

Situation

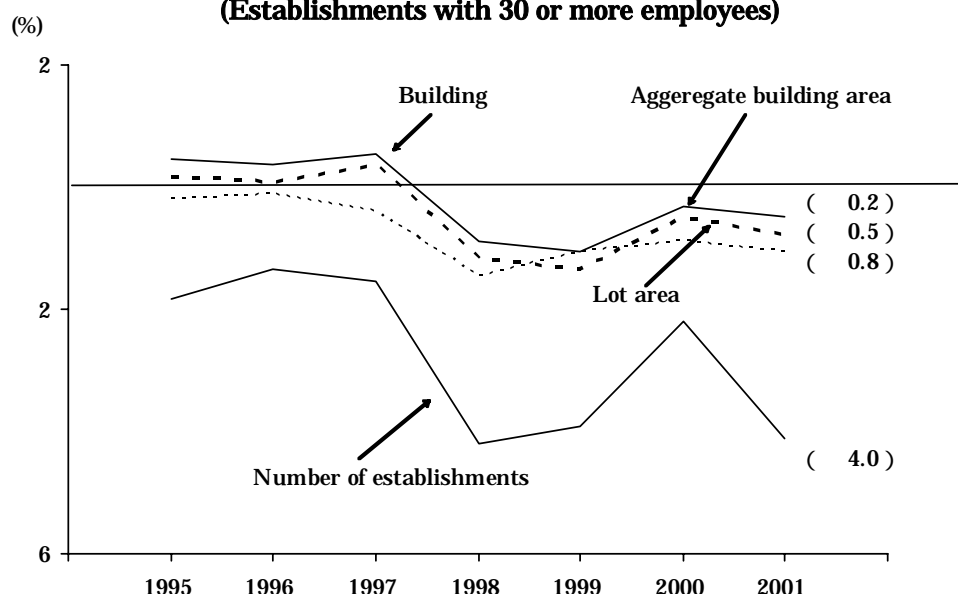
I. Industrial Sites

The number of manufacturing establishments with 30 or more employees (herein after referred to as the “number of establishments”) in 2001 decreased by 4.0% to 49,396, the tenth consecutive yearly decline (Table 1, Figure 1).

Lot area of establishments was 1.44259 billion m² (down 0.8% compared to the previous year), building area was 383.51 million m² (down 0.5% id.), and total building area was 513.98 million m² (down 0.2% id.). In addition, the lot area per establishment was 29.223 m² for manufacturing industries, up 3.4% from the previous year.

Furthermore, the average value of shipment per 1,000 m² of total building area in manufacturing industries decreased to 480.10 million yen (down 4.2% id.).

**Figure 1 Year-to-year change in major items of industrial sites
(Establishments with 30 or more employees)**



Note: The figures in brackets indicate a year-to-year comparison (%)

**Table 1 Transition in major items of industrial sites
(Establishments with 30 or more employees)**

| Year | Number of establishments | | Lot area | | Building area | | Aggregate building area | | Value of shipment of manufactured products per 1,000 m ² aggregate building area | |
|------|--------------------------|-----|--------------------------|-----|--------------------------|-----|--------------------------|-----|---|-----|
| | | Y/Y | | Y/Y | | Y/Y | | Y/Y | | Y/Y |
| | | (%) | (1,000 m ²) | (%) | (1,000 m ²) | (%) | (1,000 m ²) | (%) | (10 thousand yen) | (%) |
| 1995 | 56,749 | 1.6 | 1,478,266 | 0.1 | 385,845 | 0.5 | 508,595 | 0.8 | 50,799 | 1.4 |
| 1996 | 56,106 | 1.1 | 1,480,905 | 0.2 | 387,520 | 0.4 | 511,980 | 0.7 | 51,852 | 2.1 |
| 1997 | 55,386 | 1.3 | 1,479,934 | 0.1 | 390,114 | 0.7 | 516,554 | 0.9 | 53,293 | 2.8 |
| 1998 | 54,518 | 4.1 | 1,474,839 | 1.2 | 390,442 | 0.9 | 518,648 | 0.6 | 49,896 | 6.4 |
| 1999 | 52,469 | 3.8 | 1,462,761 | 0.8 | 386,057 | 1.1 | 514,749 | 0.8 | 48,286 | 3.2 |
| 2000 | 51,434 | 2.0 | 1,453,612 | 0.6 | 385,355 | 0.2 | 514,995 | 0.0 | 50,098 | 3.8 |
| 2001 | 49,364 | 4.0 | 1,442,586 | 0.8 | 383,510 | 0.5 | 513,982 | 0.2 | 48,010 | 4.2 |

Note: Year-to-year comparisons for 1998 were adjusted based on a time series of the acquisition of establishments being conducted.

1. Situation by industry

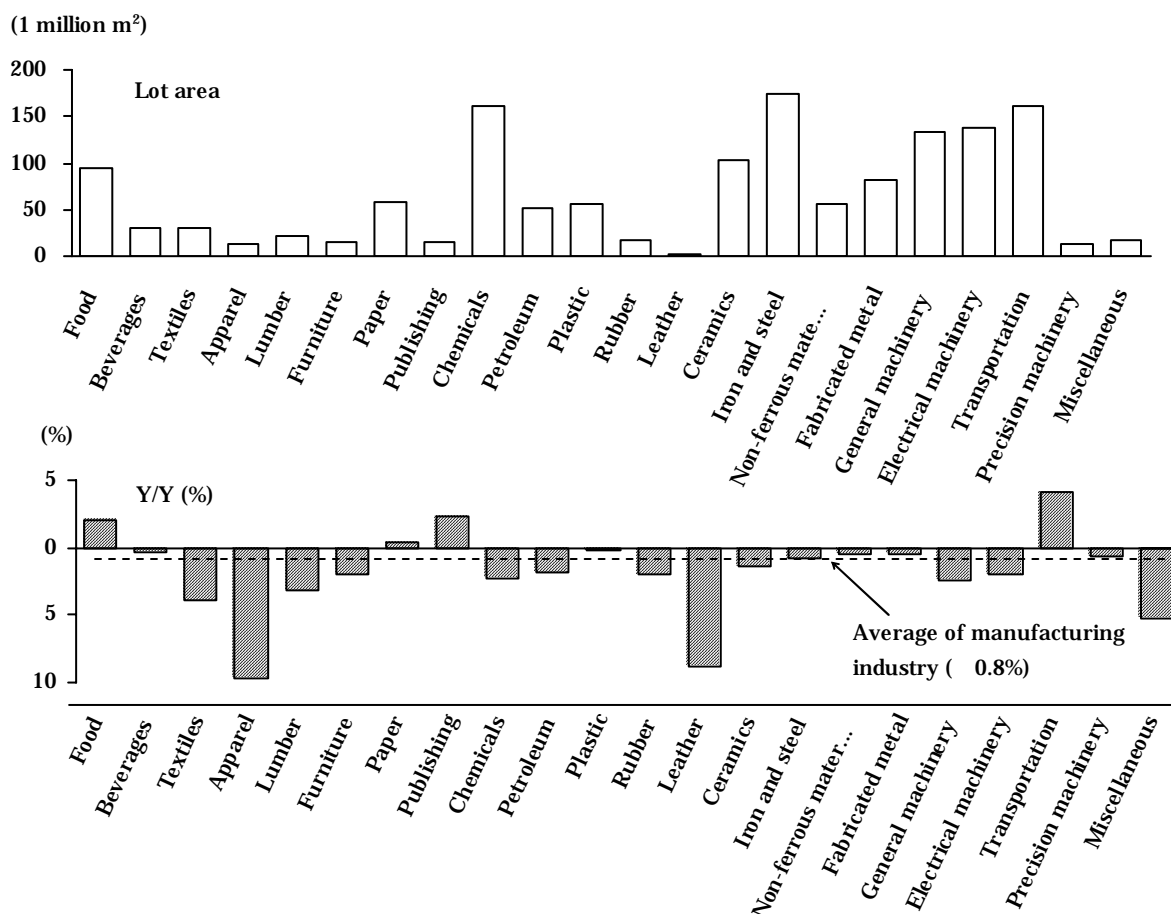
(1) Lot area

(i) Lot area of establishments decreased by 0.8% compared to the previous year, falling to 1.4259 billion m², the fifth consecutive yearly decline (Table 1).

By industry, the lot area was large in industries including iron and steel (175.01 m², composition ratio 12.1%), chemicals (162.35 m², 11.3% id.), transportation (162.08 m², 11.2% id.), electrical machinery (136.71 m², 9.5% id.), general machinery (133.11 m², 9.2% id.), ceramics, stone and clay products (124.3 m², 7.1% id.), and food (95.43 million m², 6.6% id.) (Table 2, Figure 2).

Compared to the previous year, lot area decreased in 18 industries, including apparel and other finished products (down 9.8% compared to the previous year), leather tanning, leather products and fur skins (down 8.9% id.), and miscellaneous manufacturing products (down 5.2% id.), whereas it increased in 4 industries, including transportation equipment (up 4.1% id.), and publishing, printing and related products (up 2.3% id.).

Figure 2 Lot area by industry
(Establishments with 30 or more employees)



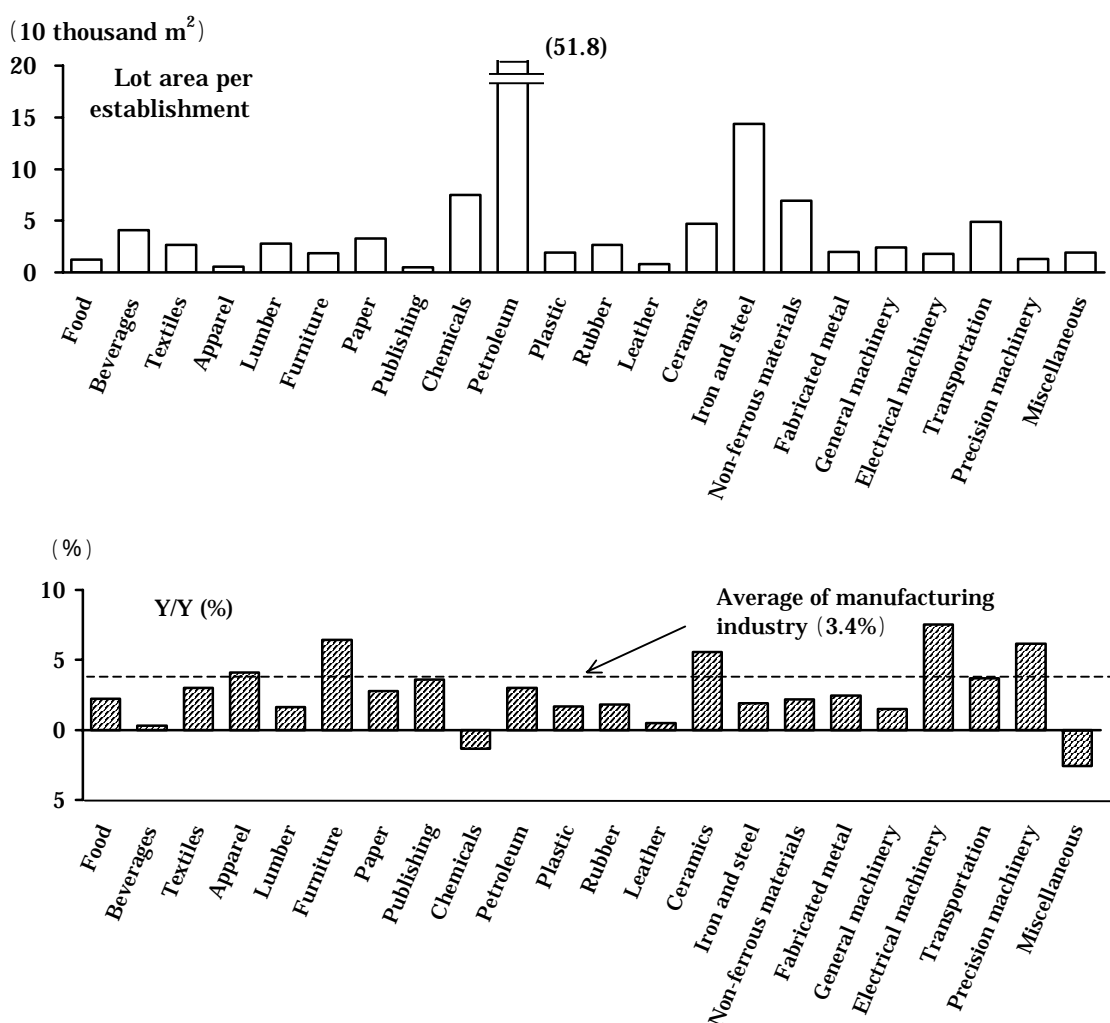
Note: The general machinery industry includes the ordnance and accessories industry.

(ii) The average lot area per establishment was 29,223 m², up 3.4% compared to the previous year (Table 2).

By industry in decreasing order, it was especially large in petroleum and coal products (518.356 m²), followed by iron and steel (146.327 m²), chemicals (74.232 m²), and non-ferrous metals (70.719 m²) (Table 2, Figure 3).

In the year-to-year comparison, there was an increase in 20 industries, including electrical machinery (up 7.6% compared to the previous year), furniture and fixtures (up 6.4% id.), and precision instruments and machinery (up 6.2% id.), whereas, there was a decrease in 2 industries, namely, miscellaneous manufacturing products (down 2.6% id.), and chemicals (down 1.3% id.).

**Figure 3 Lot area per establishment by industry
(Establishments with 30 or more employees)**



Note: The general machinery industry includes the ordance and accessories industry.

**Table 2 Number of establishments and lot area by industry
(Establishments with 30 or more employees)**

| Industry | Number of establishments | | | | Lot area | | | | Lot area per establishment | | |
|---|--------------------------|------------|-----------------------------|-------|---------------------------------|------------|-----------------------------|-------|----------------------------|------------|-----|
| | 2000 | 2001 | | | 2000 (1,000 m ²) | 2001 | | | 2000 (m ²) | 2001 | |
| | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | |
| Total | 51,434 | 49,364 | 4.0 | 100.0 | 1,453,612 | 1,442,586 | 0.8 | 100.0 | 28,262 | 29,223 | 3.4 |
| 12 Food | 7,388 | 7,370 | 0.2 | 14.9 | 93,591 | 95,432 | 2.0 | 6.6 | 12,668 | 12,949 | 2.2 |
| 13 Beverages, tobacco and feed | 716 | 712 | 0.6 | 1.4 | 29,347 | 29,266 | 0.3 | 2.0 | 40,987 | 41,104 | 0.3 |
| 14 Textile mill products | 1,165 | 1,087 | 6.7 | 2.2 | 31,250 | 30,029 | 3.9 | 2.1 | 26,824 | 27,626 | 3.0 |
| 15 Apparel and other finished products made from fabrics and similar materials | 2,776 | 2,406 | 13.3 | 4.9 | 14,889 | 13,434 | 9.8 | 0.9 | 5,363 | 5,584 | 4.1 |
| 16 Lumber and wood products | 764 | 728 | 4.7 | 1.5 | 21,199 | 20,530 | 3.2 | 1.4 | 27,748 | 28,200 | 1.6 |
| 17 Furniture and fixtures | 817 | 753 | 7.8 | 1.5 | 15,060 | 14,773 | 1.9 | 1.0 | 18,433 | 19,619 | 6.4 |
| 18 Pulp, paper and paper products | 1,736 | 1,696 | 2.3 | 3.4 | 56,965 | 57,188 | 0.4 | 4.0 | 32,814 | 33,719 | 2.8 |
| 19 Publishing, printing and related products | 2,925 | 2,889 | 1.2 | 5.9 | 14,620 | 14,957 | 2.3 | 1.0 | 4,998 | 5,177 | 3.6 |
| 20 Chemical products | 2,207 | 2,187 | 0.9 | 4.4 | 166,052 | 162,346 | 2.2 | 11.3 | 75,239 | 74,232 | 1.3 |
| 21 Petroleum and coal products | 106 | 101 | 4.7 | 0.2 | 53,346 | 52,354 | 1.9 | 3.6 | 503,265 | 518,356 | 3.0 |
| 22 Plastic products | 2,995 | 2,938 | 1.9 | 6.0 | 55,840 | 55,691 | 0.3 | 3.9 | 18,644 | 18,956 | 1.7 |
| 23 Rubber products | 673 | 648 | 3.7 | 1.3 | 17,825 | 17,474 | 2.0 | 1.2 | 26,485 | 26,966 | 1.8 |
| 24 Leather tanning, leather products and fur skins | 226 | 205 | 9.3 | 0.4 | 1,759 | 1,603 | 8.9 | 0.1 | 7,784 | 7,821 | 0.5 |
| 25 Ceramics, stone and clay products | 2,211 | 2,065 | 6.6 | 4.2 | 103,893 | 102,430 | 1.4 | 7.1 | 46,989 | 49,603 | 5.6 |
| 26 Iron and steel | 1,229 | 1,196 | 2.7 | 2.4 | 176,440 | 175,008 | 0.8 | 12.1 | 143,564 | 146,327 | 1.9 |
| 27 Non-ferrous metals and products | 799 | 778 | 2.6 | 1.6 | 55,293 | 55,020 | 0.5 | 3.8 | 69,203 | 70,719 | 2.2 |
| 28 Fabricated metal products | 4,242 | 4,120 | 2.9 | 8.3 | 83,155 | 82,743 | 0.5 | 5.7 | 19,603 | 20,083 | 2.5 |
| 29 General machinery (ordnance included) | 5,677 | 5,455 | 3.9 | 11.1 | 136,511 | 133,108 | 2.5 | 9.2 | 24,046 | 24,401 | 1.5 |
| 30 Electrical machinery, equipment and supplies | 7,641 | 6,968 | 8.8 | 14.1 | 139,392 | 136,714 | 1.9 | 9.5 | 18,243 | 19,620 | 7.6 |
| 31 Transportation equipment | 3,180 | 3,192 | 0.4 | 6.5 | 155,719 | 162,075 | 4.1 | 11.2 | 48,968 | 50,775 | 3.7 |
| 32 Precision instruments and machinery | 1,007 | 942 | 6.5 | 1.9 | 13,036 | 12,946 | 0.7 | 0.9 | 12,946 | 13,743 | 6.2 |
| 34 Miscellaneous manufacturing products | 954 | 928 | 2.7 | 1.9 | 18,429 | 17,465 | 5.2 | 1.2 | 19,318 | 18,820 | 2.6 |

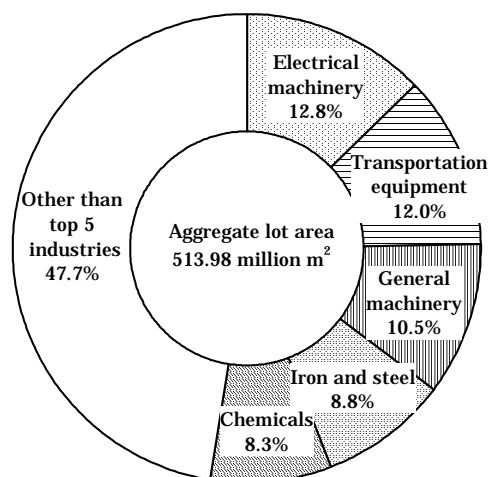
(2) Total building area

(i) Total building area was 513.98 million m², a 0.2% decrease compared to the previous year (Table 1).

By industry, total building area was large in processing and assembly industries and process industries, including electrical machinery (65.56 million m², composition ratio 12.8%), transportation equipment (61.84 million m², 12.0% id.), general machinery (54.05 million m², 10.5% id.), iron and steel (45.35 million m², 8.8% id.), and chemicals (42.59 million m², 8.3% id.) (Table 3, Figure 4).

In comparison with the previous year, there was a decrease in 14 industries, including apparel and other finished products (down 9.0% compared to the previous year), leather tanning, leather products and fur skins (down 7.8% id.), petroleum and coal products (down 6.3% id.), and textile mill products (down 3.8% id.), whereas there was an increase in 8 industries, including precision instruments and machinery (up 2.5% id.), plastic products (up 1.6% id.), transportation equipment (up 1.4% id.), and food (up 1.0% id.).

**Figure 4 Composition ratio of total building area by industry
(Establishments with 30 or more employees)**

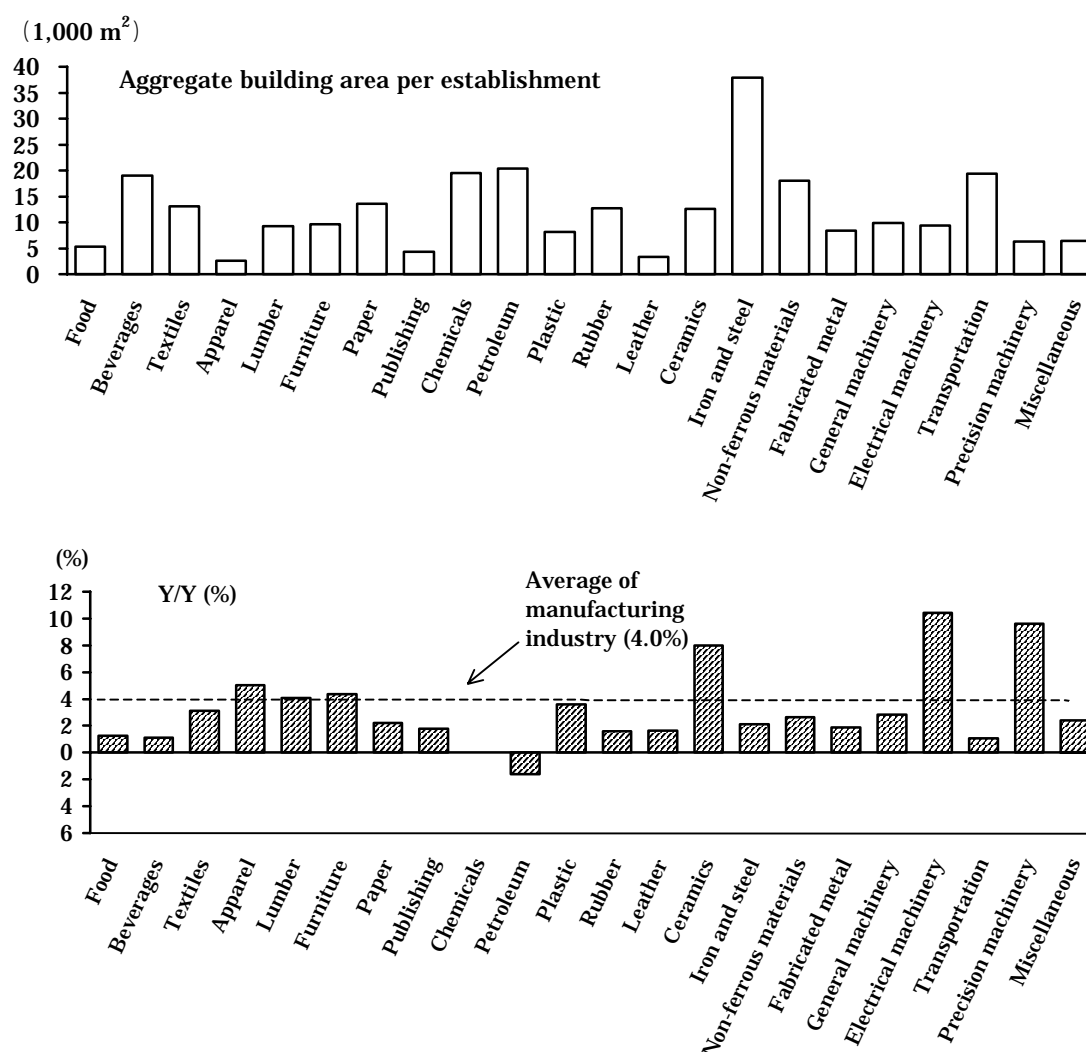


(ii) The average aggregate building area per establishment in manufacturing industries was 10,412 m², an increase of 4.0% in comparison with the previous year (Table 3).

On an industry basis, the largest was iron and steel (37,914 m²), followed by petroleum and coal products (20,393 m²), chemicals (19,474 m²), and transportation equipment (19,374 m²) (Table 3, Figure 5).

In comparison with the previous year, there was an increase in 21 industries, including electrical machinery (up 10.4% compared to the previous year), precision instruments and machinery (up 9.6% id.), ceramics, stone and clay products (up 8.0% id.), apparel and other finished products (up 5.0% id.), and furniture and fixtures (up 4.4% id.), whereas it decreased in petroleum and coal products (down 1.6% id.).

**Figure 5 Aggregate building area per establishment by industry
(Establishments with 30 or more employees)**



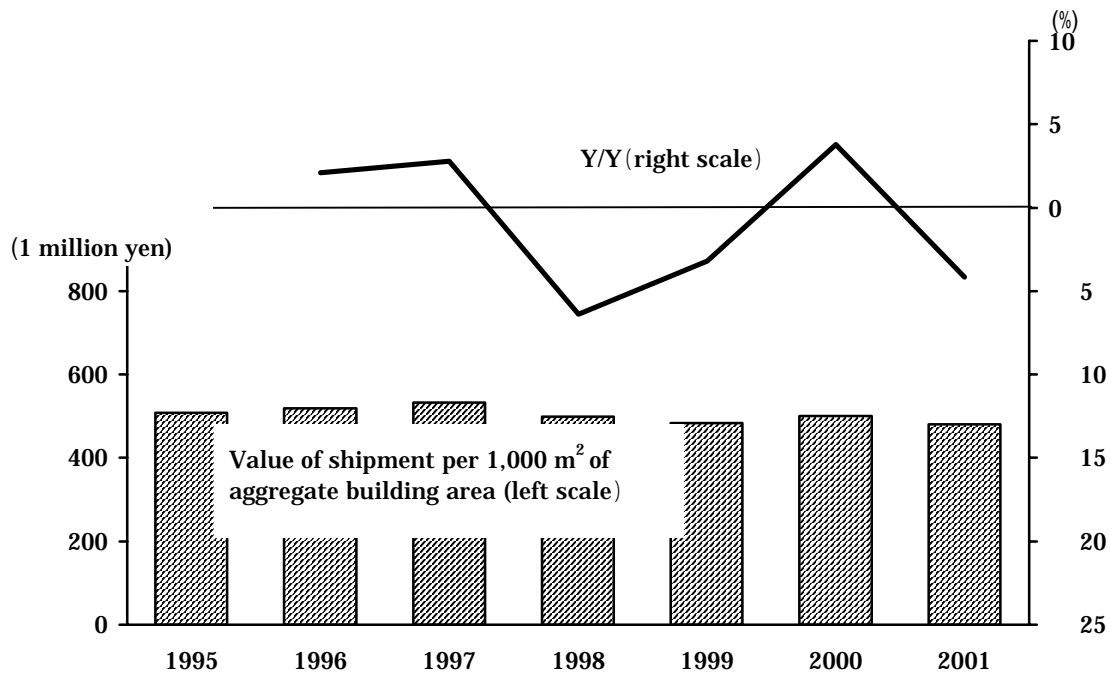
Note: The general machinery industry includes the ordnance and accessories industry.

(iii) The average value of shipment per total building area of 1,000 m² in the manufacturing industries was 480.10 million yen, down 4.2% compared to the previous year (Table 3, Figure 6).

By industry, the value of shipment per total building area was remarkably high in petroleum and coal products (4.43908 billion yen), followed by publishing, printing and related products (781.47 million yen), electrical machinery (762.99 million yen), beverages, tobacco and feed (722.89 million yen), transportation equipment (763.5 million yen), and precision instruments and machinery (588.86 million yen).

In comparison with the previous year, there was a decrease in 18 industries, including electrical machinery (down 12.6% compared to the previous year), plastic products (down 5.9% id.), ceramics, stone and clay products (down 5.9% id.), general machinery (down 5.8% id.), lumber and wood products (down 5.7% id.), and apparel and other finished products (down 5.6% id.), whereas there was an increase in 4 industries, including petroleum and coal products (up 8.8% id.), and leather tanning, leather products and fur skins (up 1.1% id.).

**Figure 6 Transition in the value of shipment per total building area of 1,000 m²
(Establishments with 30 or more employees)**



**Table 3 Number of establishments and lot area by industry
(Establishments with 30 or more employees)**

| Industry | Number of establishments | | | | Building area | | | |
|--|--------------------------|--------|------|-------------------|-------------------------|-------------------------|------|-------------------|
| | 2000 | | 2001 | | 2000 | | 2001 | |
| | | | Y/Y | Composition ratio | | | Y/Y | Composition ratio |
| | | | (%) | (%) | (1,000 m ²) | (1,000 m ²) | (%) | (%) |
| Total | 51,434 | 49,364 | 4.0 | 100.0 | 385,355 | 383,510 | 0.5 | 100.0 |
| 12 Food | 7,388 | 7,370 | 0.2 | 14.9 | 27,329 | 27,480 | 0.6 | 7.2 |
| 13 Beverages, tobacco and feed | 716 | 712 | 0.6 | 1.4 | 9,576 | 9,600 | 0.3 | 2.5 |
| 14 Textile mill products | 1,165 | 1,087 | 6.7 | 2.2 | 12,331 | 11,787 | 4.4 | 3.1 |
| 15 Apparel and other finished products made from fabrics and similar materials | 2,776 | 2,406 | 13.3 | 4.9 | 4,857 | 4,430 | 8.8 | 1.2 |
| 16 Lumber and wood products | 764 | 728 | 4.7 | 1.5 | 6,099 | 6,004 | 1.5 | 1.6 |
| 17 Furniture and fixtures | 817 | 753 | 7.8 | 1.5 | 5,430 | 5,247 | 3.4 | 1.4 |
| 18 Pulp, paper and paper products | 1,736 | 1,696 | 2.3 | 3.4 | 17,239 | 17,211 | 0.2 | 4.5 |
| 19 Publishing, printing and related products | 2,925 | 2,889 | 1.2 | 5.9 | 5,957 | 6,022 | 1.1 | 1.6 |
| 20 Chemical products | 2,207 | 2,187 | 0.9 | 4.4 | 28,336 | 27,944 | 1.4 | 7.3 |
| 21 Petroleum and coal products | 106 | 101 | 4.7 | 0.2 | 1,674 | 1,574 | 6.0 | 0.4 |
| 22 Plastic products | 2,995 | 2,938 | 1.9 | 6.0 | 18,016 | 18,133 | 0.6 | 4.7 |
| 23 Rubber products | 673 | 648 | 3.7 | 1.3 | 6,557 | 6,457 | 1.5 | 1.7 |
| 24 Leather tanning, leather products and fur skins | 226 | 205 | 9.3 | 0.4 | 525 | 473 | 9.9 | 0.1 |
| 25 Ceramics, stone and clay products | 2,211 | 2,065 | 6.6 | 4.2 | 20,791 | 20,928 | 0.7 | 5.5 |
| 26 Iron and steel | 1,229 | 1,196 | 2.7 | 2.4 | 40,199 | 40,033 | 0.4 | 10.4 |
| 27 Non-ferrous metals and products | 799 | 778 | 2.6 | 1.6 | 11,953 | 11,913 | 0.3 | 3.1 |
| 28 Fabricated metal products | 4,242 | 4,120 | 2.9 | 8.3 | 28,514 | 28,283 | 0.8 | 7.4 |
| 29 General machinery (ordnance included) | 5,677 | 5,455 | 3.9 | 11.1 | 42,565 | 41,820 | 1.8 | 10.9 |
| 30 Electrical machinery, equipment and supplies | 7,641 | 6,968 | 8.8 | 14.1 | 40,098 | 40,122 | 0.1 | 10.5 |
| 31 Transportation equipment | 3,180 | 3,192 | 0.4 | 6.5 | 49,272 | 50,029 | 1.5 | 13.0 |
| 32 Precision instruments and machinery | 1,007 | 942 | 6.5 | 1.9 | 3,721 | 3,801 | 2.2 | 1.0 |
| 34 Miscellaneous manufacturing products | 954 | 928 | 2.7 | 1.9 | 4,318 | 4,219 | 2.3 | 1.1 |

| Industry | Aggregate building area | | | | | | | Value of shipment of manufactured products per 1,000 m ² aggregate building area | | |
|--|-------------------------|-------------------------|-------------------|-------|---|-------------------|------|---|-------------------|------|
| | | | | | Aggregate building area per establishment | | | | | |
| | 2000 | 2001 | | | 2000 | 2001 | | 2000 | 2001 | |
| | | Y/Y | Composition ratio | Y/Y | | Y/Y | | | | |
| | (1,000 m ²) | (1,000 m ²) | (%) | (%) | (m ²) | (m ²) | (%) | (10 thousand yen) | (10 thousand yen) | (%) |
| Total | 514,995 | 513,982 | 0.2 | 100.0 | 10,013 | 10,412 | 4.0 | 50,098 | 48,010 | 4.2 |
| 12 Food | 38,689 | 39,087 | 1.0 | 7.6 | 5,237 | 5,304 | 1.3 | 49,222 | 48,472 | 1.5 |
| 13 Beverages, tobacco and feed | 13,443 | 13,519 | 0.6 | 2.6 | 18,775 | 18,987 | 1.1 | 72,547 | 72,289 | 0.4 |
| 14 Textile mill products | 14,833 | 14,262 | 3.8 | 2.8 | 12,732 | 13,120 | 3.1 | 13,499 | 12,808 | 5.1 |
| 15 Apparel and other finished products made from fabrics and similar materials | 6,851 | 6,237 | 9.0 | 1.2 | 2,468 | 2,592 | 5.0 | 27,788 | 26,220 | 5.6 |
| 16 Lumber and wood products | 6,799 | 6,742 | 0.8 | 1.3 | 8,899 | 9,262 | 4.1 | 22,431 | 21,146 | 5.7 |
| 17 Furniture and fixtures | 7,503 | 7,217 | 3.8 | 1.4 | 9,184 | 9,585 | 4.4 | 20,970 | 20,426 | 2.6 |
| 18 Pulp, paper and paper products | 23,073 | 23,041 | 0.1 | 4.5 | 13,291 | 13,585 | 2.2 | 28,810 | 27,689 | 3.9 |
| 19 Publishing, printing and related products | 12,514 | 12,578 | 0.5 | 2.4 | 4,278 | 4,354 | 1.8 | 79,127 | 78,147 | 1.2 |
| 20 Chemical products | 42,978 | 42,589 | 0.9 | 8.3 | 19,474 | 19,474 | 0.0 | 51,640 | 51,037 | 1.2 |
| 21 Petroleum and coal products | 2,197 | 2,060 | 6.3 | 0.4 | 20,730 | 20,393 | 1.6 | 407,833 | 443,908 | 8.8 |
| 22 Plastic products | 23,821 | 24,213 | 1.6 | 4.7 | 7,953 | 8,241 | 3.6 | 33,560 | 31,563 | 5.9 |
| 23 Rubber products | 8,385 | 8,201 | 2.2 | 1.6 | 12,459 | 12,656 | 1.6 | 31,680 | 30,160 | 4.8 |
| 24 Leather tanning, leather products and fur skins | 742 | 684 | 7.8 | 0.1 | 3,284 | 3,337 | 1.6 | 37,683 | 38,108 | 1.1 |
| 25 Ceramics, stone and clay products | 25,874 | 26,094 | 0.8 | 5.1 | 11,703 | 12,636 | 8.0 | 20,681 | 19,455 | 5.9 |
| 26 Iron and steel | 45,639 | 45,345 | 0.6 | 8.8 | 37,135 | 37,914 | 2.1 | 23,420 | 22,164 | 5.4 |
| 27 Non-ferrous metals and products | 14,019 | 14,009 | 0.1 | 2.7 | 17,546 | 18,006 | 2.6 | 39,964 | 37,818 | 5.4 |
| 28 Fabricated metal products | 35,115 | 34,751 | 1.0 | 6.8 | 8,278 | 8,435 | 1.9 | 28,267 | 27,486 | 2.8 |
| 29 General machinery (ordnance included) | 54,693 | 54,053 | 1.2 | 10.5 | 9,634 | 9,909 | 2.9 | 46,513 | 43,823 | 5.8 |
| 30 Electrical machinery, equipment and supplies | 65,094 | 65,562 | 0.7 | 12.8 | 8,519 | 9,409 | 10.4 | 87,298 | 76,299 | 12.6 |
| 31 Transportation equipment | 60,962 | 61,841 | 1.4 | 12.0 | 19,170 | 19,374 | 1.1 | 70,315 | 70,635 | 0.5 |
| 32 Precision instruments and machinery | 5,739 | 5,885 | 2.5 | 1.1 | 5,699 | 6,247 | 9.6 | 61,071 | 58,886 | 3.6 |
| 34 Miscellaneous manufacturing products | 6,033 | 6,011 | 0.4 | 1.2 | 6,324 | 6,477 | 2.4 | 55,741 | 56,320 | 1.0 |

2. Situation by size of employees

When observing by size of employees in 2001, establishments with 199 employees or less accounted for nearly 90%. Those with 50 to 99 employees, those with 100 to 199 employees and those with 1,000 or more employees were close to 20% in both lot area and building area. And those with other scales amounted to approximately 10% (Table 4).

In addition, with respect to lot area, total building area per establishment, and shipment value per total building area of 1,000 m², in either case, the value of shipment became larger as the number of employees became larger.

Compared with the previous year, the lot area per establishment increased in establishments with 300 to 499 employees and those with 1,000 or more employees, and the total building area per establishment increased in those establishments with 1,000 or more employees. The value of shipment per total building area of 1,000 m² decreased compared to the previous year in all classes.

**Table 4 Number of establishments, lot area, building and total building area
by size of employees
(Establishments with 30 or more employees)**

| Size of employees | Number of establishments | | | | Lot area | | | | Lot area per establishment | | |
|-------------------|--------------------------|----------------|---------------------------------|----------------|-------------------------------------|---------------------------------|----------------|-------|-------------------------------|---------|-------|
| | 2000 | 2001 | | | 2000 (1,000 m ²) | 2001 | | | 2000 (m ²) | 2001 | |
| | | Y/Y (%) | Composition ratio (%) | Y/Y (%) | | Composition ratio (%) | Y/Y (%) | | | | |
| | | | | | | | | | | | |
| Total | 51,434 | 49,364 | ? 4.0 | 100.0 | 1,453,612 | 1,442,586 | ? 0.8 | 100.0 | 28,262 | 29,223 | 3.4 |
| 30 ~ 49 persons | 19,179 | 18,127 | ? 5.5 | 36.7 | 158,889 | 154,245 | ? 2.9 | 10.7 | 8,285 | 8,509 | 2.7 |
| 50 ~ 99 | 17,818 | 17,054 | ? 4.3 | 34.5 | 253,716 | 248,527 | ? 2.0 | 17.2 | 14,239 | 14,573 | 2.3 |
| 100 ~ 199 | 8,518 | 8,326 | ? 2.3 | 16.9 | 252,225 | 258,147 | 2.3 | 17.9 | 29,611 | 31,005 | 4.7 |
| 200 ~ 299 | 2,531 | 2,481 | ? 2.0 | 5.0 | 156,342 | 155,865 | ? 0.3 | 10.8 | 61,771 | 62,823 | 1.7 |
| 300 ~ 499 | 1,778 | 1,779 | 0.1 | 3.6 | 178,836 | 178,292 | ? 0.3 | 12.4 | 100,583 | 100,220 | ? 0.4 |
| 500 ~ 999 | 1,081 | 1,075 | ? 0.6 | 2.2 | 175,450 | 175,255 | ? 0.1 | 12.1 | 162,304 | 163,028 | 0.4 |
| over 1000 | 529 | 522 | ? 1.3 | 1.1 | 278,154 | 272,256 | ? 2.1 | 18.9 | 525,811 | 521,563 | ? 0.8 |

| Size of employees | Building area | | | | Aggregate building area | | | | Aggregate building area per establishment | | |
|-------------------|-------------------------------------|------------|--------------------------|-------------|-------------------------------------|-------------|------------|-------|---|---------|-------|
| | 2000 (1,000 m ²) | 2001 | | | 2000 (1,000 m ²) | 2001 | | | 2000 (m ²) | 2001 | |
| | | Y/Y (%) | Composition ratio (%) | 2000 (%) | | 2001 (%) | Y/Y (%) | | | | |
| | | | | | | | | | | | |
| Total | 385,355 | 383,510 | ? 0.5 | 100.0 | 514,995 | 513,982 | ? 0.2 | 100.0 | 10,013 | 10,412 | 4.0 |
| 30 ~ 49 persons | 45,679 | 44,246 | ? 3.1 | 11.5 | 57,466 | 55,751 | ? 3.0 | 10.8 | 2,996 | 3,076 | 2.6 |
| 50 ~ 99 | 72,719 | 72,221 | ? 0.7 | 18.8 | 92,460 | 92,061 | ? 0.4 | 17.9 | 5,189 | 5,398 | 4.0 |
| 100 ~ 199 | 69,273 | 70,624 | 1.9 | 18.4 | 90,924 | 92,917 | 2.2 | 18.1 | 10,674 | 11,160 | 4.5 |
| 200 ~ 299 | 39,094 | 39,244 | 0.4 | 10.2 | 52,621 | 52,788 | 0.3 | 10.3 | 20,791 | 21,277 | 2.3 |
| 300 ~ 499 | 40,486 | 39,977 | ? 1.3 | 10.4 | 55,734 | 55,811 | 0.1 | 10.9 | 31,347 | 31,372 | 0.1 |
| 500 ~ 999 | 44,616 | 44,936 | 0.7 | 11.7 | 62,909 | 63,608 | 1.1 | 12.4 | 58,195 | 59,171 | 1.7 |
| over 1000 | 73,487 | 72,262 | ? 1.7 | 18.8 | 102,881 | 101,044 | ? 1.8 | 19.7 | 194,482 | 193,571 | ? 0.5 |

| Size of employees | Value of shipment of manufactured products per 1,000 m ² aggregate building area | | |
|-------------------|---|-------------------|---------|
| | 2000 | 2001 | |
| | (10 thousand yen) | (10 thousand yen) | Y/Y (%) |
| Total | 50,098 | 48,010 | ? 4.2 |
| 30 ~ 49persons | 28,207 | 27,639 | ? 2.0 |
| 50 ~ 99 | 34,791 | 33,607 | ? 3.4 |
| 100 ~ 199 | 40,891 | 39,290 | ? 3.9 |
| 200 ~ 299 | 48,631 | 45,580 | ? 6.3 |
| 300 ~ 499 | 62,340 | 59,582 | ? 4.4 |
| 500 ~ 999 | 61,238 | 58,193 | ? 5.0 |
| over 1000 | 71,524 | 68,861 | ? 3.7 |

II. Industrial Water

The daily volume of industrial water (hereinafter referred to as the “volume of water”) in 2001 was 190.55 million m³ (down 2.3% compared to the previous year), of which the volume of fresh water was 147.98 million m³ (down 2.6% id., composition ratio 77.7%), and seawater was 42.57 million m³ (down 1.0% id., composition ratio 22.3%) (Table 5).

The recycled rate of fresh water (percentage of recycling to total volume of fresh water) was 78.6% in the manufacturing industries in total, the same as that of 2000 (Table 5, Figure 7).

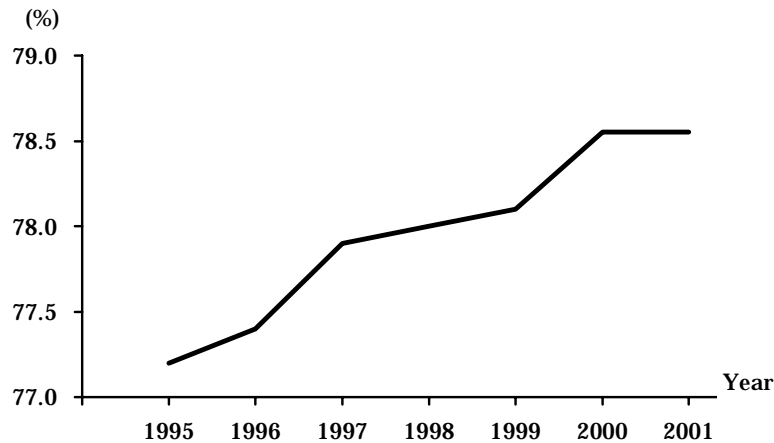
**Table 5 Transition in volume of industrial water and volume of fresh water,
by water resource and usage
(Establishments with 30 or more employees)**

| Year | Number of establishments | | Volume of water | | | | | | | | | |
|------|--------------------------|----------------|---|-------------------|---------------------------------|-----|---------------------|------|--------------------------|---------------------------------|----------------|------|
| | | | Total (1,000m ³ /day) | Total fresh water | | | | | Recycling of fresh water | | Total seawater | |
| | Y/Y (%) | Y/Y (%) | | Y/Y (%) | Composition ratio (%) | | Y/Y (points) | | Y/Y (%) | Composition ratio (%) | | |
| | | | | | | | | | | | | |
| 1995 | 56,284 | 1.8 | 189,644 | 1.0 | 148,146 | 0.3 | 78.1 | 77.2 | 0.3 | 41,499 | 3.4 | 21.9 |
| 1996 | 55,533 | 1.3 | 190,369 | 0.4 | 148,943 | 0.5 | 78.2 | 77.4 | 0.2 | 41,426 | 0.2 | 21.8 |
| 1997 | 55,386 | 0.3 | 195,060 | 2.5 | 152,124 | 2.1 | 78.0 | 77.9 | 0.5 | 42,936 | 3.6 | 22.0 |
| 1998 | 54,518 | 4.1 | 193,803 | 0.7 | 151,166 | 0.7 | 78.0 | 78.0 | 0.1 | 42,636 | 0.7 | 22.0 |
| 1999 | 52,469 | 3.8 | 192,244 | 0.8 | 150,277 | 0.6 | 78.2 | 78.1 | 0.1 | 41,967 | 1.6 | 21.8 |
| 2000 | 51,434 | 2.0 | 194,952 | 1.4 | 151,965 | 1.1 | 77.9 | 78.6 | 0.5 | 42,988 | 9.6 | 22.1 |
| 2001 | 49,364 | 4.0 | 190,547 | 2.3 | 147,978 | 2.6 | 77.7 | 78.6 | 0.0 | 42,569 | 1.0 | 22.3 |

| Year | Volume of fresh water by resource | | | | | | | | | |
|------|-----------------------------------|-----|----------------------------|-----|----------------------------|-----|----------------------------|-----|----------------------------|-----|
| | Public waterworks | | | | Well water | | Other fresh water | | Recycled water | |
| | Industrial waterworks | | Waterworks | | | | | | | |
| | | Y/Y | | Y/Y | | Y/Y | | Y/Y | | Y/Y |
| | (1,000m ³ /day) | (%) | (1,000m ³ /day) | (%) | (1,000m ³ /day) | (%) | (1,000m ³ /day) | (%) | (1,000m ³ /day) | (%) |
| 1995 | 12,414 | 1.4 | 2,450 | 1.4 | 9,654 | 2.9 | 9,324 | 2.7 | 114,304 | 0.7 |
| 1996 | 12,647 | 1.9 | 2,459 | 0.4 | 9,416 | 2.5 | 9,174 | 1.6 | 115,247 | 0.8 |
| 1997 | 12,981 | 2.6 | 2,412 | 1.9 | 9,253 | 1.7 | 9,031 | 1.6 | 118,447 | 2.8 |
| 1998 | 12,953 | 0.3 | 2,315 | 5.8 | 8,967 | 3.8 | 9,090 | 0.7 | 117,842 | 0.5 |
| 1999 | 12,751 | 1.6 | 2,371 | 2.4 | 8,677 | 3.2 | 9,057 | 0.4 | 117,421 | 0.4 |
| 2000 | 12,833 | 0.6 | 2,234 | 5.7 | 8,537 | 1.6 | 8,987 | 0.8 | 119,373 | 1.7 |
| 2001 | 12,652 | 1.4 | 2,105 | 5.8 | 8,252 | 3.3 | 8,732 | 2.8 | 116,238 | 2.6 |

| Year | Volume of water by usage | | | | | | | | | |
|------|----------------------------|-----|----------------------------|------|--------------------------------------|-----|---------------------------------------|-----|----------------------------|------|
| | Boiler feed water | | Raw material water | | Product processing and washing water | | Cooling and temperature-cooling water | | Other fresh water | |
| | (1,000m ³ /day) | Y/Y | (1,000m ³ /day) | Y/Y | (1,000m ³ /day) | Y/Y | (1,000m ³ /day) | Y/Y | (1,000m ³ /day) | Y/Y |
| | | (%) | | (%) | | (%) | | (%) | | (%) |
| 1995 | 1,868 | 0.8 | 587 | 8.1 | 25,501 | 1.1 | 113,073 | 0.7 | 7,117 | 0.0 |
| 1996 | 1,881 | 0.7 | 579 | 1.4 | 25,387 | 0.4 | 115,969 | 2.6 | 5,127 | 28.0 |
| 1997 | 1,902 | 1.1 | 588 | 1.5 | 25,633 | 1.0 | 118,813 | 2.5 | 5,188 | 1.2 |
| 1998 | 1,869 | 2.1 | 526 | 12.1 | 25,580 | 0.5 | 118,002 | 0.7 | 5,190 | 0.4 |
| 1999 | 1,860 | 0.5 | 542 | 3.1 | 25,315 | 1.0 | 117,618 | 0.3 | 4,941 | 4.8 |
| 2000 | 1,857 | 0.2 | 544 | 0.4 | 25,409 | 0.4 | 119,239 | 1.4 | 4,915 | 0.5 |
| 2001 | 1,791 | 3.6 | 547 | 0.5 | 24,836 | 2.3 | 115,961 | 2.7 | 4,843 | 1.5 |

**Figure 7 Transition in recycled rate of fresh water
(Establishments with 30 or more employees)**



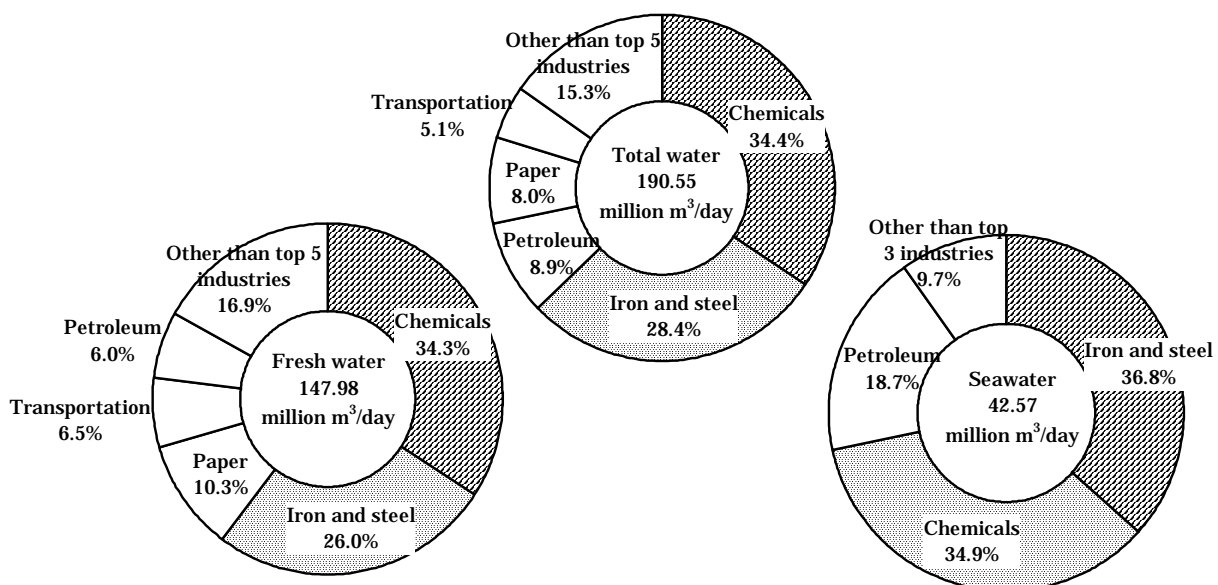
1. Situation by industry

(1) Total volume of water

(i) The water volume of the top industries, i.e. chemicals (65.53 million m³, composition ratio 34.4%) and iron and steel (54.12 million m³, 28.4% id.), accounted for more than 60% of the total for all industries. This was followed by petroleum and coal products (16.89 million m³, 8.9% id.), pulp, paper and paper products (15.30 million m³, 8.0% id.), and transportation equipment (9.65 million m³, 5.1% id.). These five industries accounted for 85% of the total volume of water (Table 6, Figure 8).

The largest volume of fresh water was in the chemical industry (50.70 million m³, composition ratio within fresh water of 34.3%), followed by iron and steel (38.48 million m³, 26.0% id.), pulp, paper and paper products (15.26 million m³, 10.3% id.), transportation equipment (9.59 million m³, 6.5% id.), and petroleum and coal products (8.93 million m³, 6.0% id.). The volume of industrial seawater used by the top three industries, was iron and steel (15.65 million m³, composition ratio within seawater 36.8%), chemicals (14.84 million m³, 34.9% id.), and petroleum and coal products (7.96 million m³, 18.7% id.), accounting for approximately 90% of the total.

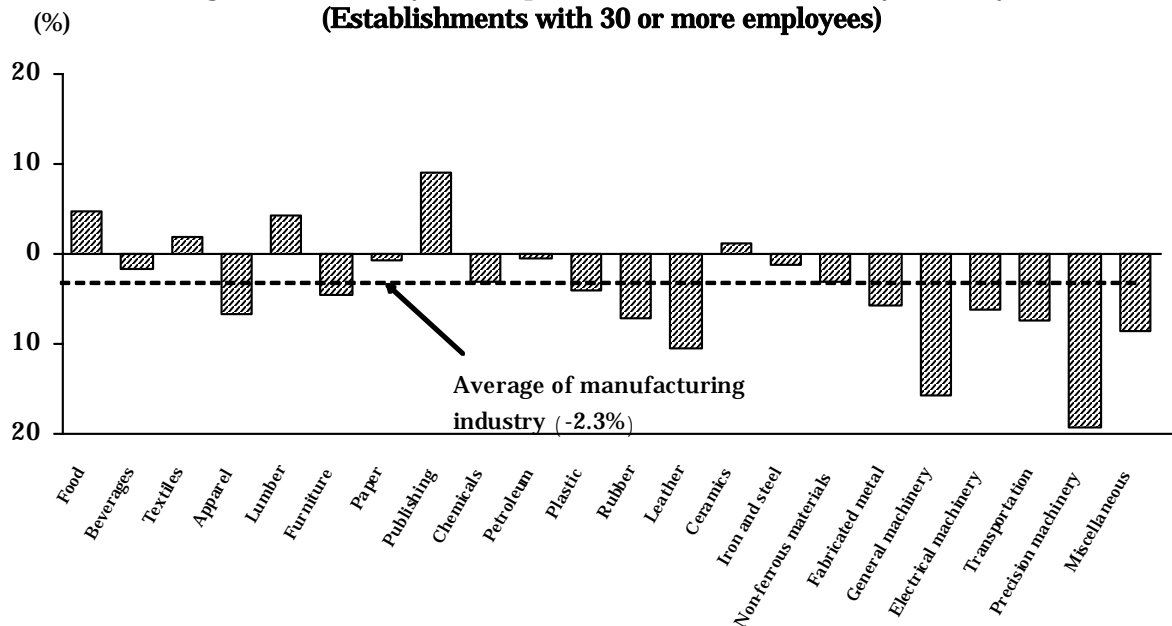
**Figure 8 Composition ratio of volume of industrial water by industry
(Establishments with 30 or more employees)**



In the year-to-year comparison, the volume decreased in 17 industries, including precision instruments and machinery (down 19.3% compared to the previous year), general machinery (down 15.8% id.), leather tanning, leather products and fur skins (down 10.4% id.), miscellaneous manufacturing products (down 8.7% id.), transportation equipment (down 7.3% id.), rubber products (down 7.2% id.), and apparel and other finished products (down 6.7% id.). Conversely, the volume increased in 5 industries, including publishing, printing and related products (up 9.0% id.), food (up 4.8% id.), and lumber and wood products (up 4.4% id.) (Table 6, Figure 9).

In addition, there was a decreased in the year-to-year comparison of water volume of the top five industries as follows: chemicals, down 3.1% id.; iron and steel, down 1.2% id.; petroleum and coal products, down 0.4% id.; pulp, paper and paper products, down 0.8% id.; transportation equipment, down 7.3% id.

**Figure 9 Year-to-year comparison of volume of water by industry
(Establishments with 30 or more employees)**



Note: The general machinery industry includes the ordnance and accessories industry.

(ii) The volume of fresh water, which accounts for almost 80% of industrial water was 147.98 million m³, down 2.6% compared to the previous year (Table 6).

The volume of water with regard to the top five ranking industries has decreased as follows: chemicals, down 2.9% id.; iron and steel, down 1.3% id.; pulp, paper and paper products, down 0.8% id.; transportation equipment, down 7.4% id.; petroleum and coal products, down 2.9% id.

In addition, when observing the volume of fresh water per establishment by industry, petroleum and coal products scored remarkably high at 88,383 m³ followed by iron and steel (32,170 m³) and chemicals (23,181 m³).

**Table 6 Volume of industrial water by industry
(Establishments with 30 or more employees)**

| Industry | Number of establishments | | | | Total volume of water | | | | Volume of water per establishment | | |
|---|----------------------------|----------------------------|------------|-----------------------------|----------------------------|----------------------------|------------|-----------------------------|-----------------------------------|-----------------------|------------|
| | 2000 | 2001 | | | 2000 | 2001 | | | 2000 | 2001 | |
| | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) |
| | (1,000m ³ /day) | (1,000m ³ /day) | | | (1,000m ³ /day) | (1,000m ³ /day) | | | (m ³ /day) | (m ³ /day) | |
| Total | 51,434 | 49,364 | 4.0 | 100.0 | 194,952 | 190,547 | 2.3 | 100.0 | 3,790 | 3,860 | 1.8 |
| 12 Food | 7,388 | 7,370 | 0.2 | 14.9 | 5,059 | 5,301 | 4.8 | 2.8 | 685 | 719 | 5.0 |
| 13 Beverages, tobacco and feed | 716 | 712 | 0.6 | 1.4 | 1,111 | 1,093 | 1.6 | 0.6 | 1,552 | 1,535 | 1.1 |
| 14 Textile mill products | 1,165 | 1,087 | 6.7 | 2.2 | 1,642 | 1,675 | 2.0 | 0.9 | 1,410 | 1,541 | 9.3 |
| 15 Apparel and other finished products made from fabrics and similar materials | 2,776 | 2,406 | 13.3 | 4.9 | 92 | 86 | 6.7 | 0.0 | 33 | 36 | 7.6 |
| 16 Lumber and wood products | 764 | 728 | 4.7 | 1.5 | 52 | 54 | 4.4 | 0.0 | 68 | 74 | 9.5 |
| 17 Furniture and fixtures | 817 | 753 | 7.8 | 1.5 | 144 | 138 | 4.5 | 0.1 | 177 | 183 | 3.6 |
| 18 Pulp, paper and paper products | 1,736 | 1,696 | 2.3 | 3.4 | 15,415 | 15,295 | 0.8 | 8.0 | 8,879 | 9,018 | 1.6 |
| 19 Publishing, printing and related products | 2,925 | 2,889 | 1.2 | 5.9 | 233 | 254 | 9.0 | 0.1 | 80 | 88 | 10.4 |
| 20 Chemical products | 2,207 | 2,187 | 0.9 | 4.4 | 67,617 | 65,532 | 3.1 | 34.4 | 30,637 | 29,964 | 2.2 |
| 21 Petroleum and coal products | 106 | 101 | 4.7 | 0.2 | 16,953 | 16,888 | 0.4 | 8.9 | 159,936 | 167,212 | 4.5 |
| 22 Plastic products | 2,995 | 2,938 | 1.9 | 6.0 | 2,636 | 2,530 | 4.0 | 1.3 | 880 | 861 | 2.1 |
| 23 Rubber products | 673 | 648 | 3.7 | 1.3 | 1,023 | 949 | 7.2 | 0.5 | 1,520 | 1,465 | 3.6 |
| 24 Leather tanning, leather products and fur skins | 226 | 205 | 9.3 | 0.4 | 14 | 12 | 10.4 | 0.0 | 62 | 61 | 1.3 |
| 25 Ceramics, stone and clay products | 2,211 | 2,065 | 6.6 | 4.2 | 4,791 | 4,843 | 1.1 | 2.5 | 2,167 | 2,345 | 8.2 |
| 26 Iron and steel | 1,229 | 1,196 | 2.7 | 2.4 | 54,770 | 54,121 | 1.2 | 28.4 | 44,565 | 45,252 | 1.5 |
| 27 Non-ferrous metals and products | 799 | 778 | 2.6 | 1.6 | 4,063 | 3,935 | 3.2 | 2.1 | 5,085 | 5,057 | 0.5 |
| 28 Fabricated metal products | 4,242 | 4,120 | 2.9 | 8.3 | 1,014 | 957 | 5.6 | 0.5 | 239 | 232 | 2.8 |
| 29 General machinery (ordnance included) | 5,677 | 5,455 | 3.9 | 11.1 | 1,739 | 1,464 | 15.8 | 0.8 | 306 | 268 | 12.3 |
| 30 Electrical machinery, equipment and supplies | 7,641 | 6,968 | 8.8 | 14.1 | 5,735 | 5,386 | 6.1 | 2.8 | 751 | 773 | 3.0 |
| 31 Transportation equipment | 3,180 | 3,192 | 0.4 | 6.5 | 10,407 | 9,648 | 7.3 | 5.1 | 3,273 | 3,022 | 7.6 |
| 32 Precision instruments and machinery | 1,007 | 942 | 6.5 | 1.9 | 172 | 139 | 19.3 | 0.1 | 171 | 148 | 13.7 |
| 34 Miscellaneous manufacturing products | 954 | 928 | 2.7 | 1.9 | 270 | 247 | 8.7 | 0.1 | 283 | 266 | 6.1 |

| Industry | Fresh water | | | | Volume of fresh water per establishment | | | Seawater | | | |
|---|----------------------------|----------------------------|------------|-----------------------------|---|-----------------------|------------------------------|----------------------------|----------------------------|------------|-----------------------------|
| | 2000 | 2001 | | | 2000 | 2001 | | 2000 | 2001 | | |
| | | | Y/Y (%) | Composition ratio (%) | | | Compositio n ratio (%) | | | Y/Y (%) | Composition ratio (%) |
| | (1,000m ³ /day) | (1,000m ³ /day) | | | (m ³ /day) | (m ³ /day) | | (1,000m ³ /day) | (1,000m ³ /day) | | |
| Total | 151,965 | 147,978 | 2.6 | 100.0 | 2,955 | 2,998 | 1.5 | 42,988 | 42,569 | 1.0 | 100.0 |
| 12 Food | 3,929 | 4,224 | 7.5 | 2.9 | 532 | 573 | 7.8 | 1,131 | 1,077 | 4.8 | 2.5 |
| 13 Beverages, tobacco and feed | 1,093 | 1,082 | 0.9 | 0.7 | 1,526 | 1,520 | 0.4 | 18 | 11 | 42.0 | 0.0 |
| 14 Textile mill products | 1,641 | 1,672 | 1.9 | 1.1 | 1,409 | 1,538 | 9.2 | 1 | 3 | 173.4 | 0.0 |
| 15 Apparel and other finished products made from fabrics and similar materials | 92 | 86 | 6.7 | 0.1 | 33 | 36 | 7.6 | - | - | - | - |
| 16 Lumber and wood products | 52 | 54 | 4.4 | 0.0 | 68 | 74 | 9.5 | - | - | - | - |
| 17 Furniture and fixtures | 144 | 138 | 4.5 | 0.1 | 177 | 183 | 3.6 | - | - | - | - |
| 18 Pulp, paper and paper products | 15,386 | 15,261 | 0.8 | 10.3 | 8,863 | 8,998 | 1.5 | 29 | 34 | 18.0 | 0.1 |
| 19 Publishing, printing and related products | 233 | 254 | 9.0 | 0.2 | 80 | 88 | 10.4 | - | - | - | - |
| 20 Chemical products | 52,186 | 50,696 | 2.9 | 34.3 | 23,646 | 23,181 | 2.0 | 15,430 | 14,836 | 3.9 | 34.9 |
| 21 Petroleum and coal products | 9,194 | 8,927 | 2.9 | 6.0 | 86,737 | 88,383 | 1.9 | 7,759 | 7,962 | 2.6 | 18.7 |
| 22 Plastic products | 2,635 | 2,530 | 4.0 | 1.7 | 880 | 861 | 2.1 | 0 | 0 | 0.0 | 0.0 |
| 23 Rubber products | 1,023 | 949 | 7.2 | 0.6 | 1,520 | 1,465 | 3.6 | - | - | - | - |
| 24 Leather tanning, leather products and fur skins | 14 | 12 | 10.4 | 0.0 | 62 | 61 | 1.3 | - | - | - | - |
| 25 Ceramics, stone and clay products | 3,511 | 3,458 | 1.5 | 2.3 | 1,588 | 1,675 | 5.5 | 1,280 | 1,384 | 8.2 | 3.3 |
| 26 Iron and steel | 38,971 | 38,475 | 1.3 | 26.0 | 31,710 | 32,170 | 1.5 | 15,799 | 15,646 | 1.0 | 36.8 |
| 27 Non-ferrous metals and products | 2,760 | 2,563 | 7.2 | 1.7 | 3,454 | 3,294 | 4.6 | 1,303 | 1,372 | 5.3 | 3.2 |
| 28 Fabricated metal products | 1,014 | 957 | 5.6 | 0.6 | 239 | 232 | 2.8 | - | - | - | - |
| 29 General machinery (ordnance included) | 1,643 | 1,366 | 16.9 | 0.9 | 289 | 250 | 13.5 | 95 | 99 | 3.4 | 0.2 |
| 30 Electrical machinery, equipment and supplies | 5,647 | 5,298 | 6.2 | 3.6 | 739 | 760 | 2.9 | 88 | 88 | 0.0 | 0.2 |
| 31 Transportation equipment | 10,353 | 9,590 | 7.4 | 6.5 | 3,256 | 3,004 | 7.7 | 54 | 58 | 5.8 | 0.1 |
| 32 Precision instruments and machinery | 172 | 139 | 19.3 | 0.1 | 171 | 148 | 13.7 | - | - | - | - |
| 34 Miscellaneous manufacturing products | 270 | 247 | 8.7 | 0.2 | 283 | 266 | 6.1 | - | - | - | - |

(2) Volume of fresh water by water resource

With regard to the volume of fresh water by water resource, recycled water (116.24 million m³, composition ratio 78.6%) accounted for almost 80%, followed by industrial water (12.65 million m³, 8.5% id.), other fresh water (8.73 million m³, 5.9% id.), well water (8.25 million m³, 5.6%), and waterworks (2.11 million m³, 1.4% id.) (Table 5, Figure 10).

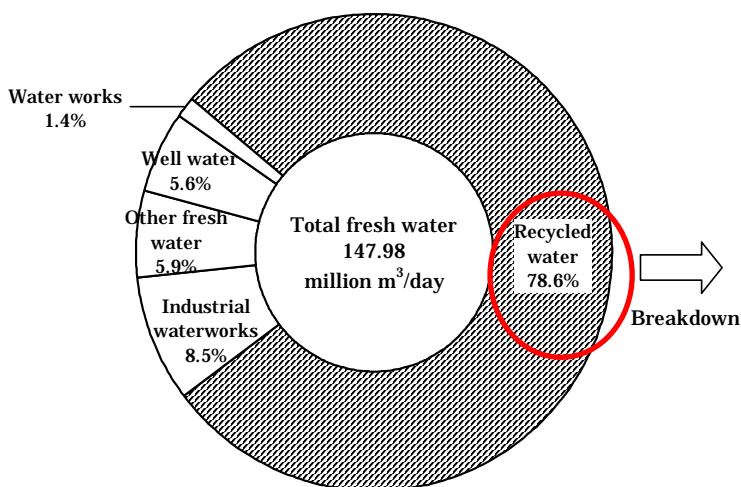
In the year-to-year comparison, the water volume for waterworks (down 5.8% compared to the previous year), well water (down 3.3% id.), other fresh water (down 2.8% id.), recycled water (down 2.6% id.), and industrial water (down 1.4% id.) have decreased.

By industry:

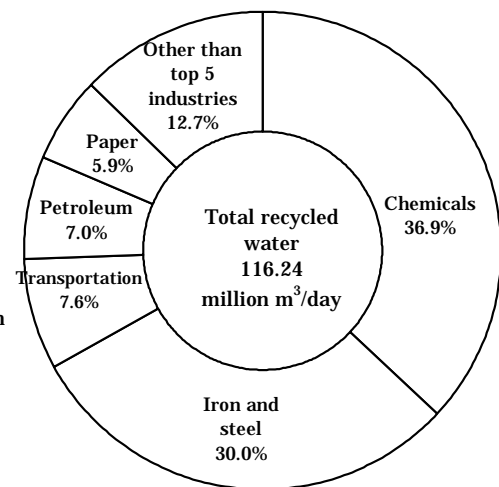
- (i) The largest volume of recycled water was seen in chemicals (42.85 million m³, composition ratio 36.9%), and iron and steel (34.86 million m³, 30.0% id.), followed by transportation (8.84 million m³, 7.6% id.), petroleum and coal products (8.09 million m³, 7.0% id.), and pulp, paper and paper products (6.89 million m³, 5.9% id.). Altogether, the volume of the top five industries mentioned above accounted for nearly 90% of the total.
- (ii) Water from industrial waterworks recorded the largest volume in chemicals (4.32 million m³, composition ratio 34.1%), iron and steel (2.83 million m³, 22.4% id.), and pulp, paper and paper products (2.32 million m³, 18.3% id.). Altogether, the top three industries mentioned above accounted for more than 70% of the total.
- (iii) The largest volume of other fresh water was observed in pulp, paper and paper products (4.84 million m³, composition ratio 55.4%), and chemicals (1.93 million m³, 22.1% id.). Altogether, the volume of the two industries mentioned above accounted for nearly 80% of the total.
- (iv) The largest volume of well water was observed in chemicals (1.41 million m³, composition ratio 17.1%), food (1.27 million m³, 15.4% id.), pulp, paper and paper products (1.18 million m³, 14.2% id.), and textile mill products (940 thousand m³, 11.4% id.). Altogether, the top 4 industries mentioned above accounted for nearly 60% of the total.
- (v) The largest volume of water from waterworks was observed in food (450 thousand m³, composition ratio 21.2%), electrical machinery (340 thousand m³, 16.2% id.), chemicals (190 thousand m³, 9.0% id.), transportation equipment (150 thousand m³, 7.3% id.), and general machinery (140 thousand m³, 6.8% id.). Altogether, the top 5 industries mentioned above accounted for nearly 60% of the total.

Figure 10 Composition ratio of fresh water volume by water resource and recycled water by industry (Establishments with 30 or more employees)

(a) Composition ratio of fresh water volume by water resource



(b) Composition ratio of recycled water by industry



**Table 7 Volume of fresh water by industry and by water source
(Establishments with 30 or more employees)**

(Unit: 1,000 m³/day)

| Industry | Public waterworks | | | | | | | | Well water | | | |
|---|-----------------------|--------|------------|-----------------------------|------------|-------|------------|-----------------------------|------------|-------|------------|-----------------------------|
| | Industrial waterworks | | | | Waterworks | | | | | | | |
| | 2000 | 2001 | | | 2000 | 2001 | | | 2000 | 2001 | | |
| | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) |
| Total | 12,833 | 12,652 | 1.4 | 100.0 | 2,234 | 2,105 | 5.8 | 100.0 | 8,537 | 8,252 | 3.3 | 100.0 |
| 12 Food | 359 | 368 | 2.4 | 2.9 | 439 | 446 | 1.5 | 21.2 | 1,224 | 1,274 | 4.0 | 15.4 |
| 13 Beverages, tobacco and feed | 203 | 220 | 8.4 | 1.7 | 147 | 125 | 15.2 | 5.9 | 424 | 436 | 2.9 | 5.3 |
| 14 Textile mill products | 245 | 228 | 7.1 | 1.8 | 40 | 38 | 3.2 | 1.8 | 956 | 937 | 2.0 | 11.4 |
| 15 Apparel and other finished products made from fabrics and similar materials | 5 | 7 | 28.2 | 0.1 | 26 | 23 | 10.7 | 1.1 | 49 | 44 | 9.2 | 0.5 |
| 16 Lumber and wood products | 9 | 9 | 4.1 | 0.1 | 18 | 19 | 6.8 | 0.9 | 12 | 12 | 2.2 | 0.1 |
| 17 Furniture and fixtures | 5 | 5 | 6.4 | 0.0 | 12 | 10 | 16.1 | 0.5 | 20 | 18 | 8.8 | 0.2 |
| 18 Pulp, paper and paper products | 2,249 | 2,317 | 3.1 | 18.3 | 48 | 40 | 17.1 | 1.9 | 1,266 | 1,175 | 7.2 | 14.2 |
| 19 Publishing, printing and related products | 7 | 7 | 2.8 | 0.1 | 64 | 55 | 14.0 | 2.6 | 37 | 37 | 1.6 | 0.4 |
| 20 Chemical products | 4,413 | 4,315 | 2.2 | 34.1 | 194 | 190 | 2.1 | 9.0 | 1,522 | 1,411 | 7.3 | 17.1 |
| 21 Petroleum and coal products | 831 | 794 | 4.4 | 6.3 | 12 | 11 | 7.5 | 0.5 | 14 | 14 | 1.7 | 0.2 |
| 22 Plastic products | 141 | 119 | 15.5 | 0.9 | 83 | 74 | 11.0 | 3.5 | 533 | 520 | 2.6 | 6.3 |
| 23 Rubber products | 37 | 35 | 6.7 | 0.3 | 25 | 22 | 10.5 | 1.1 | 134 | 133 | 0.8 | 1.6 |
| 24 Leather tanning, leather products and fur skins | 1 | 1 | 26.1 | 0.0 | 3 | 2 | 5.4 | 0.1 | 8 | 7 | 15.7 | 0.1 |
| 25 Ceramics, stone and clay products | 194 | 196 | 0.9 | 1.6 | 88 | 76 | 14.3 | 3.6 | 421 | 414 | 1.8 | 5.0 |
| 26 Iron and steel | 2,880 | 2,832 | 1.7 | 22.4 | 107 | 107 | 0.5 | 5.1 | 180 | 179 | 0.5 | 2.2 |
| 27 Non-ferrous metals and products | 253 | 256 | 1.4 | 2.0 | 50 | 47 | 6.7 | 2.2 | 206 | 195 | 5.2 | 2.4 |
| 28 Fabricated metal products | 115 | 108 | 6.3 | 0.9 | 140 | 130 | 6.8 | 6.2 | 223 | 209 | 6.3 | 2.5 |
| 29 General machinery (ordnance included) | 86 | 75 | 13.6 | 0.6 | 151 | 143 | 5.8 | 6.8 | 202 | 206 | 2.4 | 2.5 |
| 30 Electrical machinery, equipment and supplies | 494 | 474 | 4.1 | 3.7 | 366 | 341 | 6.7 | 16.2 | 705 | 654 | 7.2 | 7.9 |
| 31 Transportation equipment | 294 | 278 | 5.5 | 2.2 | 164 | 153 | 6.8 | 7.3 | 313 | 289 | 7.7 | 3.5 |
| 32 Precision instruments and machinery | 5 | 5 | 3.8 | 0.0 | 38 | 34 | 9.9 | 1.6 | 62 | 59 | 3.5 | 0.7 |
| 34 Miscellaneous manufacturing products | 6 | 5 | 14.8 | 0.0 | 19 | 19 | 4.5 | 0.9 | 27 | 29 | 6.9 | 0.4 |

| Industry | Other fresh water | | | | Recycled water | | | |
|---|-------------------|-------|------------|-----------------------------|----------------|---------|------------|-----------------------------|
| | 2000 | 2001 | | | 2000 | 2001 | | |
| | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) |
| | | | | | | | | |
| Total | 8,987 | 8,732 | 2.8 | 100.0 | 119,373 | 116,238 | 2.6 | 100.0 |
| 12 Food | 507 | 498 | 1.8 | 5.7 | 1,399 | 1,639 | 17.2 | 1.4 |
| 13 Beverages, tobacco and feed | 47 | 42 | 10.7 | 0.5 | 271 | 259 | 4.5 | 0.2 |
| 14 Textile mill products | 123 | 174 | 41.8 | 2.0 | 278 | 295 | 6.0 | 0.3 |
| 15 Apparel and other finished products made from fabrics and similar materials | 5 | 5 | 3.8 | 0.1 | 7 | 7 | 3.1 | 0.0 |
| 16 Lumber and wood products | 6 | 6 | 3.2 | 0.1 | 6 | 8 | 21.9 | 0.0 |
| 17 Furniture and fixtures | 0 | 0 | 34.9 | 0.0 | 106 | 104 | 2.2 | 0.1 |
| 18 Pulp, paper and paper products | 4,812 | 4,840 | 0.6 | 55.4 | 7,012 | 6,890 | 1.7 | 5.9 |
| 19 Publishing, printing and related products | 4 | 4 | 15.8 | 0.0 | 120 | 151 | 26.1 | 0.1 |
| 20 Chemical products | 2,208 | 1,929 | 12.6 | 22.1 | 43,850 | 42,852 | 2.3 | 36.9 |
| 21 Petroleum and coal products | 17 | 16 | 9.1 | 0.2 | 8,320 | 8,092 | 2.7 | 7.0 |
| 22 Plastic products | 184 | 185 | 0.6 | 2.1 | 1,694 | 1,633 | 3.6 | 1.4 |
| 23 Rubber products | 25 | 24 | 3.1 | 0.3 | 803 | 736 | 8.3 | 0.6 |
| 24 Leather tanning, leather products and fur skins | 2 | 2 | 1.5 | 0.0 | 1 | 1 | 27.6 | 0.0 |
| 25 Ceramics, stone and clay products | 202 | 200 | 1.2 | 2.3 | 2,605 | 2,573 | 1.2 | 2.2 |
| 26 Iron and steel | 509 | 496 | 2.4 | 5.7 | 35,296 | 34,862 | 1.2 | 30.0 |
| 27 Non-ferrous metals and products | 179 | 165 | 7.6 | 1.9 | 2,072 | 1,899 | 8.4 | 1.6 |
| 28 Fabricated metal products | 32 | 26 | 18.5 | 0.3 | 505 | 484 | 4.0 | 0.4 |
| 29 General machinery (ordnance included) | 33 | 28 | 14.9 | 0.3 | 1,171 | 914 | 21.9 | 0.8 |
| 30 Electrical machinery, equipment and supplies | 56 | 53 | 5.7 | 0.6 | 4,027 | 3,776 | 6.2 | 3.2 |
| 31 Transportation equipment | 24 | 32 | 35.7 | 0.4 | 9,558 | 8,838 | 7.5 | 7.6 |
| 32 Precision instruments and machinery | 5 | 7 | 30.0 | 0.1 | 62 | 34 | 46.0 | 0.0 |
| 34 Miscellaneous manufacturing products | 7 | 1 | 84.6 | 0.0 | 211 | 193 | 8.5 | 0.2 |

(3) Volume of fresh water by usage

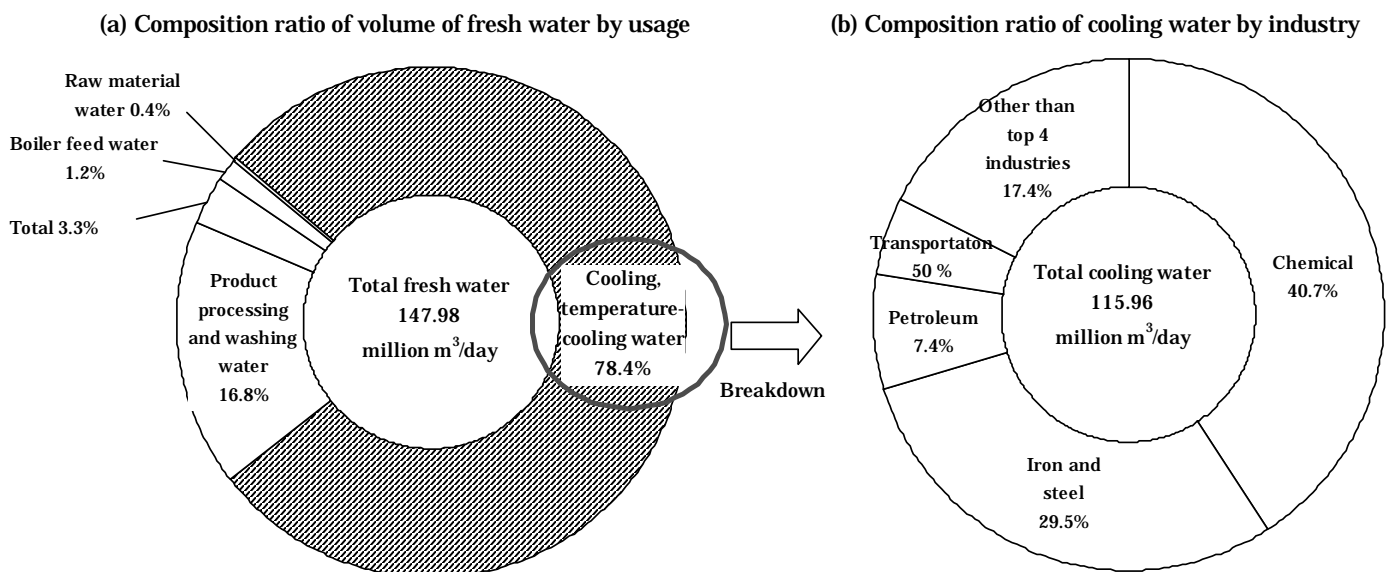
Looking at the volume of fresh water in terms of usage, the volume of cooling and temperature-cooling water (115.96 million m³, composition ratio 78.4%) accounted for nearly 80%. This was followed by products processing and washing water (24.84 million m³, 16.8% id.), and other fresh water (4.84 million m³, 3.3% id.). Boiler feed water (1.79 million m³, 1.2% id.) and raw material water (550 thousand m³, 1.4% id.) registered low scores in terms of volume of fresh water (Table 8, Figure 11).

In the year-to-year comparison, aside from raw material water (up 0.5% compared to the previous year), there was a decrease in boiler water (down 3.6% id.), cooling and temperature-cooling water (down 2.7% id.), products processing and washing water (down 2.3% id.), and other fresh water (down 1.5% id.).

Breakdown of fresh water in terms of usage:

- (i) The most significant volume of cooling and temperature-cooling water was observed in two industries, the chemical industry (47.24 million m³, composition ratio within cooling water 40.7%) and the iron and steel industry (34.17 million m³, 29.5% id.), together accounting for more than 70% of the total cooling water volume, followed by petroleum and coal products (8.56 million m³, 7.4% id.), and transportation equipment (5.85 million m³, 5.0% id.).
- (ii) Pulp, paper and paper products (12.02 million m³, composition ratio within product processing and washing water 48.4%) marked the largest volume of products processing and washing water, accounting for nearly half the total. This was followed by transportation equipment (3.21 million m³, 12.9% id.), iron and steel (2.95 million m³, 11.9% id.), chemicals (1.94 million m³, 7.8% id.), and food (1.28 million m³, 5.2% id.).
- (iii) The largest volume of boiler feed water was viewed in chemicals (580 thousand m³, composition ratio within boiler feed water 32.1%), followed by pulp, paper and paper products (300 thousand m³, 16.8% id.), petroleum and coal products (220 thousand m³, 12.2% id.), and food (180 thousand m³, 10.0% id.).
- (iv) The largest volume of raw material water was viewed in food (210 thousand m³, composition ratio within raw material water 37.5% id.), followed by beverages, tobacco and feed (130 thousand m³, 24.3% id.), chemicals (120 thousand m³, 22.1% id.), and ceramics, stone and clay products (90 thousand m³, 15.6% id.). The above-mentioned top four industries accounted for most of the total volume of raw material water.

**Figure 11 Composition ratio of volume of fresh water by usage and composition ratio of cooling water by industry
(Establishments with 30 or more employees)**



**Table 8 Volume of fresh water by industry and usage
(Establishments with 30 or more employees)**

(Unit: 1,000 m³/day)

| Industry | Boiler feed water | | | | Raw material water | | | | Product processing and washing water | | | |
|---|-------------------|-------|------------|-----------------------------|--------------------|------|------------|-----------------------------|--------------------------------------|--------|------------|-----------------------------|
| | 2000 | 2001 | | | 2000 | 2001 | | | 2000 | 2001 | | |
| | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) |
| Total | 1,857 | 1,791 | 3.6 | 100.0 | 544 | 547 | 0.5 | 100.0 | 25,409 | 24,836 | 2.3 | 100.0 |
| 12 Food | 172 | 178 | 3.7 | 10.0 | 190 | 205 | 8.0 | 37.5 | 1,271 | 1,283 | 1.0 | 5.2 |
| 13 Beverages, tobacco and feed | 54 | 52 | 2.3 | 2.9 | 137 | 133 | 3.4 | 24.3 | 359 | 360 | 0.2 | 1.4 |
| 14 Textile mill products | 65 | 64 | 1.5 | 3.6 | 0 | 0 | 696.3 | 0.1 | 710 | 741 | 4.4 | 3.0 |
| 15 Apparel and other finished products made from fabrics and similar materials | 10 | 9 | 5.7 | 0.5 | - | - | - | 0.0 | 24 | 23 | 5.7 | 0.1 |
| 16 Lumber and wood products | 16 | 16 | 1.3 | 0.9 | 0 | 0 | 93.3 | 0.0 | 9 | 12 | 32.2 | 0.0 |
| 17 Furniture and fixtures | 7 | 5 | 27.7 | 0.3 | - | - | - | 0.0 | 12 | 11 | 8.6 | 0.0 |
| 18 Pulp, paper and paper products | 305 | 300 | 1.5 | 16.8 | 1 | 1 | 2.7 | 0.1 | 12,163 | 12,016 | 1.2 | 48.4 |
| 19 Publishing, printing and related products | 6 | 7 | 3.4 | 0.4 | 0 | - | - | 0.0 | 27 | 28 | 4.3 | 0.1 |
| 20 Chemical products | 615 | 575 | 6.5 | 32.1 | 133 | 121 | 8.8 | 22.1 | 1,861 | 1,936 | 4.0 | 7.8 |
| 21 Petroleum and coal products | 222 | 218 | 2.0 | 12.2 | 1 | 0 | 71.5 | 0.1 | 52 | 43 | 17.6 | 0.2 |
| 22 Plastic products | 46 | 36 | 22.1 | 2.0 | 0 | 0 | 25.5 | 0.1 | 102 | 104 | 1.8 | 0.4 |
| 23 Rubber products | 23 | 22 | 6.2 | 1.2 | 0 | 0 | 4.9 | 0.0 | 16 | 20 | 24.2 | 0.1 |
| 24 Leather tanning, leather products and fur skins | 1 | 1 | 11.4 | 0.0 | - | - | - | 0.0 | 10 | 9 | 11.6 | 0.0 |
| 25 Ceramics, stone and clay products | 53 | 56 | 4.8 | 3.1 | 81 | 85 | 5.4 | 15.6 | 488 | 482 | 1.2 | 1.9 |
| 26 Iron and steel | 104 | 102 | 1.7 | 5.7 | 0 | 0 | - | 0.0 | 3,006 | 2,951 | 1.8 | 11.9 |
| 27 Non-ferrous metals and products | 23 | 22 | 4.2 | 1.2 | 0 | 0 | - | 0.0 | 193 | 188 | 2.6 | 0.8 |
| 28 Fabricated metal products | 17 | 15 | 8.4 | 0.8 | 0 | 0 | - | 0.0 | 282 | 270 | 4.4 | 1.1 |
| 29 General machinery (ordnance included) | 18 | 16 | 12.9 | 0.9 | 0 | 0 | - | 0.0 | 175 | 163 | 6.4 | 0.7 |
| 30 Electrical machinery, equipment and supplies | 50 | 47 | 6.0 | 2.6 | 0 | 0 | - | 0.0 | 939 | 890 | 5.2 | 3.6 |
| 31 Transportation equipment | 43 | 42 | 0.3 | 2.4 | 0 | 0 | - | 0.0 | 3,607 | 3,212 | 11.0 | 12.9 |
| 32 Precision instruments and machinery | 3 | 3 | 13.8 | 0.2 | 1 | 1 | 18.7 | 0.1 | 39 | 40 | 2.3 | 0.2 |
| 34 Miscellaneous manufacturing products | 3 | 3 | 2.2 | 0.2 | 0 | 0 | - | 0.0 | 63 | 53 | 15.9 | 0.2 |

| Industry | Cooling and temperature-cooling water | | | | Other fresh water | | | |
|---|---------------------------------------|---------|------------|-----------------------------|-------------------|-------|------------|-----------------------------|
| | 2000 | 2001 | | | 2000 | 2001 | | |
| | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) |
| Total | 119,239 | 115,961 | 2.7 | 100.0 | 4,915 | 4,843 | 1.5 | 100.0 |
| 12 Food | 1,984 | 2,219 | 11.8 | 1.9 | 312 | 339 | 8.7 | 7.0 |
| 13 Beverages, tobacco and feed | 488 | 487 | 0.3 | 0.4 | 54 | 50 | 7.5 | 1.0 |
| 14 Textile mill products | 789 | 789 | 0.1 | 0.7 | 76 | 76 | 0.7 | 1.6 |
| 15 Apparel and other finished products made from fabrics and similar materials | 34 | 32 | 7.0 | 0.0 | 24 | 22 | 7.9 | 0.5 |
| 16 Lumber and wood products | 15 | 15 | 0.3 | 0.0 | 11 | 11 | 3.4 | 0.2 |
| 17 Furniture and fixtures | 113 | 111 | 2.4 | 0.1 | 12 | 11 | 5.9 | 0.2 |
| 18 Pulp, paper and paper products | 2,456 | 2,464 | 0.3 | 2.1 | 462 | 480 | 4.0 | 9.9 |
| 19 Publishing, printing and related products | 156 | 182 | 17.2 | 0.2 | 44 | 37 | 16.1 | 0.8 |
| 20 Chemical products | 48,745 | 47,236 | 3.1 | 40.7 | 832 | 828 | 0.6 | 17.1 |
| 21 Petroleum and coal products | 8,803 | 8,558 | 2.8 | 7.4 | 115 | 108 | 6.5 | 2.2 |
| 22 Plastic products | 2,392 | 2,299 | 3.9 | 2.0 | 96 | 92 | 3.6 | 1.9 |
| 23 Rubber products | 944 | 871 | 7.7 | 0.8 | 39 | 36 | 9.1 | 0.7 |
| 24 Leather tanning, leather products and fur skins | 1 | 1 | 2.7 | 0.0 | 2 | 2 | 12.9 | 0.0 |
| 25 Ceramics, stone and clay products | 2,720 | 2,667 | 1.9 | 2.3 | 169 | 168 | 0.4 | 3.5 |
| 26 Iron and steel | 34,566 | 34,165 | 1.2 | 29.5 | 1,296 | 1,256 | 3.1 | 25.9 |
| 27 Non-ferrous metals and products | 2,443 | 2,239 | 8.4 | 1.9 | 100 | 113 | 13.0 | 2.3 |
| 28 Fabricated metal products | 619 | 582 | 6.0 | 0.5 | 96 | 90 | 6.3 | 1.9 |
| 29 General machinery (ordnance included) | 1,246 | 962 | 22.8 | 0.8 | 205 | 224 | 9.4 | 4.6 |
| 30 Electrical machinery, equipment and supplies | 4,291 | 3,990 | 7.0 | 3.4 | 366 | 371 | 1.2 | 7.7 |
| 31 Transportation equipment | 6,145 | 5,847 | 4.8 | 5.0 | 558 | 488 | 12.5 | 10.1 |
| 32 Precision instruments and machinery | 101 | 71 | 30.1 | 0.1 | 28 | 24 | 14.0 | 0.5 |
| 34 Miscellaneous manufacturing products | 186 | 174 | 6.5 | 0.2 | 18 | 16 | 7.1 | 0.3 |

2. Situation by size of employees

When observing the situation by size of employees, the water volume 1,000 or more employees (77.66 million m³, composition ratio 40.8%) accounted for approximately 40% of the total. This was followed by water volume with 500 to 999 employees (37.12 million m³, 19.5% id.), and 300 to 499 employees (31.67 thousand m³, 16.6% id.), meaning that the water volume of establishments with 300 or more employees accounted for approximately 80% of the total (Table 9).

In the year-to-year comparison, a decrease was observed in establishments with 1,000 or more employees (down 4.5% compared to the previous year), and with 500 to 999 employees (down 1.2% id.), and an increase was observed 100 to 199 employees (up 14.3% id.), and 300 to 499 employees (up 2.2% id.)

In addition, the volume of water per establishment was observed to increase in proportion to the size of employees. In the year-to-year comparison, the volume of water per establishment decreased with 1,000 or more employees (down 3.2% compared to the previous year), and 500 to 999 employees (down 0.6% id.), and increased 300 to 499 employees (up 2.2% id.), and 100 to 199 employees (up 16.9% id.).

**Table 9 Volume of water by size of employees
(Establishments with 30 or more employees)**

| Size of employees | Number of establishments | | | | Total volume of water | | | | Volume of water per establishment | | |
|-------------------|--------------------------|---------|-----------------------|-------|------------------------------------|---------|-----------------------|-------|------------------------------------|---------|-------|
| | 2000 | 2001 | | | 2000 (1,000m ³ /day) | 2001 | | | 2000 (1,000m ³ /day) | 2001 | |
| | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | |
| Total | 51,434 | 49,364 | -4.0 | 100.0 | 194,952 | 190,547 | -2.3 | 100.0 | 3,790 | 3,860 | 1.8 |
| 30 ~ 49 persons | 19,179 | 18,127 | -5.5 | 36.7 | 3,752 | 2,835 | -24.5 | 1.5 | 196 | 156 | -20.1 |
| 50 ~ 99 | 17,818 | 17,054 | -4.3 | 34.5 | 8,499 | 8,337 | -1.9 | 4.4 | 477 | 489 | 2.5 |
| 100 ~ 199 | 8,518 | 8,326 | -2.3 | 16.9 | 15,536 | 17,755 | 14.3 | 9.3 | 1,824 | 2,133 | 16.9 |
| 200 ~ 299 | 2,531 | 2,481 | -2.0 | 5.0 | 17,305 | 15,175 | -12.3 | 8.0 | 6,837 | 6,116 | -10.5 |
| 300 ~ 499 | 1,778 | 1,779 | 0.1 | 3.6 | 30,978 | 31,667 | 2.2 | 16.6 | 17,423 | 17,800 | 2.2 |
| 500 ~ 999 | 1,081 | 1,075 | -0.6 | 2.2 | 37,562 | 37,121 | -1.2 | 19.5 | 34,747 | 34,531 | -0.6 |
| over 1000 | 529 | 522 | -1.3 | 1.1 | 81,321 | 77,658 | -4.5 | 40.8 | 153,727 | 148,770 | -3.2 |

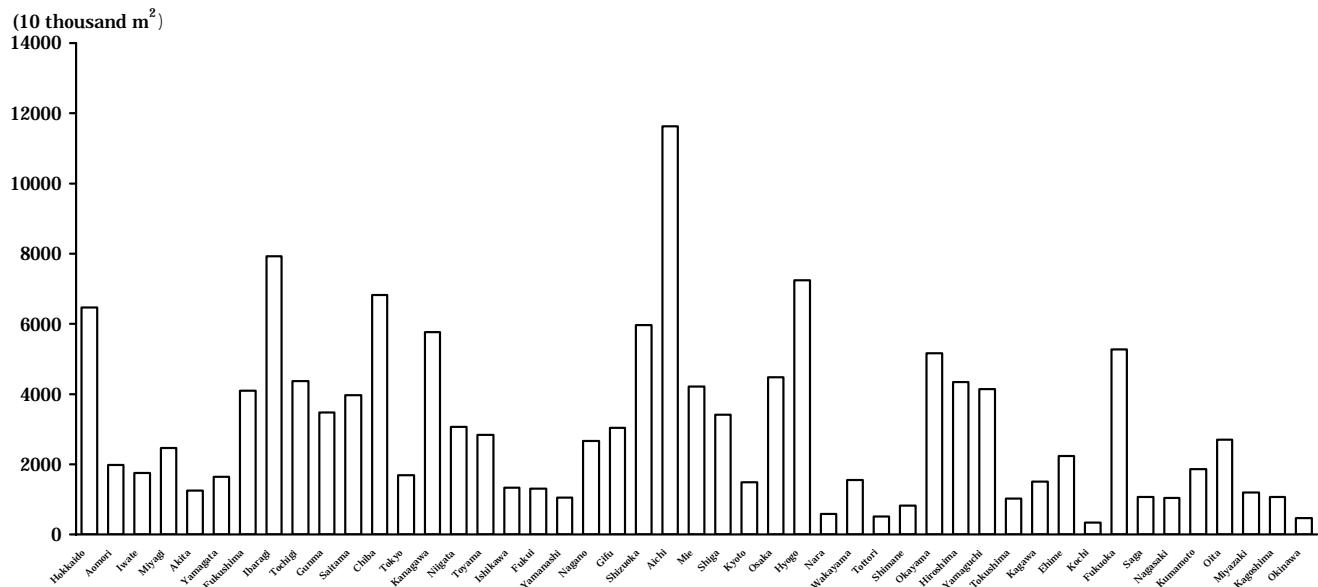
| Size of employees | Fresh water | | | | Volume of fresh water per establishment | | | Seawater | | | |
|-------------------|------------------------------------|---------|-----------------------|-------|---|---------|-------|------------------------------------|---------|-----------------------|-------|
| | 2000 (1,000m ³ /day) | 2001 | | | 2000 (1,000m ³ /day) | 2001 | | 2000 (1,000m ³ /day) | 2001 | | |
| | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | | | Y/Y (%) | Composition ratio (%) | |
| Total | 151,965 | 147,978 | -2.6 | 100.0 | 2,955 | 2,998 | 1.5 | 42,988 | 42,569 | -1.0 | 100.0 |
| 30 ~ 49 persons | 3,026 | 2,704 | -10.7 | 1.8 | 158 | 149 | -5.5 | 726 | 131 | -81.9 | 0.3 |
| 50 ~ 99 | 6,464 | 6,630 | 2.6 | 4.5 | 363 | 389 | 7.2 | 2,035 | 1,707 | -16.1 | 4.0 |
| 100 ~ 199 | 12,670 | 14,446 | 14.0 | 9.8 | 1,487 | 1,735 | 16.6 | 2,865 | 3,309 | 15.5 | 7.8 |
| 200 ~ 299 | 14,639 | 11,874 | -18.9 | 8.0 | 5,784 | 4,786 | -17.3 | 2,666 | 3,301 | 23.8 | 7.8 |
| 300 ~ 499 | 22,178 | 23,837 | 7.5 | 16.1 | 12,473 | 13,399 | 7.4 | 8,801 | 7,830 | -11.0 | 18.4 |
| 500 ~ 999 | 32,096 | 30,586 | -4.7 | 20.7 | 29,691 | 28,452 | -4.2 | 5,466 | 6,535 | 19.6 | 15.4 |
| over 1000 | 60,892 | 57,901 | -4.9 | 39.1 | 115,108 | 110,922 | -3.6 | 20,429 | 19,757 | -3.3 | 46.4 |

III. Situation by Prefecture

1. Lot area

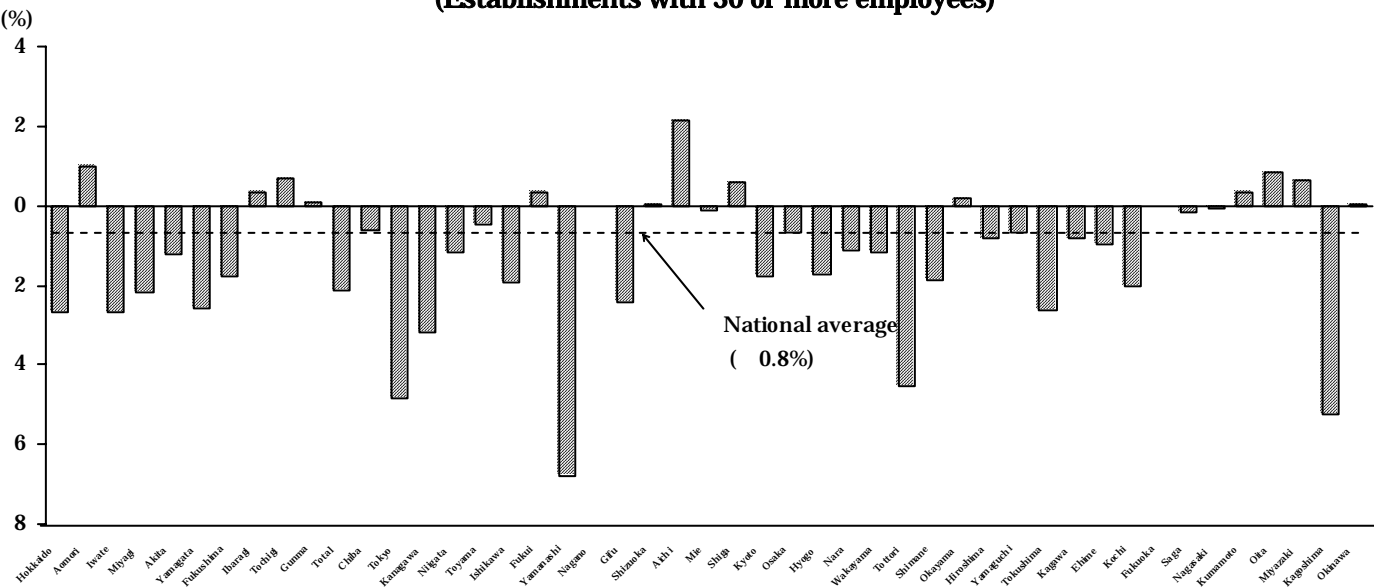
When viewing lot area by prefecture, it was largest in the following prefectures: “Aichi” (116.33 million m² , composition ratio 8.1%), “Ibaragi” (79.15 million m² , 5.5% id.), “Hyogo” (72.46 million m² , 5.0% id.), “Chiba” (68.20 million m² , 4.7% id.), “Hokkaido” (64.65 million m² , 4.5% id.), “Shizuoka” (59.65 million m² , 4.1% id.), and “Kanagawa” (57.61 million m² , 4.0% id.) (Table 10, Figure 12).

Figure 12 Distribution of lot area by prefecture
(Establishments with 30 or more employees)



In the year-to-year comparison, lot area decreased in 34 prefectures, including “Yamanashi” (down 6.8% compared to the previous year), “Kagoshima” (down 5.2% id.), “Tokyo” (down 4.8% id.), “Tottori” (down 4.6% id.), and “Kanagawa” (down 3.2% id.), whereas there was an increase in 13 prefectures, including “Aichi” (up 2.1% id.), “Aomori” (up 1.0% id.), and “Oita” (up 0.8% id.) (Table 10, Figure 13).

Figure 13 Year-to-year comparison of lot area by prefecture
(Establishments with 30 or more employees)



**Table 10 Lot area, building area and aggregate building area by prefecture
(Establishments with 30 or more employees)**

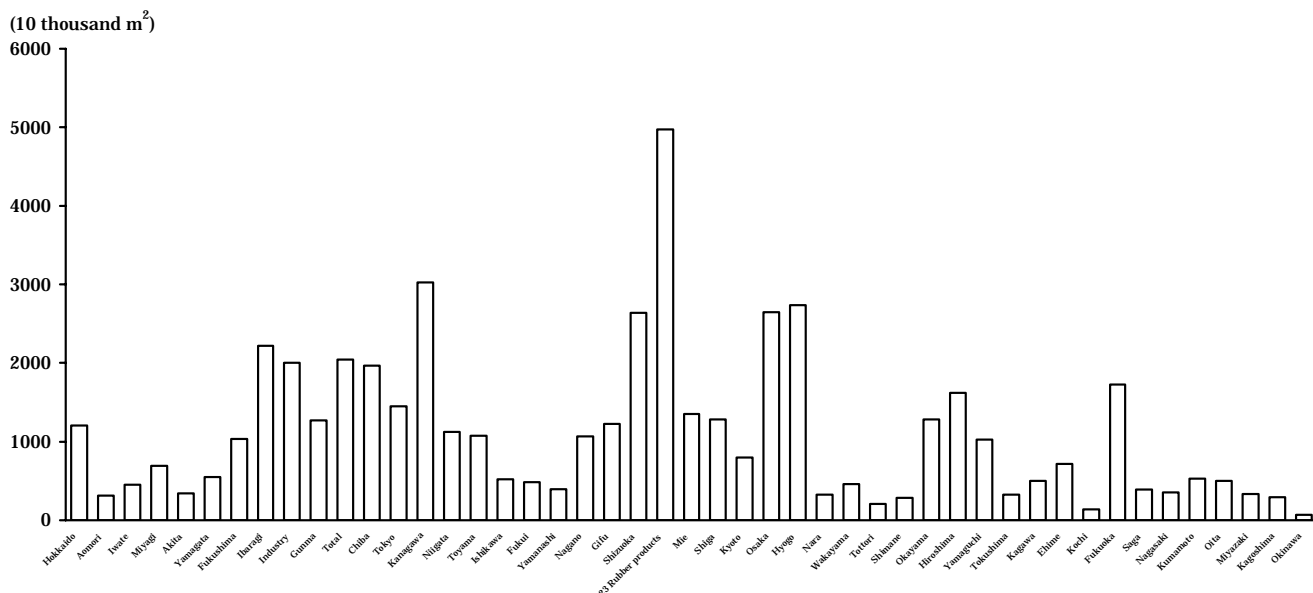
(Unit: 1,000 m²)

| Prefecture | Lot area | | | | Building area | | | | Aggregate building area | | | |
|--------------|-----------|-----------|------------|-----------------------------|---------------|---------|------------|-----------------------------|-------------------------|---------|------------|-----------------------------|
| | 2000 | | 2001 | | 2000 | | 2001 | | 2000 | | 2001 | |
| | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) |
| Total | 1,453,612 | 1,442,586 | 0.8 | 100.0 | 385,355 | 383,510 | 0.5 | 100.0 | 514,995 | 513,982 | 0.2 | 100.0 |
| 1 Hokkaido | 66,424 | 64,646 | 2.7 | 4.5 | 9,489 | 9,442 | 0.5 | 2.5 | 12,104 | 12,050 | 0.4 | 2.3 |
| 2 Aomori | 19,731 | 19,921 | 1.0 | 1.4 | 2,357 | 2,357 | 0.0 | 0.6 | 3,104 | 3,090 | 0.4 | 0.6 |
| 3 Iwate | 17,968 | 17,490 | 2.7 | 1.2 | 3,604 | 3,619 | 0.4 | 0.9 | 4,468 | 4,530 | 1.4 | 0.9 |
| 4 Miyagi | 25,219 | 24,670 | 2.2 | 1.7 | 5,477 | 5,445 | 0.6 | 1.4 | 6,967 | 6,894 | 1.0 | 1.3 |
| 5 Akita | 12,667 | 12,511 | 1.2 | 0.9 | 2,880 | 2,837 | 1.5 | 0.7 | 3,433 | 3,383 | 1.4 | 0.7 |
| 6 Yamagata | 16,834 | 16,401 | 2.6 | 1.1 | 4,387 | 4,244 | 3.3 | 1.1 | 5,694 | 5,502 | 3.4 | 1.1 |
| 7 Fukushima | 41,592 | 40,853 | 1.8 | 2.8 | 8,215 | 8,264 | 0.6 | 2.2 | 10,177 | 10,318 | 1.4 | 2.0 |
| 8 Ibaragi | 78,887 | 79,153 | 0.3 | 5.5 | 17,437 | 17,740 | 1.7 | 4.6 | 21,718 | 22,142 | 2.0 | 4.3 |
| 9 Tochigi | 43,401 | 43,687 | 0.7 | 3.0 | 11,824 | 11,953 | 1.1 | 3.1 | 14,367 | 14,483 | 0.8 | 2.8 |
| 10 Gunma | 34,710 | 34,739 | 0.1 | 2.4 | 10,041 | 10,092 | 0.5 | 2.6 | 12,592 | 12,711 | 0.9 | 2.5 |
| 11 Saitama | 40,536 | 39,666 | 2.1 | 2.7 | 14,600 | 14,213 | 2.6 | 3.7 | 20,904 | 20,415 | 2.3 | 4.0 |
| 12 Chiba | 68,638 | 68,201 | 0.6 | 4.7 | 15,504 | 15,352 | 1.0 | 4.0 | 19,694 | 19,675 | 0.1 | 3.8 |
| 13 Tokyo | 17,840 | 16,976 | 4.8 | 1.2 | 7,821 | 7,549 | 3.5 | 2.0 | 14,916 | 14,504 | 2.8 | 2.8 |
| 14 Kanagawa | 59,503 | 57,605 | 3.2 | 4.0 | 20,761 | 20,349 | 2.0 | 5.3 | 30,876 | 30,311 | 1.8 | 5.9 |
| 15 Niigata | 31,081 | 30,713 | 1.2 | 2.1 | 8,108 | 8,066 | 0.5 | 2.1 | 11,243 | 11,198 | 0.4 | 2.2 |
| 16 Toyama | 28,504 | 28,376 | 0.5 | 2.0 | 8,130 | 8,178 | 0.6 | 2.1 | 10,680 | 10,764 | 0.8 | 2.1 |
| 17 Ishikawa | 13,637 | 13,376 | 1.9 | 0.9 | 3,970 | 3,931 | 1.0 | 1.0 | 5,115 | 5,190 | 1.5 | 1.0 |
| 18 Fukui | 12,954 | 12,998 | 0.3 | 0.9 | 3,580 | 3,583 | 0.1 | 0.9 | 4,869 | 4,872 | 0.1 | 0.9 |
| 19 Yamanashi | 11,267 | 10,501 | 6.8 | 0.7 | 2,895 | 2,817 | 2.7 | 0.7 | 4,134 | 3,922 | 5.1 | 0.8 |
| 20 Nagano | 26,732 | 26,723 | 0.0 | 1.9 | 7,636 | 7,648 | 0.2 | 2.0 | 10,558 | 10,697 | 1.3 | 2.1 |
| 21 Gifu | 31,142 | 30,388 | 2.4 | 2.1 | 9,684 | 9,531 | 1.6 | 2.5 | 12,387 | 12,281 | 0.9 | 2.4 |
| 22 Shizuoka | 59,630 | 59,649 | 0.0 | 4.1 | 19,412 | 19,435 | 0.1 | 5.1 | 26,289 | 26,410 | 0.5 | 5.1 |
| 23 Aichi | 113,913 | 116,333 | 2.1 | 8.1 | 37,614 | 37,366 | 0.7 | 9.7 | 50,168 | 49,760 | 0.8 | 9.7 |
| 24 Mie | 42,237 | 42,193 | 0.1 | 2.9 | 10,469 | 10,519 | 0.5 | 2.7 | 13,391 | 13,517 | 0.9 | 2.6 |
| 25 Shiga | 33,954 | 34,151 | 0.6 | 2.4 | 9,717 | 9,873 | 1.6 | 2.6 | 12,551 | 12,824 | 2.2 | 2.5 |
| 26 Kyoto | 15,095 | 14,825 | 1.8 | 1.0 | 5,467 | 5,331 | 2.5 | 1.4 | 8,066 | 7,981 | 1.1 | 1.6 |
| 27 Osaka | 45,134 | 44,837 | 0.7 | 3.1 | 17,366 | 17,115 | 1.4 | 4.5 | 26,718 | 26,492 | 0.8 | 5.2 |
| 28 Hyogo | 73,719 | 72,462 | 1.7 | 5.0 | 20,512 | 20,279 | 1.1 | 5.3 | 27,595 | 27,386 | 0.8 | 5.3 |
| 29 Nara | 5,980 | 5,912 | 1.1 | 0.4 | 2,187 | 2,135 | 2.4 | 0.6 | 3,310 | 3,265 | 1.4 | 0.6 |
| 30 Wakayama | 15,654 | 15,475 | 1.1 | 1.1 | 3,634 | 3,571 | 1.7 | 0.9 | 4,635 | 4,551 | 1.8 | 0.9 |
| 31 Tottori | 5,287 | 5,046 | 4.6 | 0.3 | 1,597 | 1,548 | 3.1 | 0.4 | 2,086 | 2,062 | 1.1 | 0.4 |
| 32 Shimane | 8,314 | 8,157 | 1.9 | 0.6 | 2,260 | 2,248 | 0.5 | 0.6 | 2,836 | 2,841 | 0.2 | 0.6 |
| 33 Okayama | 51,481 | 51,585 | 0.2 | 3.6 | 10,422 | 10,508 | 0.8 | 2.7 | 12,636 | 12,830 | 1.5 | 2.5 |
| 34 Hiroshima | 43,798 | 43,443 | 0.8 | 3.0 | 12,708 | 12,812 | 0.8 | 3.3 | 16,038 | 16,236 | 1.2 | 3.2 |
| 35 Yamaguchi | 41,731 | 41,457 | 0.7 | 2.9 | 8,277 | 8,306 | 0.3 | 2.2 | 10,210 | 10,224 | 0.1 | 2.0 |
| 36 Tokushima | 10,456 | 10,179 | 2.7 | 0.7 | 2,471 | 2,376 | 3.8 | 0.6 | 3,381 | 3,259 | 3.6 | 0.6 |
| 37 Kagawa | 15,141 | 15,018 | 0.8 | 1.0 | 4,009 | 4,047 | 1.0 | 1.1 | 4,950 | 4,974 | 0.5 | 1.0 |
| 38 Ehime | 22,590 | 22,369 | 1.0 | 1.6 | 5,285 | 5,231 | 1.0 | 1.4 | 7,237 | 7,156 | 1.1 | 1.4 |
| 39 Kochi | 3,423 | 3,353 | 2.0 | 0.2 | 1,078 | 1,050 | 2.5 | 0.3 | 1,420 | 1,390 | 2.1 | 0.3 |
| 40 Fukuoka | 52,758 | 52,751 | 0.0 | 3.7 | 13,439 | 13,393 | 0.3 | 3.5 | 17,160 | 17,247 | 0.5 | 3.4 |
| 41 Saga | 10,691 | 10,674 | 0.2 | 0.7 | 3,117 | 3,160 | 1.4 | 0.8 | 3,837 | 3,907 | 1.8 | 0.8 |
| 42 Nagasaki | 10,413 | 10,408 | 0.0 | 0.7 | 2,661 | 2,707 | 1.7 | 0.7 | 3,395 | 3,515 | 3.6 | 0.7 |
| 43 Kumamoto | 18,470 | 18,534 | 0.3 | 1.3 | 4,114 | 4,146 | 0.8 | 1.1 | 5,159 | 5,269 | 2.1 | 1.0 |
| 44 Oita | 26,730 | 26,952 | 0.8 | 1.9 | 3,750 | 3,807 | 1.5 | 1.0 | 4,910 | 4,984 | 1.5 | 1.0 |
| 45 Miyazaki | 11,835 | 11,909 | 0.6 | 0.8 | 2,575 | 2,578 | 0.1 | 0.7 | 3,346 | 3,339 | 0.2 | 0.6 |
| 46 Kagoshima | 11,293 | 10,701 | 5.2 | 0.7 | 2,269 | 2,201 | 3.0 | 0.6 | 2,980 | 2,916 | 2.1 | 0.6 |
| 47 Okinawa | 4,619 | 4,621 | 0.0 | 0.3 | 547 | 561 | 2.4 | 0.1 | 695 | 714 | 2.8 | 0.1 |

2. Total building area

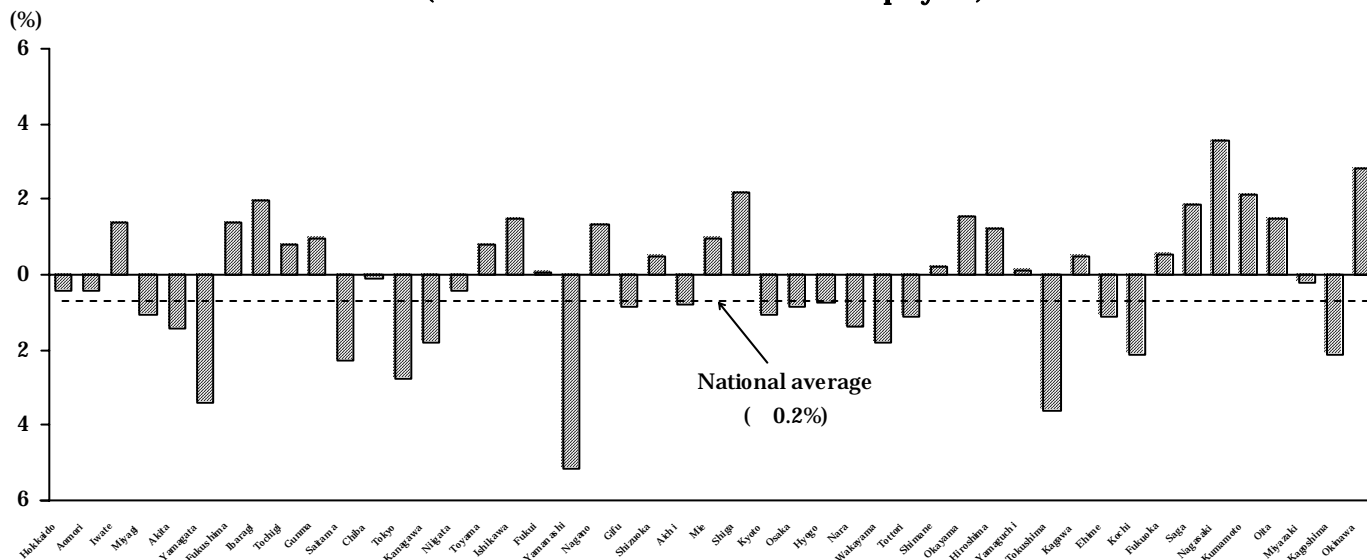
When observing the total building area by prefecture, the prefecture with the largest total building area was “Aichi” (49.76 million m², composition ratio 9.7%) followed by “Kanagawa” (30.31 million m², 5.9% id.), “Hyogo” (27.39 million m², 5.3% id.), “Osaka” (26.49 million m², 5.2% id.), “Shizuoka” (26.41 million m², 5.1% id.), “Ibaragi” (22.14 million m², 4.3% id.), and “Saitama” (20.42 million m², 4.0% id.) (Table 10, Figure 14).

**Figure 14 Total building area by prefecture
(Establishments with 30 or more employees)**



In the year-to-year comparison, the total building area decreased in 24 prefectures, including “Yamanashi” (down 5.1% compared to the previous year), “Tokushima” (down 3.6% id.), “Yamagata” (down 3.4% id.), “Tokyo” (down 2.8% id.), and “Saitama” (down 2.3% id.), whereas there was an increase in 23 prefectures, including “Nagasaki” (up 3.6% id.), “Okinawa” (up 2.8% id.), “Shiga” (up 2.2% id.), “Kumamoto” (up 2.1% id.), and “Ibaragi” (up 2.0% id.) (Table 5, Figure 15).

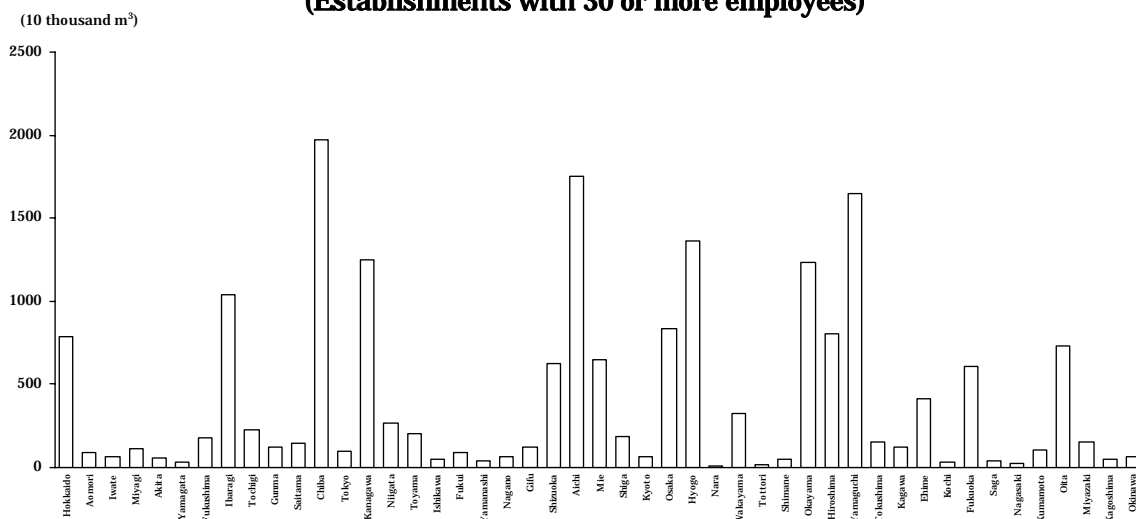
**Figure 15 Year-to-year comparison of total building area by prefecture
(Establishments with 30 or more employees)**



3. Industrial water situation

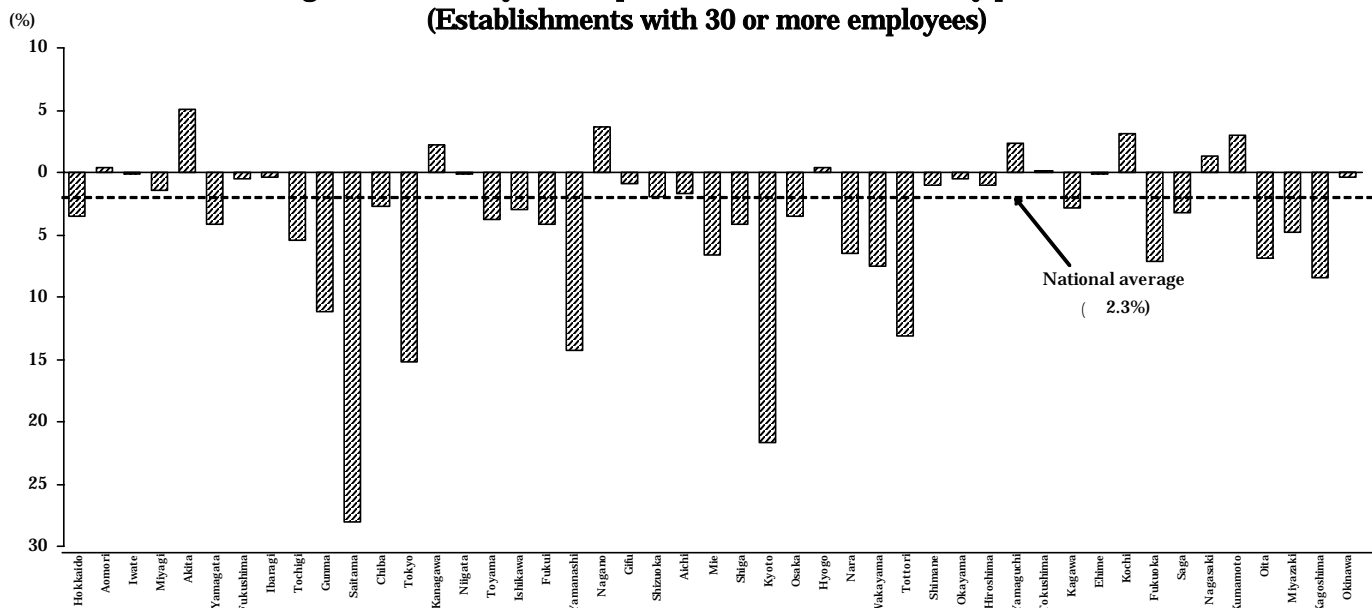
When viewing the situation of industrial water by prefecture, the largest volume of water was observed in the following prefectures: “Chiba” (19.69 million m³, composition ratio 10.3%), “Aichi” (17.52 million m³, 9.2% id.), “Yamaguchi” (16.46 million m³, 8.6% id.), “Hyogo” (13.61 million m³, 7.1% id.), “Kanagawa” (12.50 million m³, 6.6% id.), “Okayama” (12.38 million m³, 6.5% id.), and “Ibaragi” (10.43 million m³, 5.5% id.) (Table 11, Figure 16).

**Figure 16 Distribution of volume of industrial water by prefecture
(Establishments with 30 or more employees)**



In the year-to-year comparison, the volume of industrial water decreased in 37 prefectures, including “Saitama” (down 28.1% compared to the previous year), “Kyoto” (down 21.7% id.), “Tokyo” (down 15.2% id.), “Yamanashi” (down 14.3% id.), and “Tottori” (down 13.2% id.), whereas there was an increase in 10 prefectures, including “Akita” (up 5.0% id.), “Nagano” (up 3.6% id.), “Kochi” (up 3.1% id.), “Kumamoto” (up 2.9% id.), and “Yamaguchi” (up 2.4% id.) (Table 11, Figure 17)

**Figure 17 Year-to-year comparison of volume of water by prefecture
(Establishments with 30 or more employees)**



**Table 11 Water volume by prefecture
(Establishments with 30 or more employees)**

(Unit: 1,000 m³/day)

| Prefecture | Total volume of water | | | | | | | | | | | |
|--------------|-----------------------|---------|-----------------------|-----------------------|-----------|---------|-----------------------|-----------------------|--------|---------|-----------------------|-----------------------|
| | Fresh water | | | | Sea water | | | | | | | |
| | 2000 | 2001 | | Composition ratio (%) | 2000 | 2001 | | Composition ratio (%) | 2000 | 2001 | | Composition ratio (%) |
| | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) | | | Y/Y (%) | Composition ratio (%) | |
| Total | 194,952 | 190,547 | 2.3 | 100.0 | 151,965 | 147,978 | 2.6 | 100.0 | 42,988 | 42,569 | 1.0 | 100.0 |
| 1 Hokkaido | 8,126 | 7,846 | 3.5 | 4.1 | 6,715 | 6,584 | 1.9 | 4.4 | 1,411 | 1,261 | 10.6 | 3.0 |
| 2 Aomori | 926 | 930 | 0.4 | 0.5 | 901 | 905 | 0.4 | 0.6 | 24 | 24 | 0.1 | 0.1 |
| 3 Iwate | 628 | 627 | 0.2 | 0.3 | 406 | 406 | 0.2 | 0.3 | 222 | 221 | 0.1 | 0.5 |
| 4 Miyagi | 1,118 | 1,102 | 1.5 | 0.6 | 1,114 | 1,098 | 1.4 | 0.7 | 4 | 3 | 23.1 | 0.0 |
| 5 Akita | 570 | 599 | 5.0 | 0.3 | 386 | 386 | 0.1 | 0.3 | 184 | 212 | 15.5 | 0.5 |
| 6 Yamagata | 299 | 286 | 4.1 | 0.2 | 299 | 286 | 4.1 | 0.2 | - | - | - | - |
| 7 Fukushima | 1,756 | 1,747 | 0.5 | 0.9 | 1,206 | 1,183 | 2.0 | 0.8 | 550 | 565 | 2.7 | 1.3 |
| 8 Ibaragi | 10,472 | 10,429 | 0.4 | 5.5 | 8,161 | 8,075 | 1.1 | 5.5 | 2,311 | 2,354 | 1.9 | 5.5 |
| 9 Tochigi | 2,414 | 2,283 | 5.4 | 1.2 | 2,414 | 2,283 | 5.4 | 1.5 | - | - | - | - |
| 10 Gunma | 1,360 | 1,209 | 11.1 | 0.6 | 1,360 | 1,209 | 11.1 | 0.8 | - | - | - | - |
| 11 Saitama | 2,013 | 1,447 | 28.1 | 0.8 | 2,013 | 1,447 | 28.1 | 1.0 | - | - | - | - |
| 12 Chiba | 20,232 | 19,689 | 2.7 | 10.3 | 12,551 | 12,390 | 1.3 | 8.4 | 7,681 | 7,299 | 5.0 | 17.1 |
| 13 Tokyo | 1,107 | 939 | 15.2 | 0.5 | 1,014 | 846 | 16.6 | 0.6 | 93 | 93 | 0.2 | 0.2 |
| 14 Kanagawa | 12,240 | 12,504 | 2.2 | 6.6 | 8,824 | 9,077 | 2.9 | 6.1 | 3,416 | 3,428 | 0.3 | 8.1 |
| 15 Niigata | 2,710 | 2,709 | 0.1 | 1.4 | 2,710 | 2,709 | 0.1 | 1.8 | - | - | - | - |
| 16 Toyama | 2,100 | 2,022 | 3.7 | 1.1 | 2,100 | 2,022 | 3.7 | 1.4 | - | - | - | - |
| 17 Ishikawa | 530 | 514 | 3.0 | 0.3 | 530 | 514 | 3.0 | 0.3 | - | - | - | - |
| 18 Fukui | 903 | 866 | 4.1 | 0.5 | 903 | 866 | 4.1 | 0.6 | - | - | - | - |
| 19 Yamanashi | 440 | 377 | 14.3 | 0.2 | 440 | 377 | 14.3 | 0.3 | - | - | - | - |
| 20 Nagano | 599 | 620 | 3.6 | 0.3 | 599 | 620 | 3.6 | 0.4 | - | - | - | - |
| 21 Gifu | 1,234 | 1,223 | 0.9 | 0.6 | 1,234 | 1,223 | 0.9 | 0.8 | - | - | - | - |
| 22 Shizuoka | 6,335 | 6,215 | 1.9 | 3.3 | 6,247 | 6,136 | 1.8 | 4.1 | 88 | 79 | 10.2 | 0.2 |
| 23 Aichi | 17,819 | 17,523 | 1.7 | 9.2 | 14,599 | 14,201 | 2.7 | 9.6 | 3,220 | 3,322 | 3.2 | 7.8 |
| 24 Mie | 6,995 | 6,530 | 6.7 | 3.4 | 6,005 | 5,560 | 7.4 | 3.8 | 990 | 969 | 2.1 | 2.3 |
| 25 Shiga | 1,918 | 1,839 | 4.1 | 1.0 | 1,918 | 1,839 | 4.1 | 1.2 | - | - | - | - |
| 26 Kyoto | 820 | 642 | 21.7 | 0.3 | 820 | 642 | 21.7 | 0.4 | - | - | - | - |
| 27 Osaka | 8,680 | 8,374 | 3.5 | 4.4 | 8,169 | 7,875 | 3.6 | 5.3 | 510 | 499 | 2.3 | 1.2 |
| 28 Hyogo | 13,549 | 13,608 | 0.4 | 7.1 | 8,900 | 8,966 | 0.7 | 6.1 | 4,649 | 4,641 | 0.2 | 10.9 |
| 29 Nara | 78 | 73 | 6.5 | 0.0 | 78 | 73 | 6.5 | 0.0 | - | - | - | - |
| 30 Wakayama | 3,494 | 3,229 | 7.6 | 1.7 | 2,487 | 2,287 | 8.1 | 1.5 | 1,007 | 943 | 6.4 | 2.2 |
| 31 Tottori | 204 | 177 | 13.2 | 0.1 | 204 | 177 | 13.2 | 0.1 | 0 | 0 | 0.0 | 0.0 |
| 32 Shimane | 532 | 526 | 1.1 | 0.3 | 529 | 524 | 1.1 | 0.4 | 2 | 2 | 0.0 | 0.0 |
| 33 Okayama | 12,447 | 12,378 | 0.6 | 6.5 | 10,108 | 10,095 | 0.1 | 6.8 | 2,340 | 2,283 | 2.4 | 5.4 |
| 34 Hiroshima | 8,143 | 8,062 | 1.0 | 4.2 | 6,892 | 6,829 | 0.9 | 4.6 | 1,252 | 1,233 | 1.5 | 2.9 |
| 35 Yamaguchi | 16,082 | 16,462 | 2.4 | 8.6 | 9,249 | 9,112 | 1.5 | 6.2 | 6,833 | 7,350 | 7.6 | 17.3 |
| 36 Tokushima | 1,520 | 1,523 | 0.2 | 0.8 | 1,420 | 1,423 | 0.2 | 1.0 | 100 | 100 | 0.1 | 0.2 |
| 37 Kagawa | 1,253 | 1,217 | 2.8 | 0.6 | 708 | 655 | 7.5 | 0.4 | 545 | 563 | 3.2 | 1.3 |
| 38 Ehime | 4,157 | 4,154 | 0.1 | 2.2 | 3,280 | 3,298 | 0.5 | 2.2 | 877 | 856 | 2.4 | 2.0 |
| 39 Kochi | 279 | 288 | 3.1 | 0.2 | 194 | 202 | 4.3 | 0.1 | 86 | 86 | 0.5 | 0.2 |
| 40 Fukuoka | 6,593 | 6,121 | 7.2 | 3.2 | 5,112 | 4,812 | 5.9 | 3.3 | 1,480 | 1,309 | 11.5 | 3.1 |
| 41 Saga | 382 | 369 | 3.3 | 0.2 | 381 | 369 | 3.3 | 0.2 | 1 | 1 | 8.9 | 0.0 |
| 42 Nagasaki | 235 | 239 | 1.3 | 0.1 | 84 | 76 | 10.2 | 0.1 | 151 | 163 | 7.8 | 0.4 |
| 43 Kumamoto | 1,042 | 1,073 | 2.9 | 0.6 | 1,042 | 1,072 | 2.9 | 0.7 | 1 | 1 | 0.3 | 0.0 |
| 44 Oita | 7,821 | 7,282 | 6.9 | 3.8 | 5,071 | 4,768 | 6.0 | 3.2 | 2,750 | 2,515 | 8.6 | 5.9 |
| 45 Miyazaki | 1,625 | 1,548 | 4.7 | 0.8 | 1,591 | 1,515 | 4.8 | 1.0 | 34 | 33 | 2.0 | 0.1 |
| 46 Kagoshima | 488 | 447 | 8.5 | 0.2 | 455 | 423 | 7.0 | 0.3 | 33 | 24 | 28.1 | 0.1 |
| 47 Okinawa | 682 | 679 | 0.4 | 0.4 | 541 | 543 | 0.3 | 0.4 | 141 | 136 | 3.3 | 0.3 |