

Thus the ratio of damage was 17 per cent. In addition to the number of installed machines lost in airraids as given in the above table, 5,400 units were lost during the war; 3,200 through enterprise readjustment; 1,900 through unfinished dispersal; and 300 through removal to overseas territories.

The airraid damage done to the bearing manufacturing capacity resulted in the loss of ¥76,500,000 per annum in equipment capacity (or ¥66,500,000 in actual capacity) which used to belong to four plants. Besides the above, the loss of capacity during the war include ¥38,200,000 (¥33,200,000) through uncompleted dispersal, and ¥10,000,000 (¥10,000,000) through removal to overseas territories.

In 1941 the monthly output of automobiles was 4,400. On account of dispersal of manufacturing facilities, the capacity fell by 18% or to 3,600 per month before the airraid came. The airraids destroyed two operating units and two plants, diminishing the production capacity by 20.8% or by 750 per month. However, in consideration of the fact that decrease of parts and accessories manufacturing capacity has not fully been taken into account, the above figures are conservative estimates. Special automobile manufacturing capacity was 750 per month in 1944, of which about 8% was lost as a result of airraids on five plants where such automobiles were made.

For the same reason, the extent of damage done to the bicycle manufacturing capacity is also underestimated in this report.

#### (6) Chemical Industry

Subdividing the chemical industry into production of chemical fertilizers, chemical articles, ceramics and others, the ratio of damage was generally low in the manufacture of chemical fertilizers, except in the case of ammonium sulphate where it stood at 54.1%. The production of chemical articles such as soap, caustic soda, etc. suffered losses exceeding 35%. While in the ceramics the damage was generally slight, the sheet glass manufacturing was left undamaged, the only exception was the cement production which was damaged to the extent of 27%. Rubber industry, and hide and leather industry suffered a loss of 42.7% and 19.4% respectively.

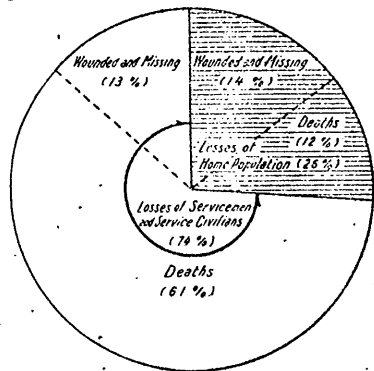
#### (7) Fiber Industry

With a couple of exceptions, the damage sustained by various fields of the fiber industry was generally slight. However, attention should be drawn to the fact that, long before any damage was done, the capacity in those branches had been reduced to a considerable extent, through dismantling of spinning machines, conversion to military production, etc.

Examining the spinning industry and paper manufacturing industry separately, the former shows higher ratios of damage, with wool-combing at 42.4%; hemp-spinning, 31.1%; wool-carding, 33.7%, while in the latter the ratios in general are low, with the paper woodpulp manufacture, the highest in the group, showing a ratio of only 16.1%.

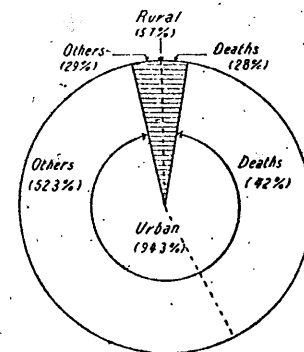
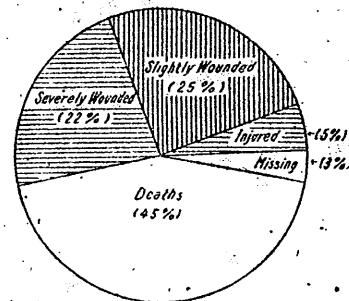
In the rayon manufacturing, due to the damage of the Tsuruga Plant of the Toyo Boseki, some 20 per cent of its manufacturing capacity was lost. Also in the staple fiber manufacturing, the Tsuruga Plant of the Toyo Boseki lost 20% and the Fukuyama Plant of Nitto Boseki lost 5% of their capacities respectively.

Human Losses Chart I



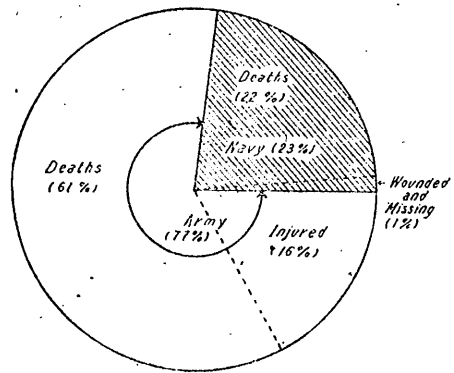
(59)

Human Losses Chart II



(61)

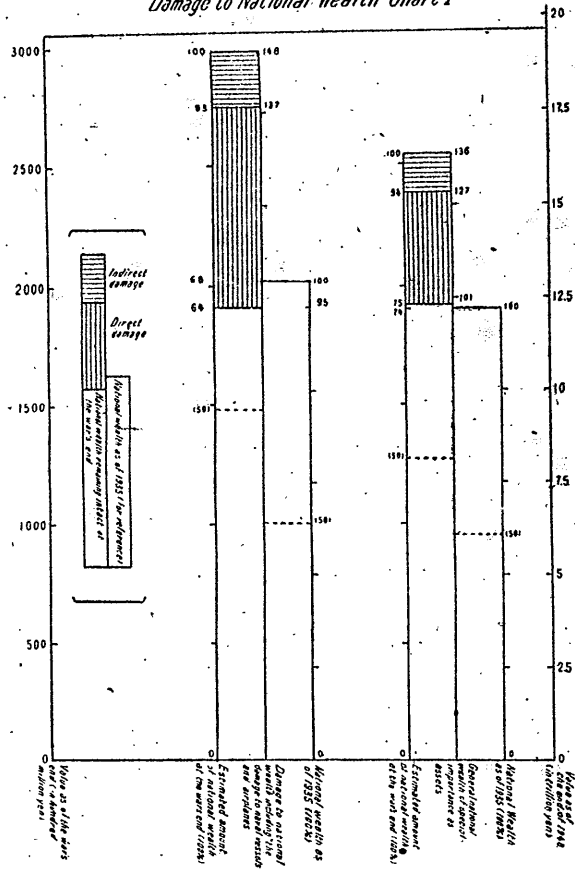
Human Losses Chart III



(63)

0123

Damage to National Wealth Chart I

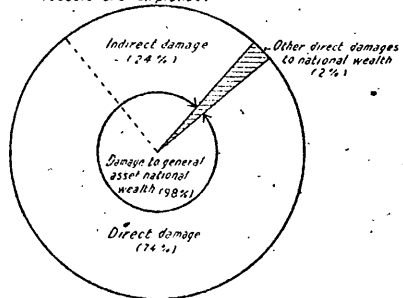


(65)

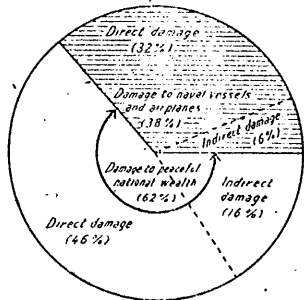
0124

*Damage to National Wealth Chart II*

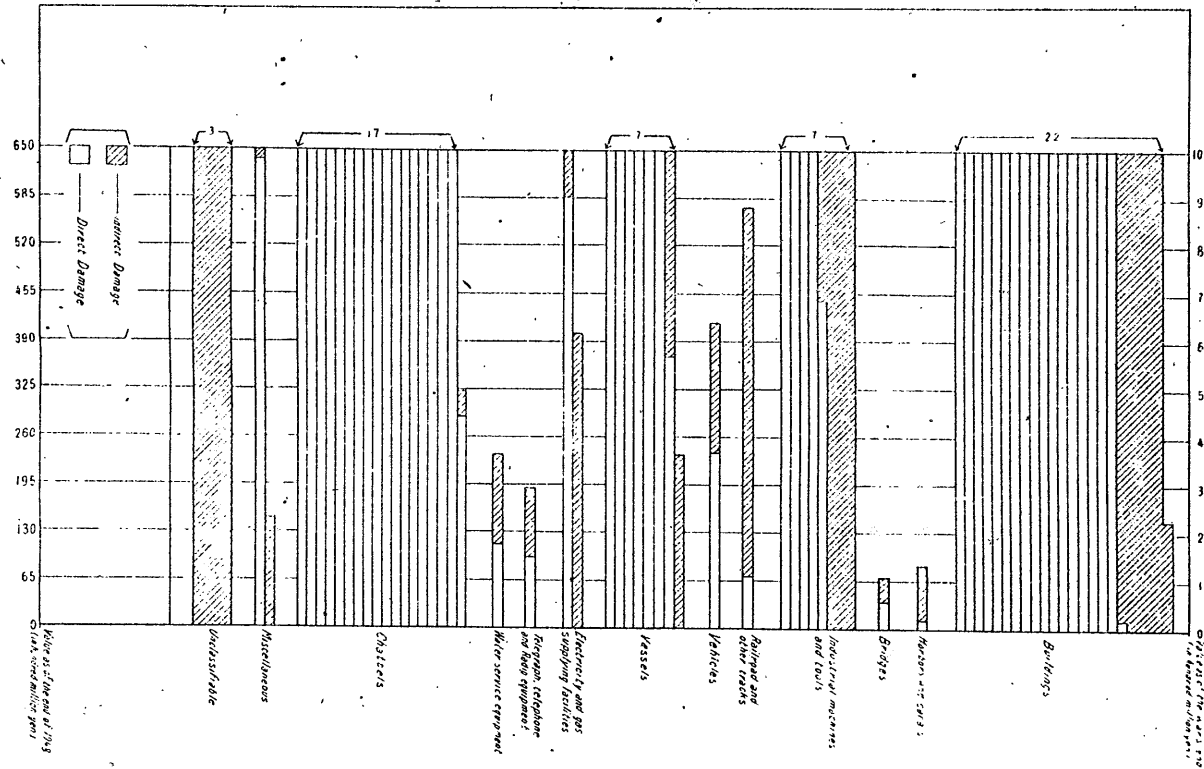
*Damage to National Wealth  
(excluding the damage to naval  
vessels and airplanes)*



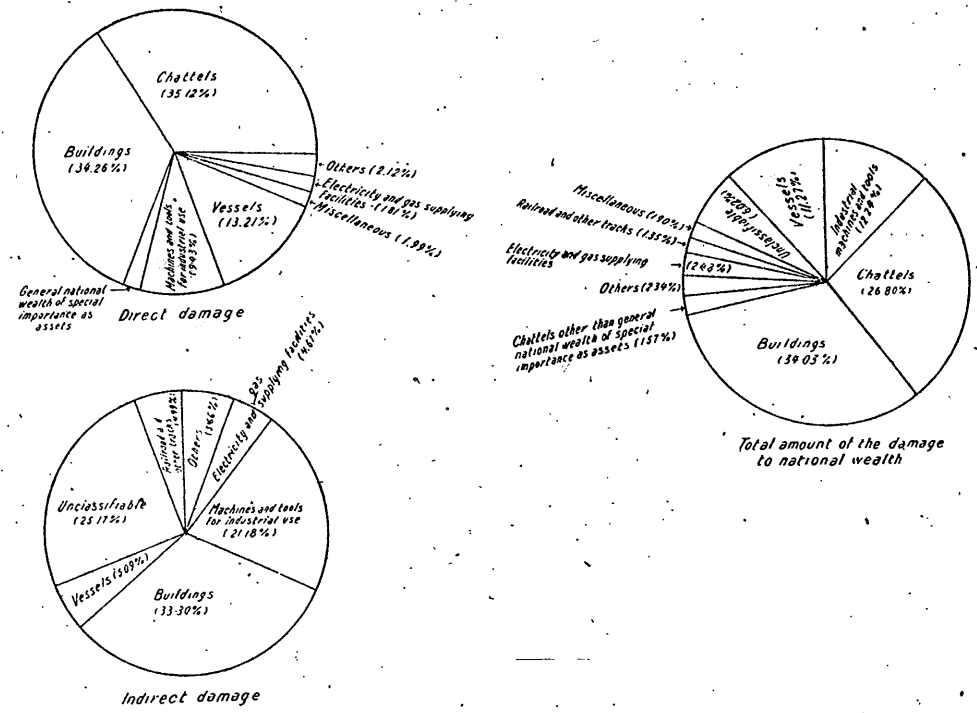
*Damage to National Wealth  
(including the damage to naval  
vessels and airplanes)*



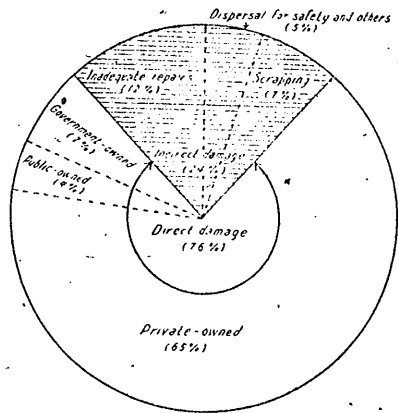
Damage to National Wealth Chart III



Damage to National Wealth Chart IV

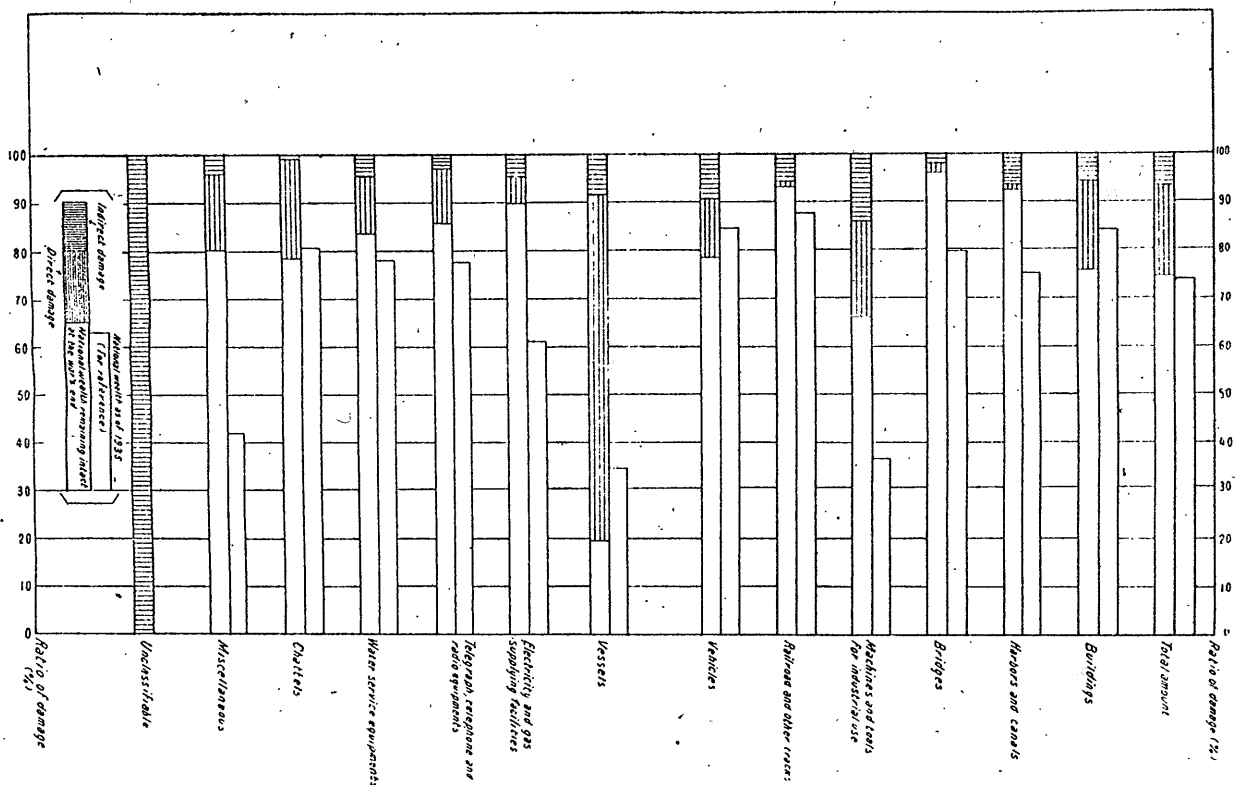


Damage to National Wealth Chart V



(73)

Damage to National Wealth Chart VI





(ANNEX)

**MATERIAL DAMAGES CAUSED BY  
THE ATOMIC BOMBS IN HIROSHIMA  
& NAGASAKI CITIES**

(APPENDICES: HUMAN LOSSES)

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I. INTRODUCTORY REMARKS

(1) The present report is a summary of a detailed investigation on the direct material damages caused by the atomic bombs in the Hiroshima and Nagasaki districts, prepared in June, 1948 by the Investigation Section, Planning Division of the Economic Stabilization Board.

(2) The term "damages caused by the atomic bombs" as employed in the present report means the direct damages done to material property in Hiroshima and Nagasaki, but, as in the case of the "Damages to National Wealth", losses of property for purely military use and the indirect damage are not included in it. However, the damages to property for quasi-military use, such as barracks and chattels stored therein, the conversion of which into a peaceful use might be deemed possible are considered. Regionally, all the damages incurred in connection with the atomic bombs are considered whether such damages were brought about in the cities of Hiroshima and Nagasaki or in their outskirts.

(3) In the explanation of the general features of the damages caused by the atomic bombs, the most important thing is the way how damages to various kinds of property were estimated in terms of money.

In the case where the ledger value of a property or the value corresponding therewith is clear, such value is converted into the value as of the war's end (August 1945), by referring to the price index, and to depreciation of the property as worked out in accordance with the number of the years passed. In the case where the ledger value is not available, average unit prices are worked out by deducting reasonable depreciation. The assessment of the damage to some items of property, such as roads and bridges, is necessarily based on the cost required for repairing, as of the war's end. As it may be clear from the above explanation, the amounts of money mentioned in the present report represent, with but a few exceptions, the actual amounts of damage, as of the war's end, taking into account the depreciation of the respective properties. It may be added that the price indices adopted herein are average indices of the general wholesale prices in Tokyo taken by the Bank of Japan (298, at the war's end, as against 100 in 1930; 291, at the war's end, as against 100 in 1935; and 2,785, at the end of 1947, as against 100 during the wartime).

## II. AN OUTLINE OF THE DAMAGES CAUSED BY THE ATOMIC BOMBS

(1) The total amounts of the damages caused by the atomic bombs in Hiroshima and Nagasaki are estimated, in the value as of the war's end, to be ¥702,362,000 and ¥251,950,000 respectively, representing 14.1% and 5.1% of the total damages to national wealth (¥49,673,611,000).

(2) A classification by ownership shows that in both Hiroshima and Nagasaki, the damage to the private-owned property forms the largest proportion to the total damage, representing 69.2% and 71.2% respectively.

Below is given a table of the damage classified by ownership.

Table I. Atomic-Bomb Damage by Ownership

	Hiroshima		Nagasaki	
	Amount (in 1,000 yen)	Percentage	Amount (in 1,000 yen)	Percentage
Government-owned	129,771	18.5	31,940	12.7
Public-owned	86,556	12.3	40,748	16.2
Private-owned	486,035	69.2	179,262	71.1
Total	702,362	100.0	251,950	100.0

The above table shows that the damage to the Government-owned in Hiroshima represents nearly 20 per cent of the total. Such a high rate of the damage is due to the fact that military barracks and chattels stored therein, which were located in the centre of the city, suffered the heaviest damage. In Nagasaki, on the other hand, there were very few military properties. Accordingly, the rate of the damage to the public-owned properties is higher than that to the Government-owned properties in Nagasaki.

(3) A classification by property shows that in both cities the damage to buildings is the biggest, representing 51.6% in Hiroshima and 42.6% in Nagasaki; next comes the damage to chattels (36% in Hiroshima and 33.6% in Nagasaki), followed in the former by that to the miscellaneous (4.8%) and that to vehicles (3%); and in the latter by that

to industrial machines and tools (8.9%) and that to the miscellaneous (8.8%).

The following table shows the damage caused by the atomic bombs in Hiroshima and Nagasaki as classified by property:—

## HIROSHIMA

Items of Property	Government-owned (in 1,000 yen)	Public-owned (in 1,000 yen)	Private-owned (in 1,000 yen)	Total (in 1,000 yen)	Rate to the total (%)
Total	129,771	86,556	486,035	702,362	100.00
Buildings	47,821	44,370	269,918	362,109	51.55
Roads	3,000	—	—	3,000	0.43
Harbors and rivers	—	197	—	197	0.03
Bridges	944	—	—	17	0.13
Forests and fields	—	77	—	77	0.01
Industrial machines and tools	551	53	6,492	7,096	1.01
Railways and other tracks	489	—	206	695	0.10
Vehicles	2,437	800	17,900	21,137	3.01
Vessels	4	103	16	123	0.02
Electric and gas installations	410	—	3,501	3,911	0.56
Telegraph, telephone and radio equipment	10,799	1,791	1,038	13,688	1.95
Water service equipment	—	2,507	483	2,990	0.43
Chattels	42,397	30,037	180,594	253,028	36.02
Furniture and other effect	33,357	28,616	167,698	229,671	32.70
Finished and unfinished products, and raw materials	9,040	1,421	12,896	23,357	3.32
Miscellaneous	20,919	6,621	5,827	83,367	4.75
Rate to the total (%)	18.5	12.3	69.2	100.0	—

Remarks: The figures given in the above table include the following damages to Government-owned properties for quasi-military use: (in 1,000 yen)  
Buildings: 15,318      Industrial Machines and tools: 116      Furniture and other effects: 10,193

## NAGASAKI

Items of Property	Government-owned (in 1,000 yen)	Public-owned (in 1,000 yen)	Private-owned (in 1,000 yen)	Total (in 1,000 yen)	Rate to the total (%)
Total	31,940	40,748	179,252	251,950	100.00
Buildings	13,038	21,057	73,235	107,330	42.60
Roads	1,768	—	—	1,768	0.72
Harbors and rivers	—	18	—	18	0.01
Bridges	626	—	—	626	0.25
Forests and fields	—	1,717	—	1,717	0.68
Industrial machines and tools	10	—	22,480	22,490	8.91
Railways and other tracks	214	—	252	466	0.19
Vehicles	541	16	914	1,471	0.58
Vessels	—	463	—	463	0.18
Electric and gas installations	544	—	3,123	3,667	1.46
Telegraph, telephone and radio equipment	2,573	161	26	2,765	1.10
Water service equipment	—	1,896	1,785	3,681	1.46
Chattels	11,810	9,262	63,468	84,540	33.55
Furniture and other effects	11,058	9,262	30,710	51,030	20.25
Finished and unfinished products, and raw materials	752	—	32,758	33,510	13.30
Miscellaneous	811	6,158	13,979	20,948	8.31
Rate to the total (%)	12.7	16.2	71.1	100.0	—

Remarks: Damages to military property are not included in the figures given in the above table.

(4) The damages mentioned in the preceding two paragraphs are classified into those to production property and to consumer property as in the below table on the following basis:—

## (a) Production property:

Buildings (factories, warehouses, stations and buildings attached thereto, buildings for communication purpose); Roads; Harbors and rivers; Bridges; Forests and fields; Industrial machines and tools; Railways and other tracks; Vehicles; Vessels; Electric and gas installations; Telegraph, telephone and radio equipment; Water service equipment; Finished and unfinished products, and raw materials; Miscellaneous (Equipment of the Monopoly Bureau, railways, postal and telegraphic machines and apparatus).

## (b) Consumer property:

Buildings (those which are not included in production property; Furnitures and other effects; Finished and unfinished products (those kept in the Monopoly Bureau, hygienic laboratories, and the Japan Red Cross Society); Miscellaneous (things not included in production property, such as medical instruments, books, national treasures, and historic remains).

## HIROSHIMA

Classification	Government-owned (in 1,000 yen) (%)	Public-owned (in 1,000 yen) (%)	Private-owned (in 1,000 yen) (%)	Total (in 1,000 yen) (%)
Production property	34,626(4.9)	10,156(1.5)	97,762(13.9)	142,544(20.3)
Consumer property	95,145(13.6)	76,400(10.8)	388,273(55.3)	559,818(79.7)
Total	129,771(18.5)	86,553(12.3)	486,035(69.2)	702,362(100.0)

## NAGASAKI

Classification	Government-owned (in 1,000 yen) (%)	Public-owned (in 1,000 yen) (%)	Private-owned (in 1,000 yen) (%)	Total (in 1,000 yen) (%)
Production property	7,510(3.0)	4,756(1.9)	69,029(27.4)	81,335(32.3)
Consumer property	24,430(9.7)	35,952(14.3)	110,233(43.7)	170,615(67.7)
Total	31,940(12.7)	40,748(16.2)	179,262(71.1)	251,950(100.0)

From the above table it may be seen that the ratio of the damage done to consumer property against that to production property is 3.9 to 1 in Hiroshima and 2.2 to 1 in Nagasaki, the damage to consumer property in Hiroshima showing a conspicuously high rate. Such rates of the damage are due to the fact that Hiroshima used to be a "military city", and that the damage to factories and others was comparatively small there, while in Nagasaki, dockyards, steel mills, and other large factories were seriously damaged.

(5) The comparison of the damages of the atomic bombs, classified by property, with those to national wealth is shown in the below table. There is, however, some difference between those two kinds of damages with respect to the methods of assessment and the unit value of damaged property, and besides, as investigations were made separately, based for the most part on different kinds of data, there are more or less discrepancies between the results of those investigations. The table, therefore, cannot necessarily be regarded as a complete one, but it will be given for reference.

Items of Property	Damage to National Wealth (in ¥1,000) (%)	Damage of the Atomic Bomb in Hiroshima (in ¥1,000) (%)	Rate to Damage done to National Wealth (%)	Damage of the Atomic Bomb in Nagasaki (in ¥1,000)(%)	Rate to Damage done to National Wealth (%)
Total	49,673,611(100.0)	702,332(100.0)	1.41	251,950(100.0)	0.51
Buildings	17,126,247(34.48)	362,109(51.55)	2.11	107,330(42.60)	0.63
Roads	243,783(0.49)	3,000(0.43)	1.23	1,768(0.72)	0.73
Harbors and rivers	36,950(0.07)	197(0.03)	0.53	18(0.01)	0.35
Bridges	55,097(0.11)	944(0.13)	1.71	623(0.25)	1.14
Forests and trees	6,245(0.01)	77(0.01)	1.23	1,717(0.68)	27.49
Industrial machines and tools	4,709,683(9.48)	7,096(1.01)	0.15	22,490(8.91)	0.38
Railways and other tracks	104,475(0.21)	695(0.10)	0.67	466(0.19)	0.15
Vehicles	371,664(0.75)	21,137(3.01)	5.68	1,471(0.58)	0.30
Vessels	6,564,103(13.21)	123(0.02)	0.002	463(0.18)	0.007
Electric and gas installations	897,833(1.81)	3,911(0.56)	0.44	3,667(1.46)	0.41
Telegraph, telephone and radio equipment	213,113(0.49)	3,688(1.95)	5.63	2,765(1.10)	1.14
Water service equipment	271,297(0.55)	2,990(0.43)	1.10	3,681(1.46)	1.36
Chattels	7,141,400(35.12)	253,028(36.02)	1.45	84,540(33.55)	0.38
Furniture and other effects	9,557,492(19.21)	229,671(32.70)	2.40	51,030(20.25)	0.73
Finished and unfinished prod- ucts, and raw materials	7,583,907(15.83)	23,357(3.32)	0.30	33,510(13.30)	0.38
Coins, and Gold, silver and other precious bullions	23,581(0.05)	—	—	—	—
Miscellaneous	1,598,811(3.22)	33,367(4.75)	2.09	20,948(8.31)	1.31

## APPENDICES

## 1. Human Losses Caused by the Atomic Bombs

Kind of Losses	Hiroshima		Nagasaki		Remarks:
	Number of victims	Rate (%)	Number of victims	Rate (%)	
Total	129,558	100.0	66,673	100.0	The figures given in the present table do not include losses of persons in or related with military service. * Persons who suffered losses to their necessities of life though their bodies were safe.
Deaths	78,150	60.3	23,753	35.6	
Severely wounded	9,428	7.3	40,993	61.5	
Slightly wounded	27,997	21.6			
Missing	13,983	10.8	1,927	2.9	
*War sufferers	176,987	—	89,780	—	

## Note: 1. Hiroshima:

The figures are based on the report published on 30 November, 1945, by the Police Division, Hiroshima Prefectural Office, including some 95,251 persons who happened to be in Hiroshima City at that fatal moment. It may be added that among the sufferers there were some 40,761 persons who had been evacuated from the city for safety.

## 2. Nagasaki:

The figures are based on the report published by the Nagasaki Municipal authorities on 25 November, 1945.

## 2. The Damage to Buildings in Hiroshima, Classified by the Extent of Damage

Distance from the epicenter of the atomic bomb explosion and the number of city blocks	Number of Buildings existent before damage	Number of Buildings 50 per cent or more damaged				Total	Rate of damage (%)	Number of Buildings damaged in a minor degree
		Total destruction by fire	Total collapse	Partial destruction by fire	Partial collapse			
Within 0.5 km., 24 city blocks	5,608	5,607	1	—	—	5,608	100.0	—
Within 1.0 km., 46 city blocks	14,059	14,052	3	3	1	14,059	100.0	—
Within 1.5 km., 37 city blocks	14,508	14,427	136	4	28	14,595	99.9	3
Within 2.0 km., 35 city blocks	10,223	9,254	706	18	559	10,627	97.2	301
Within 2.5 km., 24 city blocks	12,168	3,830	2,138	118	5,471	11,557	95.0	611
Within 3.0 km., 17 city blocks	7,383	780	650	62	4,788	6,280	85.0	1,103
Within 3.5 km., 9 city blocks	2,433	14	19	48	1,979	2,030	84.7	373
Within 4.0 km., 11 city blocks	3,727	5	57	—	3,004	3,066	76.9	661
Within 4.5 km., 6 city blocks	1,140	—	5	—	369	874	75.3	286
Within 5.0 km., 5 city blocks	1,577	—	—	—	917	947	60.0	630
More than 5.1 km., 5 city blocks	2,566	—	13	—	461	474	17.6	1,212
Total	76,327	47,969	3,318	253	18,107	70,147	91.9	1,180

Note: The figures given in the above table are based on the investigations made in August, 1946, by the Investigation Section, Hiroshima Prefectural Office.



3. The Damage to Buildings in Hiroshima, Classified by the Kind of Buildings  
(Damaged 50% or more)

Prepared by the Investigation Section, Hiroshima  
Prefectural Office, August 1946.

Distance from centre of explosion		Within 0.5 km.	Within 1.0 km.	Within 1.5 km.	Within 2.0 km.	Within 2.5 km.	Within 3.0 km.	Within 3.5 km.	Within 4.0 km.	Within 4.5 km.	Within 5.0 km.	More than 5.1 km.	Total
Totally destroyed by fire (number of houses)	Ferro-concrete	14	13	10	8	3	—	—	—	—	—	—	48
	Stone-built and partially concrete	5	71	54	19	5	5	—	—	—	—	—	159
	Wooden and others	5,588	13,968	14,363	9,227	3,822	775	14	5	—	—	—	47,762
	Total	5,607	14,052	14,427	9,254	3,830	780	14	5	—	—	—	47,969
Totally collapsed (number of houses)	Ferro-concrete	—	1	2	—	1	—	—	—	—	—	—	4
	Stone-built and partially concrete	1	2	—	7	6	6	—	—	—	—	—	22
	Wooden and others	—	—	134	789	2,131	644	19	57	5	—	13	3,792
	Total	1	3	136	796	2,138	650	19	57	5	—	13	3,818
Partially destroyed by fire (number of houses)	Ferro-concrete	—	3	3	—	—	—	—	—	—	—	—	6
	Stone built and partially concrete	—	—	—	—	1	—	—	—	—	—	—	1
	Wooden and others	—	—	1	18	117	62	48	—	—	—	—	246
	Total	—	3	4	18	118	62	48	—	—	—	—	253
Partially collapsed (number of houses)	Ferro concrete	—	1	6	6	3	—	—	4	—	—	—	20
	Stone-built and partially concrete	—	—	1	13	11	49	—	3	—	1	—	78
	Wooden and others	—	—	21	540	5,457	4,739	1,979	2,997	869	946	461	18,009
	Total	—	1	28	559	5,471	4,788	1,979	3,004	869	947	461	18,107
Total	Ferro-concrete	14	18	21	14	7	—	—	4	—	—	—	78
	Stone-built and partially concrete	6	73	55	39	23	60	—	3	—	1	—	260
	Wooden and others	5,588	13,968	14,519	10,574	11,527	6,220	2,060	3,059	874	946	474	69,809
	Total	5,608	14,059	14,595	10,627	11,557	6,280	2,060	3,066	874	947	474	70,147

(4) Actual Scene of Hiroshima City at the Time of the Atomic Bomb Explosion

From the "Shisei Yorán" (Year-book of Hiroshima City),  
compiled by the Hiroshima Municipal Office, 1946.

On August 6, 1945, at about 8:15 a.m., the atomic bomb, which burst partly with a pop and gave a pale, bluish flash like that of magnesium at an altitude of 1,500 or 1,600 meters above the center of Hiroshima city, came down rapidly with a thick trail of red flame for six seconds or so, and blew up with a terrific explosion at a height of 570 meters (above the vicinity of the Shima Hospital at Saiku-machi). It was such a terrible explosion! Reddish-blue and brown sparks were scattered in all directions with a roaring sound, and intensive radiation was emitted far and wide around. The wild flames created by the explosion looked like big pillars of fire and blew ferociously against ground near by, burning away everything there, while its blast swept off all of them. In the meantime, there appeared something like a "small sun" above the epicenter. It was called a fire ball at the time, which was a red-hot one of 150 meters in diameter and heated to some 20,000° F at the center. A wind caused by the blast of the bomb blew at a speed of 500-1,000 miles an hour causing the whole city completely devastated and reduced to ashes. The heat of the radiation emitted from the explosion was so terribly intense that even a concrete wall of one *shaku* (about 1 foot) in thickness could not prevent its penetration. The lapse of time between the fall of the bomb and its explosion was estimated to be about 100 seconds, and the duration of the radiant heat was considered to be two seconds or so. The blast effect from the bomb continued for several seconds after the explosion, though it varied according to the distance, the variance in time being nearly equal to that of the sound-wave. In five to ten minutes after the explosion, a heavy shower came over the northern part of the city.

Weather conditions at the time of the explosion (Aug. 6, 8 a.m.) were as follows:

Atmospheric pressure: 761.6 mm  
Temperature: 26°.7C  
Humidity: 80%  
Rainfall: 10 mm

( 101 )

0143

Kind of clouds: Many cirruses, and cirro-stratus and cumulus

Weather: Fine

Direction of the wind: North

Velocity of the wind: 0.8 meter

( 102 )

0144

12

# POSITION OF NATIONAL ECONOMY OF JAPAN IN ASIA

MINISTRY OF FOREIGN AFFAIRS  
JAPANESE GOVERNMENT

DECEMBER 1950

0145

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## I. ECONOMIC INTERDEPENDENCE BETWEEN JAPAN AND OTHER ASIAN COUNTRIES

Japan with a large population and meagre natural resources is obliged to import foodstuffs and raw and essential materials. In order to pay for such imports she has to maintain her export trade on an ever-growing scale. In other words, the only way for Japan to stabilize her national economy and improve the living standards is to be found in a balanced and, at the same time, progressively expanding foreign trade, which has acquired an increased importance as a result of the loss of territories and resources she has sustained in the war.

On the other hand, the basic feature of the economies of other Asian countries is that they export agricultural and mineral produce, of which they have abundant resources, in payment for manufactured articles, particularly consumer goods.

Herein lies the fundamental factor of the close relationship of economic interdependence between Japan and other Asian countries—a relationship that is reinforced by the historical and geographical background.

This interdependence is described below in concrete terms by citing actual trade data and others, both past and present.

### 1. Importance of Asian Countries to National Economy of Japan

In the pre-war years (1934-1936), our annual trade with Asian countries, by which Pakistan, India, Ceylon, Burma, Malaya, Indonesia, British Borneo, Thailand, French Indo-China, the Philippines, Hongkong, China (inclusive of Manchuria, Kwantung Province and Formosa), and Korea, are specifically referred to in this report, accounted on the average for 61.1 per cent of the total exports, and 52.8 per cent of the total imports.

These countries were purchasers of a large volume of our industrial products; and they were also the largest suppliers of the raw materials for our key industries and of the foodstuffs to feed our population. For instance, of our total exports for the year 1937, they took 47.7 per cent of textiles (cotton textiles 37 per cent), 70.9 per cent of metal goods, and 80.1 per cent of machines. While with respect to our imports they accounted for 100 per cent in coal, 87.4 per cent in iron ore, 78.8 per cent

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in pig iron, 79.6 per cent in tin, 51.2 per cent in salt, 93.7 per cent in rubber, 95.4 per cent in oleaginous seeds, 50.2 per cent in copra, 100 per cent in wood oil, 93.9 per cent in jute, 93.0 per cent in Manila hemp, 100 per cent in rice, 100 per cent in soya beans, 94.0 per cent in sugar, 98 per cent in feedstuff and 82.8 per cent in oil cake (See Table No. 1).

The volume of our trade with those Asian countries amounted in 1949 to 46.4 per cent of the total export and 30.4 per cent of the total import. The trade has changed little from the pre-war pattern of importing food as well as raw materials and exporting manufactured goods. However, in regard to the exports to certain countries, an increase is noted in capital goods and conversely a decrease in consumer goods (See Table No. 2). For instance, textiles decreased from 47.7 per cent in 1937 to 37.0 per cent in 1949, while machines rose from 80.1 per cent to 90.9 per cent in the same period (See Tables No. 2 and No. 3).

An outstanding aspect in the trend of our post-war trade is the drastic retrogression of our China trade. Japan's economy used to be closely related to China, which was not only a good market for Japanese merchandise, but also the largest supplier of industrial materials such as coal, iron ore, salt, etc. for Japan (See Table No. 1).

Japan's export to China including Formosa and Manchuria fell from 15-29 per cent of her total export in 1930-1939 to 2 per cent in 1949, and her import from 18-21 per cent to 4.9 per cent (See Table No. 5).

In view of the change in the political situation it is unlikely that the aforesaid Sino-Japanese trade will be restored in the near future. Consequently, the national economy of Japan calls for the expansion of her trade relations in other directions, particularly to the south-eastern area of Asia.

### 2. Economies of Asian Countries

The main characteristic of the economies of the Asian countries consists in that their production is confined to a few lines of primary products which are exported in order to import a wide variety of needed consumer goods. This may readily be seen from our trade with these countries, as described above, in which our imports consist of primary products while our exports to them comprise all manner of manufactured goods.

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Rice production provides the foundation of national economy for Burma, Thailand, and French Indo-China. In addition to rice, Burma produces minerals and teak; Thailand tin and teak; and French Indo-China other cereals, rubber, pepper, natural lacquer and hard coal (See Table No. 4).

The economy of Pakistan is largely sustained by jute and cotton, supplemented by oilseed, cereals (rice, wheat and rye), wool, hide and leather.

As for Korea, the northern part possesses modern industries while the economy of the southern part below the 38 parallel rests primarily on rice and secondarily on wheat, rye, and other cereals, tobacco, aquatic products (such as laver), and minerals.

Rubber, tin and bauxite constitute the mainstay of the Malayan economy. Ceylon relies heavily on its three special products, tea, rubber and copra, while by far the most important products of Indonesia are rubber, copra, petroleum, tin and bauxite; and those of the Philippines sugar, wheat and copra.

Of the Asian countries, India and China are in possession of manufacturing industries which are comparatively developed.

Formerly, the economy of India followed a colonial pattern, exporting raw materials mainly composed of agricultural products (cotton, tea, oleaginous seeds, etc.) and importing finished goods. But since about the time of World War I, strenuous efforts were made at industrialization, for which World War II has furnished a golden opportunity. The country at present is undergoing an industrial revolution, and a notable progress has been achieved in industrial production, especially in cotton textiles, so that India, once an exporter of raw cotton, has been importing it since the war. However, with the tremendous amount of consumer goods needed by its over 300,000,000 people on the one hand, and with a majority (70 per cent) of its employed population engaged in agricultural pursuits on the other, the country will be obliged to continue to export agricultural and livestock products such as oilseeds and raw hide and to import manufactured consumer goods for years ahead.

The main produce of China consists of bristle, soya bean, wood oil, oilseeds, tea, raw silk, coal, iron ore, antimony, tungsten, manganese, tin, salt, etc. (Before the war cotton and hemp were also important export items.) She has various modern manufacturing industries, with the textile manufacture topping the list. But they have scarcely attained the level

even to satisfy her domestic demands. By and large, China is still in a stage where she has to export raw materials and import finished goods (See Table No. 4).

### 3. Economic Relations between Japan and Other Asian Countries

#### a. Complementary Relationship

The economies of the Asian countries being such as they are, Japan occupies an ideal position for trading with them to mutual advantage. As sources of raw materials and as markets for manufactured goods these countries are no less indispensable to Japan than is Japan to them as customer of their special products and supplier of manufactured articles.

Thus there exists between Japan and the rest of East Asia very close and complementary trade relationship, one ministers to the needs of the other.

India and China with their modern industries may possibly compete with Japan in some lines of manufactured goods. But for the present at least both are concentrating their efforts on the development of light industry or the production of consumer goods; and even in those goods there are many items for which they are yet unable to meet the domestic demands. As for capital goods they have still to rely on imports from abroad. Japan is the most suitable supplier for the capital goods and technical knowledge which are necessary to develop their light industries. Therefore, the present complementary economic relationship between Japan and these countries, is expected to continue for years ahead. India, considered a rival of Japan in cotton textiles, produces as yet only items of lower grades, so that the interests of the two nations are compatible if we focus our production on finer qualities. Such compatibility is demonstrated by the fact that in 1948 textiles accounted for 56.5 per cent cotton textile alone, 21.3 per cent, of the Japanese export to India.

#### b. Mutual Advantages

The complementary relationship between Japan and other Asian countries is buttressed by certain positive advantages of the trade between them, advantages derived, in the first place, from geographical proximity, and in the second place from our relatively low production costs.

With their low incomes and limited accumulation of capital the Asian