Sawlog Demand	496.4	602.9	675.5	<u>776.4</u>	862.0
1.					
Diboules Domand					
Fiberlog Demand				-	
Reconstituted Panels	12.0	35.0	61.4	81.0	100.7
Other Ind. Roundwood	74.4	66.9	68.5	67.7	67.7
Pulp	$\frac{187.6}{281.6}$	$\frac{314.0}{115.0}$	379.5	$\frac{477.3}{69.5.3}$	$\frac{631.0}{300.4}$
Subtotal Demand Less:	274.0	415.9	509.4	626.0	799.4
Residuals Reused	49.1	97.6	157.7	207.8	249.0
Dom. Fiberlog Demand	224.9	318.3	351.7	418.2	550.4
Fiberlog Trade-Exp(Imp) Total Fiberlog Demand	$\frac{-}{224.9}$	318.3	$\frac{-}{351.7}$	418.2	$\frac{-}{550.4}$
Total Tibellog behand	2223	77013	33117		======
Total Demand for					
Industrial Softwoods	721.3	921.2	1,027.2	$\frac{1,194.6}{}$	1,412.4

Source: FAO FORESTRY PAPER, 1982/World Forest Products Demand and Supply 1990 and 2000

Table II-30 WORLD ESTIMATED DEMAND ON THE FOREST FOR INDUSTRIAL HARDWOOD (2)

			( t	Jnit: Mill	ion m ³ )
Caral on Domond	1960	1970	1980	1990	2000
Sawlog Demand					
Sawnwood & Sleepers					1.0.1
Product Volume	73.5	91.2	99.3	123.9	143.1
Residuals Created Gross Wood in the	62.8	<u>76.1</u>	79.7	93.3	106.8
Rough	136.3	167.3	179.0	217.2	249.9
Solidwood Panels		1			
Product Volume	6.8	17.3	24.1	29.6	35.0
Residuals Created	7.5	18.8	26.2	30 <u>.1</u>	<u>35.1</u>
Gross Wood in the		25.3	<b></b>	E0.2	70.0
Rough	14.3	36.1	50.3	59.3	70.0
Dom. Sawlog Demand	150.6	203.4	229.3	276.5	319.9
Sawlog Trade-Exp(Imp)	150.5	-	320 4	336 F	310 0
Total Sawlog Demand	150.6	203.4	229.4	276.5	$\frac{319.9}{}$
Fiberlog Demand					
		_			
Reconstituted Panels	7.2	19.9	32.9	44.1 83.6	55.2 88.3
Other Ind. Roundwood Pulp	69.4 39.8	77.3 91.7	81.5 132.0	83.6 187.1	263.6
Subtotal Demand	$1\overline{16.4}$	$\frac{91.7}{188.9}$	246.4	$\frac{107.1}{314.8}$	$\frac{203.0}{407.1}$
Less:	22012	20015			
Residuals Reused	9.9	22.5	32.3	44.5	<u>53.8</u>
Dom. Fiberlog Demand	106.5	166.4	214.1	270.3	353.3
Fiberlog Trade-Exp(Imp)					
Total Fiberlog Demand	<u>106.5</u>	$\frac{166.4}{}$	$\frac{214.1}{}$	<u>270.3</u>	<u>353.3</u>
Total Demand for		_			- n - n
Industrial Softwoods	257.0	<u>369.8</u>	443.4	546.8	<u>673.2</u>

Source: FAO FORESTRY PAPER, 1982/World Forest Products Demand and Supply 1990 and 2000

Table II-31 CONSUMPTION OF FIBER LOGS (1)

(Unit: Million  $m^3$ )

		,												١	
		1 9 6 T			7 / 6			0 8 6 T			0 6 6 T			0 0 7	
	Domestic Supply	Domestic Net Importe fiber Logs Supply (Exports) Consumed		Domestic Supply	Net Imports (Exports)	Domestic Net Imports Fiber Logs Supply (Exports) Consumed	Domestic Supply	Net Imports (Exports)	Domestic Net Imports Fiber Logs Supply (Exports) Consumed	Supply Supply	o.Net Imports (Exports)	Domestic-Net Imports Fiber Logs Supply (Exports) Consumed	Domestic Supply	Domestic Net Imports Fiber Lags Supply (Exports) Consumed	Fiber Legs Consumed
North America			1												
Softwoods	103.5	3.9	103.0	9777	3.2	140.0	135.6	ı	135.6	154.0	•	154.0	181.2		191.2
Hardwoods	29.1		29.1	44.9	ı	44.9	64.0	,	64.0	85.4	ı	85.4	119.2	1	119.5
Canada							. :								
Saftwoods	38.8	2.2	36.6	52.8	2.3	50.5	45.5	ı	45.5	50.7		50.7	52.5	1	52.5
Hardwoods	1.8	,	1.8	4.2	•	4,2	7.1	,	7.1	8.9	ı	8.9	10.5		10.5
United States						-		٠							
Softwoods	64.7	1.7	66.4	88.8	6.0	89.5	90.1	1	90.1	103.3	1	103.3	128.7	1	128.7
Hardwoods	27.3	1.	27.3	40.7	1	40.7	56.9	í	56.9	76.5	1	76.5	109.0		109.0
Western Europe															
Softwoods	49.5	5.4	51.5	75.4	7.9	63.3	98.4	4.1	92.5	103.1	4.4	107.1	126.5	3.2	129.7
Herdwoods	18.7	0.1	18.0	33.0	i,	33.0	42.2	5.3	43.1	51.7	5.6	53.1	63.8	6.2	65.4
France															
Softwoods	2.8	0.5	3.3	4.8	0.4	5.2	6.2	1	6.2	8.1	0.2	8.3	10.4	0.2	9.01
Hardwoods	1.8	,	1.8	3,3	1	3.3	5.6	0.4	5.2	8,2	5.0	7.7	11.3	0.7	10.6
West Germany			,			,			,	;		;	,		;
Softwoods	4.2	1.3	5.5	5.9	J. 6	7.5	9.8		8.7	12.3		12.3	5.4.5	٠ ;	14.7
Нагфисофа	3.5	,	ъ. г.	4.1		4.1	6.1	9.0	5.5	6.4	4.0	6.0	7.3	0.4	6-7
United Kingdom					1				,	i			•		
Softwoods	1.0	r. B	r.1	6.0	0.3	1.2	J. 4	J 1	e :	7:1	1 (	/ · ·	7.5		7.4
Herdwoods	ı		ı	င်	•	0.3	0°8	0.3	d.5	0.3	0.3	6.0	e: 5	0.5	۲.5
Other EC Countries									1		1	,	,	,	1
Softwoods	1.6	1.6	3.2	3.7	2.7	6.4	3.9	4.1	0.6	4.7	4.0	8.7	6.5	3.0	۲۰,
Hardwoods	1.4	0.1	1.5	9.4	•	4.6	2.2	3.1	v.,	2.1	3.5	5.6	2.6	3.9	6.5
Nordic Countries													:		;
Softwoods	33.6	1.7	31.9	51.6	1.9	53.5	53.3	•	53.3	57.4	0.2	57.2	64.3	ŧ	64.3
Hardwoods	7.7	,	7.7	12.4	•	12.4	15.3	6.9	14.4	18.0	0.9	17.1	21.1	0.9	20.2
Other Western Europe	obe											;	;		;
Softwoods	6.3	t	6.3	8.5	1.0	9.5	13.8	1	13.6	18.9	1	18.9	26.6	•	9-92
Hardwoods	4.3	1	¢.3	8.3	•	8,3	12.2	•	12.2	16.2	•	16.2	20.9	r	20.9
Japan	•		2		ć	4	-	c	ć	o F	7	9	4 21	ς α	4
SDOOMSLOS	>	۲.۵	?	0	7.0	•	7.7	N 1	· ·	;		:	;		
Herdwoods	6.5	ı	6.5	14.6	ą. 8	15.0	11.5	B.	17.3	8.6 9.6	15.2	23.8	9.9	22.8	29.4
Latin America			٠.						,	;	•	:	1		ì
Softwoods	0.8	1	0.8	3.9	ı	6.6	8.0	ı .	0.6	21.4	2.0	19.4	37.0	0.2	5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5
Herdwoods	3.0	ı	3.0	9.5	•	9.2	13.9		15.9	20.4	_	20.4	7-67		7-67

Source: PPI

		1 9 6	0		1970			1980			1990			2 0 0 (	0 0 0
	Domestic Supply	Net Importa (Exports)	Domestic Net Imports Fiber Lags Supply (Exports) Consumed		Domestic Net Imports Fiber Logs Supply (Exports) Consumed	Fiber Logs Consumed	,	Domestic Net Imports Supply (Exports)	Fiber Logs Consumed	Domestic ) Supply (	Net Imports (Exports)	Domestic Net Imports Fiber Logs Supply (Exports) Consumed	Domestic Supply		Net Imports Fiber Logs (Exports) Consumed
Other Eastern Hamischere										•					
Softwoods	2.0	•	2.0	5.4	ı	5.4	8.2	0.2	8.0	16.4	2.2	14.2	31.6	5.5	26.1
Hardwoods	27.9	0.1	27.8	35.2	0.4	34.8	0.94	5.8 8	40.2	63.1	15.2	47.9	92.5	22.6	6.69
Oceania															
Softwoods	9.5	1	0.5	2.1	•	2.1	3.8	•	3.8	8.2	1.7	6.5	12.3	0.3	12.0
Hardwoods	1.1	ı	1.1	1.1		1.1	3.7	2.8	0.0	7.1	5.1	2.0	11.3	6.9	4.4
Middle East and															
North Africa Softwoods	0.2	,	0.2	0.2	•	9.2	0.2	•	0.2	0.2	ı	0.2	0.9	1	0.9
Hardwoods	5.7	•	5.7	6.3		6.3	7.2	ı	7.2	8.7	1	8.7	11.7	1	11.7
Africe South of the Sebera					•							:			
Softwoods	0.5	r	0.5	2.2		2.2	3.0	1	3.0	5.1	.•	5.1	7.2	1	7.2
Herdwoods	11.6	1	11.6	17.1	ì	17.1	20.4	ı	20.4	24.3	h	24.3	32.0		32.0
Far East Softwoods	6	,	<b>6</b> .0	6.6	ı	6.0	1.2	0.2	0.1	2.9	0.5	2.4	11.2	5.2	0.9
Hardwoods	8.5	0.1	9.4	10.7	0.4	10.3	14.7	3.0	11.7	23.0	10.1	12.9	37.5	15.7	21.8
Eastern Europe												:			
Softwoods	51.9	1.8	50.1	77.1	6.7	70.4	93.1	4.8	88.3	99.5	6.9	7.7	136.0	22.3	113.7
Handwoods	14.5	•	14.5	20.6	1	20.6	26.2	5.0	25.3	30.6	1.4	29.3	<b>7</b>	1.8	32.8
Eastern Europe	a L	1	6	5	5	7 41		ć	70.7	7.7 5	. •	5.44	23.6	,	23.4
Hardwoods	6.7	1	6.7	9:1	} 1	9.1	11.9	0.3	11.6	14.2	0.3	13.9	16.2	0.3	15.9
USSR			٠												
softwoods	43.2	1.8	41.4	62.1	6.4	55.7	72.1	4.5	67.6	77.0	6-8	70.2	112.6	22.3	.0°
Hardwoods	7.8	1	7.8	11.5	1	11.5	14.3	9.6	13.7	16.4	1.1	15.3	18.4	7.5	16.9
<b>Sentrally Planned</b>	•														
Asia	P.	ļ	6	F	3	· F	9,71	ı	Ā	0	1	10.9	75.7		25.7
201 - #0003	:		;												

Source: PPI

Table 11-32 RATE OF IMPORT TO APPARENT CONSUMPTION OF PULPHOOD IN THE MAJOR IMPORTING COUNTRIES (1972-1982)

						!		. !			0.1	7*000 0001
		1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Canada	Import Cossump. Rate (%)	445 36,074	339 40,120 1	652 46,363	556 35, 796	495 35, 089	585 36,682 2	39,231 2	1.074 39,730	99,670 39,670 2	687 58.516 1	39, 677 1
U.S.A.	Import Consump. Rate (X)	1.637 101,606 2	1.523 103.196	1,535 112,422 1	1.303 92.127	1.544 98,392 2	1,688 93,669 2	1,683 102,026	1,430 110,593	1,583 119,015	1.661 119,365	1,443 119,339
Austria	laport Consump. Rate (%)	734 3.066 24	1,110 3,345 33	1,459 3,427 43	1,257 3,359 37	1,047 3,591 29	1, 933 3, 552 29	1.072 3,690 29	1,575	1.769 4.718 37	1,338 4,287 31	1.242
Belux	Import Consump. Rate (%)	1,479 2,647 72	1.912 2.508 76	2,166 2,948 73	1,548 2,249 69	2.630 3.374 78	2,797 3,410 82	2.682 3.246 83	2.768 3.180 87	3.061	2,918 3,242 90	3,284
Switzerland	Import Consump. Rate (%)	262 843 31	359 884 41	565 1,222 46	426 1,049 41	461 1.054 43	363 1.120 32	1,236 36	587 1,310 45	858 1.642 52	827 1,592 52	1.372
H. Germany	Import Consump. Rate (%)	1.153 6.753 17	1.275 7,064	1,169 9,437 12	1,068 7,958 13	1,258 7,228	1.343 8,594 16	1.397 8,483 16	1.408 8.785 16	1,462 9,276 16	1,657 9,192 18	1,311 8,898 15
Finland	laport Consump, Rate (%)	2.279 20,532 11	4.358 21,798 20	4.381 21,553 20	4,313 18,248 24	4.443 17,233 26	3,508 15,906 22	3.056 18.905 16	3.071 28,854 15	3.338 21,715 15	3,504 22,742 15	4,684 22,815 21
France	Import Consump. Rate (%)	735 6,328 12	572 6.875 8	792 7,978 10	621 7.488 8	749 7,287 18	683 7,412 9	662 7,128	873 7.411	1.010 7.901	699 6,831	516 6.557 8
Italy	Import Consump. Rate (%)	1.823 2,629 69	1.444 2.367, 51	1,937 2,501 77	1,413 1,873 75	1,756 2,228 79	1.325 2.130 62	1.244 1.982 63	1.474 2.407 61	1,579 2,588 61	1,257 2,174 58	1,212 2,129 57
Котнау	Import Consump. Rate (%)	1,926 5,462 35	1,864 5,411 34	2,163 6,350 34	2,285 7,035	1,387 5,392 26	1,042 3,668 28	1,056 3,980 27	1,180 4,138 27	1,151 4,295 27	1,291 4,568 28	1.128 4.562 25
Sweden	Import Consump. Rate (%)	467 25,141	489 25.656	1,153 31,126	3,355 34,699 10	2.490 29.905 8	3,055 23,651 13	1,549 23,162	2.715 28.148 10	3,968 24,551 15	9,114 32,183 28	4,375 25,969 16
Japan	Import Consump. Rate (X)	7,507	10,740 23,541 46	11.945 25.897 46	9,788 20,809 47	10.839 22.518 48	15.515 26.605 58	14,524 24,155 60	16, 593 26, 486 63	17.481 28.754 61	13, 504 23, 786 57	12,539 22,922 55

Table 11-33 RATE OF EXPORT TO PRODUCTION OF PULPNOOD IN MAJOR EXPORTING COUNTRIES (1972-1982) (1)

		1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1 1982
Canada	Export Produc. Rate (%)	2,803 38,432	2.602 42.383 6	2,328 48,039 5	1,827 37,067 5	2.242 36,836	2,420 38,517 6	2,501 40,898 6	2,373 41,029 6	2,995 41,999	2,861 52,690 5	2,215 41,335 5
U.S.A.	Export Produc. Rate (X)	3,965 103,934	5, 235 106, 908 5	6.074 116.961 5	5,040 95,864 5	6,895 102,943 6	6,290 98,271 6	5,715 106,058 5	7.898 116,253	6,892 124,324 6	5.521 123,225	4,389 122,285
Denmark	Export Produc. Bate (%)	203 77 264	158 77 205	95. 112	507 280 181	614 431 142	681 389 154	594 336 177	512 287 178	406 287 141	486 287 169	488 287 178
Finland	Export Produc. Rate (%)	367 18,620 2	320 17,760 2	298 17.478	285 14,220 2	230 13, 028 2	282 12,680 2	171 16.020 1	617 18, 400 3	1,883 19,460 6	1,592 20,830 8	549 18,688
France	Export Produc, Rate (X)	1,662 7,255 23	1,910 8,214 23	2,215 9,401 24	1,947 8,814 22	1,859 8,397 22	1,957 8,686 23	2,000 8,466 24	2, 867 8, 605 24	2, 296 9, 187 25	2,377 8,509 28	2,468 8,589 29
W.Germany	Export Produc. Rate (X)	6.814	572 6,361 9	1,798 10,066	2,758 9,648 29	2,347 8,317 28	1,921 9,172 21	1.175 8.261 14	1,455 8,832 16	2.277 10.691 23	2,095 9,630 22	2,843 9,638 21
lreland	Export Produc. Rate (%)	ස ස ස	988	123 123	115 0	229 1	26 218 12	63 117 54	62 87 71	99 87 114	289 87 332	471 480 98
Netherlands	Export Produc. Rate (%)	89 680 13	245 440 56	333 558 61	149 601 25	434 516 84	425 421 181	348 380 92	355 370 96	467 332 141	457 332 138	407 332 123
Когиву	Export Produc. Rate (%)	131 3,667 4	118 3,665 3	138 4.317 3	265 5,015 5	380 4,385 9	586 3,212 18	409 3,333 12	3,812 28	886 4,030 22	753 4.030 19	596 4, 830 15
Sweden	Export Produc. Rate (X)	2,580 27,254 9	3,063 28,230 11	2, 239 32, 212	2, 056 32, 860 6	1,535 28,950 5	904 21,509	887 22,500 4	867 26, 308	1,442 22,025	1,336 24,405 5	1,131 23,725 5
U.K.	Export Produc. Rate (%)	895 0	895 0	1.015	1,070 0	1,650 1,850	1,060	15 860 2	13 1,800 1	109 791 14	634 1,168 54	598 1,168 51

Table II-33 RATE OF EXPORT TO PRODUCTION OF PULPHOOD IN THE MAJOR EXPORTING COUNTRIES (1972-1982) (2)

				i						5	(Unit: 1,698	IB CUM)
		1972	1973	1974	1975	1976	1977	1978	1979	1980	1861	1982
Indonesia	Export Produc. Rate (%)	26 48 55	23 40 58	30 88	24 20 120	112 20 560	318 20 1,590	360 20 1,800	451 20 2,255	468 20 2,340	468 20 2,346	468 20 2,340
Malaysia	Export	737	731	962	906	585	715	498	282	532	532	532
	Produc.	737	731	962	906	592	666	613	613	613	613	613
	Rate (%)	100	100	180	100	99	107	81	46	87	87	87
Australia	Export	830	1,930	2,496	2,658	3,511	4,786	4,635	4,957	6,629	6,161	5,684
	Produc.	2,034	1,959	2,268	4,976	4,341	5,353	5,319	5,314	6,390	6,411	5,760
	Rate (%)	41	99	110	53	81	89	87	93	104	96	99
New Zealand Export	Export	217	269	435	403	355	540	439	400	435	515	585
Produc	Produc.	1,606	3,415	2, 738	2,637	2,850	3,243	3,016	3,016	3,500	3,766	3,739
Rate (	Rate (%)	14	8	16	15	12	17	15	13	12	14	16

Source: Yearbook of Forest Products, 1982 (FAO)

BRP PRODUCTION, SHARE AND GROWTH RATE BY REGION Table II-34

(Unit: 1,000 ton, %, %/y)

							Share		Average	Annual Growth Rate	owth Rate
Region	1972	1977	1980	1981	1982	1972	1977	1982	1977/72	1982/77	1982/72
World Total	28,114	32,336	40,351	40,860	40,084	100.0	100.0	100.0	2.8	4.4	3.6
EC	7.08	808	671	701	785	2.5	2.5	2.0	2.7	9.0-	1.0
Scandinavian 3*	3,989	4,384	5,801	6, 229	5,719	14.2	13.6	14.3	1.9	5.5	3
Other W. Europe	549		1,064	1,147	1,156	2.0	2.4	2.9	-	8.4	7.7
Total W. Europe	5,246	5,964	7,536	8,077	7,660	18.7	18.4	19.1	2.6	5.1	9
Eastern Europe	225	382	513	557	635	0.8	1.2	1.6	11.2	10.7	10.9
North America	18,417	20,636	25,086	25,520	24,727	65.5	63.8	61.7	2.3	3.7	3.0
Latin America	603	1,114	2,177	1,798	1,856	2.1	3.4	4.6	13.1	10.7	11.9
Asia	3,280	3, 755	4,477	4,268	4,603	11.7	11.6	11.5	2.7	4.2	3.4
Oceania	190	323	327	377	335	0.7	-0	0.8	11.2	0.7	6.9
Africa	153	162	236	263	268	0.5	0.5	0.7	1.2	10.6	5.8

Note: Excludes production of USSR and Taiwan. *: Norway, Sweden and Finland Source: FAO, Yearbook of Forest Products (1972 - 1982)

Table II-35 Major BKP PRODUCING COUNTRIES (1983)

Region Country Capacity  N. America USA 19,147  N. America Canada 8,782 Asia Japan 4,581 W. Europe Sweden 3,585 W. Europe Finland 3,225 U. America Brazil 2,168 E. Europe USSR 1,500 W. Furone Spain					
nerica USA nerica USA nerica Canada Trope Sweden Irope Finland nerica Brazil Irope USSR	BKP Total	LB	LВКР	Z	NBKP
Terica USA Terica Canada Trope Sweden Trope Finland Trope USSR Trope USSR	Capacity Production Capacity Production	Capacity	Production		Capacity Production
erica Canada Japan Irope Sweden Irope Finland Herica Brazil Irope USSR			8, 053	11,094	11,094
Japan Irope Sweden Irope Finland Merica Brazil Irope USSR			570	7,661	7,192
Irope Sweden Irope Finland Agrica Brazil Irope USSR			3,725	779	763
rrope Finland serica Brazil rrope USSR			840	2,695	2,545
nerica Brazil Irope USSR Irope Spain		1,375	1,240	1,850	1,668
rrope USSR			1,942	162	157
rrone Spain			0	1,500	1,275
5 t 5 L) (1		627	603	140	135
urope France	·		450	250	234
grope Portugal	615 610		590	20	20

Table II-36 BKP PRODUCTION, SHARE AND GROWTH RATE BY GRADE AND REGION

%/3)
ş-é
ton,
1,000
(Unit:

						r.S.	Share	:	; ; ;	; ;
	6 7	1973*	1 9	1983**	1.9	1973	1 9	1983	Average A	Annuai Rate
Region	LBKP	NBKP	LBKP	NBKP	LBKP	NBKP	LBKP	NBKP	LBKP	NBKP
World Total	11,976	17,860	19, 161	17,860 19,161 27,143	100.0	100.0 100.0	100.0	100.0 100.0	4.81	4.27
Scandinavian 3***	1,375	1	2,088	4,421	11.5	16.6	10.9	16.3	4.27	4.10
Other W. Europe	350		1,833	388	2.9	∞	9.0	1.4	18.00	1.78
W. Europe Total	1,725		3,921	4,809	14.4	18.4	20.5	17.7	8.56	3.98
Eastern Europe	200		240	1,918		3.2	 	7.0	1.84	12.96
North America	6,205	13,006	8,837	18,072	51.8	72.8	46.1	66.5	3.60	3.34
Latin America	475	219	1,936	787	4.0	1.2	10.1	2.9	15.09	13.65
Asia	3,170	572	3,875	1,251	26.5	3.2	20.2	4.6	2.03	8.14
Oceania	116	100	120	212	1.0	0.5	9.0	0.8	0.34	7.80
Africa	82	115	232	94	0.7	9.0	1.2	0.3	10.56	-2.00
Share in Total BKP	40.1	59.9	41.4	58.6		<u> </u>			1	•
										1

Note: Includes production of USSR and Taiwan.
Source: *; FAO, World Pulp and Paper Demand, Supply and Trade-2 (1977)
**; FAO, Pulp and Paper Capacities 1983 - 1988 (1984)
PPI, July 1984
***; Norway, Sweden and Finland

1983 BKP MARKET PULP OUTPUT BY GRADE AND CONTINENT Table II-37

	North	Eurobe	Latin America	 €	Africa	Austral-	Total
NBKP		ľ		   1   1   1	1		 
Output Share (%)	8,355	4,004	597	136	1 1	82 0.6	82 13,174 0.6 100.0
LBKP							
Output Share (%)	2,851	3,446 38.6	1,533	808 9.0	300	1 1	8,938
Total							
Output Share (%)	11,206	7,450	2,130 944 9.6 4.3	944 44.	300	0.4	22,112

Table II-38 PROJECTED PRODUCING CAPACITY OF BKP BY GRADE AND REGION (1983 - 1988)

(Unit: 1,000 t/y)

:		BKP To	Total		LBKP	:		NBKP	
Region	1983	1988	1983-88 increase	1983	1988	1983-88 increase	1983	1988	1983-88 increase
World Total	49,056	55, 478	6,422	20,273	23,468	3,231	28,819	32,010	3, 191
Scandinavian 3*	7,060	8,345	1,285	2,265	2,650	385	4, 795		980
Other W. Europe	2,360	3,010	650	1,942	2,450	208	418		142
W. Europe Total	9,420	11,355	1,935	4,207	5,100	893	5,213		1,042
Eastern Europe	2,536	2,636	100	283	283	<b>-</b>	2,253	2,353	100
North America	27,929	30,433	2,504	9,174		1,189	18,755		1,315
Latin America	3, 031	3,632	601	2, 158	2,439	281	873	-	320
Asia	5,345	5,880	535	4,014		418	1,331		117
Oceania	402	435	33	121	154	33	281		0
Africa	393	1,107	714	280	697	417	113		297

Note: Includes production of USSR and Talwan.
*; Norway, Sweden and Finland
Source: FAO, Pulp and Paper Capacities 1983 - 1988 (1984)

Table II-39 BKP DEMAND, SHARE AND GROWTH RATE BY REGION

(Unit: 1,000 ton, %, %/y)

							Share		Average	Annual Growth Rate	wth Rate
Region	1972	1977	1980	1981	1982	1972	1977	1982	1977/72	1982/77	1982/72
World Total	27,901	32,245	39, 264	40,241	39,149	100.0	100.0	100.0	2.9	4.0	3.4
Scandinavian 3*	2,230	-	2,743	3, 138	3,010	8.0	6.0	7.7	-2.7	9.1	3.0
Other W. Europe	4,621	ဖ	7,754	7,703	7,209	16.6	19.2	18.4	9.9	3.0	4.5
Total W. Europe	6,851	8,115	10,497	10,841	10,219	24.6	25.2	26.1	3.4	4.7	4.1
Eastern Europe	341		816	855	883	1.2	1.9	2.3	12.8	7.2	10.0
North America	15,562	17		21,040	20,148	55.8	54.1	51.5	2.3	2.9	2.6
Latin America	754	<u> </u>	1,396	1,022	1,071	2.1	က	2 7	6.9	0.4	3.6
Asia	3,913			5,652	6,042	14.0	13.6	15.4	2.3	6.6	4.4
Oceania	289		408	454	402	1.0	1.2		6.0	0.8	3.4
Africa	189		353	378	386	0.1	0.8	1.0	6.2	8	7.4

Note: *; Norway, Sweden and Pinland Source: FAO, Yearbook of Forest Products (1972 - 1982)

Table II-40 MAJOR BKP CONSUMING COUNTRIES (1982)

(Unit: 1,000 MT)

			,	· · · · · ·
No.	Region	Country	Consumption	Share (%)
2 3 4 5 6 7 8 9 10	W. Europe W. Europe W. Europe L. America W. Europe W. Europe	USA Japan Germany FR Canada France Finland Sweden Italy Brazil UK Spain	18,271 5,250 1,944 1,876 1,648 1,642 1,336 907 867 864 813	13.4 5.0 4.8 4.2 4.2 3.4 2.3 2.2 2.2 2.1
12	W. Europe Sub-Total	Netherlands	405 35,823	1.0 91.5
	World Total		39,149	100.0

Table II-41 BKP SUPPLY AND DEMAND BALANCE IN MAJOR COUNTRIES (1)

				.	i	-				(Unit:	: 1,000	MT)
Country	Items	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Canada	PRD IMP EXP CON	5,518 69 4,148 1,439	6, 146 39 4, 503 1, 682	6,506 33 4,871 1,668	5,082 41 3,542 1,581	6,322 4,414 1,950	6,520 24 4,373 2,171	7,037 31 5,302 1,766	7,481 100 5,284 2,297	7,859 84 5,985 1,958	7,312 74 5,065 2,321	6,836 86 5,046 1,876
USA	PRD IMP EXP CON	12,899 2,269 1,045 14,123	13,500 2,482 1,117 14,865	13,950 2,494 .1,389 15,055	12,559 2,029 1,377 13,211	13,603 2,423 1,288 14,738	14,116 2,474 1,332 15,258	15,467 2,670 1,355 16,782	16,215 2,869 1,578 17,506	17, 227 2, 762 2, 263 17, 726	18, 208 2, 765 2, 254 18, 719	17,891 2,576 2,196 18,271
Finland	PRD IMP EXP CON	1,488 1 654 835	1,563 1 708 856	1,527 0 554 973	1,306 0 384 922	1,461	1,576 1 598 979	2,094 1 943 1,152	2,574 1 1,170 1,405	2,709 1,260 1,450	2,819 2 1,113 1,708	2,638 7 1,003 1,642
Norway	PRD IMP EXP CON	88 88 133 133	85 99 128 56	150 96 65 181	175 70 71 174	190 78 96 172	120 66 100 86	61 101 162 0	18 117 133 2	3 144 117 30	158 74 168 64	167 44 179 32
Sweden	PRD IMP EXP CON	2, 421 22 1, 181 1, 262	2,875 27 2,172 730	2,947 10 2,177 780	2,822 19 1,893 948	2,883 14 1,985 912	2,688 12 1,821 879	2,945 15 2,183	3, 168 35 2, 002 1, 201	3,089 32 1,858 1,263	3,252 33 1,919 1,366	2,914 37 1,615 1,336
W. Germany	PRD IMP EXP CON	1,164 1,164 1,164	1,294 1,294 1,294	1,353 1,353 1,353	1,098 1,098 1,098	1,385 1,385 1,385	1,435 1,435 1,435	1,647 1,647 1,647	1,780	1,938 1,932	1,957 0 1,957	1,950 1,944

Table II-41 BKP SUPPLY AND DEMAND BALANCE IN MAJOR COUNTRIES (2)

France         PRD         470         487         1974         1975         1976         1977         1978         1974         1975         1976         1977         1978         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979         1979							. •				(Unit:	t: 1,800	MT)
PRD         470         497         511         464         482         586         576         537           EXP         1MP         762         836         931         716         878         878         1.114         1.195         1.095           EXP         1,128         1,153         1,341         1,141         1,269         1,373         1,590         1,627         1,           PRD         79         83         90         65         594         724         716         1,001         1,119         1,           EXP         0         0         677         530         724         716         1,001         1,119         1,           EXP         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	Country	Items	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
PRD         79         83         90         65         59         40         68         17         199         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         1	Prance	PRD IMP EXP CON	470 762 104 1,128	497 836 180 1,153	511 931 101 1,341	464 716 39 1,141	482 878 91 1,269	586 878 91 1,373	576 1,114 100 1,590	537 1,195 105 1,627	480 1,264 91 1,653	510 1,319 66 1,763	594 1,135 81 1,648
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Italy	PRD IMP EXP CON	79 629 0 708	83 650 8	90 677 1 766	65 530 1 594	59 724 0 783	40 716 0 756	68 1,001 1 1,068	1,119	1,177	1,040 1,040 1,040	907 0 0 706
rlands PRD	u.K.	PRD IMP EXP CON	1,123 0 1,123	1,076 1,076 1,076	1,139 0 1,139	1,004 1,004	1,166 1,166 1,166	1,128 3 1,125	1,179 1,175	1,220 1,219	1,099 8 1,091	1, 105 1, 105 1, 103	866 2 864
I     PRD     318     376     417     370     507     654     903     1,078     1,078       IMP     92     50     78     58     36     33     42     45       EXP     6     14     4     7     12     19     133     446       CON     404     412     491     421     531     .668     812     677	Netherlands	PRD IMP EXP CON	348 2 346	398 2 396 396	406 403	344 341 341	383 6 377	381 4 377	453 1 452	476 6 478	474 2 472	0 451 3 448	406 405 405
	Brazil	PRD IMP EXP CON	318 92 6 404	376 58 14 412	417 78 4 491	370 58 7 421	507 36 12 531	654 33 19 . 668	903 42 133 812	1,078 45 446 677	1,585 39 766 858	1,542 17 762 797	1,595 7 735 867

Notes: PRD=Production, IMP=Import, EXP=Export, and CON=Consumption

Table II-42 BKP DEMAND BY GRADE AND REGION

		(Unit:	1,000 MT)
Region	LBKP	NBKP	BKP Total
North America	5,533	10,944	16,477
Western Europe	2,945	4,681	7,626
Japan	2,896	996	3,892
Latin America	475	517	992
Oceania	146	159	305
Middle East and North Africa	10	46	56
Africa South of Sahara	35	120	155
Far East	170	77	247
Centrally Planned	225	642	867
World Total	12,435	18,182	30,617

Source: FAO, World Pulp and Paper Demand, Supply and Trade-2

Table II-43 BKP PRODUCTION/IMPORT/EXPORT/APPARENT CONSUMPTION IN LATIN AMERICA (1)

(Unit: 1,000 MT)

								e Growth (%/Y)
Country	Item	1972	1977	1980	1981	1982	1977/72	1982/77
Argentine	Produc.	52	50	53	34	52	-0.8	0.8
	Import	47	- 57	75	95	104	3.9	12.8
	Export	0	0	0	. 0	0	• -	1-1-
	Net Imp.	47	57	75	95	104		
	Consump.	99	107	128	129	156		7.8
	SS-Rate	53	47	41	26	33		
Brazil	Produc.	318	654	1,585	1,542	1,595	15.5	19.5
	Import	92	33	39	17	. 7	-18.5	-26.7
	Export	- 6	19	766	762	735		107.7
	Net Imp.	86	14	-727	-745	-728		
	Consump.	404	668	858	797	867		5.4
	SS-Rate	79	98	185	193	184		
Chile	Produc.	139	269	315	321	298	14.1	2.1
	Import	0		0	0	0		-
	Export	n.a	175	217	281	227	٠ ـ	5.3
	Net Imp.	0	-175	-217	-201	-227		
	Consump.	139	94	98	120	71	-7.5	-5.5
	SS-Rate	100	286	321	268	420		
Colombia	Produc.	0	0	2.	1	1	_	
••	Import	Û	11	34	41	37	_	27.5
	Export	ŏ	Ö	Ö	0	Č	· _	
	Net Imp.	Õ	11	34	41	37		
	Consump.	ď	ĨĨ	36	42	38		28.1
	SS-Rate	ŏ	Ō	0	0	0		
Ecuador	Produc.	0	0	0	0	0		
DOUGUO!	Import	n	ŏ	2	4	11	_	-
	Export	õ	Õ	ō.	Ô	Ō	_	٠.
	Net Imp.	ŏ	ŏ	2	4	11		
	Consump.	Ŏ	Ŏ	$\tilde{\tilde{\mathbf{z}}}$	$\hat{4}$	11	-	_
	SS-Rate	Õ	0	Ö	0	0		
Peru	Produc.	0	0	0	0	0		
	Import	16	15	15	12	12		-4.4
	Export	0	0	0	0	0		***
	Net Imp.	16	15	15	12	12		
	Consump.	16	15	15	12	12		-4.4
	SS-Rate	0	0	0	0	0		****

BKP PRODUCTION/IMPORT/EXPORT/APPARENT CONSUMPTION IN LATIN AMERICA (2)

(Unit: 1,000 MT)

		:						Growth
Country	Item	1972	1977	1980	1981	1982	1977/72	1982/77
Uruguay	Produc.	n.a	13	19	17	16	_	4.2
	Import	2	5	6	4	- 2	20.0	16.8
	Export	Ó	0	. 0	0	0	-	-
	Net Imp.	2	5	6	4	2		-
	Consump.	2	18	25	21	18	55.0	0.0
	SS-Rate	0	- 72	76	81	89	. ,	-
Mexico	Produc.	94	141	224	222	209	8.4	8.2
	Import	0	0	0	0	0	3 3 1 <u>-</u>	_
	Export	Û	0	0	0	Û	-	
	Net Imp.	0	0	Ô	. 0	0	•	
	Consump.	94	141	224	222	209	8.4	8.2
	SS-Rate	100	100	100	100	100		

Note: SS-Rate = Production/Apparent Consumption x 100
Source: URUGUAY; Paper Association Uruguay
CHILE; PPI Annual Review (Production in 1981 and 1982)
OTHER COUNTRIES; FAO Yearbook of Forest Products

Table II-44 PROJECTION OF PAPER & PAPERBOARD PRODUCTION AND WOODPULP CONSUMPTION IN THE WORLD

Year	GDP in 1975 US\$ (billion)	Paper & Paper of Paperboard Consumption (1,000 MT)	Paper & Paper board Production (1,000 MT)	Woodpulp Consumption (1,000 MT)
Actual				
	= 440	405 540	100 500	4.05 000
1972	5,418	137,510	137,582	107,923
1973	5,902	146,605	147, 118	113,836
1974	6,039	148,331	149,356	117,586
1975	6.152	128, 232	130,709	102.537
1976	6,471	146,724	147, 265	114,861
1977	6,760	151,335	151.895	116,281
1978	7,201	158, 198	158, 178	121, 107
1979	7,445	169,287	170.447	123,302
1980	7,586	170,787	172.301	125,388
1981	7.723	170,716	172.471	125,935
1982	7,754	165,091	165,360	120.133
Forecast				
1988	9.272	188,146	188,146	136,406
1990	9,969	195, 628	195.628	140,852
1995	11,948	212,304	212,304	150,736
2000	14, 321	224,886	224,886	157,420
Annual Ave Growth Rat	e (%)		1	
1988/1982	3.03	2.20	2.18	2.14
1990/1988	3.69	1.97	1.97	1.62
1990/1982	3.19	2.14	2.12	2.01
1995/1990	3.69	1.65	1.65	1.37
2000/1995	3.69	1.16	1.16	0.87
2000/1982	3.47	1.73	1.72	1.51

Notes (Projection Method):

1. Paper & Paperboard Consumption:

Regression Formula:

-0.279498x

y = K/(1+3.67931 e

Where: y = Paper & Paperboard Consumption (1,000 MT)

(See Table )

x = GDP in 1975 US\$ (1,000 billion) (See Table )

K = Ceiling Value (240,000,000 MT)

2. "Paper & Paperboard Production"="Paper & Paperboard Consu

3. Woodpulp Consumption:

Ratio of Woodpulp Consumption to Paper & Paperboard Production:

1988	1990	1995	2000
8.725	0.72	0.71	0.70

Table 11-45 FORECAST OF WOODPULP CONSUMPTION AND BKP CONSUMPTION IN THE WORLD

	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	020		Average	Average Annual Growth Rate (%/y)	h Rate (%/y)		
Year	Consumption (A) (1,000 MT)	Consumption (B) (1,000 MT)	(B/A) (%)	Period	Woodpulp Consumption	BKP Consumption	Remarks	
1972		27,901	25.9					
1973		29,859	26.2					
1974	117,586	30,858	26.2					
1975		27,747	27.1				i	
1976		31,043	27.0				Historical Data	e ta
1977		32, 245	27.7	77/72	1.50	2.94		
1978		35, 311	28.5					
1979		38, 187	31.0					
1980		39, 264	31.3					
1981		40,241	32.0					
1982		39,149	32,6	82/72	1.08	3.45		
1988		45,378	33.3	88/82	2.14	2.49		
1980	140,852	47,120	33.55	88/06	1.62	1.90	Forecast	
1995	150,736	51,516	34.2	95/90	1.37	1.80		
. 2000	-	55,306	35.1	2000/95	0.87	1.43		

Table II-46 FORECAST OF WOODPULP CONSUMPTION AND BKP CONSUMPTION IN N. AMERICA, L. AMERICA AND EC

		Paper and	1 Paperboard	Woodpulp	ВКР			Average	Annual	Growth	Rate
Region	Year	Consumption (1,000 MT)	Production (A) (1,000 MT)	Consumption (B) (1,000 MT)	Consumption (C) (1,000 MT)	(8/A) (	(8/2)	Period	(A)	(B)	9
North America	1972 1977 1980 1981 1981	59, 021 60, 731 67, 290 68, 527 62, 843	62,859 64,946 72,847 74,066 67,471	53.195 57.291 59.282 60,630 56,410	15,562 17,429 19,584 21,040 20,148	84.6 88.2 81.9 83.6	29.2 30.4 33.2 34.9	77/72 80/72 81/72 82/72	0.70 1.90 1.80 0.70	1.50 1.50 1.50 0.60	2.38 3.48 2.60
	1988 1990 1995 2000	73, 456 75, 202 78, 051 79, 351	75, 094 77, 669 83, 260 87, 678	61, 201 63, 300 67, 440 70, 581	22, 032 22, 915 24, 683 26, 115	81.5 81.0 81.0 80.5	36.0 36.2 36.5 37.0	88/82 90/82 95/90 2000/95	1.80 1.78 1.40 1.00	1.40 1.45 1.28 0.90	1.50 1.62 1.50 1.13
Latin America	1972 1977 1980 1981 1982 1988	5,941 7,380 9,660 9,294 9,607	4,246 5,536 7,727 7,434 7,697 8,432	1,977 3,133 4,652 4,516 4,574 4,974 5,497	754 1, 051 1, 396 1, 022 1, 071 1, 244	46.6 56.6 60.2 60.7 59.4 59.0	22.6 23.3 23.6 23.6 25.6 25.6 25.6	80/72 80/72 81/72 82/72 88/82	6.16 6.18 6.18 7.50	11.38 9.60 8.70 1.40	6.90 3.40 3.60 3.50
	1995 1995 2000	12,942	10,613 12,184	6, 156 7, 805	1,575	58.8 57.5	25.6 25.9	95/90 2000/95	3.98	2.58	2.90
EC	1972 1977 1980 1981 1982	28, 897 29, 969 32, 907 32, 675 31, 714	21, 415 22, 634 24, 606 24, 205 23, 431	13,323 12,719 13,974 13,449 12,621	4,741 5,340 6,692 6,658 6,101	62.2 56.2 55.8 53.8	35.6 41.9 49.5 48.3	77/72 80/72 81/72 82/72	1.10 1.80 1.40 0.90	-0.90 0.60 0.10 -0.50	2.40 4.40 3.80
-	1988 1990 1995 2000	34, 788 35, 721 37, 926 39, 838	25, 567 26, 275 28, 166 29, 675	13,678 14,031 14,928 15,579	6,839 7,072 7,613 8,024	53.4 53.4 53.0 52.5	50.0 50.4 51.0 51.5	88/82 90/82 95/90 2000/95	1.50	1.40 1.33 1.25 0.86	1.98 1.86 1.49

Table II-47 FORECAST OF BKP SUPPLY AND DEMAND BALANCE IN THE WORLD

Region	Item	Unit	1988	1990	1995	2000
World Total	Capacity (A)	1,000 MT	54,086	54,086	54,086	54.086
	Production (B)	1,000 MT	45,378	47,120	48,677	48,677
-	Operating Rate (B/A)	%	83.9	87.1	90.0	90.0
	Consumption (C)	1.000 MT	45,378	47,120	51,516	55,306
	S/D Balance (B-C)	1,000 MT	. 0	0	-2,839	-6.639
	Additional Capacity	1,000 HT	0	0	3, 154	7,376
	Required (C-B)/0.9					. <u></u>
North America	Capacity (A1)	1,000 MT	30,433	30,433	30.433	30.433
	Production (B1)	1,000 MT	27,390	27,390	27,390	27.390
	Operating Rate (B1/A1)	%	90.0	90.0	90.0	90.0
	Consumption (C1)	1,000 MT	22,032	22,915	24,683	26,115
	S/D Balance (B1-C1)	1,000 MT	5,358	4,475	2,707	1,275
Latin America	Capacity (A2)	1,000 MT	3,632	3,632	3,632	3,632
7	Production (B2)	1,000 NT	3,269	3,269		3,269
	Operating Rate (B2/A2)	%	90.0	90.0	90.0	90.0
	Consumption (C2)	1,000 MT	1,244	1,365	1.575	1.814
	S/D Balance (B2-C2)	1,000 NT	2,025	1,904	1,694	1.455
EC	Capacity (A3)	1,000 HT	1,120	1,120	1,120	1,120
20	Production (B3)	1,000 MT	1,008	1,008	1,008	1.008
* *	Operating Rate (B3/A3)	%	90.0	90.0	90.0	90.0
•	Consumption (C3)	1,000 MT	6,839	7,072	7,613	8.024
	S/D Balance (C3-B3)	1,000 HT	-5,831	-6,064	-6,605	-7,816

Table II-48 BKP TRADE IN THE WORLD (1)

(Unit: 1,800 MT)

		1			·		S	Share (%)		Rate	(%/%)
Region	Item	1972	1977	1980	1981	1982	1972	1977	1982	1977/72	1982/77
World Total	Produc.	28,114	32, 336	40,351	40,860	40,084	100.0	100.0	100.0	2.8	4.4
	Import	8, 109	9,112	12,328	11,910	11,127	100.0	100.0	100.0	2.4	4.1
	Export	8,322	9,203	13,415	12,529	12,062	100.0	100.0	100.0	2.8	5.6
BC	Produc.	708	808	671	701	785	2.5	2.5	2.0	2.7	-0.6
	Import	4,253	4,763	6,269	6,169	5,547	52.4	52.3	49.9	2.3	3.1
	Export	220	231	248		231	2.6	2.5	1.9	<b>∵</b>	0.0
-	Net Imp.	4,033	4,532	6,021	5,957	5,316		-			
	Consump.	4,741	5,346	6,692		6,101	17.0	16.6	15.6	2.4	2.7
	SS-Rate	15	ក	10	11	13					
Scandinavian 3*	Produc.	3,989	4,384	5,801	6, 229	5,719	14.2	13.6	14.3	1.9	5.5
	Import	109	79	177	109	88	1.3	න ස	æ.	-6.2	2.5
	Export	1,868	2,519	3, 235	3,200	2,797	22.4	27.4	23.2	6.2	7.7
	Net Imp.	-1,759	-2,440	-3,028	-3, 091	-2,709	٠				
Other W.Europe	Produc.	549	772	1,064	1,147	1,156	2.0	2.4	2.9	7.1	8.4
	Import	277	315	385	365	420	3.4	က်	က	5.6	ы 9.
-	Export	946	256	387	467	468	11.4	2.8	ლ	-23.0	12.8
	Net Imp.	699-	29	-2	-105	-48	:				
Total W.Europe	Produc.	5,246	5,964	7,536	8,077		18.7	18.4	19.1	2.6	5.1
	Import	4,639	5,157	6,831	6,643	6,055	57.2	26.6	54.4	2.1	დ. ლ
	Export	3,034	3,006	3,870	3,879		36.5	32.7	29.0	-8.2	3.1
٠.	Net Imp.	1,605	2,151	2,961	2,764						
Eastern Europe	Produc.	225	382	513	557	635	0.8	1.2	1.6	11.2	10.7
	Import	142	256	333	350	338	≈.	& · & ·	က	12.5	ις C
	Export	56	15	36	25	36 6	<del>ე</del> ა	0.5	0.3	-38.4	43.
	Net Imp.	116	241	303	298	248			-	-	

Table II-48 BKP TRADE IN THE WORLD (2)

									(Ur	(Unit: 1,068	0 MT)
							чs	Share (%)		Average Rate (	Growth (%/y)
Region	Item	1972	1977	1980	1981	1982	1972	1977	1982	1977/72 1	1982/77
North America	Produc. Import Export Net Imp.	18, 417 2, 338 5, 193 -2, 855	20, 636 2, 498 5, 705 -3, 207	25, 086 2, 846 8, 248 -5, 402	25, 520 2, 839 7, 319 -4, 480	24,727 2,663 7,242 -4,579	65.5 28.8 62.4	63.8 27.4 62.0	61.7 23.9 60.0	1.3	1.3
Latin America	Produc. Import Export Net Imp.	603 157 6 151	1, 114 131 194 -63	2,177 202 983 -781	1,798 188 964 -776	1,856 177 962 -785	2.1 1.9 0.1	2.1.2	8.0 8.0 8.0	13.1 -3.6 100.4	10.7 6.2 37.7
Asia	Produc. Import Export Net Imp.	3,280 664 31 633	3,755 805 172 633	4,477 1,756 123 1,633	4,268 1,551 167 1,384	4,603 1,568 129 1,439	11.7 8.2 0.4	11.6 8.8 1.9	11.5	2.7 3.9 40.9	4.2 14.3 -5.6
Oceania	Produc. Import Export Net Imp.	190 102 3 99	323 122 59 63	327 145 64 81	377 149 72 77	335 136 69 67	0.7 1.3 0.0	1.0 1.3 0.6	0.8 1.2 0.6	11.2 3.6 81.4	3.2
Africa	Produc. Import Export Net Imp.	153 67 31 36	162 144 51 93	236 209 92 117	263 192 77 115	268 191 73 118	0.0 0.8 4.	0.0	0.1. 0.6	1.2 16.5 10.5	10.6 5.8 7.4

Note: SS-Rate; Self-sufficiency Rate (%)
*; Norway, Sweden and Finland
Sources: Yearbook of Forest Products, 1972-1982 (FAO)

Table II-49 MAJOR BKP EXPORTING COUNTRIES (1982)

(Unit: 1,000 MT, %)

	Expo	rts	÷
Country	Quantity	Share	Net Exports
Canada	5,046	41.8	4,960
USA	2,196	18.2	-388
Sweden	1,615	13.3	1,578
Finland	1,003	8.3	996
Brazil	735	6.1	728
Chile	227	1.9	227
Norway	179	1.5	135
Sub-Total	11,001	91.2	8,224
World Total	12,062	100.0	-

Table II-50 MAJOR BKP IMPORTING COUNTRIES (1982)

(Unit: 1,000 MT, %)

	Impo	rts		
Country	Quantity	Share	Net Imports	Consumption
USA	2,576	23.2	380	18,271
West Germany	1,950	17.5	1,944	1,944
France	1.135	10.2	1,054	1,648
Japan	1,102	9.9	1,041	5,272
Italy	907	8.2	907	907
U.K.	866	7.8	864	864
Netherlands	406	3.6	405	405
Sub-Total	8,942	80.4	6,595	29,311
World Total	11,127	100.0		39,149

Table 11-51 RATES OF EXPORT/PRODUCTION OF BLEACHED SULPHATE PULP IN MAJOR EXPORTING COUNTRIES (1972-1982)

Changle   Export   4,148   4,583   4,671   3,542   4,444   4,373   5,302   5,284   5,885   5,855   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1,975   1							!		.*			(Unit: 1,000	188 ME)
Export         4,148         4,503         4,811         3,542         6,414         4,373         5,892         5,894         5,895           Product         5,518         6,166         6,106         5,082         6,320         7,481         7,481         7,889           Export         1,045         1,117         1,389         1,371         1,289         1,372         1,355         1,481         7,889           Product         1,899         13,589         1,277         1,289         1,416         1,481         1,481         1,585           Export         1,899         1,417         378         1,576         1,576         1,576         1,585         1,586           Export         1,90         1,27         1,289         1,417         3,689         3,586         3,689         3,586         3,176         1,689         1,418         1,489         1,418         1,489         1,418         1,489         1,411         1,489         1,418         1,489         1,411         1,489         1,411         1,489         1,411         1,489         1,411         1,411         1,489         1,411         1,489         1,411         1,411         1,411         1,411         1,411			1972	1973	1974	1975	1976	1977	1978	1979	1980	1861	1982
Export         1.045         1.117         1.389         1.377         1.086         1.375         1.559         1.375         1.385         1.577         1.086         1.578         1.589         1.377         1.088         1.377         1.086         1.578         1.578         1.578         1.585         1.585         1.585         1.586         1.578         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587         1.587 <t< td=""><td>Canada</td><td>Export Produc. Rate (%)</td><td>4,148 5,518 75</td><td>4,583 6,146 73</td><td>4,871 6,506 75</td><td>3,542 5,082 70</td><td>4.414 6.322 70</td><td>4.373 6,520 67</td><td>5,302 7,037 75</td><td>5,284 7,481 71</td><td>5,985 7,859 76</td><td>5,065 7,312 69</td><td>5, 846 5, 835 74</td></t<>	Canada	Export Produc. Rate (%)	4,148 5,518 75	4,583 6,146 73	4,871 6,506 75	3,542 5,082 70	4.414 6.322 70	4.373 6,520 67	5,302 7,037 75	5,284 7,481 71	5,985 7,859 76	5,065 7,312 69	5, 846 5, 835 74
Export         6         14         47         71         12         19         133         446         765           Produc,         318         376         417         370         597         654         963         1,018         1,585           Froduc,         139         138         180         122         155         175         235         226         217           Froduc,         139         138         180         190         61         68         65         83         73         69           Froduc,         159         186         187         188         156         187         188         141           Froduc,         168         166         187         188         146         188         141           Froduc,         164         45         38         45         45         47           Rate (X)         22         36         18         146         482         38         45         47           Rate (X)         22         36         18         19         16         18         17         48           Rate (X)         22         36         18         19	U.S.A.	Export Produc. Rate (%)	1,045 12,899 8	1,117 13,500 8	1,389 13,950 10	1,377 12,559 11	1,288 13,603	1,332 14,116 9	1,355 15,467	1,578 16,215 10	2,263 17,227 13	2,254 18,208 12	2,196 17,891 12
Export         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         # <td>Brazil</td> <td>Export Produc. Rate (%)</td> <td>318 2</td> <td>14 376 4</td> <td>417</td> <td>378</td> <td>12 507 2</td> <td>19 654 3</td> <td>133 963 15</td> <td>446 1,078 41</td> <td>766 1,585 48</td> <td>762 1,542 49</td> <td>735 1,595 46</td>	Brazil	Export Produc. Rate (%)	318 2	14 376 4	417	378	12 507 2	19 654 3	133 963 15	446 1,078 41	766 1,585 48	762 1,542 49	735 1,595 46
Export         114         162         187         67         182         182         182         182         182         182         182         182         182         182         182         182         182         182         182         182         182         182         182         182         182         188         191           Broduc,         1,68         1,63         1,57         1,316         1,461         1,576         2,042         2,77         2,79           Export         44         45         36         1,316         1,461         1,576         2,042         2,57         4,79           Export         470         487         51         48         482         586         576         537         480           Export         80         85         150         175         190         162         183         191           Export         80         85         150         175         190         160         183         3,900           Export         1,181         2,177         1,832         1,885         2,48         2,59         3,68         3,69         3,69         3,90           Export	Chile	Export Produc. Rate (%)	139	138	186 0	122 199 61	165 244 68	175 269 65	235 283 83	226 308 73	217 315 69	201 0 0	227 0 0
Export         654         708         554         384         451         558         943         1,170         1,266           Froduc, 1,488         1,563         1,563         1,563         1,563         1,563         1,567         2,094         2,574         2,709           Export         104         487         511         464         482         586         576         537         480           Froduc, 2         470         497         511         464         482         586         576         537         480           Froduc, 3         470         487         511         464         482         586         576         537         480           Froduc, 3         2         150         175         190         160         183         117           Froduc, 80         85         150         175         190         120         66         183         117           Froduc, 80         85         150         175         190         120         183         183         188         183         186         183         188         183         188         188         186         188         188         188 <t< td=""><td>Belux</td><td>Export Produc. Rate (%)</td><td>114 159 72</td><td>162 169 96</td><td>137 182 75</td><td>67 128 52</td><td>132 152 87</td><td>133 182 73</td><td>151</td><td>150 188 80</td><td>141 191 74</td><td>141 191 74</td><td>141 191 74</td></t<>	Belux	Export Produc. Rate (%)	114 159 72	162 169 96	137 182 75	67 128 52	132 152 87	133 182 73	151	150 188 80	141 191 74	141 191 74	141 191 74
Export         104         180         101         39         91         91         100         105         91           Produc.         470         467         511         464         482         586         576         537         480           Produc.         32         128         65         71         96         110         162         133         117           Produc.         80         85         150         175         190         120         61         18         3.900           Rate (X)         41         151         2.172         2.177         1.893         1.821         2.183         2.945         3.168         3.900           Produc.         2.421         2.875         2.947         2.822         2.883         2.688         2.945         3.168         3.990           Produc.         37         49         50         67         69         68         74         63         69           Rate (X)         31         39         171         119         128         155         90         4.182         4.195           Rate (X)         31         32         3.550         3.560         3.640	Finland	Export Produc, Rate (%)	654 1,488 44	708 1,563 45	554 1,527 36	384 1,306 29	1,461	598 1,576 38	943 2,094 45	1,170 2,574 45	1,260 2,709 47	1,113 2,819 39	1,003 2,638 38
Export         33         128         65         71         96         100         162         133         117           Produc.         80         85         150         175         190         120         61         18         3           Produc.         2,421         2,172         2,177         1,893         1,985         1,821         2,183         2,002         1,858           Produc.         2,421         2,875         2,947         2,822         2,883         2,688         2,945         3,168         3,168           Produc.         37         49         57         69         68         74         65         66         82         83           Rate (X)         37         49         50         53         100         60         74         77         83           Export         3,222         3,384         3,565         3,556         3,506         3,610         4,132         4,195           Rate (X)         1         1         1         1         4         4         4         4         4         4         4         4         2         2         2         2         2         2         2	france	Export Produc, Rate (%)	104 470 22	180 497 36	101 511 20	39 464 8	91 482 19	91 585 16	100 576 17	105 537 20	91 480 19	66 510 13	81 594 14
Export         1.181         2.172         2.177         1.893         1.885         1.821         2.183         2.002         1.858         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.168         3.17         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18         3.18	Norway	Export Produc. Rate (%)	33 80 41	128 85 151	65 150 43	71 175 41	96 190 51	100 120 83	162 61 266	183 18 739	117 3 3.900	168 158 106	179 167 101
Export         0         47         31         42         33         49         63         69           Produc.         37         49         50         53         42         55         66         82         83           Rate (X)         37         49         50         53         100         60         74         77         83           Export         31         35         171         119         128         152         90         93         91         4,195         3,50           Rate (X)         1         1         5         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         2         2         2	Sweden	Export Produc. Rate (%)	1, 181 2, 421 49	2,172 2,875 76	2.177 2.947 74	1,893 2,822 67	1,985 2,883 69	1,821 2,688 68	2,183 2,945 74	2.002 3,168 63	1,858 3,089 60	1,919 3,252 59	1,615 2,914 55
Export         31         39         171         119         128         152         90         93         90         93         90         91         93         90         93         90         91         93         90         91         93         90         91         93         90         90         91         91         93         90         91         91         91         93         90         90         91         93         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90         90	Morocco	Export Produc. Rate (%)	37 9	8 49 8	47 50 94	31 53 58	42 42 100	33 55 60	49 66 74	63 82 77	69 83 83	59 75 79	56 81 70
Export         3         8         14         40         57         59         63         73         64           Produc.         104         122         148         203         193         220         215         193         218           Rate (%)         3         7         9         20         30         27         29         38         29	Japan	Export Produc. Rate (%)	31 3,222 1		3,365 5	119 3,659 4	128 3,508 4	152 3,550 4		93 4,132 2	90 4,195 2	91 3,913 2	4,209
	N.Zealand	Export Produc. Rate (%)	3 104 3	122 122	148 148 9	40 203 20	57 193 30	59 220 27	63 215 29	73 193 38	64 218 29	72 268 28	69 229 30

Table II-52 BKP EXPORTS BY DESTINATION USA, CANADA AND BRAZIL IN 1983

(Unit: 1,080 MT)

			<b>e</b> t			CAR	ADA		BRA	BRAZIL
Destination	LBKP	NBKP	BKP TOTAL	BKP SHARE (%)	LBKP	NBKP	BKP TOTAL	BKP SHARE (%)	вкр	SHARE (%)
Western Europe	377.7	769.1	1,146.8	50.4	143.8	1,231.8	1,375.6	25.2	433.5	46.5
Sweden	0 9	1.2	-	0.0	0.0	9.5		0.8	0.3	
U.K.	108.1	80.3	_	со СО	32.3	170.7	203.0	ω, 	21.7	2.3
Belgium	24.4	97.7		5	2.3	119.3		2.2	325.7	34.9
Netherlands	63.1	39.8		4.5	29.5	115.2		5.6	83	හ. ප
W. Germany	100.9	276.5	_	16.6	59.0	362.8		<u></u>	64.7	6.9
France	20.7	125.7	_	6.4	16.1	231.6	247.7	4.5	. 1.6	0.5
Italy Other Europe	58.6	140.3	198.9 9.9	80	4 O	227.4	232.3	4.0 6.1.3	ლი ლი	
	6 4	7.0			7 386	9 455 1	9 600 5	07	ر الم	بر بر
	•	) u	0.00	30	7 1	4.700	2	) )	2	3 1
USA	7.77	0			235.4	2,455.1	2,690.5	49.3	145.0	15.5
Latin America	63.7	144.7	208.4	9.2	œ	62.9		1.1	48.4	5.2
Mexico	11.7	110.2		5.4	9	19.3	19.3	0.3	က	6.3
Venezuela	33.6	24.7	58.3	2 6	<b>=</b>	31.1		9.0	8	ري 1
Other L, America	00	8.6 8.8	28.2	1.2	0	12.5		0°.2	26.8	8
Asia	302.2	275.6		25.3	90.1			17.8	228.4	24.5
Japan	151.7	227.4	379.1	16.6	90.1	544.4	634.5	11.6	181.0	19.4
Other Asia	158.5	48.2		~	0				47.4	5.1
Oceania	G.	<b>=</b>	0	0	<b></b>	<b>a</b>		9	=	æ
Africa	12.1	49.9	62.0	2.7	5.2	48.9	54.1	1.0	38.8	4.2
Other countires	51.9	135.2	187.1	8.3	2.6	297.8	300.4	5.5	38.4	4.1
World Total	832.2	1,445.0	2,277.2	100.0	477.1	4,980.7	5,457.8	100.0	932.5	100.0
Share of LBKP and NBKP(%)	36.5	63.5	100.0	τ	8.7	91.3	100.0		í	. <b>.</b>

Source: Trade Statistics of USA, Canada and Brazil

	3									Control occurration occurrate the control of the control occurration of the control occurration occurrate the control occurrate the	Unit: 1,(	1,888 MT)
		1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Canada	Import Consump. Rate (%)	69 1,439 5	39 1,682	33 1,668 2	41 1,581	42 1,950 2	2,171	31 1,766 2	2,297	84 1,958	2,321	86 1,876 5
U.S.A.	Import Consump. Rate (%)	2,269 14,123 16	2,482 14,865	2,494 15,055	2,029 13,211 15	2, 423 14, 738	2,474 15,258 16	2,670 16,782 16	2,869 17,506 16	2,762 17,726 16	2,765 18,719 15	2,576 18,271
Argentina Import Consum: Rate (	Import Consump. Rate (%)	47 99 47	70 125 56	69 137 50	54 121 45	50 130 38	57 107 53	79 148 53	85 181 47	75 128 59	95 129 74	104 156 67
Belux	Import Consump. Rate (%)	182 227 80	229 236 97	249 294 85	187 248 75	174 194 90	161 210 77	175 190 92	207 245 84	199 249 80	199- 249 80	199 249 80
Denmark	Import Consump. Rate (%)	40 40 100	43 43 100	47 100	31 31 100	36 36 108	36 36 180	61 61 100	76 76 100	68 68 100	68 68 108	78 78 100
France	Import Cosnump. Rate (%)	762 1,128 68	836 1,153 73	931 1,341 69	716 1,141 63	878 1,269 69	878 1.373 64	1,114 1,590 70	1.195 1.627 73	1,264 1,653 76	1,319 1,763 75	1,135 1,648 .69
W.Germany Import Consum Rate ()	Import Consump. Rate (%)	1,164 1,164 100	1,294 1,294 100	1,353 1,353 100	1,098 1,098 100	1,385 1,385 100	1,435 1,435 100	1.647 1,647 100	1,780 1,773 100	1,938 1,932 100	1,957 1,957 100	1,950 1,944 100
Italy	Import Consump. Rate (%)	629 708 89	650 733 89	677 997 88	530 594 89	724 783 92	716 756 95	1,001 1,068 94	1,119 1,136 99	1,177	1,040 1,840 100	987 987 180
Nether.	Import Consump. Rate (%)	348 346 101	398 396 101	406 403 101	344 341 101	383 377 102	381 377 101	453 452 100	476 470 101	474 472 100	451 448 101	406 405 100
U.K.	Import Consump. Rate (%)	1,123 1,123 100	1,076 1,076 100	1,139 1,139 100	1,004 1,004 190	1,166 1,166 108	1,128 1,125 100	1,179 1,175 100	1,220 1,219 100	1,099 1,091 101	1,105	866 864 100
Austria	Import Consump. Rate (%)	63 71 89	94 166 94	109 114 96	93 96	97 103 94	94 130 94	97 102 95	937	119 123 97	136 140 97	144 150 96

334 58 263 64 1,102 5,250 21 59 100 231 54 RATES OF IMPORT/APPARENT CONSUMPTION OF BLEACHED SULPHATE PULP IN MAJOR IMPORTING COUNTRIES (1972-1982) (2) (Unit: 1,000 MT) 263 64 1,046 4,868 21 340 80 75 100 251 55 106 271 89 276 67 1,326 5,431 24 249 56 205 55 1,046 5,085 21 231 106 253 60 4,505 21 219 53 237 100 182 62 57 100 3,905 13 163 100 225 54 54 181 60 3,934 14 123 100  $\frac{190}{54}$ 100 100 135 67 3,487 16 168 73 130 42 94 100 3,971 20 157 41 111 100 190 76 3,946 15 155 152 180 218 61 21 100 100 100 3,581 11 213 100 147 45 178 52 Thailand Import Consump. Rate (%) Australia Import Consump. Rate (%) Import Consump. Rate (%) Import Consump. Rate (%) Import Consump. Rate (%) Table II-53 S. Africa S.Korea Japan

II-143

Sources: Yearbookof Forest Products, 1972-1982 (FAO)

Table 11-54 LBKP IMPORTS IN THE EC COUNTRIES

,		1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
១ធ	MT 1000US\$ US\$/MT	124,641 22,647 181.7	149,586 31,560 211.6	147,424 50,877 345.1	916,886 346,942 378.4	1,627,718 627,929 385.8	1,668,436 641,141 384.3	2,079,473 676,665 325.4	2,278,336 917,607 402.8	2,256,438 1,012,157 448.6	2,230,116 1,048,394 407.1	2,179,081 909,820 417.5	2,611,927 864,983 331.2
West Germany	HT 1000US\$ US\$/MT	14,176 2,537 179.0	9,052 1,915 211.6	15,541 5,892 379.1	366,837 138,848 378.5	456,912 189,532 414.8	513,367 204,881 399.1	584,560 195,069 333.7	678,571 281,093 414.2	713,509 314,204 440.4	710.590 348,844 490.9	692,958 304,235 439.0	853, 632 293, 173 343.4
France	MT 1000US\$ US\$/MT	27,158 4,953 182.4	28,010 5,619 200.6	35,236 12,488 354.4	224,392 84,868 378.2	286,214 97,867 349.3	258,705 90,814 351.0	351,396 113,341 322.5	407,188 166,506 408.9	435,727 189,256 434.3	432,101 189,892 439.5	405,929 159,108 392.0	437,588 138,232 315.9
ltaly	MT 1000US\$ US\$/MT	59,799 10,735 179.5	73,859 14,923 202.0	54,554 18,401 337.3	140,388 57,467 409.3	200, 495 73, 354 365, 9	191,267 70,015 366.1	291,149 88,931 305.4	292,876 119,368 407.6	242,731 111,202 458.1	203,066 96,324 474.3	226,554 97,444 430.1	304,205 99,887 328.4
Nether- lands	MT 1000US\$ US\$/MT	12,276 2,010 163.7	20,888 4,014 192,2	24,541 7,474 304.6	115, 470 42, 994 372.3	156,304 63,805 408.2	154,264 59,188 383.7	178,260 58,410 327.7	191,233 76,887 402.1	188,918 82,136 434.8	196,384 94,223 479.8	183,332 79,429 433.3	219,291 71,805 327.4
Belux	MT 1000US\$ US\$/MI	11,232 2,345 208.8	17,777 3,643 204.9	15,167 5,806 382.8	53,990 19,600 363.0	45,989 19,739 429.2	39,436 15,948 404.4	52,199 19,316 370.0	73,229 30,933 422.4	72,615 32,924 453.4	73,458 34,287 466.8	90,211 37,133 411.6	95, 933 33, 864 344.7
U.K.	MT 1000US\$ US\$/MT					469,886 173,433 369.1	485,018 195,680 403.4	577,418 186,328 322.7	584,719 232,007 396.8	563,662 279,001 495.0	566, 500 262, 629 463.6	539,973 218,014 403.7	650, 128 222, 613 342.4
Ireland	MT 1000US\$ US\$/MT			400 194 485.0	7,205 2,928 406.4	5,316 2,002 376.6	8,981 3,784 425.1	9,124 3,611 330.8	11,024 4,638 420.7	12,848 5,642 439.4	14,842 7,279 498.4	193 120 621.8	
Denmark	MT 1000US\$ US\$/MT		·	1,985 704 354.7	8,604 3,269 379.9	12,602 5,290 419.8	17,478 6,493 371.5	35,367 11,857 335.3	39, 496 15, 786 399. 7	26,436 12,242 463.1	31,343 15,868 586.3	35,379 15,801 446.6	46.591 16.298 349.8
Greeece	MT 1000US\$ US\$/MT										1,832 883 482.0	4,552 1,637 359.6	4,567 1,497 327.8
			•										

Sources: NIMEX 1972-1983

Table 11-55 NBKP IMPORTS IN THE EC COUNTRIES

EC .													
+ ook	MT 1000US\$ US\$/MT	637,710 115,766 181.5	657;915 133,909 203.5	687,256 230,620 335.6	2,697,907 1,014,694 376.1	3,242,945 1,287,935 397.1	3,162,126 1,282,317 405.5	3,835,917 1,278,609 333.3	4,260,332 1,654,100 388.3	4,207,439 1,973,383 469.0	4,114,021 2,081,674 506.0	3,891,021 1,831,402 470.7	4,043,147
Germany	NT 1808US\$ US\$/MT	134,218 24,494 182.5	145,864 39,714 210.6	173,178 61,898 357.4	789,550 294,027 372.4	984,750 415,172 421.6	967, 237 413, 332 427.3	1,118,146 402,351 359.8	1,159,567 501,344 432.4	1,296,898 605,895 466.6	1,312,702 696,232 530.4	1,320,503 662,810 501.9	1,494,872 576,552 385.9
France	NT 1000US\$ US\$/MT	167,199 30,158 180,4	183,321 35,828 195.4	185,832 64,718 348.3	513,009 200,595 391.0	626,662 235,199 375,3	628, 226 242, 052 390.3	798,886 271,500 339.8	837,647 355,043 423.9	890,065 418,178 469.8	937,886 462,464 493.1	884,634 411,489 465.2	912,669 324,726 355.8
Italy	NT 1000US\$ US\$/NT	165,715 30,085 181,5	169,969 34,577 203.4	187,962 59,862 318.5	389,559 157,203 403.5	523,361 197,251 376.9	524,924 202,727 386.2	709.524 231.000 325.6	826, 081 348, 399 421. 7	934, 438 434, 238 464.7	836,999 418,583 500.1	750,752 364,007 484.9	665, 667 241, 171 362.3
Nether- lands	MT 1000US\$ US\$/MT	90,962 15,547 170,9	92,709 18,132 195.6	77,395 23,744 306.8	233,761 84,612 362.0	241,277 101,822 '422.0	248.197 96,690 389.6	303, 193 99, 997 329, 8	312, 248 126, 195 404.1	310, 566 135, 328 435.7	265,731 129,596 487.7	240,927 198,756 451.4	245,490 83,914 341.9
Belux	MT 1006US\$ US\$/MT	79.616 15.342 192.7	66,052 13,426 203.3	52,973 19,046 359.5	140,908 52,196 370.4	133,613 56,463 422.6	128,337 52,351 407.9	129,876 44,764 344.7	140.070 60,043 428.7	133,751 61,416 459.2	159,113 79,975 502.6	188, 408 87, 296 463.3	215,829 78,514 363.8
U.K.	MT 1800US\$ US\$/MT	:			599,824 216,501 360.9	695, 630 262, 875 377, 9	643,153 267,529 416.0	734,312 212,914 290.0	929, 299 257, 049 276. 6	585, 994 295, 664 504.6	551,000 267,371 485.2	457,622 196,439 429.3	453,839 172,353 379.8
Ireland	MT 1000US\$ US\$/MT			2,270 556 244.9	9,158 3,653 398.9	13,506 5,087 376.6	10, 191 4, 336 425, 5	14,923 5,261 352.5	16,974 7,195 423.9	12,910 5,788 448.3	8,827 4,543 514.7	2 1 500.0	
Denmark	MT 1000US\$ US\$/MT		·	7.646 2.802 366.5	22,138 8,766 396.0	24,146 10,112 418.8	19,861 7,515 378.4	27,057 9,366 346.2	38,446 15,491 402.9	42.817 20.122 470.0	37,991 19,283 587.6	44,388 20,568 463.4	51,451 19,199 373.2
Greece	MT 1000US\$ US\$/MT										3,772 2,126 563.6	3,785	4,220 1,461 346.2

Sources: NIMEX, 1972-1983

Table II-56 BRP IMPORTS IN EC COUNTRIES BY ORIGIN (1983)

(Unit: 1,000 MT)

Import	3	Germany	Fra	France	Italy	l y	U.K	×.	Bel.	Belgium	Nether	ether lands
risin	LBKP	NBKP	LBKP	NBKP	LBKP	NBKP	LBKP	NBKP	LBKP	NBKP	LBKP	NBKP
ISA	107.2	342.9	26.4	199.2	19.7	181.4		67.7	14.7	46.5	43.1	
'anada	68.4	572.6	12.9	282.1	24.6	213.0	44.8	174.0	2.1	83.7	26.2	68,6
weden		373.1	40.2	242.9	35.2	105.6		97.4	3.0	58.7	14.7	-
Tazi!		64.7	58.6	9.9	11.7	19.1		8	30.9	1.7	24.5	
inland	21.4	91.2	45.8	63,4	41.8	45.4		58.6	1.5	8 8	33.3	
lorway		21.1	1.8	19.7	0.4	13.5		9.9	е	3.2	0.3	
ther countries	5.2	51.3	67.3	61.8	15.7	31.6		28.0	12.4	ω ω.	23.5	
lotal	465.9	1,516.9	260.0	879.0	1,149.1	619.6	429.9	285.5	65.1	210.6	171.3	224.6

Table II-57 BKP IMPORT PRICE IN EC BY GRADE

		•
Year	NBKP Import (CIF) US\$/ton	
1972	182	182
1973	204	211
1974	336	345
1975	376	376
1976	397	386
1977	406	384
1978	333	325
1979	430	403
1980	469	449
1981	530	470
1982	471	418
1983	368	331

Source: EC Trade Statistics

Table II-58 TREND OF U.S. SOUTHERN BKP PRICE IN U.S. MARKET AND NORTHERN EUROPE

		U.S. Softwood	च ल		U.S. Hardwood	out
		. Mari	i⊈	Europe*	Σ	her
1980	10	1 00	1 -		101	1 4
	2 <u>0</u>	12.	ന		87.	0
	30	$^{\circ}$	530		487.8	490
	4Q	12	m		87.	g
1981	Q	12.	3		87.	Q,
	20	2	ŝ		87.	Ò
	30	12.	$^{\circ}$		87.	Ċ,
	40	12	ന		87.	$\omega$
1982	70	12.	ŝ		87.	LO
	20 20	68,	$\sim$		85.	Ó٦.
	30	68.	_		85.	$\infty$
	40	88	$\infty$		63.	S
1983	<u>7</u>	69	$\infty$		47.	4.Jr
	20	00	σ		74.	<u>~</u>
	30	40	σ		7,3	ထ
	40	63	0		35.	$\infty$
1984	Ç	01.	77		74.	$\sim$
	20	67.	$\sim$		4	S
	30	67	$\sim$		40.	Q,
	40	12	Q		06	$\sim$
1985	10	85.	$^{\circ}$		4	OJ.

Table II-59 U.S. SOUTHERN SOFTWOOD PULP PRODUCTION COST

(Unit: \$/short ton)

	1976	1982	Average Annual Grouth Rate 1976-1982, %
Variable Costs			
DooW	85(27.4)	115(22.9)	5.2
Labor	30(9.7)	43(8.5)	6.2
Energy	20(6.5)	45(9.0)	14.5
Chemicals	35(11.3)		4.3
Others	72(23.2)	111(22.1)	7.5
Total	242(78.1)	359(71.5)	6.8
Overhead	13(4.2)	23(4.6)	10.0
Fixed Costs			
Interest	40(12.9)	65(12.9)	8.4
Depreciation	15(4.8)	55(11.0)	24.0
Total	\$5(17.7)	120(23.9)	13.8
Grand Total	310(100.0)	502(100.0)	8.4
Consumer Price Index	170.5	289.1	9.2

Note: ( )=Share Source: PPI, September 1983, p.57

Table II-60 ESTIMATED AVERAGE COSTS OF PRODUCING NBKP PAPER GRAGE MARKET PULP

(Unit: US\$/air dry ton)

	F1.	First half 1981	1981	(X.	First half 1982	1982		1984	
	US South	Western Canada	Sweden	US 6 South	Western Canada	Sweden	US South	Western Canada	Sweden
Fiber	108	138	189	116	138	212	120	109	184
Chemicals	<b>₩</b>	32	1	45	37	1	20	41	31
Wage and Salaries	54	43	<u>~</u>	200	55	82	9	49	35
Energy	46	¦ i	87*	41	38	85*	45	36	12
Others	43	7.0		47	37		99	42	27
Direct Cost Total	294	289	354	307	305	382	335	277	289

Note: *; Includs chemiculsand others. Source: PPI, Sep., 1982 and July, 1984

Table II-61 ESTIMATED AVERAGE COSTS OF PRODUCING BLEACHED KRAFT PAPER-GRADE MARKET PULP (1)

(Unit: US\$/air dry ton)

Softwood	First half 1982	First half 1981
Western Canada	(0.8008 C\$/US\$)	(0.8375 C\$/US\$)
Fiber	\$138	\$138
Chemicals	37	32
Wages and Salaries	55	49
Energy	38	. <del>-</del>
Other Direct	37	70*
Total Direct	305	289
Interest	24	25
Depreciation	16	16
Other Indirect	12	12
Total	357	357
Sweden	(5.90 SKr/US\$)	(5.54 SKr/US\$)
Fiber	212	189
Wages and Salaries	85	78
Energy and Chemicals	85	87
Total Direct	382	354
Capital and Misc.	101	99
Total	483	453
US South		
Fiber	116	108
Chemicals	45	43
Wages and Salaries	58	54
Energy	41	46
Other Direct	47	43
Total Direct	307	294
Interest	20	20
Depreciation	18	18
Other Indirect	17	17
Total	362	349

ESTIMATED AVERAGE COSTS OF PRODUCING BLEACHED KRAFT PAPER-GRADE MARKET PULP (2) Table II-61

(Unit: US\$/air dry ton)

		D1 1 1 1 1 1
Hardwood	First half 1982	First half 1981
Brazil	(160.686 cruz/US\$)	(93.96 cruz/US\$)
Fiber	60	43
Labor	29	32
Energy	25	22
Chemicals	36	25
Total Direct	150	122
Supplies, Capital, Misc.	177	191
Total	327	313
US South		
Fiber	101	96
Chemicals	32	30
Wages and Salaries	58	55
Energy	51	64
Other Direct	46	42
Total Direct	288	287
Interest	20	20
Depreciation	18	18
Other Indirect	17	17
Total	343	342

Note: * Includes energy. Source: Mead Corp. estimates

CAPACITY OF SOFTWOOD PULP PLANT IN NORTH AMERICA

5-	Completion	Capacity (t/d)
Great Lakes Forest	1966	520
Domtar	1967	650
Intercontinental	1968	570
British Columbia Forest	1972	520
Weyerhaeurer	1972	1,000
Procter & Gamble	1973	650
Alabama River Pulp	1978	1,000
Northwood Pulp & Timber	1982	830
Streat Northern Nekosa	1984	1,100
Source: PPI. September 1983, p.58		6 1 1 1 1 1

ESTIMATED PER-TON PRICES AND FREIGHTS FOR PRODUCERS OF MARKET PULP IN VARIOUS REGIONS OF WORLD Table II-63

				(Unit: US\$)
	Southern US (NBKP)	Eastern Canada (NBKP)	Sweden (NBKP)	Brazil (LBKP)
Price (list)	530(100.0)	545(100.0)	545(100.0)	510(100.0)
Freight CIF	65(12.3)	60(11.0)	45(8.3)	70(13.7)
Northern Europe Mill net	465(87.7)	485(89.0)	500(91.7)	440(81.3)
Note: ( )=Share Source: PPI, June, 1982 p.67	re ne, 1982 p.67		1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1

Table 11-64 PRODUCING CAPACITY OF PULP BY REGION

(Unit: 1,000 ton/Y, X)

	197	8	198	1	198	3	_	Annual h Rate
	Capacity	Share	Capacity	Share	Capacity	Share	1981/1978	1983/1981
North America								·
Canada	22,844	15.5		15.0	23,418	15.4	0.4	0.7
U.S.A.	50,348	34.0	52,980	34.3	50,986	33.6	1.7	-1.9
Sub-total	73, 192	49.5	76.080	49.3	74,404	49.0	1.3	-1.1
Latin America								
Brazil	2,500	1.7	3,900	2.5	3,990	2.6	16.0	1.1
Chile	733	0.5	813	0.5	851	0.6	3.5	2.3
Mexico	1.000	0.7	732	0.5	1,078	0.7	-9.0	21.4
Others	1,462	0.1	1.319	0.9	1,536	1.0	-3.4	7.9
Sub-total	5,695	3.9	6,764	4.4	7,455	4.9	5.9	5.0
Asia								
Japan	12,502	8.5	12,788	8.3	12,459	8.2	0.8	-1.0
China	4,000	2.7	5,600	3.6	6, 192	4.1	11.9	5.2
Others	2,363	1.6	3,970	2.6	2,555	1.7	18.9	-10.0
Sub-total	18,865	12.8	22.358	14.5	21.206	14.0	5.8	-2.6
Oceania	2,121	1.4	2,260	1.5	2,467	1.6	2.1	4.5
Africa	1,230	0.8	1,898	1.2	1,864	1.2	5.6	-0.9
Bast Burope	13,330	9.0	14,005	9.0	13.646	9.0	1.7	-1.3
Yorth Europe								
Finland	8,125	5.5	8,510	5.5	8,872	5.8	1.6	2.1
Norway	1,985	1.3	1,945	1.3	2,170	1.4	-0.7	5.6
Sweden	11,545	7.8	9,625	6.2	9,443	6.2	-5.9	-1.0
Sub-total	21,655	14.6	20,080	13.0	20.485	13.5	-2.5	1.0
West Europe (excl. N. Europe	) 11,728	7.9	10,990	7.1	10,404	6.8	-2.4	-2.7
Horid Total	147.816	100.0	154.435	100.0	151.931	100.0	1.5	-0.5

Table II-65 TREND OF BKP IMPORT IN EC BY GRADE

	L B	K P	N B	K P	вкр 1	OTAL
	Imports (1,000T)		Imports (1,000T)			Share (%)
1972	124.6	16.3	637.7	83.7	762.3	100.0
1975	916.9	25.4	2,697.9	74.6	3,614.8	100.0
1976	1,627.7	33.4	3,242.9	66.6	4,870.6	100.0
1977	1,668.4	34.5	3,162.1	65.5	4,830.5	100.0
1978	2,079.5	35.2	3,835.9	64.8	5,912.4	100.0
1979	2,278.3	34.8	4,260.3	65.2	6,538.6	100.0
1980	2,256.4	34.9	4,207.4	65.1	6,463.8	100.0
1981	2,230.1	38.5	3,563.6	61.5	5,793.7	100.0
1982	2,179.0	35.9	3,891.0	64.2	6,070.0	100.0
1983	2,611.9	39.2	4,043.1	60.8	6,655.0	100.0
1983/1972 Average Annual Growth Rate(%)	31	.9	18	3.3	21	.8

Source: EC Trade Statistics

Table II-66 IMPORT PRICE OF BKP MARKET PULP IN EC BY GRADE

	N B K P Market Pulp (A)	L B K P Market Pulp (B)	Ratio (B)/(A)×100 (%)
1976	397	386	97.2
1977	406	384	94.6
1978	333	325	97.6
1979	430	403	93.7
1980	469	449	95.7
1981	530	470	88.7
1982	471	418	88.7
1976-1982 Average			93.7

Table II-67 PROJECTED PRICE OF URUGUAY BKP MARKET PULP (FOB)

		(Unit: US\$/ton)
Year	NBKP Market Pulp Project Price	LBKP Market Pulp Project Price
1984	418	388
1985	439	407
1990	560	520
1991	588	546
1992	618	573
1993	648	602
1994	681	632
1995	715	664
1996	751	697
1997	788	732
1998	828	768
1999	869	807
2000	912	847

Table II-68 GROSS DOMESTIC PRODUCT
AT FACTOR COST PER
ORIGINAL ECONOMIC SECTOR

(Unit: Millions of New Pesos

		at 1978 P	rices )
	1981	1982	1983*
Agriculture	3,439	3,051	3,114
Fishery and Sea Game	157	1,334	155
Manufacturing Industries	6,662	5,536	5,148
Electricity, Citi Gas, Water	430	435	446
Builing	1,593	1,377	1,012
Trade	5,327	4,182	3,689
Transportation and Storage	1,819	1,593	1,493
Communications	206	218	231
House Ownership	1,848	1,861	1,874
Other	8,692	8,838	8,792
GDP at Factors	30,173	27,225	25,954

Note: * Provisional Data

Source: Central Bank of Uruguay, Statistical Bulletin Nr. 49

Table II-69 FOREIGN TRADE PER GROUPS OF GOODS

		(Unit:	1,000 US\$)
Exports	1982	1983	Jan./Apr." 1984
Animals on the Hoof, Products of the Animal Kingdom	291,598	364,342	76,658
Products of the Vegetable Kingdom	152,484	139,326	23,850
Fats and Oils	5,465	8,675	3,477
Foodstuff Industry	18,152	30,189	11,370
Mineral Products	4,141	1,699	3,217
Chemical Industry	43,128	24,070	7,186
Plastic Matters	18,951	12,235	2,114
Skins, Hides	139,537	139,178	37,838
Timber, Charcoal	51	111	
Paper	7,567	11,569	<del>-</del>
Textiles	292,547	266,614	112,582
Footwear	10,027	9,222	1,875
Stones Manufactures	12,001	8,130	1,740
Pearls, Stones	676	360	<b>-</b>
Common Metals and By-Products	7,965	6,310	2,229
Machinery, Appliances, Electric Materials	6,578	4,991	939
Transportation Material	6,251	7,889	1,945
Optics, Photography, Clockmaking	593	659	
Weapons and Munitions	3	31	
Other	1,953	3,455	3,933
Artistic Objects Total	$\frac{4,498}{1,024,166}$	5,439 1,044,494	290,923

Note: * Provisional Figures
Source: BCU, Op. Cit.
Banco de la Republica del Uruguay

Table II-70 FOREIGN TRADE PER GROUPS OF GOODS

		(Unit:	1,000 US\$)
Imports	1982	1983	Jan./Apr.^ 1984
Animals on the Hoof, Products of the Animal Kingdom	2,344	1,057	-
Products of the Vegetable Kingdom	39,448	43,539	11,449
Fats and Oils	3,487	6,279	2,718
Foodstuff Industry	26,297	10,934	4,194
Mineral Products	479,088	286,188	95,768
Chemical Industry	114,520	96,900	27,607
Plastic Matters	45,768	40,540	12,890
Skins, Hides	4,554	6,353	2,040
Timber, Charcoal	10,618	3,791	_
Paper	22,473	14,001	3,858
Textiles	27,753	31,732	8,337
Footwear	974	377	<b>-</b>
Stones Manufactures	6,994	3,376	-
Pearls, Stones	262	70	-
Common Metals and By-Products	45,977	32,730	9,827
Machinery, Appliances, Electric Materials	157,022	86,972	25,669
Transportation Material	91,135	26,263	7,557
Optics, Photography, Clockmaking	19,314	9,968	2,709
Weapons and Munitions	976	249	=
Other	8,187	4,301	3,802
Artistic Objects Total	$\frac{1}{1,107,192}$	705,620	218,425

Note: * Provisional Figures Source: BCU, Op. Cit. Banco de la Republica del Uruguay

Table II-71 GDP (P.B.I. AL COSTO DE FACTORES)

	1973	174	77, 176 177	176	177	178	179	179 '80	181	182	183
Current Term in Million Peso	2,217 4	4,036	7,108	10,874	17,145	26,292	49,758	79,539	105,903	,036 7,108 10,874 17,145 26,292 49,758 79,539 105,903 113,182 164,226	164,226
Real Term in Million Peso in 1978	21,752	22,415	415 23,746 24,700 24,974 26,292 27,914	24,700	24,974	26,292	27,914	29,600	30,173	29,600 30,173 27,225	25,954

Source: BOLETIN ESTADISTICO/Banco Central del Uruguay

Table II-72 GROSS DOMESTIC PRODUCT GROWTH RATES

Sector	1983/82 Percentage Variation	I-84/IV-83 Percentage Variation
Agriculture	2.1	-10.4
Fishery and Sea Game	15.5	-51.9
Manufacturing Industries	-7.0	-2.4
Electricity, City Gas, Water	2:5	3.4
Building	-26.5	-14.8
Trade	-11.8	6.4
Transportation and Storage	-6.2	12.3
Other Sectors	-0.2	4.5
GDP	-4.7	0.7

Note: The Origin of the GDP Arises from the Following Charter.

Source: Central Bank or Uruguay (BCU) Statistical Monthly Bulletine

Table II-73 INCREASE RATIO ON THE 12 MONTHS
BEFORE MONTH CONSUMER'S PRICE INDEX
(DECEMBER IN EACH YEAR)

1975 66.8 1976 39.9 1977 57.3 1978 Jul. 42.3 1979 83.1 1980 42.8 1981 29.4 1982 Nov. 11.0 Dec. 20.5 1983 Dec. 51.5 1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0 Aug. 63.4			
1977 57.3 1978 Jul. 42.3 1979 83.1 1980 42.8 1981 29.4 1982 Nov. 11.0 Dec. 20.5 1983 Dec. 51.5 1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0	1975		66.8
1978 Jul. 42.3 1979 83.1 1980 42.8 1981 29.4 1982 Nov. 11.0 Dec. 20.5 1983 Dec. 51.5 1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0	1976	•	39.9
1979 83.1 1980 42.8 1981 29.4 1982 Nov. 11.0 Dec. 20.5 1983 Dec. 51.5 1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0	1977		57.3
1980 42.8 1981 29.4 1982 Nov. 11.0 Dec. 20.5 1983 Dec. 51.5 1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0	1978	Jul.	42.3
1981 29.4 1982 Nov. 11.0 Dec. 20.5 1983 Dec. 51.5 1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0	1979		83.1
1982 Nov. 11.0 Dec. 20.5 1983 Dec. 51.5 1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0	1980		42.8
Dec. 20.5 1983 Dec. 51.5 1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0	1981		29.4
1983 Dec. 51.5 1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0	1982	Nov.	11.0
1984 Jan. 40.7 Feb. 42.5 Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0		Dec.	20.5
Feb. 42.5  Mar. 43.9  Apr. 44.7  May 50.1  Jun. 56.2  Jul. 62.0	1983	Dec.	51.5
Mar. 43.9 Apr. 44.7 May 50.1 Jun. 56.2 Jul. 62.0	1984	Jan.	40.7
Apr. 44.7  May 50.1  Jun. 56.2  Jul. 62.0		Feb.	42.5
May 50.1 Jun. 56.2 Jul. 62.0		Mar.	43.9
Jun. 56.2 Jul. 62.0		Apr.	44.7
Jul. 62.0		May	50.1
		Jun.	56.2
Aug. 63.4		Jul.	62.0
		Aug.	63.4

Source: BOLETIN ESTADISTICO/Banco Central del Uruguay

Table II-74 EXCHANGE RATE

(Unit: New Peso/US\$)

		Selling	Buying
1975	Average	2.26	2.23
1976	п	3.34	3.31
1977	tt .	4.68	4.65
1978	ti ·	6.06	6.05
1979	11	7.86	7.84
1980		9.10	9.08
1981	it t	10.82	10.79
1982	Sep.	13.12	13.09
	Dec.	28.51	28.21
1983	Average	34.54	34.38
	Dec.	42.73	42.50
1984	Jan.	45.88	45.66
	Apr.	51.73	51.48
	Jul.	55.61	55.36
	Sep.	57.95	57.70

Source: BOLETIN ESTADISTICO/Banco Central del Uruguay

Table II-75 INDEX OF REAL SALARIES (1968=100)
(AVERAGE OF EACH YAER)

183	52.97
- 82	66.83
18, 08,	67.05
.80	62.39
67.	92.29 93.48 85.22 80.24 70.68 68.15 62.62 62.39 67.05 66.83 52.97
178	68.15
177	70.68
92.	80.24
175	85.22
174	93.48
.73	92.29
172	95.89
17،	115.67
,70	110.02
1969	111.47

Source: BOLETIN ESTADISTICO/Banco Central del Uruguay

Table II-76 GDP/CAP.

				(Assumed: Population 3 Million)	tion 3 Million)
	1975	1977	1979	1981	1983
Peso Current (Million Peso)	7,108	17,145	49,758	105,903	164,226
Exchange Rate, Average, (Peso/ US\$)	2.26	4.68	7.36	10.82	34.54
US\$ Current (Million US\$)	3,145	3,663	6,330	9,788	4,755
Per Cap. (US\$)	1,048	1,221	2,110	3,262	1,585

Source: BOLETIN ESTADISTICO/Banco Central del Uruguay

Table II-77 FOREIGN TRADE STATISTICS

									٠.		!	נמח)	(dure: Million USA)	ロのかり
	.70.	170 171 172 173	172	1 1	87, 77, 97, 27, 47,	175	94,	177	178	64.	179 180	181	182	183
1. Export 232.7 205.7 214.0 321.5	232.7	205.7	214.0	321.5	382.2	381.2	546.5	382.2 381.2 546.5 607.5 686.0	686.0	788.1	788.1 1,058.5 1,215.4 1,022.9 1,045.1	1,215.4	1,022.9	1,045.3
2. Import 230.9 222.1 200.3 284.8	230.9	222.1	200.3	284.8		516.2	587.2	721.0	757.3	1,206.3	486.7 516.2 587.2 721.0 757.3 1,206.3 1,680.3 1,599.0 1,057.9	1,599.0	1,057.9	705.6
Balance (12.)	œ r-i	1.8 -16.4 13.7 36.7	13.7		-104.5	-135.0	-40.7	-113.5	-71.3	-418.2	-104.5 -135.0 -40.7 -113.5 -71.3 -418.2 -621.8	-383.6	-383.6 -35.0	339.5

Source: BOLETIN ESTADISTICO/Banco Central del Uruguay

Table II-78 EXTERNAL DEBT OF URUGUAY

(Unit: Million US\$)

	to the second second	4.1
1982	1983	31/3/84
2,705.1	3,197.5	3,245.0
673.0	1,176.9	1,212.4
246.2	244.0	242.9
168.6	144.4	143.4
1,617.3	1,632.2	1,646.3
1,550.2	1,391.9	1,441.2
362.3	331.3	329.0
1,187.9	1,060.6	1,112.2
4,255.3	4,589.4	4,686.2
	2,705.1 673.0 246.2 168.6 1,617.3 1,550.2 362.3 1,187.9	2,705.1       3,197.5         673.0       1,176.9         246.2       244.0         168.6       144.4         1,617.3       1,632.2         1,550.2       1,391.9         362.3       331.3         1,187.9       1,060.6

Source: BCU, OP. Cit.

PRODUCTION, EXPORT, IMPORT, AND APPARENT DOMESTIC DEMAND IN URUGUAY (1) Table II-79

1. News paper 10,634 - 10,634 - 12,100 - 12,547 - 12,547 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594 - 13,594															uo.)	(nor carua)
PRD IMP EXP DEM PRD IMP EXP DEM PRD I - 10,634 - 10,634 - 12,100 - 12,100 - 12,100 - 12, 12,200 475 920 11,755 13,100 417 6,148 7,369 21,000 10,900 - 60 10,840 15,100 - 240 14,860 10,000 15,500 1,516 417 16,599 16,500 1,570 670 17,400 20,000 3, 38,600 12,625 1,397 49,828 44,700 14,087 7,058 51,729 51,000 16, 14,800 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	f . ! ! ! ! ! !	1 9	9 4	] ] ] ] ]	, 	1001	7 7	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.	7 8	 		1 9	6 4
12,200 475 920 11,755 13,100 417 6,148 7,369 21,000 10,900 - 10,840 15,100 - 240 14,860 10,000 3,15,500 1,516 417 16,599 16,500 1,570 670 17,400 20,000 3,18,600 12,625 1,397 49,828 44,700 14,087 7,058 51,729 51,000 16,14,800 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 25,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,14,820 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515 6,515	:	PRD	I WH	EXP	DEM	PRD	IMP	EXP	DEM	PRD	IMP	EXP	DEM	PRD	IMP	IMP EXP DEM
12,200 475 920 11,755 13,100 417 6,148 7,369 21,000 10,900 - 60 10,840 15,100 - 240 14,860 10,000 15,500 1,516 417 16,599 16,500 1,570 670 17,400 20,000 3, 38,600 12,625 1,397 49,828 44,700 14,087 7,058 51,729 51,000 16, 14,800 6,515 49,21,266 17,300 9,256 159 26,397 19,000 10,	1. News paper		10,634	1 ) 1 1 1		1   1   f   f   f   f   f   f   f   f	12,100	! i ! ! !	12,100		12,547	! ! ! !	12,547	1	13,594	13,594
15,500 1,516 417 16,599 16,500 1,570  15,500 12,625 1,397 49,828 44,700 14,087 7,  14,800 6,515 49 21,266 17,300 9,256  - 1,182 - 2,246	Printing & Writing	12,200	475	920	-	13,100	417	6,148	7,369	21,000	546	5,595	15,951	22,000	1,171	6,423 16,74
15,500 1,516 417 16,599 16,500 1,570  38,600 12,625 1,397 49,828 44,700 14,087 7, 14,800 6,515 49 21,266 17,300 9,256 - 1,182 - 2,246	2. Packing paper & board	10,900	* - 1.	60		15,100	1	240	14,860	10,000	1	493	9,507	13,000	1	602 12,398
38,600 12,625 1,397 49, 14,800 6,515 49 21,	3. Other paper & board	15,500	1,516	417	16,599	16,500	1,570	049	17,400	20,000	3,137	1,043	22,094	29,000	3,800	1,613 38,187
38,600 12,625 1,397 49, 14,800 6,515 49 21,	4. Sanitary	. ¹ .		)	•	ı	1 :	**1		1		*	1	1	1	1
14,800 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,863 - - 1,182 2,246 1,687 -	TOTAL	38,600	12,625.	1,397		44,700	14,087	7,058	51,729	51,000	16,230	7,131	660,09	64,000	18,565	8,638 73,927
- 1,182 2,246 1,687	5. Pulps	14,800	6,515	49		17,300	9,256	159	26,397	19,000	10,863	ı	29,863	24,000	11,186	- 35,186
	6. Waste paper		1,182	J	1	1	2,246	) }	. t	1	1,687	. *	ı	. •	1,533	. 1

PRODUCTION, EXPORT, IMPORT, AND APPARENT DOMESTIC DEMAND IN URUGUAY (2) Table II-79

(Unit: Ton)

1. News paper 264 9,145 - 9,409 311 9,669 - 9,980 204 7,451 - 7,655 386 8,562 - 8,948  Printing & 25,463 2,733 8,591 19,605 20,079 2,788 5,768 17,099 15,193 1,799 4,973 12,019 20,153 1,149 7,893 13,409  Printing & 25,463 2,733 8,591 19,605 20,079 2,788 5,768 17,099 15,193 1,799 4,973 12,019 20,153 1,149 7,893 13,409  Printing & 25,463 2,733 8,591 19,605 20,079 2,788 5,768 17,099 15,193 1,799 4,973 12,019 20,153 1,149 7,893 13,409  Printing & 25,463 2,733 8,591 19,605 20,079 2,788 5,768 17,099 15,193 1,799 4,973 12,019 20,153 1,149 7,893 13,409  Printing & 25,463 2,733 8,591 19,605 20,079 2,788 5,768 17,099 15,193 1,799 4,973 12,019 20,153 1,958 7,25 19,068  Beacking paper & 5,730 5,629 1,277 10,082 5,998 6,836 1,269 11,565 6,242 6,305 763 11,784 5,045 2,285 1,836 5,503  Doord/Santary  Si,034 18,339 10,652 58,721 44,776 21,438 7,681 58,533 37,172 17,769 6,006 48,935 43,428 13,954 10,454 46,928  Pulps 23,853 8,865 - 32,718 23,959 7,116 - 31,075 21,000 5,145 - 26,154 21,000 6,747 1,037 26,710  Notes: PROBERROWTION, IMPEREXPORT and DEWEDBRAND  Source: Production: Paper Association of Uruguay  *1 = PRI  Import and Export; CENCI				1980	0 8			1 9 8				198	3 2			1 9 8	8 3	
25,463 2,733 8,591 19,605 20,079 2,788 5,768 17,099 15,193 1,799 4,97 19,577 832 784 19,625 18,388 2,145 644 19,889 15,533 2,214 27 5,730 5,629 1,277 10,082 5,998 6,836 1,269 11,565 6,242 6,305 76 51,034 18,339 10,652 58,721 44,776 21,438 7,681 58,533 37,172 17,769 6,000 23,853 8,865 - 32,718 23,959 7,116 - 31,075 21,000 5,145 - 3,806 1,015 786 1,13			PRD	IME	EXP	DEM	PRD		EXP	DEM	PRD	IMP	EXP	DEM	PRD	TWI	EXP	DEM
25,463 2,733 8,591 19,605 20,079 2,788 5,768 17,099 15,193 1,799 4,97  19,577 832 784 19,625 18,388 2,145 644 19,889 15,533 2,214 27  5,730 5,629 1,277 10,082 5,998 6,836 1,269 11,565 6,242 6,305 76  51,034 18,339 10,652 58,721 44,776 21,438 7,681 58,533 37,172 17,769 6,000  23,853 8,865 - 32,718 23,959 7,116 - 31,075 21,000 5,145  - 3,806 1,015 1,015  3,806 1,015 786 1,13  *1 = PPI  *2 = Assumption Figure same as 1982  and Export; CENCI	1	News paper	264	9,145	 	9,409	311	699'6	 	9,980	204	7,451		7,655	386	8,562	: i : : : : :	8,948
19,577 832 784 19,625 18,388 2,145 644 19,889 15,533 2,214 27  5,730 5,629 1,277 10,082 5,998 6,836 1,269 11,565 6,242 6,305 76  51,034 18,339 10,652 58,721 44,776 21,438 7,681 58,533 37,172 17,769 6,000  23,853 8,865 - 32,718 23,959 7,116 - 31,075 21,000 5,145  - 3,806 - 1,015 - 786 1,13  100; Paper Association of Uruguay  *1 = PPI  *2 = Assumption Figure same as 1982		Printing & Writing	25,463	2,733	8,591	19,605	20,079	2,788	5,768	17,099	15,193		4,973	12,019	20,153	1,149	7,893	13,40
paper 8 5,730 5,629 1,277 10,082 5,998 6,836 1,269 11,565 6,242 6,305 76 51,034 18,339 10,652 58,721 44,776 21,438 7,681 58,533 37,172 17,769 6,00 23,853 8,865 - 32,718 23,959 7,116 - 31,075 21,000 5,145 PRD=PRODUCTION, IMP=IMPORT, EXP=EXPORT and DEM=DEMAND *1 = PPI *2 = Assumption Figure same as 1982 Import and Export; CENCI	2.	Packing paper & board	19,577		784	19,625	18,388	2,145	644	19,889	15,533	2,214	270	17,477	17,835	1,958	725	725 19,068
Daper - 32,718 23,959 7,116 - 31,075 21,000 5,145  paper - 32,718 23,959 7,116 - 31,075 21,000 5,145  PRD=PRODUCTION, IMP=IMPORT, EXP=EXPORT and DEM=DEMAND  Production; Paper Association of Uruguay  *1 = PPI  *2 = Assumption Figure same as 1982  Import and Export; CENCI		Other paper & board/Sanitary		5,629	1,277	10,082	5,998	6,836	1,269	11,565	6,242	6,305	763	11,784	5,045	2,285	1,836	5,503
paper - 3,865 - 32,718 23,959 7,116 - 31,075 21,000 5,145  PRD=PRODUCTION, IMP=IMPORT, EXP=EXPORT and DEM=DEMAND Froduction; Paper Association of Uruguay *1 = PPI	!	; 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	51,034	18,339	10,652	58,721	44,776	21,438		58,533	37,172	17,769	900,19	48,935	43,428	13,954	10,454	46,92
- 3,806 1,500  RODUCTION, IMP=IMPORT, EXP=EXPORT and DEM=DEMAND  Stion; Paper Association of Uruguay  *1 = PPI  *2 = Assumption Figure same as 1982  t and Export; CENCI	'n	Pulps	23,853	8,865	;	32,718	23,959	7,116	1	31,075	21,000	5,145		26,154	21,000	6,747	1,037	26,71
Notes: PRD=PRODUCTION, IMP=IMPORT, EXP=EXPORT and DEM=DEMAND Source: Production; Paper Association of Uruguay  *1 = PPI  *2 = Assumption Figure same as 1982  Import and Export; CENCI	4.	Waste paper	•	3,806	•	ı	1	1,015	1	•	1	786	1,138	1	•	1,500	340	
	20	fotes: PRD=PRODG fource: Productic	OCTION, on; Papel *1 = *2 =	IMP=IMPO r Associ PPI Assumpt	RT, EXE ation c ion Fig	PEXPORT of Urugu jure sam	ay DE	m=demani 82	1	1 1 1 1 1 1	1 1 1 1 1	1 1 1 1 1 1	! ! ! ! !	1 1 1 1 1 1	 	1 1 1 1 1	1 t t t t	1 : 1 1 1 1

## Table II-80 PRODUCTION, IMPORT, EXPORT AND DOMESTIC DEMAND OF PAPER AND PAPERBOARD

(Unit: ton)

		(Unic: ton)		
Year	Production	lmport	Export	Apparent Domestic Demand
1965	42,990	28,660	0	71,650
1966	40,500	19,900	0	60,400
1967	37,600	17,000	0	54,600
1968	35,500	9,800	0	45,300
1969	38,300	19,700	230	55,970
1970	40,140	20,700	0	60,390
1971	41,750	22,300	0	64,050
1972	36,700	19,000	0	55,700
1973	41,250	16,540	800	56,990
1974	43,400	17,720	2,700	58,420
1975	36,600	9,200	1,300	44,500
1976	38,600	11,000	1,400	48,200
1977	44,700	13,000	6,100	51,600
1978	51,000	18,000	6,000	63,000
1979	54,000	18,000	8,700	63,300

(Remarks) [Apparent Domestic Demand] = [Production] + [Import] - [Export] (Source) Banco Central del Uruguay: Indicadores de la Actividad

Table II-81 OUTLINE OF MAJOR PAPER COMPANIES IN URUGUAY

Item		FNP	IPUSA	SA	PAMER		CICSSA	
Factories	Paper mill	1 11	Paper mill Board mill Paper converting mill	l 1 ng mill 1	Paper mill Board mill Paper converting mill	red put red	Paper mill Board mill	떠더
Major products	o Wood free	o Wood free printing & writ- ing paper	o Wood contained writing paper	ed printing &	o Corrugated fiber board box o Heavy duty kraft paper sac	ard box per sack	o corrugated fiber board o Heavy duty kraft paper	fiber board box kraft paper sack
	o art paper o Tissue paper o Copying paper	per paper 8 paper	o Low grade wrapping paper o White board o Ledger	apping paper	o Wood contained printing writing paper o Toilet roll	ting &	o Hard board o Roofing paper st	sheet
	o Light wei	o Light weight kraft paper o Newspaper	o Napkin o Toilet roll	:	o Coated paper			
	o Wrappi	o Wrapping paper	o Envelope					
Production capacity	Paper LBKP Paper	45,000 c/y 75, c/d 110 - 155 c/d	Paper 1 GP Paper board	18,000 c/y 3 - 4 t/d 43 t/d 15 t/d	Paper MP (GP) 6 - 6 - Paper, paper board 8	21,000 t/y 6 - 7 t/d rd 85 t/d	Paper GP Paper, paper board	15,000 t/y 20 t/d d 50 t/d
Integrated paper mill system	Pulp p	Pulppaper and final products	Pulp paper and products	ind final	Pulppaper and final products	Fel	Paper -final products	ducts
Major equipment and facilities	o KAMYR Codigester	o KAMYR Continuous 1 digester o Paper machines 3	o G.P. grinders o Paper machines o Not book converting machine	s 2 les 4 les iverting 1	o Rotary digesters o G.P. grinder o Paper machines o Corrugated fiber board converting machine	er G C	o G.P. grinder o Paper machine o Wet system hard board machine o Asphalt impregnating machine	board 1 ating 1

UTILIZATION RATE OF PAPER PRODUCTION AND CAPACITY OF MAJOR PAPER COMPANIES Table II-82

		1982	8 2	1983	8
	Capacity (t/d)	Production (t)	Utilization Rate (%)	Production (t)	Utilization Rate (%)
FNP	55.00	16,438.0	35.0	19,038	40.9
PAMER	85	8,550.0	33.5	11,136	43.7
IPUSA	8 23	5,128.0	29.0	6,105	34.9
CICSSA	20	4,563.0	30.0	4,452	29.7
Sub-Total	348	34,679.0		40,731	
Annual Working Days		300		300	

Note: Annual production assuming 300 working days per year Source: Paper Association of Uruguay

Table II-83 TREND OF MAJOR PRODUCTS

		•	(Unit	: t/y)
Products	1980	1981	1982	1983
News paper	264	331	204	386
Printing and Writing paper	25,463	20,079	15,193	20,153
Household and Sanitaries paper	5,730	5,998	5,442	5,054
Packing and Warpping paper & board	19,577	18,388	15,533	17,835
Others	0	0	800	0
Total	51,034*1	44,776*1	37,172*1	43,428*2

Source: *1 LATU

^{*2} Paper Association of Uruguay

Table II-84 CONSUMPTION AND ESTIMATION OF CORRUGATED BOXES

		9 8 2		983
Commodities	Export Materials (kg)		Export Materials (kg)	Corrugated Boxes
Cheese Butter	2,133,600 3,755,500	142,200	2,557,600 12,408,500	170,500
Meat Fish Citrus	1 1 1	2,000,000 2,500,000 500,000	1 1 1	1 1 1 ·
Garments Wool Yarns Wool Fabrics		30,000		1 1 1
Synthetic man made yarns		36,000	1	1
ម្រុម		30,000 33,000 380,000	1 1 1	1 1 1
ion of 19	84 for Citrus 90 for Citrus		2,000,000	Pices
Source: LATU	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1	*

(Unit: Ton/year)

Table II-85 PRODUCTION OF PAPER COMPANIES (2)

(Unit: Ton/year)

		1		1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	.	·			
	  -  -		FNP	Cu Cu	PAMER	ER	IPUSA	 	CICSSA	. 4:	Cartonera	
Product	1982		1982	ıα		1983	1982	1983	1982	1983	1982	1983
II. Packaging papers	1 1 1 1 1 1 1 1 1		 	1 1 1 1 1 1 1	 		1 	! ! ! !	1 1 1 1 1	1	: ! ! !	\ ! ! !
Brown UB kraft paper	'n.	293.4	S	293.4	1	1		1	1	1	1	١
Calendered kraft		60.9	•				1	•	t	ı	l	•
Carton boxes	•	7,055.0	•	1	4,156.0	7,055.0			ı	t	ı	1
Cheap blue paper	•	207.0	•	•	1	1	156.0	207.0				1
Chipboard	594.9	780.0	•	1	1	1	J	1	120.0	160.0	474.9	620.0
Corrugated boxes	3,117.0	3,300.0	•	1	i	ı	ļ	1	17.0	3,300.0	1	•
	220.0	•	1	ŧ	ı		ł	t	220.0	1	1	١
Fiber board	0.7		. 1		1	1	1	1	F		0.7	1
Fibre	382,3		٠	122.3	1	1	ţ	ı	1	1	1	3
Kraft bags	10.9	ທ	10.9	S.	J	1	B	1	J	1	1	•
Multilayer kraft	1,386.0	1,211.0	1	1	549.0	671.0	1		837.0	540.0	ı	•
Napkins etc.	118.0	226.0	1	t			118.0	226.0	1	•	1	1
Other corrugated boxes		252.0	ı	ı	256.0	252.0	1	1	ı	1	1	
Other kraft papers		296.0	ı	1	S	154.0	56.0	110.0	ı	32.0		•
Packaging paper for	963.3	1,021.0	1			,	1	1	79.0	120.0	884.3	901.0
oiled and fruit	-										-	
Packaging paper for	750.1	714.0	ì	•	1	1	212.0	244.0	ı	1	538.1	470.0
Packaging paper for	264.4	302.5	264.4	302.5	1	•	1	i	l	1	ı	`
10		•	,				,					
	332.5	193.1	96	108.1	•	1	236.0	82°C	t	ı	3	١
Paper for meat	22.4	12.5	5	12.5		•	1	1	i	1	ı	•
packaging	1	1										
t packagi	0.06	109.0	1	ŀ	0.06	109.0	4		1	•	ı	•
Sulphite paper, N 3	0.68	0			ı	1	3.68	10%0	t	1	ı	•
Sulphate paper	540.5	437.8	540.5	437.8	1	1	1	1	t	ı	1	•
Sulphite paper		16.0	1	٠	1 -	ı			ŀ		1	1
Sulphate paper,	26.0	62.0	1	ı	1		56.0	62.0	1	1	•	
merrial		Ċ				7	0	ū				į
	0.620,6	0 0		1	0./00/2	7,012.0	0.00.0	000	,	ı	l	۱ '
	0.667	0 4	•	1	t	ŀ	0.562	n (	1	I	1	١
	44.0	;	ı	•	1	<b>l</b>	44.0	000	ı	1	ı	•
mark (	44.0	9			ı	ı	44.0		t	1	1	•
	323.3	<u>~</u>	323.3	213.4	ľ	•			1	ì	ι	•
paper	142.0	Ö	1	1	1	1	142.0	120.0	ŀ	1	1 1	9
ite three p	321.5	r-	1	1		1	•	t	1	t .	321.5	277.0
Total packaging papers	20,036.2		1 40	6.4		91	19	4	4,373.0 4	4,152.0	19.5	
GRAND TOTAL	37,173.6	43,428.0	16,438.4	19,038.0	8,550.0	11,136.0	5,128.0	6,105.0	0	2.0	494.2	
	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	1	11111	1 1 1 1

Table II-86 PULPS AND PAPERS EXPORT COUNTRIES FOR URUGUAY

	1975	1976	1977	1978	1979	1980	1981	1982	6
Sweden	3,186.3		,070,	536.	,321.	,099.	010.	52.	791
Chile	2,993.4	•	75.	399	181	263	050	741.	,402.
Canada	2,209.8	٠	,298.	,846.	,333.	,463	,155.	7.	496.
EC	•	•	,529.	979.	,556.	,279.	,650.	,917.	949.
Brazil	637.6	318.7	76.	1,182.2	3,178.9	935	6,721.7	,042.	3,990.3
Finland	431.8	•	44.	14.	415.	.080	.497	51.	394.
France	256.2	•	72.	86.	6	84.	49.	45.	57.
Germany FR	210.2	•	44.	10	9.	56.	92.	52.	14.
Spain	112.5		55	39	]	40	06.	92.	ì
S. Africa	1	98	171.4		i		77	32	l
India	.:	12	43.	1			1	l	•
5. ₹	180.0	266.8	7.	53.	1	~	70.	96,	$\circ$
Argentine		84.	53.	345.4			1,296.5	1,724.4	1,117,3
Austria		•	90.	55	-	83.	1	61.	08.
Italy	ı		42.	49	51.		3	ı	1
Japan	1	.1			ì	ı	•	$\infty$	
Others	422.8	251.0	215.8	351.1	629.7	1,225.1	1,467.0	680.8	884.1
Total	11,823.5	10,092.2	12,056.3	12,650.4	17,880.9	23,340.0	25,317.0	18,574.0	14,001.2
Source: CENCI	]				                 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1

Table II-87 PRODUCTION OF PULPS IN URUGUAY (1)

IMP EXP DEM PRD IMP EXP DEM PRD IMF EXP DEM PRD IMP RD IMP PRD															Ď)	(Unit: Ton)	(대
chanical 2,900 0 0 2,900 2,200 50 0 2,250 2,000 624 0 2,624 3,000 1,413 emi-chemical 2,200 877 0 3,077 2,200 1,505 0 3,705 2,000 624 0 2,624 3,000 1,413 emi-mechanical 2,200 877 0 2,836 0 2,944 0 2,944 1,000 4,238 0 5,238 1,000 2,096 1,413 lphate un bleach 9,700 2,293 49 11,944 12,900 4,597 0 17,497 14,000 6,001 0 20,001 17,000 7,459 lphite un bleach 0 508 0 508 0 160 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		 	1 9	7 6	 		1 9	7 7	 	 	1 9	7 8	1 1	1 1 1 1 1 1	1 9	7 9	 
chanical 2,900 0 0 2,900 2,200 50 0 2,250 2,000 0 0 2,000 3,000 1,000 2,200 877 0 3,077 2,200 1,505 0 3,705 2,000 624 0 2,624 3,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000		PRD		EXP	DEM	PRD	IMP	EXP	DEM	PRD	IMP	EXP	DEM	PRD	IMP	EXP	DEM
2,200 877 0 3,077 2,200 1,505 0 3,705 2,000 624 0 2,624 3,000 (ch 0 2,836 0 2,944 0 2,944 1,000 4,238 0 5,238 1,000 ch 0 508 0 508 0 160 0 160 0 0 0 0 0 0 0 0 0 0 0 0 0 0	chanical	2,900	! ! !	0	2,900	2,200		0	2,250	2,000	1 0 1 1 1 1	0	2,000	3,000	r   	0	3,218
ch 0 2,836 0 2,836 0 2,944 0 2,944 1,000 4,238 9,700 2,293 49 11,944 12,900 4,597 0 17,497 14,000 6,001 ch 0 508 0 508 0 160 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 159 14,800 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,863	Semi-chemical Chemi-mechanical	2,200		0	3,077		1,505	0	3,705		624	0	2,624			0	4,413
9,700 2,293 49 11,944 12,900 4,597 0 17,497 14,000 6,001  10 0 508 0 508 0 160 0 160 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sulphate un bleach	0	2,836	0	2,836		2,944	0	2,944	1,000		0	5,238	1,000	2,096	0	3,096
14,800 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,863	Sulphate bleach	9,700	2,293		11,944	12,900	4,597	Φ	17,497	14,000	6,001		20,001	17,000	7,459	0	0 24,459
0 0.6 0.6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sulphite un bleach	0	508	0	508	0	160	0	160	0	0	0		0	0	0	
14,800 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,863	Sulphite bleach	0			0	0	0	159	0	0	0	0	0	0	0	0	-
14,800 6,515 49 21,266 17,300 9,256 159 26,397 19,000 10,863	Dissolring pulp	0	9		9.0	0	0	0	0	0	0	0	0	0	0	0	0
	 	14,800	6,515	49	21,266	17,300	9,256	159	26,397	19,000	10,863	0	29,863	24,000	11,186		0 35,186

Table II-87 PRODUCTION OF PULPS IN URUGUAY (2)

														<u>ຕົ</u> ລ)	(Unit: Ton	េិ
4	1	8 6	8 0	 	; { } ! ! !	1 9 8 1	8	; ! ! !	3 8 8 1 1 1	1 9 8 2	8 2	1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1983	8 3	 
	PRD IMP E	IMP	EXP	DEM	PRD	IMP EXP	EXP	DEM	PRD	IMP EXP	EXP	DEM	PRD	TME	EXP	DEM
Pulp Mechanical	1,821	0	0	0 1,821 3,369	3,369	0	0	3,369	0 3,369 2,000 200	200	0	2,200	0 2,200 2,000 220	220	0	2,220
Semi-chemical Chemi-mechanical	2,633	0	0	0 2,633 2,710	2,710	0	0	2,710	0 2,710 2,000 810	810	0	2,810	0 2,810 2,000 1,267	1,267	0	3,267
Sulphate un bleach		0 1,699		0 1,669. 565 1,477	565	1,477	0	2,042	0 2,042 1,000 1,884	1,884	0	2,884	0 2,884 1,000 2,350	2,350	0	0 3,350
Sulphate bleach 18,700 5,815	18,700	5,815	0	0 24,515 17,315 3,991	17,315	3,991		23,348	0 23,348 16,000 2,260	2,260	0	18,260	0 18,260 16,000 2,908 1,037 17,871	2,908	1,037	17,871
Sulphite un bleach		699 710	0	1,439		0 680	0	680	0	0	0	0	. 0	.0	0	0
Sulphite bleach	Ö	0 641	0	641	0	968	0	968	0	0	0	0	0	0	0	0
TOTAL	23,853 8,865	8,865		0 32,718 23,959 7,116	23,959	7,116	0	31,075	0 31,075 21,000 5,154	5,154		26,154	0 26,154 21,000 6,745 1,037 26,708	6,745	1,037	26,708
				1111111	1	1 1 1 1 1	1 1 1 1		1		1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				1

Notes: PRD=PRODUCTION, IMP=IMPORT, EXP=EXPORT and DEM=DEMAND Source: Paper Association of Uruguay

Table II-88 TREND OF EXPORT PULPS FROM BRAZIL

ے نہیں میں قب میں ملک شہ شد میں نہر کہا ہیں ہیں میں میں میں میں ہیں۔				
Export Countries	1980	1981	1982	1983
Austria		_		18
Belgium	191	245	119	61
Denmark		_	8	. 11
France	_	-	25	67
F.R. Germany			2	4
G.D. Germany	33	39	82	121
Italy	29	25	24	29
Netherlands	30	24	17	25
Norway	109	182	10	-
Finland	-	_	10	-
Switzerland	:	week	3	4
U.K.	37	46	44	76
Sweden	-	<del></del>	19	21
U.S.A.	68	105	128	157
Australia	2	2	1	
China	14	3		18
Indonesia	4	15	10	19
Iraq	7		-	
Japan	189	165	165	176
R. Korea	12	13	5	13
Other Asia		-	14	10
Argentine	30	44	46	23
Colombia	4	<b></b> ,		-
Mexico	2 2	1	· -	4
Peru	. 2	-	-	
Venezuela	9	17	19	11
Other Latin America	-	14	13	14
S. Africa	10	14	-	36
Other Africa	2	1	9	
TOTAL	784	955	773	925
			~~~~~	

Table II-89 TREND OF PRODUCTION BY CENIBRA

(Unit: 1,000 t/y)

	the was upon any last with the control of the control
Year	Production
~	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
1977	42(Actual Working 90 days)
1978	117
1979	215
1980	279
1981	213
1982	306
1983	299
1984	317
1985	320(Assumption)

RESULTS OF SALES VOLUME Table II-90 BY CENIBRA

			. (Un:	it: 1,0	00 t)
Distination	1981	1982	1983	1984	*1985
Japan Europe North America South America Others	112 29 18 16 9	159 24 11 38 7	151 29 34 22 5	155 26 40 20	145 36 44 18
Sub-Total	184	239	241	241	248
Domestic	39	61	61	65	83
Grand Total	223	300	302	306	331

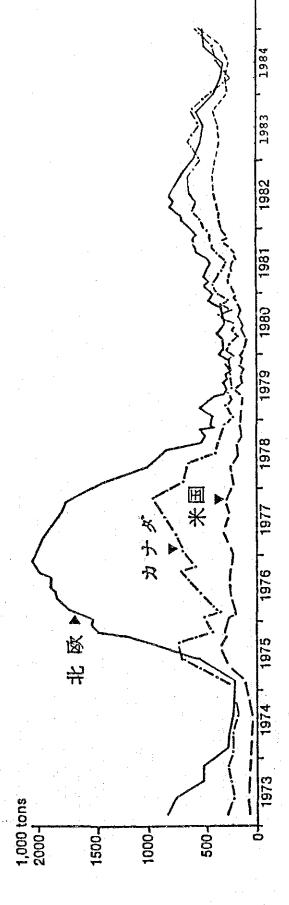
Note: *; Assumption

Possibility plantation 20 Wood and Actual price of pulp Suppliability of paper/pulp cost fo wood Basic price paper/pulp οŧ Demand 17) 16) 18) 19) 14) Pulp/paper ratio Operational rate d[nď 10) Plant cost of of paper/pulp Price leader 15) Waste paper utilization paper/pulp 13) Demand of Inflation 1 Stock 6 11) 8 Demand /Supply balance Technical Development Transportation cost Selection of raw Plant construction capacity of of paper and pulp Exchange rate demand structure Economic growth paper Production cost and pur Plant scale of paper/pulp material Process o F Demand paper plant 6 33 6 2

CHART OF BASIC CONCEPT OF ANALYSIS

Figure II-1

II-183



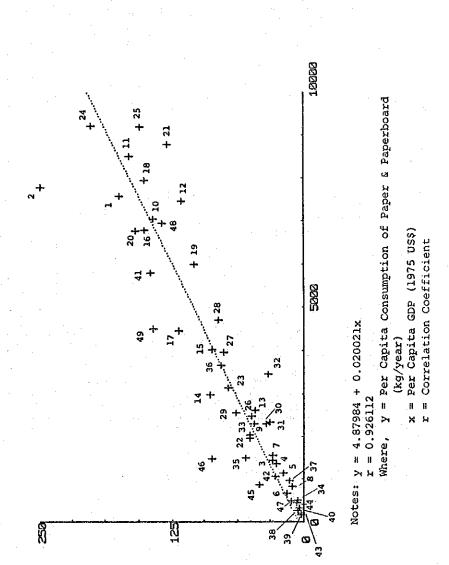
Source: PPI/'82

Figure II-3 P.C. CONSUMPTION OF PAPER AND PAGE GDP (1982)

Per Capita Consemption (kg/year)

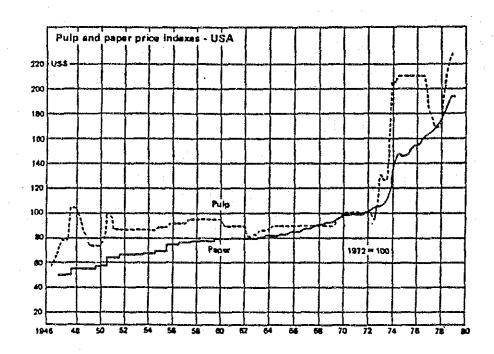
Per Capita GDP USS

Country Name



Sources: MORLD-Product-CASIS, MAY 20, 1983 PPI

Figure II-4 PULP AND PAPER PRICE INDEXES-USA



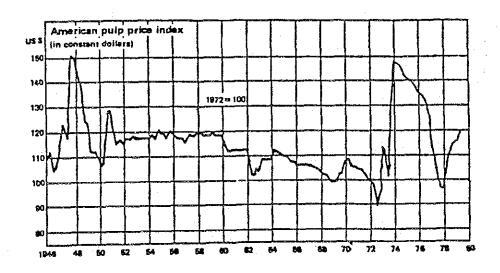
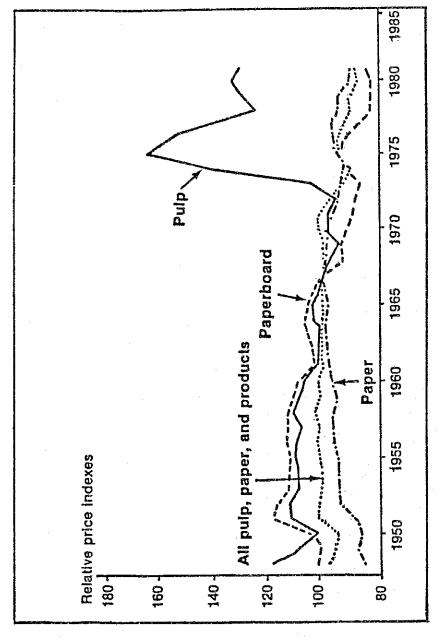


Figure II-5 REAL PRODUCER PRICE INDEXES FOR PULP AND PAPERBOARD



* Producer Price Indexes Deflated by Producer Price Index for All Industrial Commodities. Note:

Source: Department of Commerce; Kidder, Peabody & Co. Incorporated Calculation.

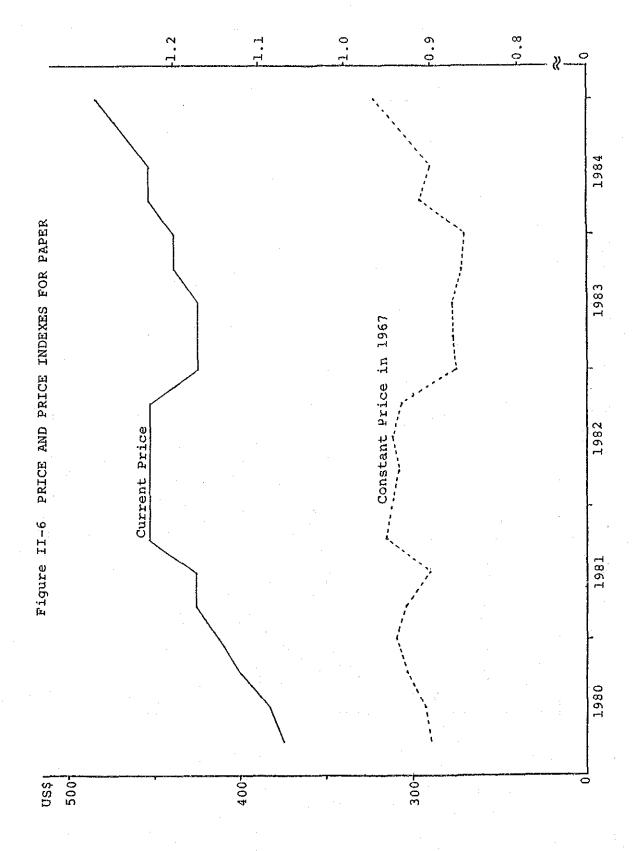
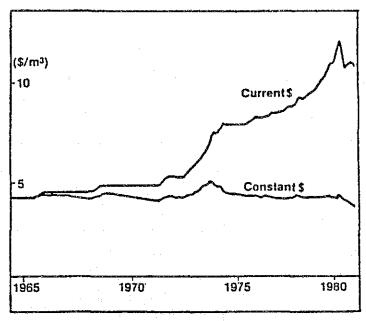


Figure II-7 LOUISIANA PULPWOOD PRICE (PINE, FOB RAIL CAR)



Source: PULP & PAPER WEEK/Jun. '81

Figure II-8 COST OF SOFTWOOD PULPWOOD AT MILL IN THE 1970'S

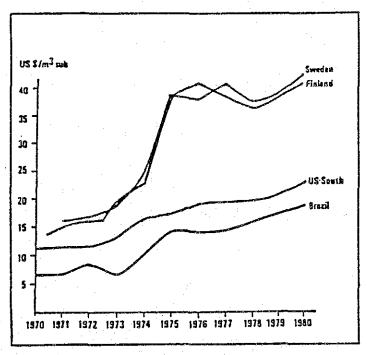


Figure II-9 COMPARISON OF CAPITAL COST STRUCTURE OF A NEW PULP MILL BUILT IN VARIOUS LOCATIONS

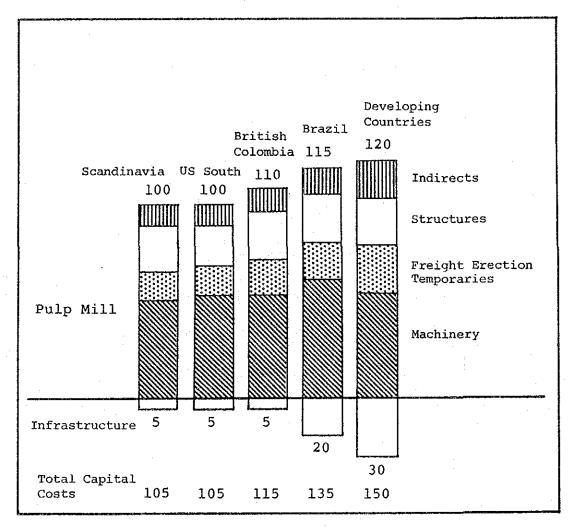
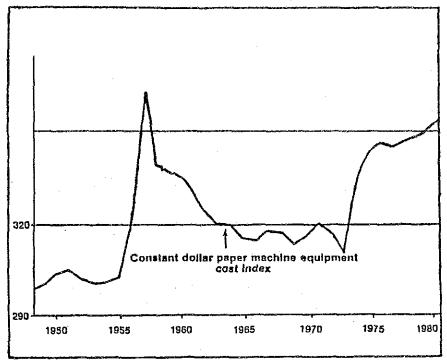


Figure II-10 CONSTANT DOLLAR PAPER MACHINE EQUIPMENT COST INDEX



Source: PULP & PAPER WEEK/Sep. '83

Figure II-11 WORLD PRODUCTION OF CHEMICAL AND MECHANICAL PULPS

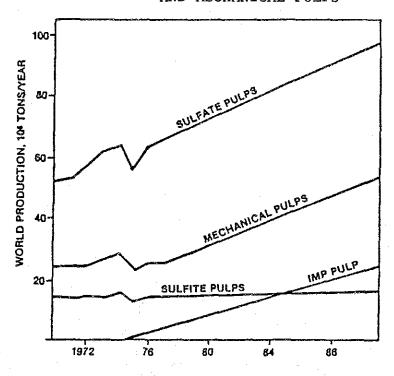
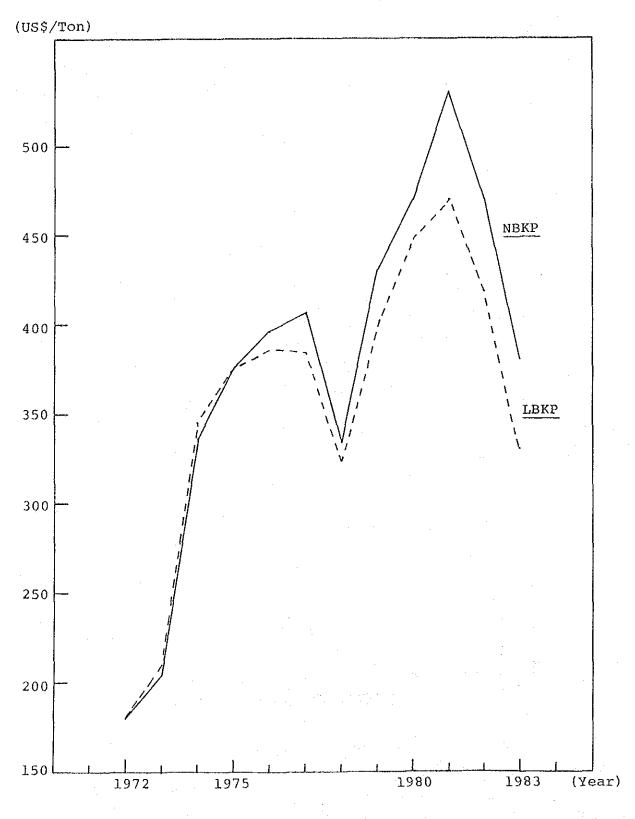
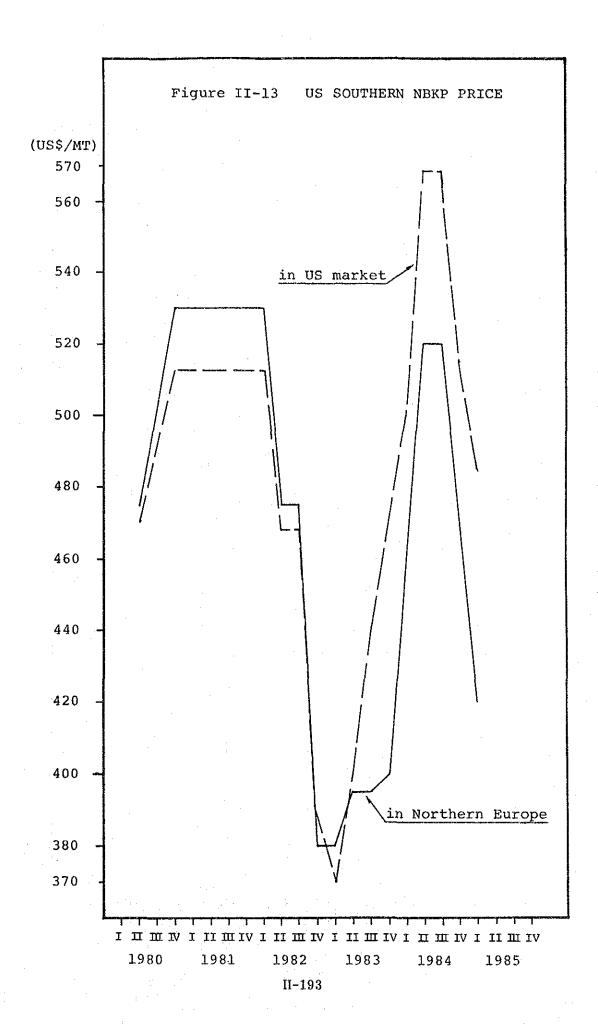
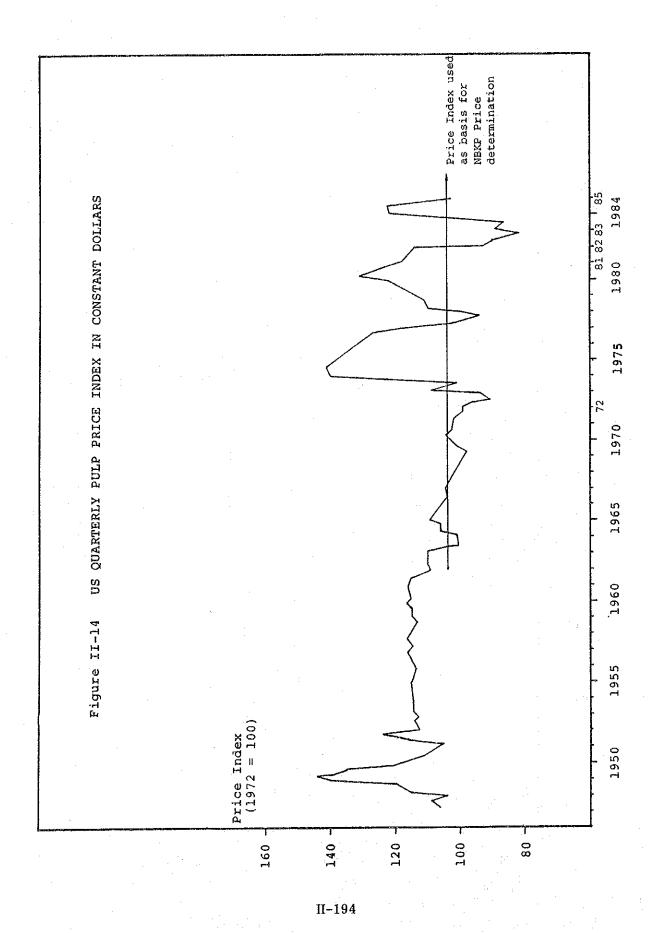


Figure II-12 IMPORT PRICE OF LBKP AND NBKP IN EC







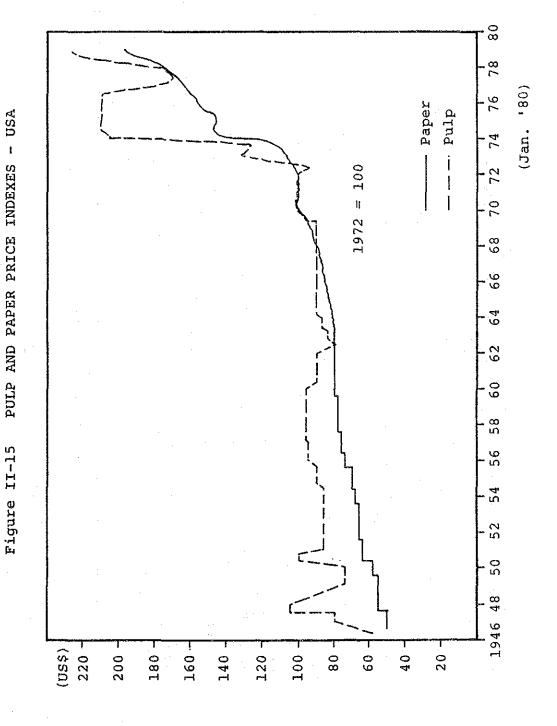


Figure II-16 AMERICAN PULP PRICE INDEX (in Constant Dollars)

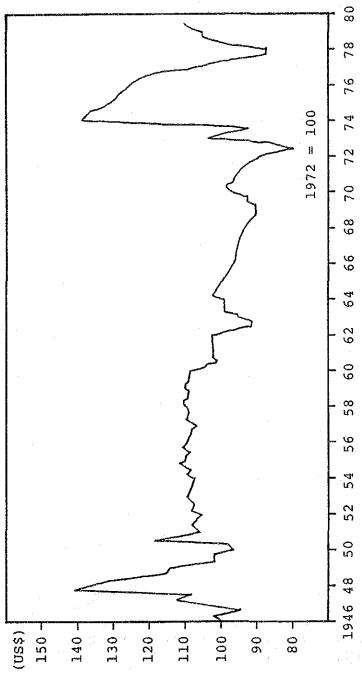


Figure II-17 COST OF SOFTWOOD AT MILL IN THE 1970'S

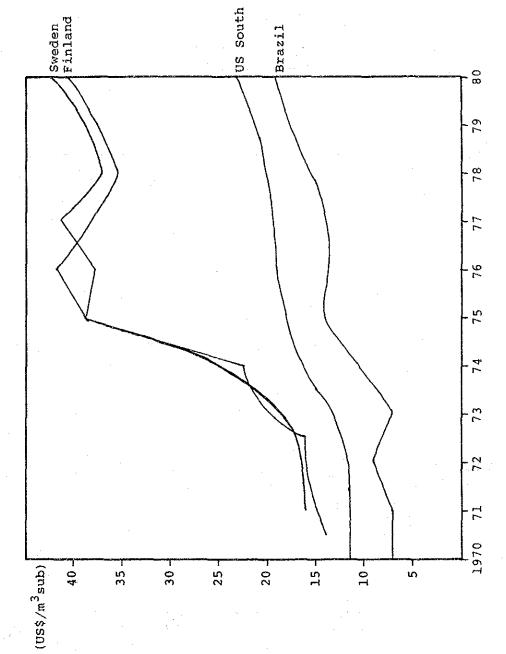
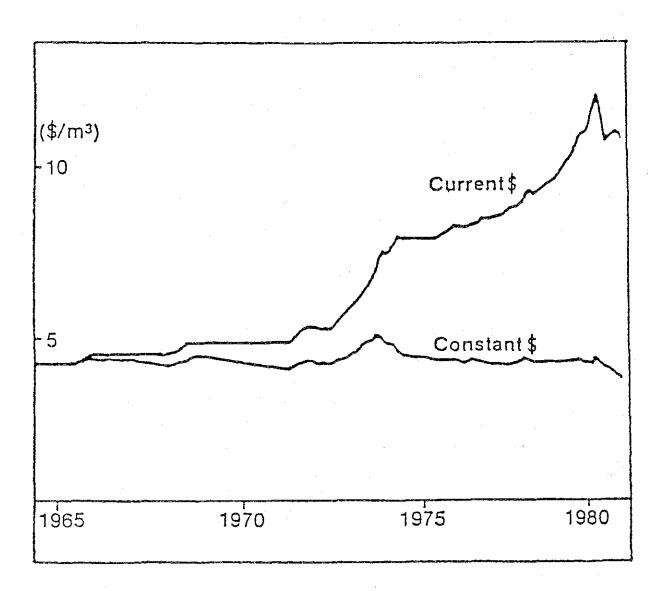
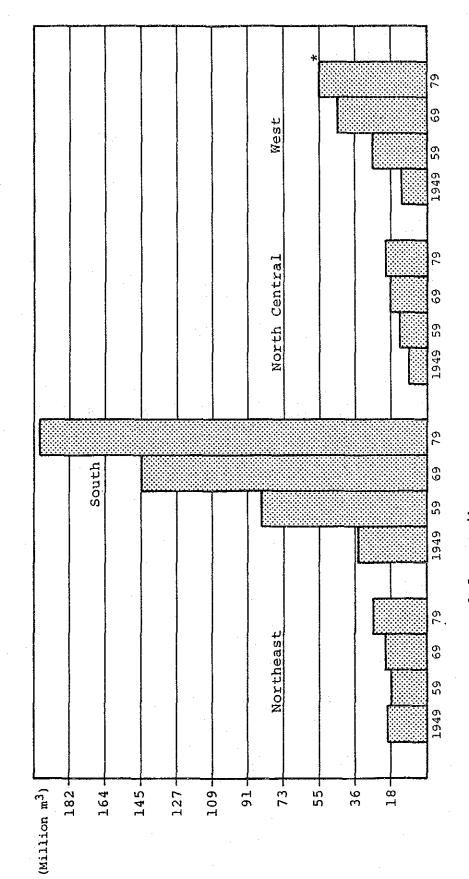


Figure II-18 LOUISIANA PULPWOOD PRICE (Pine, FOB rail car)

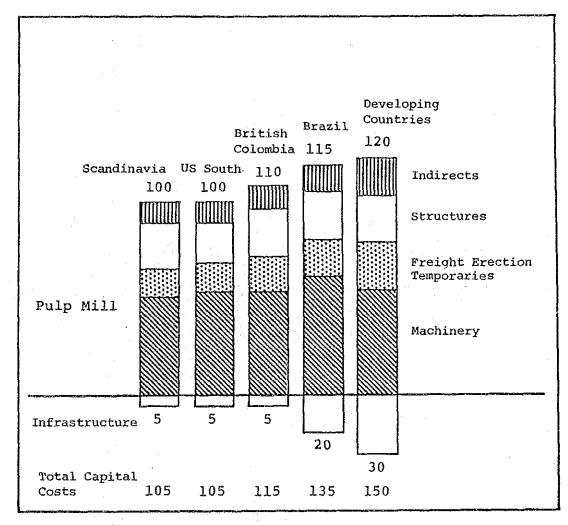


Source: Pulp & Paper Weekly/Jun., '81

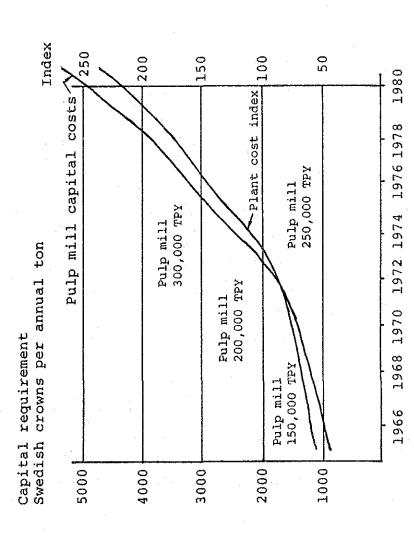


Note: *; Corrected for strikes

Figure II-20 COMPARISON OF CAPITAL COST STRUCTURE OF A NEW PULP MILL BUILT IN VARIOUS LOCATIONS

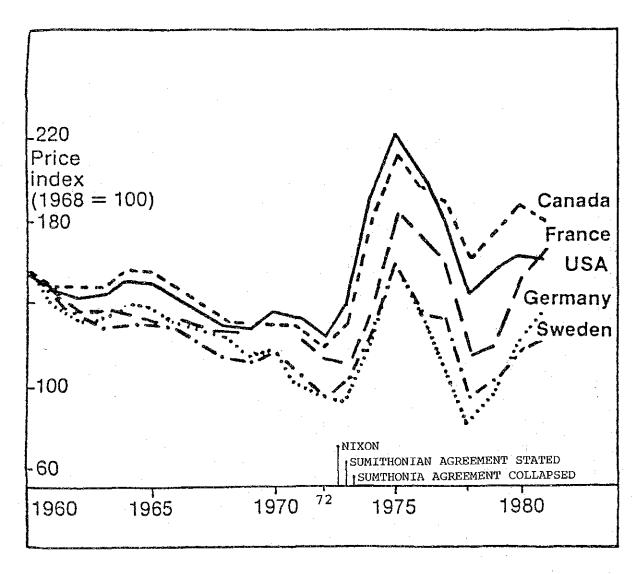


PULP MILL CAPITAL REQUIREMENTS YEARS 1965 TO 1980 (Sweden, Softwood Kraft Pulp Mill) Figure II-21



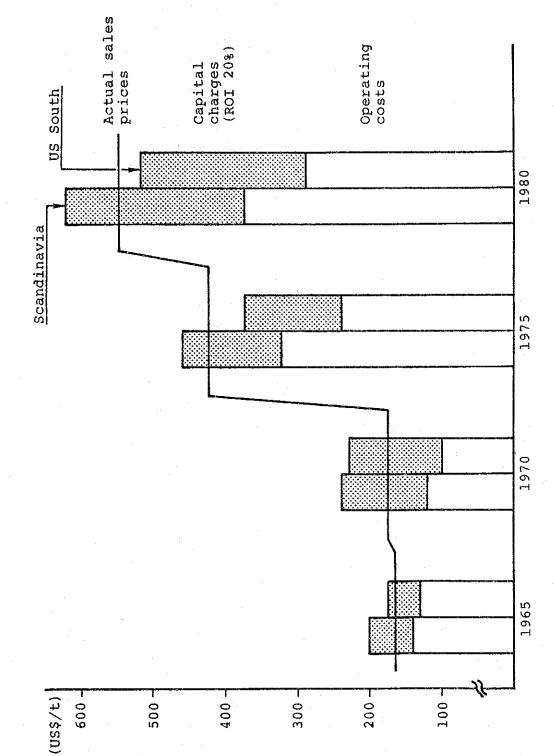
Capital requirements exclude interest during construction, working capital and infrastructure. The years indicate the start-up year of the mill. a 5 Notes:

Figure II-22 ANNUAL AVERAGE CANADIAN PULP PRICE IN THE USA DEFLATED AND CORRECTED FOR EXCHANGE RATE



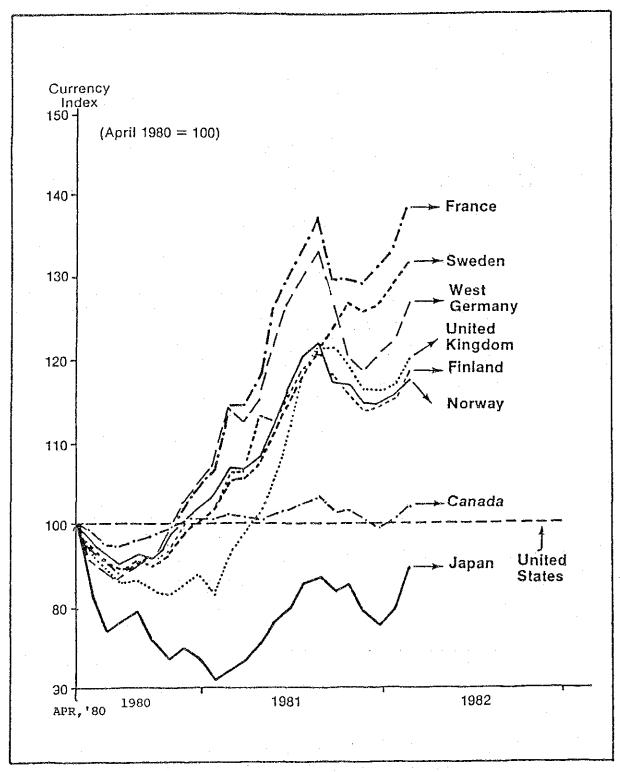
Source: PPI, June 1981

DEVELOPMENT OF SALES PRICES (CIF ROTTERDAM) AND SALES PRICES REQUIRED AT 20% ROI FOR BL. SOFTWOOD PULP Figure II-23



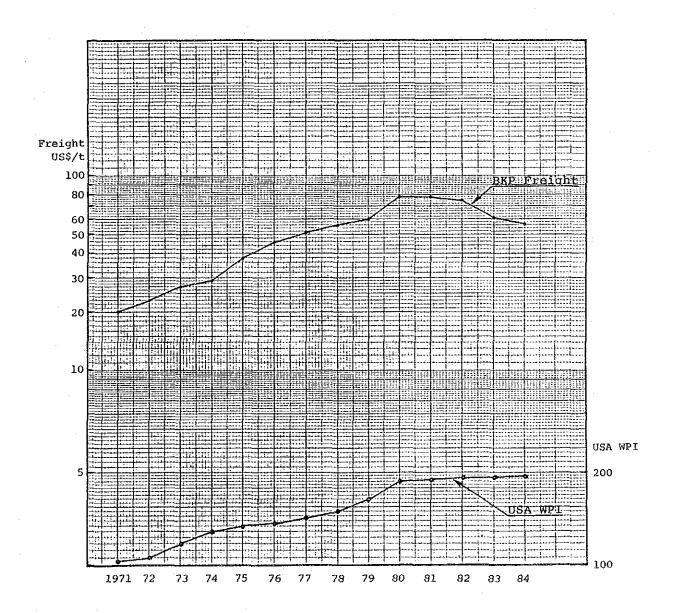
Note: Required sales prices at full production.

Figure II-24 INTERNATIONAL PULP AND PAPER STATUS INDEX OF MARKET PULP PRICES IN CURRENCIES OF VARIOUS COUNTRIES*

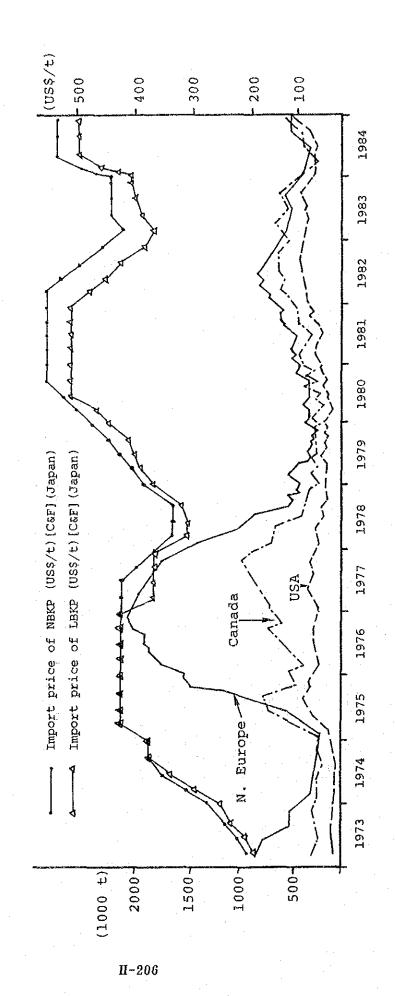


Note: * Based on April 1, 1980, and market pulp prices of US\$535/MT.

Figure II-25 FREIGHT OF BKP MARKET PULP PRICE (New Orleans - Rotterdam)



MARKET PULP INVENTORY IN NOSCAN AND IMPORT PRICE OF NBKP AND LBKP IN JAPAN Figure II-26



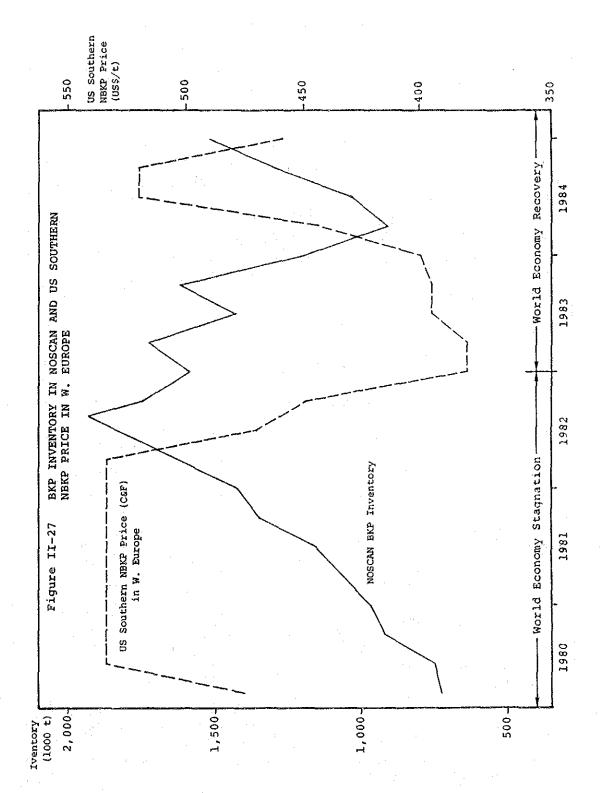
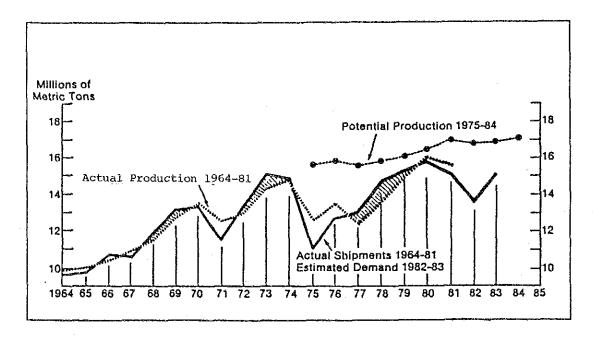


Figure II-28 NORTH AMERICAN/NORDIC CHEMICAL PAPER GRADE MARKET PULP CAPACITY (Sulfite and Kraft)



Source: PPI, September 1983 Note: Potential production is based on a 95% operating rate.

Figure II-29 WORLD WIDE CHEMICAL PAPER GRADE MARKET PULP CAPACITY

