

March, 2018

Iron & Steel Scrap in Japan

- Introduction of JISRI
- Situation in Japan and overseas

Japan Iron & Steel Recycling Institute (JISRI)

Contents

1. Introduction of JISRI
2. Supply & Demand Situation in Japan
3. Japan's Steel Scrap Export
4. Steel Scrap Market in overseas

1. Introduction of JISRI

History

- July 1, 1975 Established as “Japan Iron & Steel Scrap Industry Association” under the auspices of the Ministry of International Trade & Industry by companies specializing in Iron and steel scrap and trading firms.
- July 3, 1991 Name was changed to “Japan Iron & Steel Recycling Institute (JISRI)”.

Objectives

JISRI aims to contribute to the stable economic development of Japan, and to the better lifestyle for the Japanese people. To achieve this, JISRI strives to ensure stable supply of iron & steel scrap by conducting research and promoting educational activities pertaining to waste treatment, pollution prevention, resource recovery, improvement of technology and management, etc. of iron & steel scrap industry.

Members (as of Dec. 31, 2017)

Official members : 735 companies.
(Iron & steel scrap dealers : 720 Trading firms : 15)

1. Introduction of JISRI

Main Activities

1. Collection and assessment of data & information

We collect data & information relating to the industry, and disseminate those after assessment. We specifically make research on shredding processing technology and its dust, and conduct public awareness activities.

2. Consultations and negotiations on behalf of the industry

On behalf of the industry, we make consultations and negotiations with government agencies and other organizations.

3. Improvement of business practice in the industry

We provide research and information on environmental conservation, labor issues, various technological advances in the industry. We issue “Iron & Steel Recycling Industry Handbook”.

4. Public relations

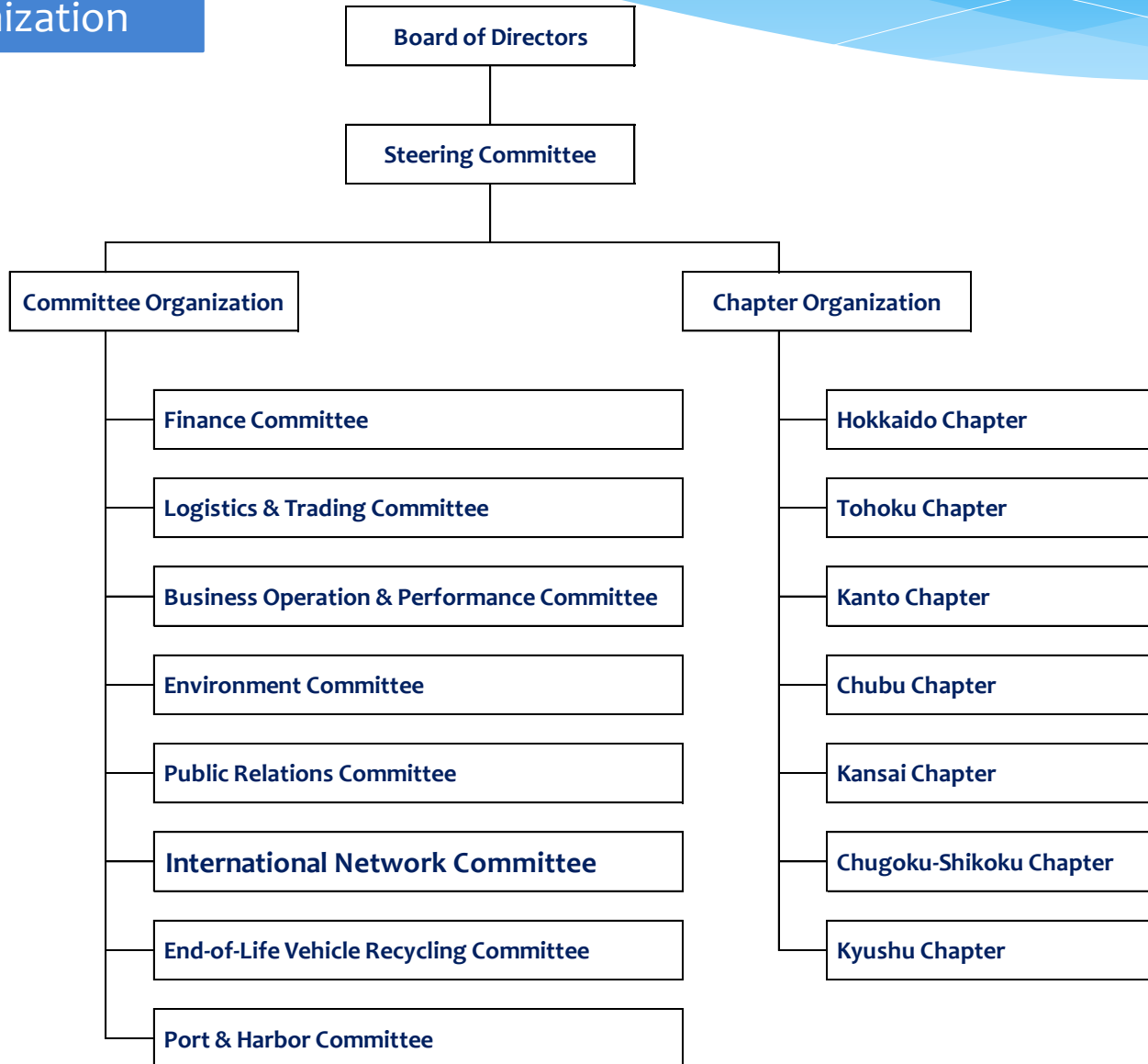
We disseminate information, by several means including homepage, about activities of headquarter, local chapters, and various committees. We publish “Iron & Steel Recycling News” 4 -5 times a year.

5. Insurance for members

We provide casualty insurance to the members, including “Facility liability insurance” and “Comprehensive occupational accident insurance”

1. Introduction of JISRI

Organization



2. Supply & Demand Situation in Japan in fiscal 2016

- In fiscal 2016, total quantity of Home Scrap (consumed within Mills) and Purchased Scrap was about 40 mil tons. Considering Export of about 8 mil tons, total supply in theory was about 49 mil tons.
- About 8 mil tons of steel scrap, which could not be domestically recycled, was exported overseas.
- Japan's total Steel Stockpiles (Reserve) at the end of 2016 is estimated at around 1.36 billion tons, and the export from Japan is forecasted to continue and increase.

Supply of Steel Scrap (Abt. 49mil tons)

Unit: 1,000 tons

Home Scrap 13,422			Purchased Scrap 26,924					Export 8,635	
BF Mills 8,934	EF Mills 2,251	Foundary 2,256	Prompt Scrap 7,860 (29.5%)	Obsolete Scrap ^o 18,766 (70.5%)			Obsolete Scrap 4,317	Other Scrap 4,317	
			Generating from:	Auto mobile (10.4%)	Machinery (20.5%)	Container (3.0%)	Construction (22.4%)	Civil Eng. (15.7%)	Others (28.0%)

Consumption of Steel Scrap (Abt. 40 mil tons)

BF Mills (Converter) 10,111	EF Mills 24,332	Foundary 4,885	Others 801
-----------------------------------	--------------------	-------------------	---------------

2. Supply & Demand Situation in Japan

(1) Demand (Consumption):

- Japan is faced with “Declining Birthrate and Ageing Population. Increase of demand for steel for construction and civil engineering will not be expected. Current high production rate of steel by Electric Furnace Mills is sustained by the special demand for “2020 Tokyo Olympic Games.” But after the Olympic, the demand for steel is estimated to decline considerably.
- Steel products for construction and civil engineering, represented by deformed bars and H-beams, are now annually produced at the range of 15~16 mil tons. After 2020, however, it is anticipated to decline by 20~30 percent. By this production cutback, demand for scrap will also be significantly decreased.

(2) Supply:

- Japan’s current Steel Stockpile (Reserve) is about 1.36 billion tons. The figure is increasing at a slow pace. Supply of Steel Scrap, then, is fully secured for the Japanese domestic market and also for export.

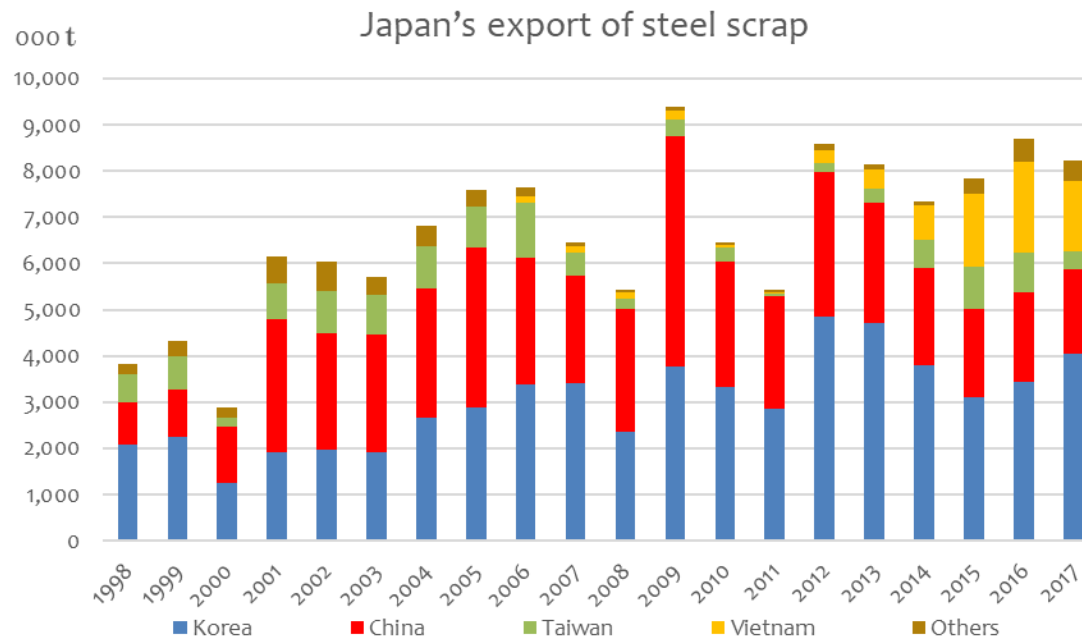
3. Japan's Steel Scrap Export

Around the year 1970:
Domestic Demand > Domestic Supply
⇒ Japan imported Steel Scrap from overseas.



From 1992:
Domestic Demand < Domestic Supply
⇒ Japan's export began in earnest.

- Japan's export is mainly destined to Korea and China.
- Currently, export to Vietnam and Taiwan is expanding.
- Export to nations in the far distance such as Bangladesh has started.



(Source: Japan's Ministry of Finance)

3. Japan's Steel Scrap Export

Japan's Export by Destination in recent 3 years

(Unit: thousand tons, % Share)

Year 2015				Year 2016				Year 2017			
1	Korea	3,104	39.6%	1	Korea	3,434	39.5%	1	Korea	4,049	49.3%
2	China	1,912	24.4%	2	Vietnam	1,978	22.7%	2	China	1,815	22.1%
3	Vietnam	1,579	20.1%	3	China	1,935	22.2%	3	Vietnam	1,519	18.5%
4	Taiwan	922	11.8%	4	Taiwan	855	9.8%	4	Taiwan	398	4.8%
5	Indonesia	156	2.0%	5	Bangladesh	208	2.4%	5	Bangladesh	202	2.5%
6	India	60	0.8%	6	Indonesia	134	1.5%	6	Indonesia	71	0.9%
7	Bangladesh	47	0.6%	7	Thailand	66	0.8%	7	U.S.A.	65	0.8%
8	Thailand	21	0.3%	8	India	65	0.7%	8	Thailand	51	0.6%
9	Singapore	5	0.1%	9	Malaysia	13	0.1%	9	India	32	0.4%
10	Others	33	0.4%	10	Others	10	0.1%	10	Others	15	0.2%
Total		7,839	100.0%	Total		8,698	100.0%	Total		8,217	100.0%

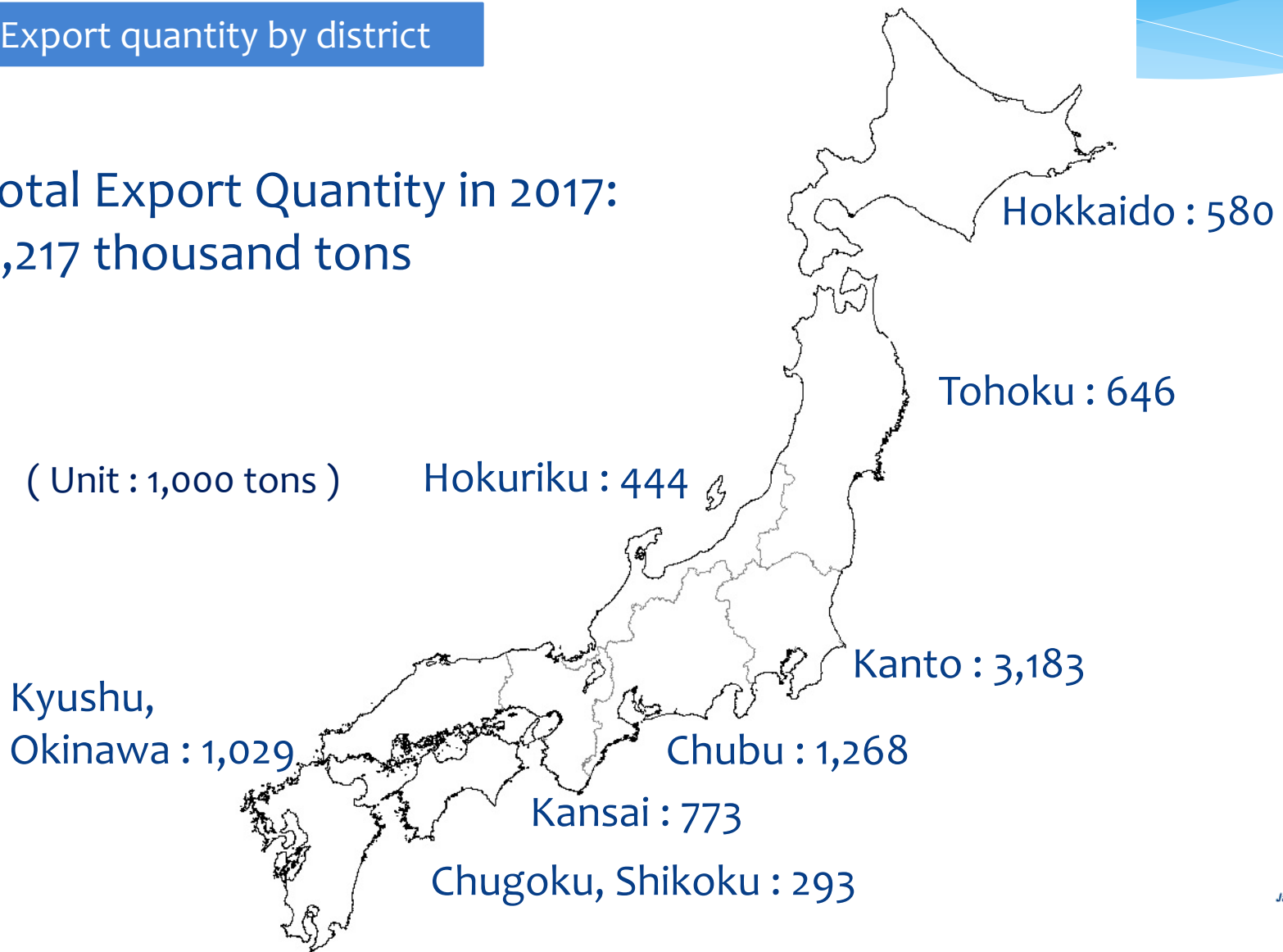
Source: Japan's Ministry of Finance (HS Code 7204)

3. Japan's Steel Scrap Export – in 2017

Export quantity by district

Total Export Quantity in 2017:
8,217 thousand tons

(Unit : 1,000 tons)



4. Steel Scrap Market in Overseas

Situations in overseas countries

China:

- Half of world's crude steel is produced by China, but import of scrap has been very small. During the period of 2012 ~ 2016, the annual import tonnage was in the range of 2 ~ 4 mil tons of mainly “miscellaneous scrap” (scrap with non ferrous metals).
- Current characteristic of China is the drastic increase of steel scrap export. China exported 2.2 mil tons in 2017, while the quantity of export has been almost negligible for years.

Source: CAMU (China Association of Metal Scrap Utilization), Import & Export Statistics of China.

Korea:

- Korea is the biggest nation in East Asia in terms of import quantity of steel scrap. Korea imported 6.2 mil tons in 2017, from Japan, Russia, USA, etc.
- “Self-sufficiency” of steel scrap may have reached at 80%, and Korea will turn into a net export country in not the distant future.
(Self-sufficiency is said to reach at 100% in around 2025.)

Source: KOSA (Korea Iron & Steel Association), Import & Export Statistics of Korea.

4. Steel Scrap Market in Overseas

Situations in overseas countries

Vietnam:

Vietnam shows significant growth in crude steel production, and import of steel scrap has been rapidly increasing.

India:

India imports steel scrap as much as Korea does, at the level of 6 mil tons per year. The crude steel production has reached at 100 mil tons, and import of steel scrap will be increasing cumulatively.

Bangladesh:

Current crude steel production could be 3 ~ 4 mil tons per year while accurate figure is not available. As the production of steel is by induction furnaces, almost the same quantity of steel scrap is estimated to be imported. Bangladesh is said to import steel scrap increasingly in future due to their plans for steel production expansion.

Turkey:

World largest steel scrap import nation.

Turkey import 15 ~ 20 mil tons per year from EU, Russia, Ukraine, USA, etc.

Japan has no record to export to Turkey but it could be a destination in future.

4. Steel Scrap Market in Overseas

Main Steel Scrap Import Nations – Data in 2016

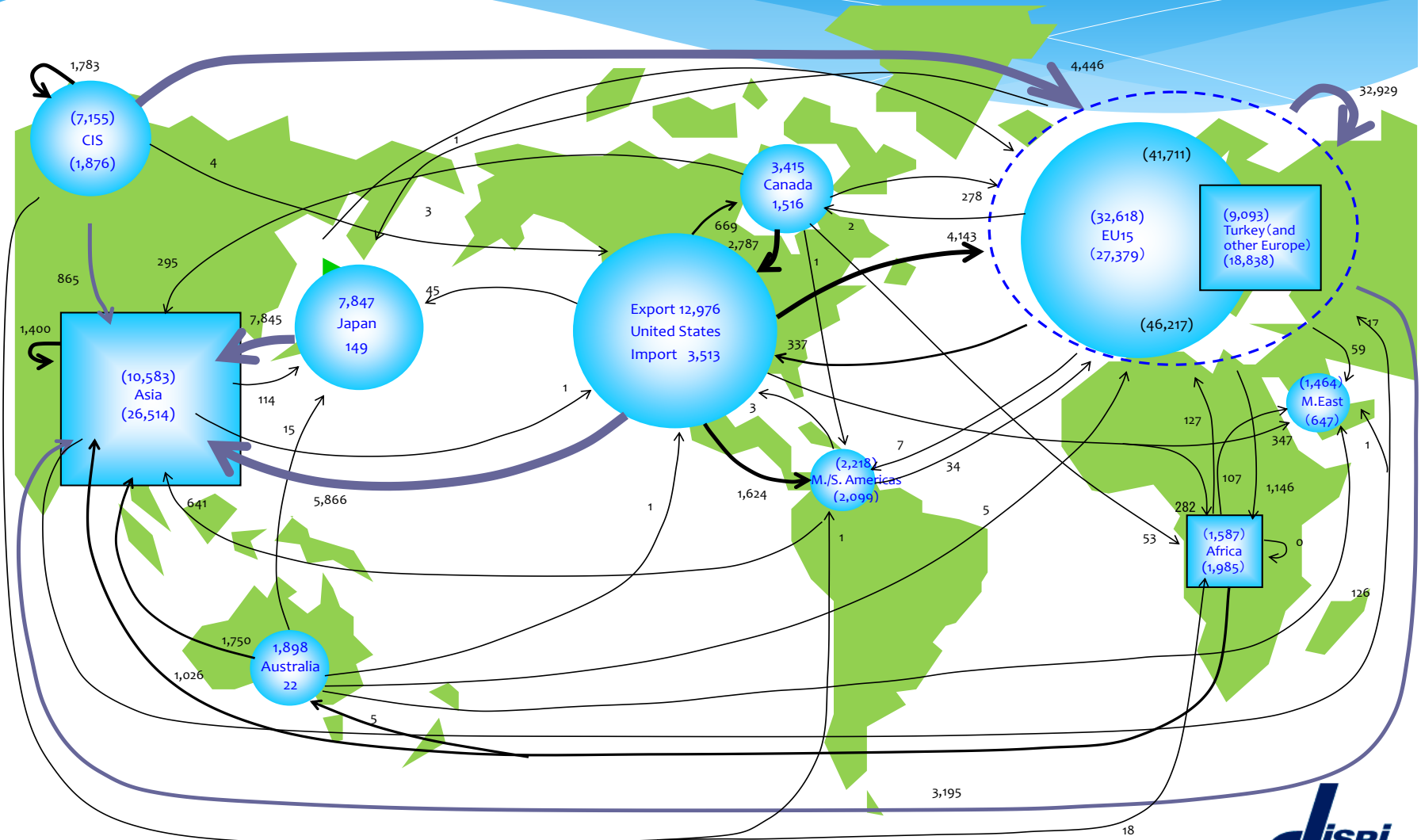
(Unit: 1,000 tons)

	China	Korea	Vietnam	Taiwan	India	Bangladesh	Turkey
Crude Steel Prod.	808,400	68,576	7,811	21,751	95,618	3,000 ~4,000	33,163
Steel Scrap Import	2,162	5,842	4,003	3,143	6,380	3,000 ~4,000	17,716
Steel Scrap Export	1	554	N.A	76	11	N.A.	156
Import from Japan	1,935	3,434	1,978	855	65	208	0

1. Source: Worldsteel and other sources. China's data is from CAMU.

2. China's export drastically increased in 2017 to 2.2 million tons.

4. Steel Scrap Market in Overseas – World Flowchart in 2015



Source: ISSB 「International Steel Statistics」, WSA 「Steel Statistical Yearbook」
 1) Europe is shown as EU15 and other European nations.
 2) Size of circle shows volumes of import / export. Upper figure: Export, Lower figure: Import
 3) () is WSA's data.

WSA Total Export : 83,999 (Unit : 1,000mt)
 WSA Total Import : 83,848 (Unit : 1,000mt)



Thank you for your attention !