

Current State of Manganese Alloys in Asia
6th Asian Ferro-Alloys Conference, Hong Kong
March 17-18, 2005

A photograph of two white flowers with green leaves growing in a stream. The flowers are positioned on the left and right sides of the frame. The water is dark and rippling, and there are rocks and fallen leaves in the background.

Toshimi Nakada
Nippon Denko Co., Ltd

Current State of Manganese Alloys in Asia

World crude steel production

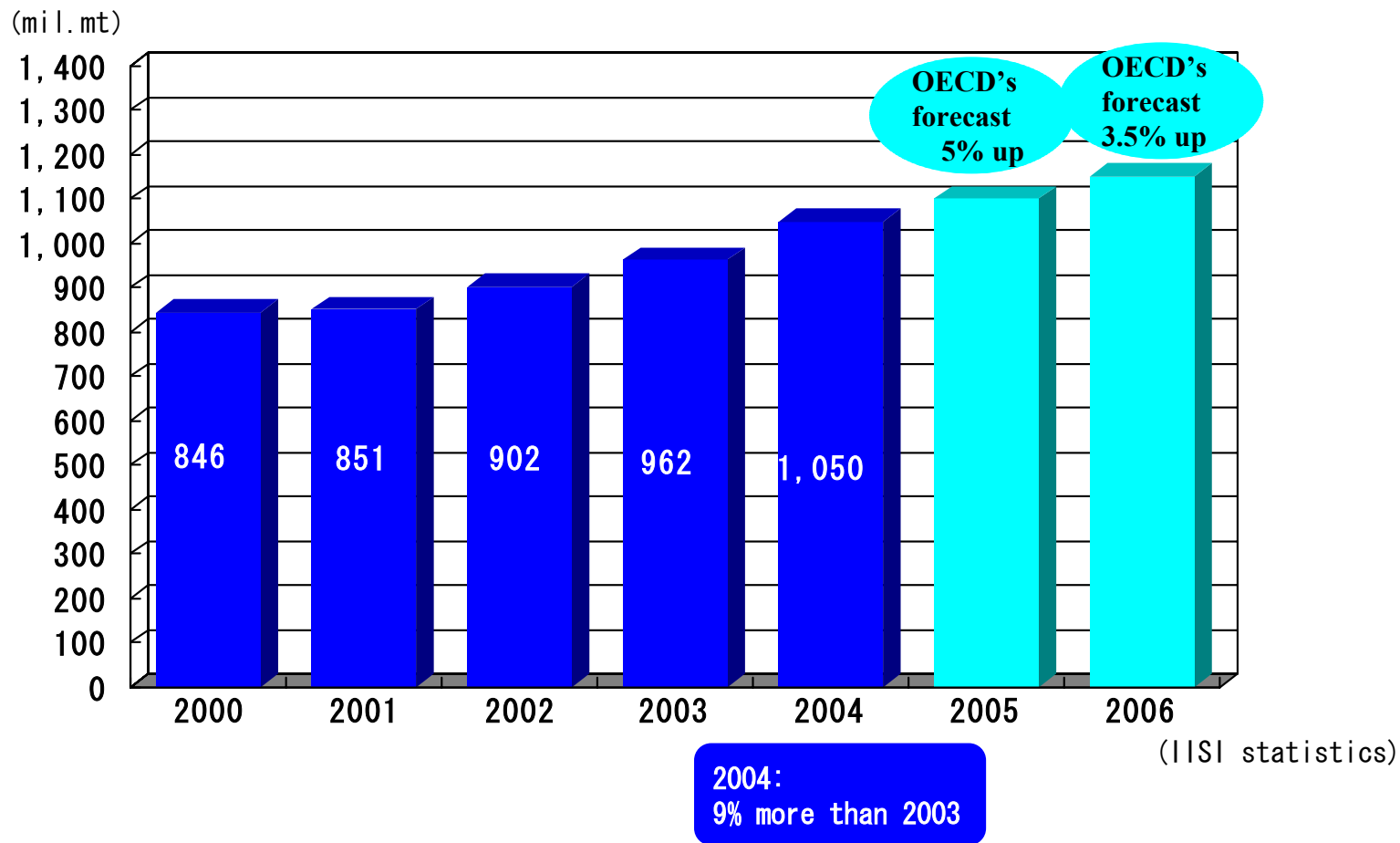
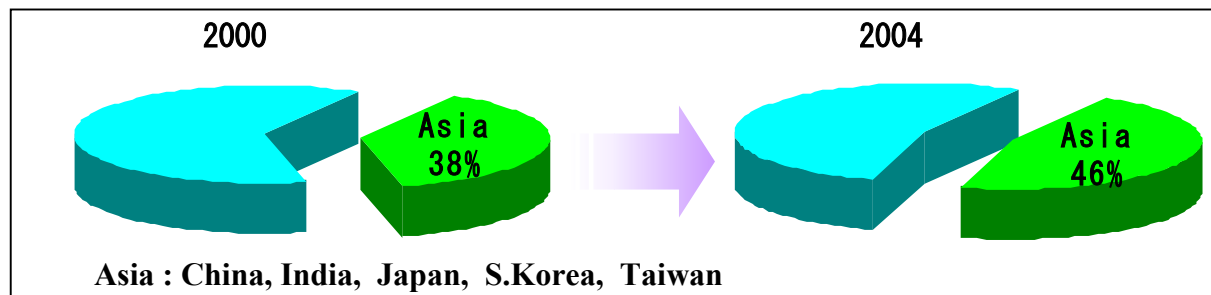
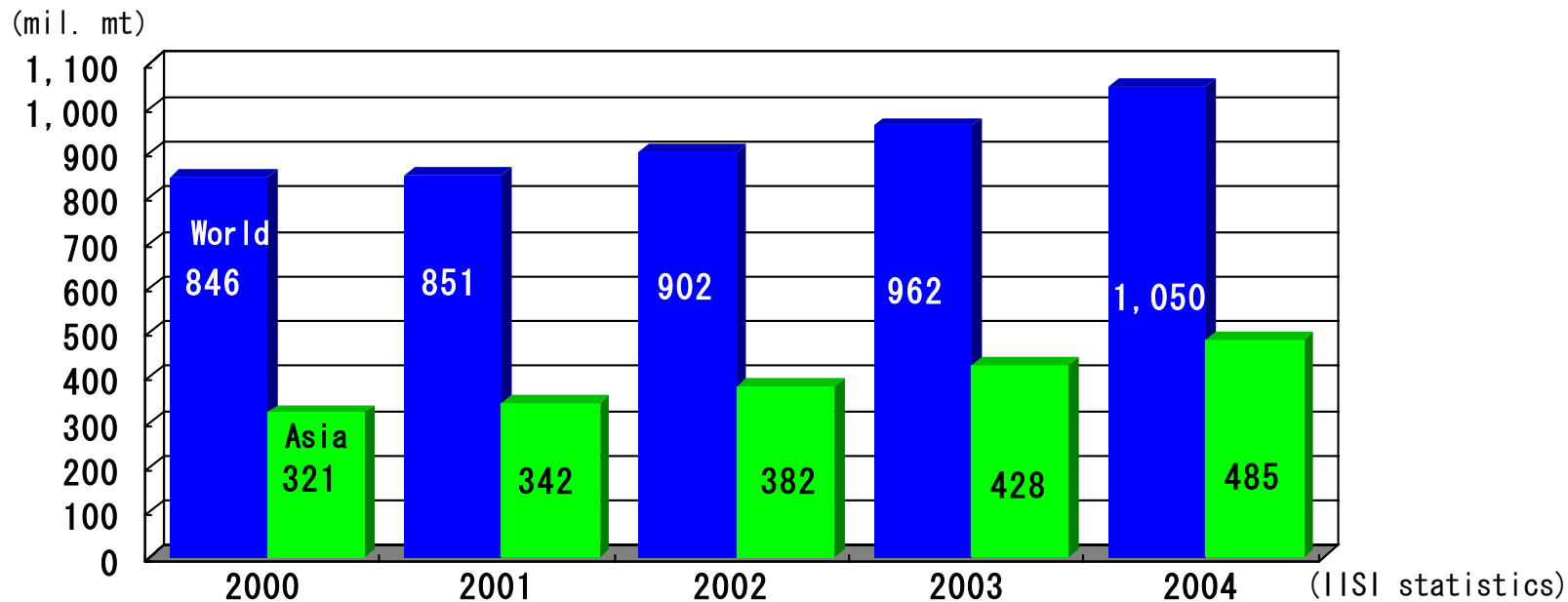


Fig. 1

Current State of Manganese Alloys in Asia

Asia's crude steel production



2004 World 9% up
Asia 13% up
as compared to 2003

Fig. 2

Current State of Manganese Alloys in Asia

China's crude steel production

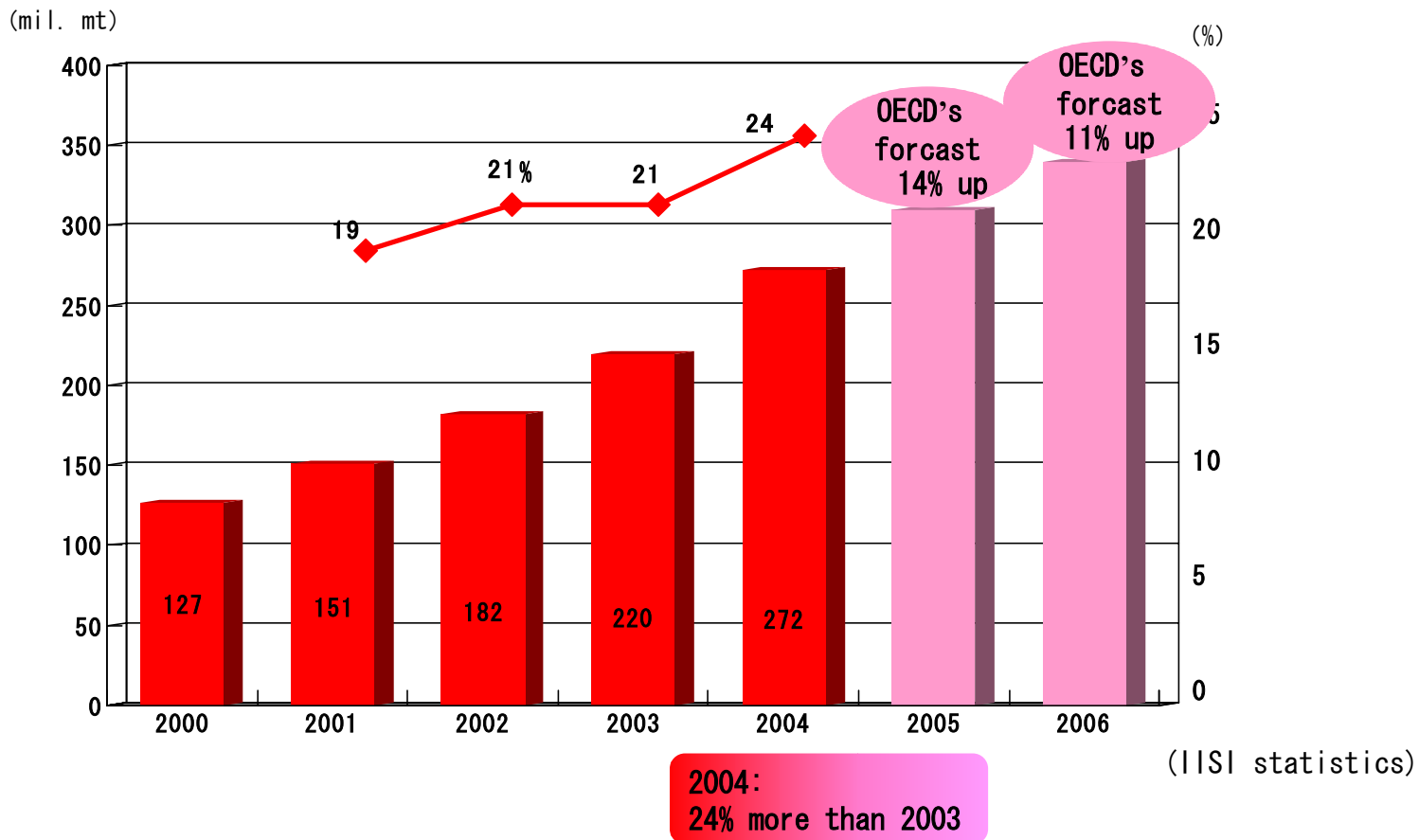


Fig. 3

Current State of Manganese Alloys in Asia

India's crude steel production

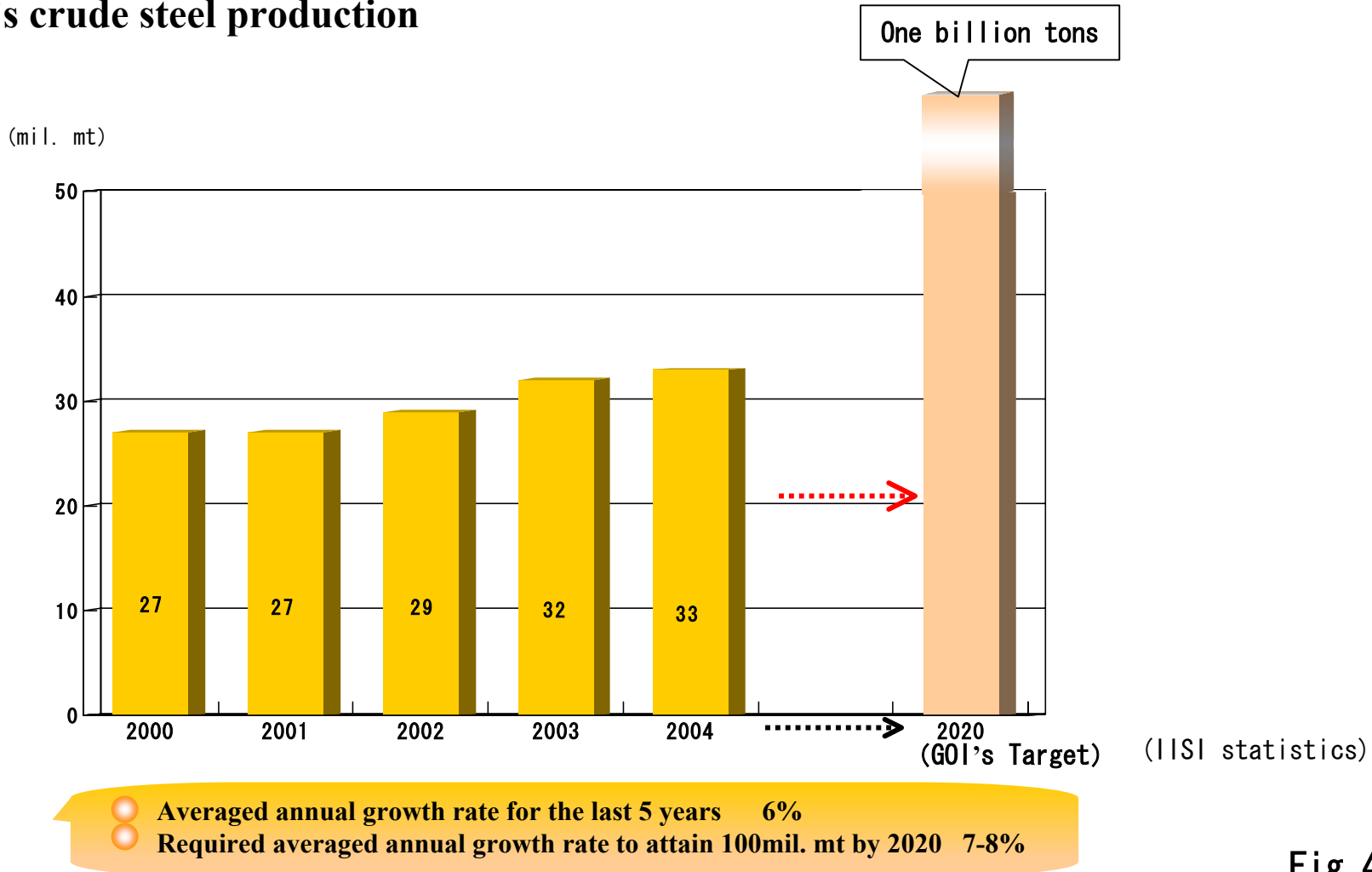
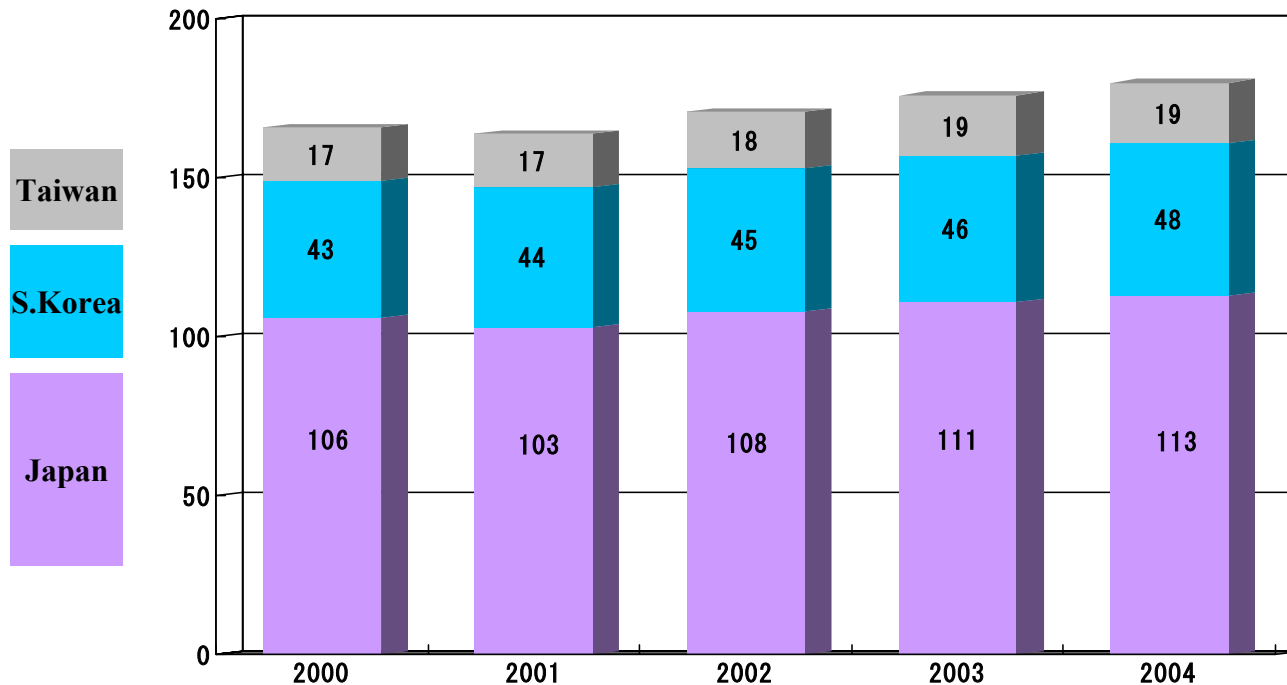


Fig. 4

Current State of Manganese Alloys in Asia

Crude steel production for Japan , S.Korea and Taiwan

(mil. mt)



(IISI statistics)

Japan, S.Korea and Taiwan

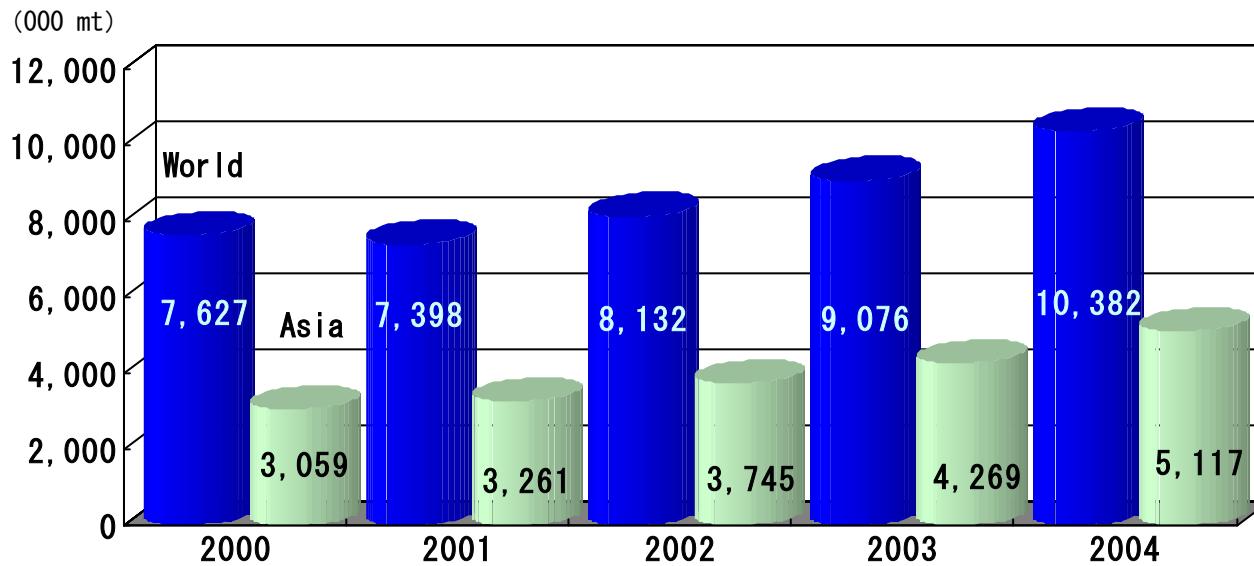
- Averaged annual growth rate for the last 5 years 3-5%
- Expected to continue stable growth

Fig. 5

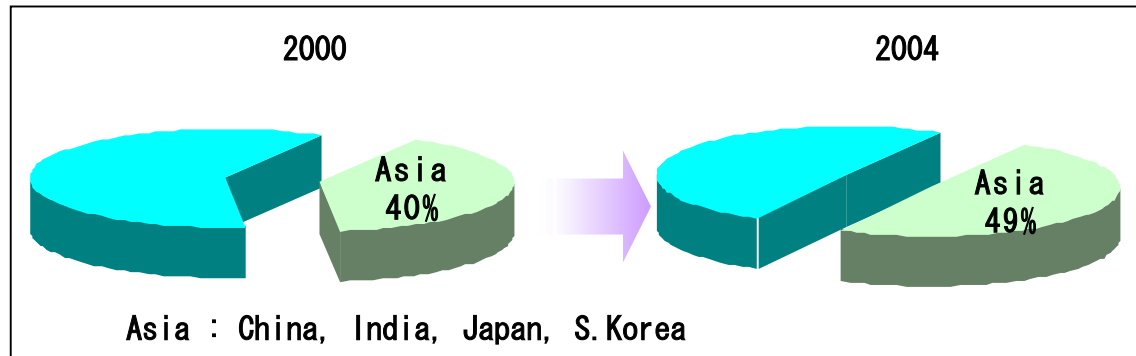


Current State of Manganese Alloys in Asia

World and Asia's manganese alloys production



(IMnI statistics)



2004 World 14% up
Asia 20% up
as compared to 2003

Fig. 6

Current State of Manganese Alloys in Asia

Major producing countries' production in Asia

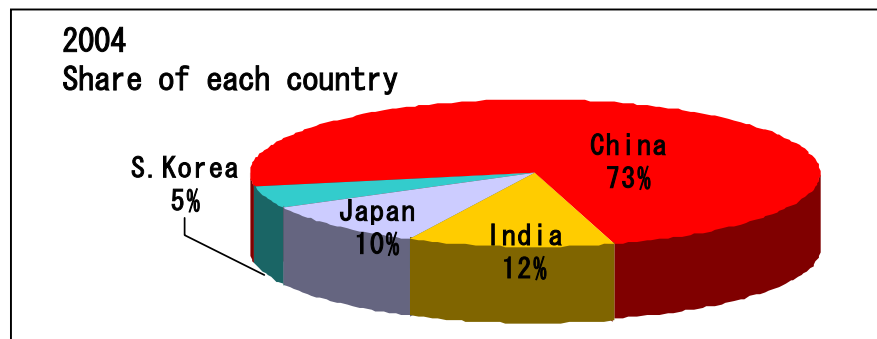
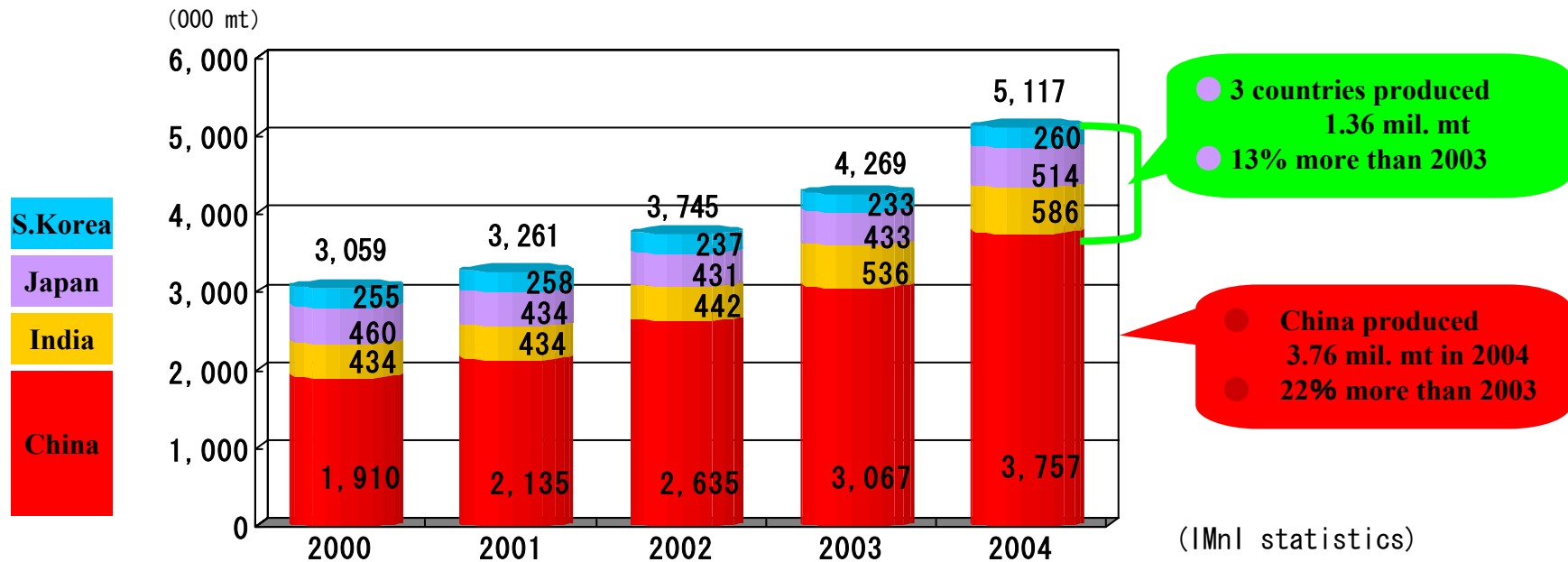


Fig. 7

Current State of Manganese Alloys in Asia

China's Production and Export

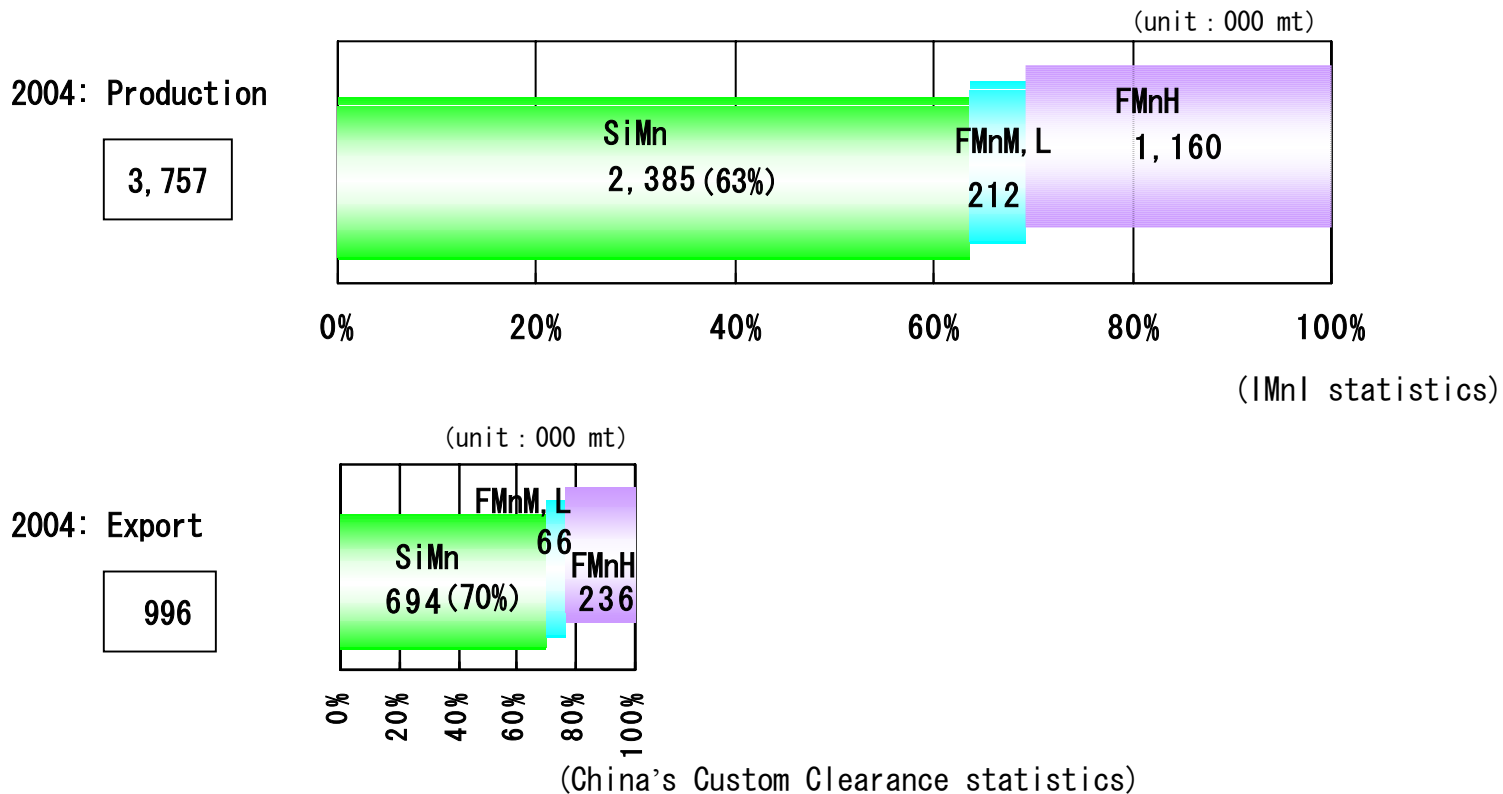


Fig. 8

Current State of Manganese Alloys in Asia

India's Production and Export

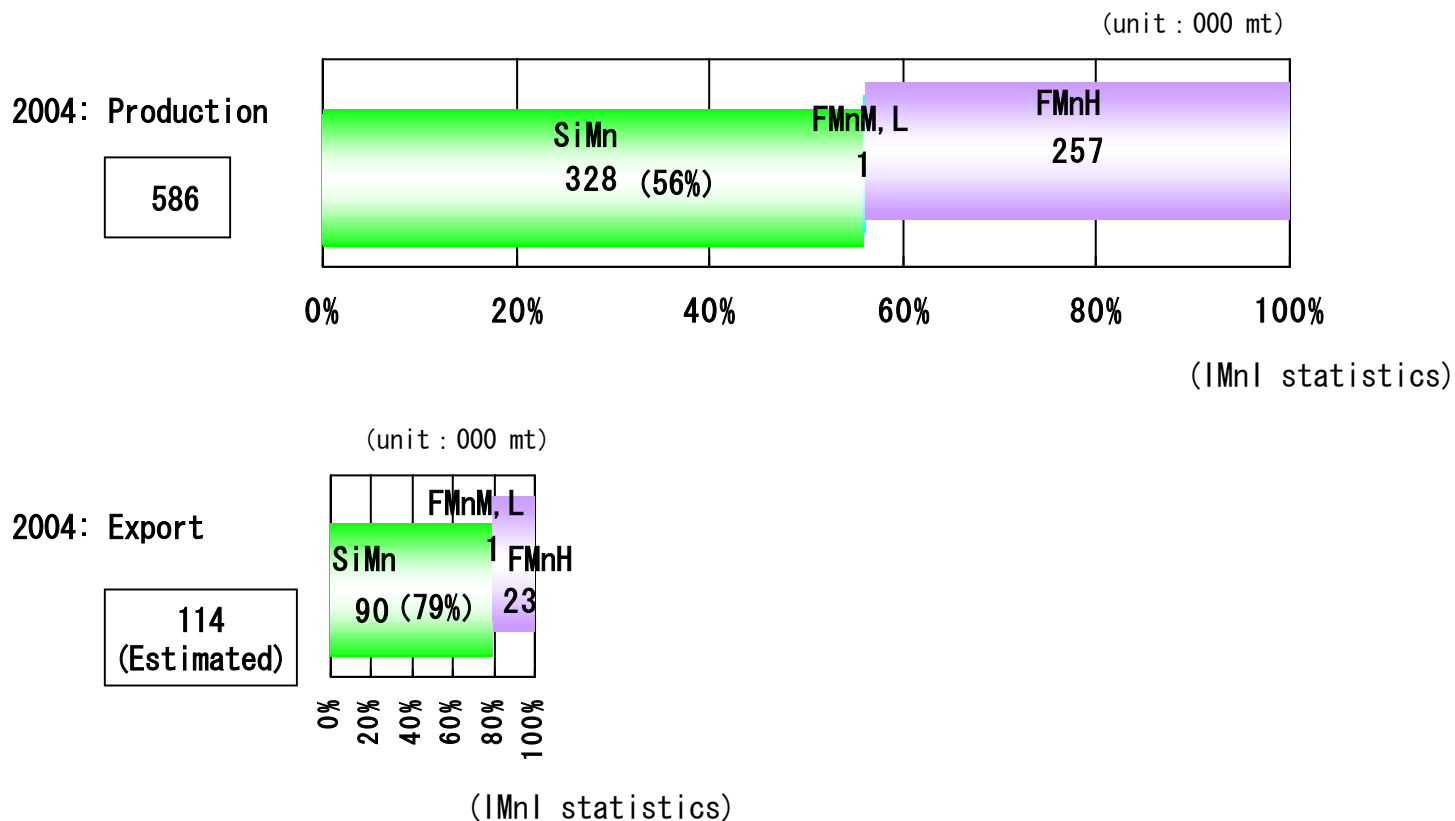
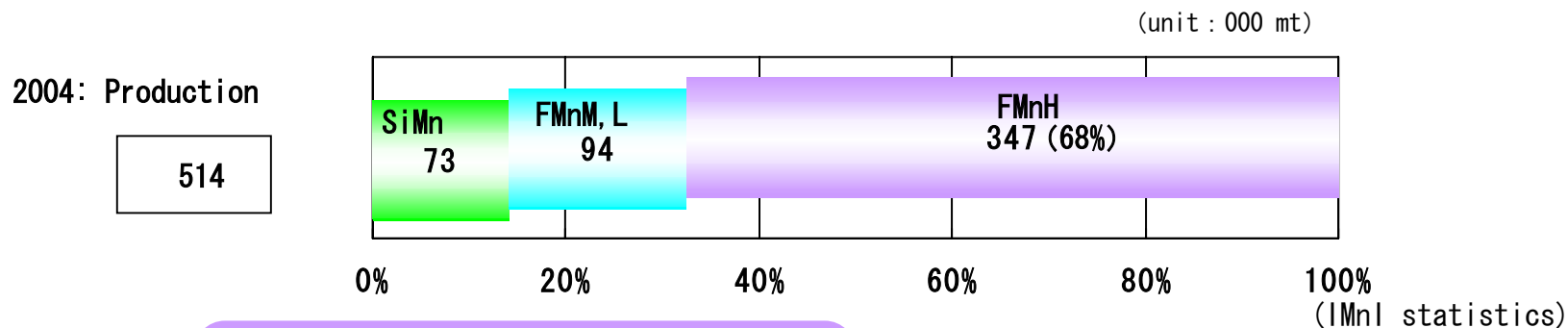


Fig. 9

Current State of Manganese Alloys in Asia

Japan's Production and Import



In 2004
Suspended furnaces were resumed

Nippon Denko for SiMn
JFE Material for FMnH

In 2005
Secured production to meet demand

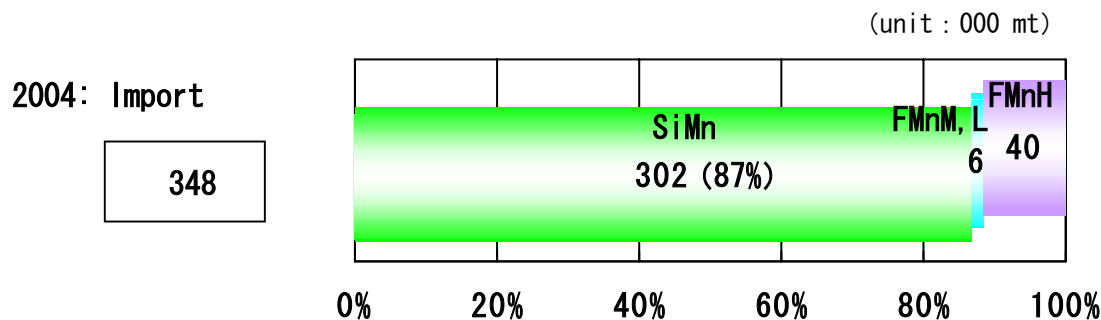
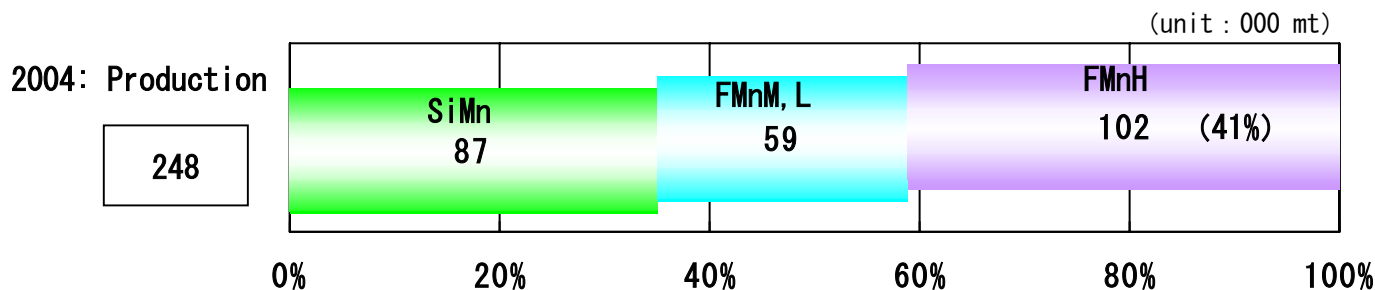


Fig. 10

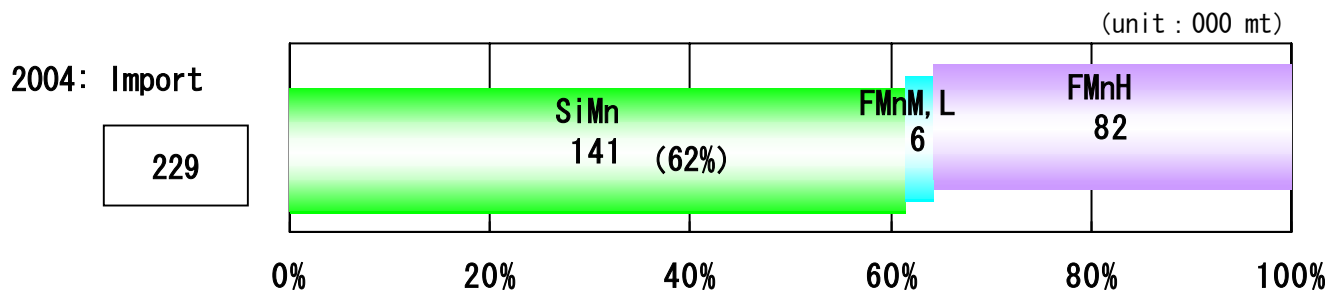
Current State of Manganese Alloys in Asia

S.Korea's Production and Import



Domestic demand covered by local and import at 50/50

(Korea Iron and Steel statistics)



(Korea Iron and Steel statistics)

Fig. 11

Current State of Manganese Alloys in Asia

Market Price for FMnH · SiMn

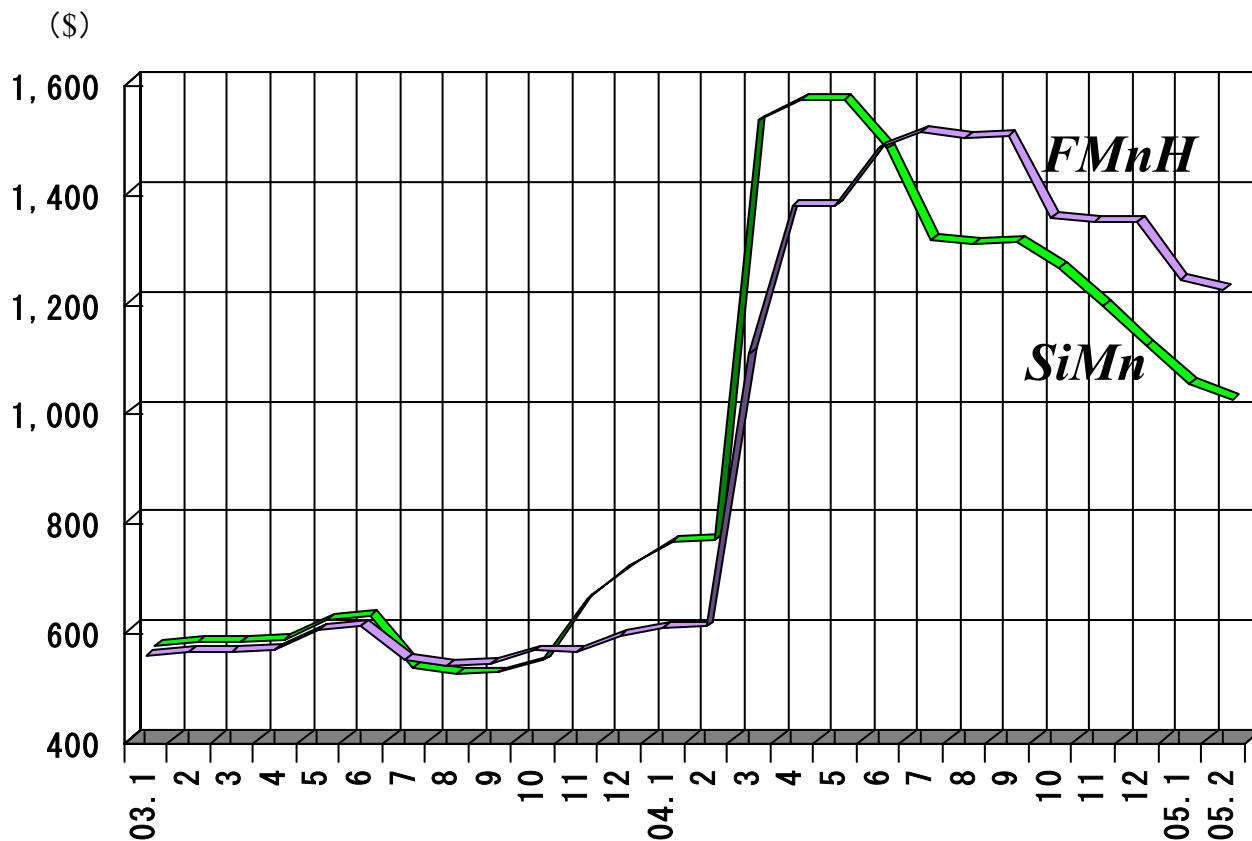


Fig. 12



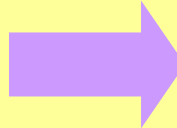
Current State of Manganese Alloys in Asia

Further development of the Mn alloys Industry

1) Secure supply to meet demand



On an increasing upward trend in Mn alloys demand, mainly from Asia



Expanding production

Mn Alloys producers

Fulfill their responsibility for long-lasting & stable supply

Fig. 13

Further development of the Mn Alloys Industry

2) Promotion of efficiency

Japanese Mn Alloys Industry

- Promoted integration & up-sizing of facilities during the 60' and the 70'
- Established environmental & energy-saving technology, inventing a new technology for optimal ore blending, etc.

World & Chinese Mn Alloys Industry

- World Mn Alloys industry promoted integration & consolidation since the end of 90'
- Promoting structural adjustment policies such as closure of inefficient & small plants, strengthening of environmental protection standards in China

For further development for Mn alloys Industry through efficiency and healthy competition !

Fig. 14

Further development of the Mn Alloys Industry

3) Environmental protection measures

Global environment is an important issue

- Control of air and water pollution
- Decrease in emission of carbon dioxide and polluting chemical substances

Emission control of chemical substances like manganese

- Japan adopted PRTR systems in 1999

In order for the Mn Alloys industry to develop as a clean industry, it is important to implement measures of the preservation of the environment

Fig. 15

Thank you very much for your attention