OECD documents

Developments in Steelmaking Capacity of Non-OECD Countries

Les capacités de production d'acier dans les pays non OCDE

1999 Edition

Developments in Steelmaking Capacity of Non-OECD Countries

1999 Edition

Les capacités de production d'acier dans les pays non OCDE

Édition 1999

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
ORGANISATION DE COOPÉRATION ET DE DÉVELOPPEMENT ÉCONOMIQUES

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

ORGANISATION DE COOPÉRATION ET DE DÉVELOPPEMENT ÉCONOMIQUES

Pursuant to Article 1 of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original Member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became Members subsequently through accession at the dates indicated hereafter: Japan (28th April 1964), Finland (28th January 1969), Australia (7th June 1971), New Zealand (29th May 1973), Mexico (18th May 1994), the Czech Republic (21st December 1995), Hungary (7th May 1996), Poland (22nd November 1996) and Korea (12th December 1996). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention).

En vertu de l'article 1er de la Convention signée le 14 décembre 1960, à Paris, et entrée en vigueur le 30 septembre 1961, l'Organisation de Coopération et de Développement Économiques (OCDE) a pour objectif de promouvoir des politiques visant :

- à réaliser la plus forte expansion de l'économie et de l'emploi et une progression du niveau de vie dans les pays Membres, tout en maintenant la stabilité financière, et à contribuer ainsi au développement de l'économie mondiale ;
- à contribuer à une saine expansion économique dans les pays Membres, ainsi que les pays non membres, en voie de développement économique ;
- à contribuer à l'expansion du commerce mondial sur une base multilatérale et non discriminatoire conformément aux obligations internationales.

Les pays Membres originaires de l'OCDE sont : l'Allemagne, l'Autriche, la Belgique, le Canada, le Danemark, l'Espagne, les États-Unis, la France, la Grèce, l'Irlande, l'Islande, l'Italie, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni, la Suède, la Suisse et la Turquie. Les pays suivants sont ultérieurement devenus Membres par adhésion aux dates indiquées ci-après : le Japon (28 avril 1964), la Finlande (28 janvier 1969), l'Australie (7 juin 1971), la Nouvelle-Zélande (29 mai 1973), le Mexique (18 mai 1994), la République tchèque (21 décembre 1995), la Hongrie (7 mai 1996), la Pologne (22 novembre 1996) et la Corée (12 décembre 1996). La Commission des Communautés européennes participe aux travaux de l'OCDE (article 13 de la Convention de l'OCDE).

FOREWORD

The OECD Secretariat of the Steel Committee prepares a report on steel capacity developments in non-OECD countries every two years. The report reviews available material on existing capacity and on likely developments through 2000. To the extent possible, expectations beyond 2000 are also reflected.

The Appendix to the report presents detailed information on existing and proposed steelmaking capacity and equipment in non-OECD countries on a plant-by-plant basis.

The report is published on the responsibility of the Secretary-General of the OECD.

AVANT-PROPOS

Le Secrétariat du Comité de l'acier de l'OCDE établit tous les deux ans un rapport sur l'évolution des capacités de production d'acier dans les pays non membres de l'OCDE. Le rapport passe en revue les éléments d'information disponibles sur les capacités actuelles de production et sur leur évolution probable jusqu'en 2000. Dans la mesure du possible, il tient aussi compte des développements attendus après 2000.

L'annexe du rapport présente des information détaillées, par aciérie, sur les capacités et les équipements sidérurgiques actuels et prévus dans les pays non membres de l'OCDE.

Ce rapport est publié sous la responsabilité du Secrétaire général de l'OCDE.

TABLE OF CONTENTS

TABLE DES MATIERES

STEELMAKING CAPACITY IN NON-OECD COUNTRIES: TWO-YEARLY REPORT

I. Introduction

In accordance with the work programme of the OECD Steel Committee for 1998, the Secretariat has prepared a new edition of its two-yearly report on trends in steelmaking capacity in countries that are not Members of the OECD. This report examines the current steelmaking capacity of these countries and likely changes therein up to the year 2000.

The report includes an Appendix containing detailed information by country, on a company-by-company, plant or project basis, as well as on existing capacity and equipment, proposed changes therein, the starting date of planned projects, works ownership and the information sources used. It also briefly describes the progress of projects, recent changes at existing works, and, where known, the financing of projects. The capacity figures referred to in the text and the appendix are nominal, or rated capacity figures; they are, therefore, not strictly comparable with the effective capacity calculated for Member countries.

In this edition, the Secretariat has made special efforts to allow wider coverage of existing capacity in China and some Asian countries, mostly depending on sources that became newly available. On the other hand, the Czech Republic, Hungary, Korea and Poland are not included in this report, as these countries are fully-fledged OECD Members.

The purpose of this report is to consolidate the information and material collected. Comments on the progress and classification of projects are not in any way meant to represent a judgement on the feasibility or advisability of the projects in question.

II. Summary

Non-OECD steelmaking capacity is likely to remain on a continuous rise until the year 2000. Total non-OECD steelmaking capacity in 2000 is expected to be at 504.9 million tpy, up by 57.5 million tonnes from 447.4 million tpy in 1998, or an increase at an average annual rate of 6.2 per cent.

Examining this trend by region, strong growth is expected in the Middle East, where steelmaking capacity is expected to expand at an average annual rate of 21.1 per cent. In terms of volume of expansion, however, South East Asia, including China, accounts for the largest part of the increase, with 38.2 million tonnes of the total 57.5 million tpy increase of all non-OECD countries. Major ASEAN[1] steel-producing countries, Chinese Taipei and India, are planning to expand their steelmaking capacity at double-digit annual growth rates until 2000. Many of these projects, however, are likely to be affected by the current economic crisis, and a number of them are subject to

1. The Association of Southeast Asian Nations, which consists of Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand, Vietnam, Laos and Myanmar.

either cancellation or postponement, although the available sources of information do not cover all these developments.

In contrast, in an attempt to shift itself towards a market-oriented economy, China has been emphasizing quality improvement, diversification in product mix and cost reduction, while restraining expansion in production volume. Reflecting such a shift in its policy, steelmaking capacity is expected to expand at 2.9 per cent per annum, far below the pace in other main Asian countries. Steelmaking capacity in China is expected to reach 131.5 million tpy in 2000.

Steelmaking capacity in Latin America is expected to expand at an average annual rate of 7.5 per cent during 1998 and 2000. In Brazil, steelmaking projects are relatively few in number, although many projects have been announced in the expansion of downstream facilities. In Venezuela, several projects to build large-scale directly-reduced iron plants are under way.

In Central and Eastern Europe, privatisations of steel companies are gaining momentum. While modernisation at steelworks is expected to make progress under new management, changes that could result in expanding steelmaking capacity are not likely to take place in the near future; instead, as seen in Romania, redundant and outdated capacity may be eliminated in the course of modernisation.

In the NIS, little change in steelmaking capacity is expected to take place, while modernisation of steelworks is making progress. In contrast, some steel companies have reportedly gone bankrupt in the face of the current economic turmoil in the region.

III. Recent developments

This section examines developments in steelmaking capacity from 1989 to 1998, as well as the current situation in capacity, production and consumption in non-OECD countries.

Trends in capacity, production and consumption

Total steelmaking capacity of non-OECD countries increased from 385.5 million tonnes in 1989 to 447.4 million tonnes in 1998, or an increase of 16.0 per cent over this ten-year period. The most remarkable increase occurred in South East Asia, including China, where steelmaking capacity rose from 115.7 million tonnes to 203.3 million tonnes during this decade, while in the NIS and Central and Eastern Europe there was a decline in capacity.

Change in steelmaking capacity

Unit: million tonnes

	1989 (A)	1992	1994	1996	1998 (B)	Changes (B-A)	(B/A %)
Central Eastern Europe	23.9	24.7	17.2	20.7	20.2	-3.7	-15.6
NIS Republics	180.0	175.1	147.4	141.3	141.3	-38.7	-21.5
Latin America	42.7	43.3	48.0	50.8	46.8	4.1	9.7
Africa	16.0	16.0	18.3	18.8	19.6	3.6	22.6
Middle East	7.2	10.0	15.5	15.8	16.2	9.0	124.6
South East Asia	115.7	141.2	175.9	193.7	203.3	87.6	75.7
Non-OECD total	**385.5**	**410.3**	**422.3**	**441.1**	**447.4**	**61.9**	**16.0**

Source: OECD Secretariat.

Capacity utilisation and self-sufficiency

Of the 447.4 million tpy steelmaking capacity of the total non-OECD countries in the middle of 1998, almost 70 per cent was being utilised, as shown in the table below.[2] Examining this by region, capacity utilisation rates in Latin America, the Middle East and South East Asia were around 80 per cent, while those in Central and Eastern Europe, the NIS and Africa were at a far lower level.

Capacity utilisation rate of crude steel

Unit: million tonnes

	Capacity mid-1998 (A)	Crude steel production 1997 (B)	Utilisation rate (B/A %)
Central and Eastern Europe	20.2	13.1	65.0
NIS Republics	141.3	79.0	55.9
Latin America	46.8	38.1	81.4
Africa	19.6	9.1	46.6
Middle East	16.2	13.4	83.1
South East Asia	203.3	159.8	78.6
Non-OECD total	**447.4**	**312.6**	**69.9**

Source: OECD Secretariat.

On the other hand, Central and Eastern Europe and the NIS were at a remarkably high level in terms of self-sufficient rate of finished steel products,[3] with both being above 200 per cent in 1997, followed by Latin America. In contrast, self sufficiency in Africa, the Middle East and South East Asia was below 100 per cent.

Self-sufficient rate of finished steel

Unit: million tonnes

	Production finished steel 1997 (C)	Apparent consumption 1997 (D)	Self-sufficient rate (C/D %)
Central and Eastern Europe	10.6	4.7	225.5
NIS Republics	59.1	25.2	234.5
Latin America	33.1	25.4	130.3
Africa	8.2	8.7	94.3
Middle East	12.2	28.7	42.5
South East Asia	135.9	182.1	74.6
Non-OECD total	**259.1**	**274.8**	**94.3**

Note: Figures are in terms of product equivalent of finished steel.
Source: OECD Secretariat.

These facts prove that although steelmaking facilities in Central and Eastern Europe and in the NIS are being run at a level far below designed capacity or are being idled, the production level in these areas still surpasses the size of domestic markets.

2. The table compares capacity in 1998 and steel production in 1997. This may be appropriate, when taking into account that most facilities commissioned in 1998 need some time before becoming fully operational at the level of the designed capacity.

3. These are stated in terms of product equivalent of finished products, which is calculated on the basis of crude steel production, using formulas that take into account continuously-cast ratios and rolling yields.

IV. Outlook for the year 2000

Between 1998 and 2000, crude steelmaking capacity in all of the non-OECD countries is expected to increase from 447.4 million tpy to 504.9 million tpy by mean estimation, or at an average growth rate of 6.2 per cent.[4] The strongest growth is expected in the Middle East, where steelmaking capacity should expand at an average annual rate of 21.1 per cent. This is followed by South East Asia, including China, with an estimated expansion of 9.0 per cent per year.

In volume terms, the largest expansion is expected in South East Asia, which accounts for 38.2 million of the total capacity increase among non-OECD countries (57.5 million tpy). This is followed by the Middle East (7.5 million tonnes) and Latin America (7.3 million tonnes). In contrast, few changes in steelmaking capacity are likely in the NIS and Central and Eastern Europe. In these areas, the modernisation of the industry is more imminent than the expansion of capacity. Attempts are being made to privatise steel manufacturers, by attracting foreign investors.

Estimates for steelmaking capacity in 2000

Unit: million tonnes

	Exist	Increase		Capacity in 2000			% Change
	1998 (A)	Firm	Possible	Mean (B)	Low	High	per annum (B/A)
Central and Eastern Europe	20.2	0.0	1.8	21.1	20.2	22.0	2.3
NIS	141.3	0.6	0.0	141.9	141.9	141.9	0.2
Latin America	46.8	0.9	12.8	54.1	47.7	60.5	7.5
Africa	19.6	0.3	5.2	22.5	19.9	25.1	7.1
Middle East	16.2	5.9	3.4	23.7	22.0	25.4	21.1
South East Asia	203.3	29.7	17.1	241.5	233.0	250.1	9.0
Non-OECD total	**447.4**	**37.3**	**40.3**	**504.9**	**484.7**	**525.0**	**6.2**

Source: OECD Secretariat.

Central and Eastern Europe

Few changes are expected in steelmaking capacity in this area. The only move that could affect steelmaking capacity is the opening of a 1.8 million tpy integrated plant by Siderca of **Romania**, after hoped-for privatisation of the company. The plant has never been operational despite the installation of main facilities in the late 1980s. The likelihood of commissioning the plant by potential investors, however, is reportedly very small.

In Romania, emphasis is on modernisation of the industry rather than on the expansion of capacity. Attempts are being made to install improved facilities while eliminating underperforming capacity. The State Ownership Fund has been undertaking the modernisation, by providing necessary funds and promoting privatisation of the steel sector. A news report said that the Fund would inaugurate the process of selling the country's three major steelworks – Galati, Targoviste and Resita – during the second half of 1998. The report indicated that this would finalise the privatisation of the

4. The method used to estimate steelmaking capacity for the year 2000 is the same as that used in previous reports, and is described in the Appendix. Capacity expansion is mentioned hereafter in terms of the mean case estimate.

country's steel sector, following the first stage of privatisation that took place during 1993 and 1996, when almost all small and medium-sized steel companies were sold.

Privatisation of the steel industry has been gathering pace in **Bulgaria** as well. The government has been proceeding with the privatisation of the country's three major steel manufacturers; namely, Kremikovtsi, Promet and Stomana. The sale of Promet and Stomana was announced in June 1998, with the deadline for bids set at end July 1998. Following this, the bidding for Kremikovtsi, the largest and the only integrated steelworks in the country, was officially announced in July 1998. One of the conditions of the deal is that a 71 per cent stake in the company be sold by the end of 1998.

In the **Slovak Republic**, modernisation of rolling facilities at VSZ has been under way, with no effects on steelmaking capacity. In early 1998, VSZ and US Steel agreed to set up a 50/50 joint venture to produce tin plate. The 340 000 tpy capacity venture is expected to come on stream in December 1999. No other projects were reported for this country.

The New Independent States

In **Russia**, no changes in steelmaking capacity are expected in the near future, while modernisation of the industry is making progress. At Magnitogorsk, one of the largest steelworks of the country, four remaining open hearth furnaces are expected to be shut down by the end of 1999, and will be replaced by an LD converter that is under construction. Continuous casters are planned to be installed at Nizhny Tagil, Orsk-Khalilovo and Seversky Tube Works. On the other hand, the steel industry has been faced with increasing difficulties resulting from current economic turmoil. Some of the steelworks, including Zapsib-West Siberian Steel Works and Zlatoust Iron and Steel Works, have reportedly gone bankrupt.

In **Ukraine**, modernisation and privatisation of the steelworks have been under way, while only one case was reported that might affect steelmaking capacity. At Donetsk Iron and Steel Works, the construction of a ladle furnace and a billet caster is likely to result in raising steelmaking capacity by 600 000 tpy. The construction of continuous casters is also under way at both Dneprovsky and Krivoy Rog.

With regard to privatisation, the State Property Fund plans to complete the privatisation of Azovstal, by selling its remaining 52.75 per cent stake in the steelworks by the end of 1998. The Fund also plans to complete the sale of its remaining stake in Donetsk and partial release of its stake in Zaporozhye Works.

Privatisation of the steel industry has been under way in other NIS republics as well. In **Georgia**, the government is set to sell a 47 per cent stake in Rustavi, the only steel manufacturer in the country. The government of **Moldova** completed the first stage of the privatisation of Moldova Steel Works in early 1998, when a 28.8 per cent stake in the steelworks was sold to a collective body of employees. In **Uzbekistan**, the government sold a 34 per cent stake in Uzbek Iron and Steel Works in 1998. A further 10 per cent stake is scheduled to be sold to foreign investors.

Along with these attempts to attract capital to the steel industry, modernisation has been making progress. At Rustavi Works of Georgia, the installation of an electric arc furnace and a billet caster is planned. The construction of electric arc furnaces has also been under consideration at Moldova Steel Works and Liepajas Rupnica Sarkanais Metallurgs of **Latvia**. Most of these, however, are designed

as replacements for outdated existing facilities and are not likely to result in significant changes in steelmaking capacity.

Latin America

Total steelmaking capacity in this area is expected to increase from 46.8 million tpy in 1998 to 54.1 million tpy in 2000, or at an average annual growth rate of 7.5 per cent.

In **Brazil**, CST, a semifinished-product manufacturer, brought a new 1.2 million tpy capacity blast furnace on stream in July 1998, following the inauguration of a 2.2 million tpy capacity continuous slab caster in February 1998. Other recent moves include the commissioning of a 130 000 tpy cold-rolling mill at Acesita in early 1998.

With regard to future capacity expansion, projects in steelmaking are relatively few in number. Steelmaking capacity is expected to be raised from the current 30.5 million tonnes to 33.8 million tonnes by 2000. Of this increase, Cia Siderúrgica do Ceará (CSC), a flat-rolling mini mill project undertaken by CSN, accounts for 1.2 million tpy. CSN also announced a plan to construct a 5 million tpy steelworks at the site that the company had already purchased. Both projects are rated as "possible" in this report, taking into account their early stage of planning. No other prominent projects in steelmaking facilities were reported.

In Brazil, increased emphasis has been placed on downstream facilities. CST has been going ahead with the construction of a 2.0 million tpy hot-strip mill in an attempt to expand its activity to include downstream operations. The installation of a 1.3 million tpy cold-rolling mill and a 300 000 tpy galvanising line is also under consideration. CSN has been proceeding with several cold-rolling and galvanising projects, either on its own or through joint ventures, including ventures with Imsa of Mexico and Thyssen Krupp of Germany (GalvaSud). Gerdau and Usiminas have been proceeding with cold-rolling or galvanising projects as well.

The crude steelmaking capacity of **Argentina** is expected to be raised from the current 6.4 million tpy to 7.8 million tpy in 2000. Most of the increase is due to a 2.0 million tpy meltshop being planned at the San Nicolas Works project at Siderar. The likelihood of this project being realised does not seem great and thus, it is rated as a "possible" project in this report.

In **Venezuela**, large-scale investment in steelmaking was announced by Ferrominera Orinoco (2.2 million tpy) and Sidor (2.4 million tpy); however, the likelihood of its realisation appears uncertain. In January 1998, the government sold a 70 per cent stake in Sidor to a consortium composed of several foreign and domestic investors. A further sale of the remaining 30 per cent stake is also under consideration. The country is the largest producer in the world of directly-reduced iron, and several companies are proceeding with the construction of new facilities.

Africa

Very little investment in steel is foreseen in this area. In **South Africa**, a 1.25 million tpy flat-rolling mini mill of Saldanha Steel, a joint venture between Iscor and Industrial Development Corp (IDC), came on stream in August 1998. Subsequently, a Corex plant and a Midrex DRI unit are expected to be commissioned. Meanwhile, Iscor announced a complete shut down of Pretoria Works. Steelmaking at the plant had ceased and only a Corex plant was kept operational. Another report

indicated, however, that just after the announcement of the closure, the company considered resuming stainless steel production in Pretoria. The construction of a 610 000 tpy cold-rolling mill and a galvanising line is under way by a joint venture company between Swiss trader Duferco and the IDC, with the projected commissioning in early 1999.

Middle East

Capacity expansion concentrates on Iran and Egypt in this area. In **Iran**, state-run National Iranian Steel (Nisco) is proceeding with a large-scale expansion programme, which is likely to raise its steelmaking capacity by nearly 3.0 million tpy. Part of this, however, can not be realised until after 2001. No other projects were reported in this country.

The development of the steel industry is gathering pace in **Egypt**. Following the commissioning of a 600 000 tpy mini mill by Al Ezz Steel Rebars in mid-1998, several other companies have expressed interests in building mini mills. Alexandria National Iron and Steel (ANSDK) is proceeding with the construction of a 1.0 million tpy flat-rolling mini mill, accompanied by an 800 000 tpy DRI unit, at the site adjacent to the company's existing long-product mini mill at El-Dikheila. The company has already placed orders for major facilities, and commissioning is expected in 2000.

Recently, three companies, namely, Aswan Iron and Steel (Ademco), El-Gerhy Group and Suez Steel, have announced successively their plans to build meltshops for long products. Each meltshop will have a capacity of 600 000 tpy. Construction at Suez Steel is already under way and start-up is expected in 1999.

In **Qatar**, a 2.0 million tpy DRI plant by Qatar Hot Briquetted Iron (Qabico) is scheduled to come on stream by 2000. Steelmaking facilities are not involved in this project. Two steelmaking projects have been announced, by a Qatar/ Kuwait joint venture company and state-run Qasco. Both, however, are at the stage of evaluation and commissioning is not likely to take place before 2000.

South East Asia

The Asian steel industry has come to a sudden standstill after a decade of dynamic growth. Between 1998 and 2000, steelmaking capacity of the non-OECD Asian countries, including China, is expected to rise from 203.3 million tpy to 241.5 million tpy. However, it is likely that a part of this increase will be postponed until after 2001, when the economic situation is expected to become more favourable.

In **China**, the government has been pressing ahead with modernisation of the industry so that it will better correspond to the requirements of a market economy. Emphasis has been put on quality improvement, diversification of product-mix and reduction of costs, rather than quantitative expansion. Reflecting this, all major greenfield steel plant expansion has been frozen, with the exception of Guangzhou Zhujiang Iron and Steel, an 820 000 tpy flat-rolling mini mill, whose commissioning is projected in 1999. Steelmaking capacity is expected to rise at a rate of 2.9 per cent per year until 2000. This is far lower than other main steelmaking countries in South East Asia, most of which have been experiencing a double-digit annual growth rate in capacity expansion. However, in terms of volume, this is still likely to result in more than 7 million tpy of additional capacity in China between 1998 and 2000. In the meantime, the construction of downstream facilities,

particularly stainless-steel cold rolling, tinning and galvanising, has been making progress, mainly undertaken by joint venture companies.

The third phase expansion at Baoshan has almost been completed. In April 1998, two LD converters and two continuous slab casters were commissioned, raising Baoshan's total steelmaking capacity to more than 10 million tpy. The remainder of the facilities to be installed in the third phase include a wire rod mill (400 000 tpy), cold-rolling mill (720 000 tpy), two tinning and two galvanising lines.

In July 1998, Anshan replaced its remaining open hearths with LD converters. The company is proceeding with further modernisation by constructing two continuous casters that are due on stream in 1999.

Wuhan Iron and Steel Group is aiming to raise its steelmaking capacity to 10 million tpy by constructing a 2.5 million tpy meltshop, which will be equipped with two LD converters and two continuous bloom casters. Replacement of the existing six open hearths with two more converters is also under consideration.

Handan Iron and Steel General Works has been proceeding with the construction of a 2.5 million tpy flat-rolling mill, equipped with LD converters, thin slab casters, hot and cold strip mills. Start-up is expected in 2000. Maanshan Iron and Steel is expected to become the first H-beam producer in the country when its continuous bloom caster and H-beam mill, both with 400 000 tpy capacity, are commissioned in 1998.

In parallel with modernisation and expansion in these large-scale state-run steelmakers, a number of joint venture companies have been established to undertake operations in downstream facilities. In cold rolling, Ningbo Baoyang Special Steel Cold Rolling, a China-Japan venture held 51 per cent by Baoshan, commissioned an 80 000 tpy cold-rolling mill for stainless steel in July 1998. Two other joint ventures, namely, Shanghai Krupp Stainless and Zhangjiagang Pohang Stainless Steel, have been proceeding with the construction of stainless-steel cold-rolling facilities. Shanghai Krupp, 60 per cent of which is held by Krupp Thyssen Stainless, was set up in December 1997 and is proceeding with the construction of a 72 000 tpy cold-rolling mill. Zhangjiagang Pohang, set up in April 1997 by Posco and Jiangsu Shagang Group, is scheduling to bring a 110 000 tpy capacity mill on stream by the end of 1998.

Posco has been proceeding with three galvanising ventures as well. Dalian Posco-CFM Coated Steel, the first of the three, brought on stream a 100 000 tpy line in September 1997, followed by Zhangjiagang Posco Steel, another 100 000 tpy galvanising mill which became operational in May 1998. Also in May 1998, Fujian Sino-Japan Metal Corp, a Japan-Chinese Taipei venture, commissioned a 150 000 tpy tinning line. The company is reportedly the first fully foreign-owned company in China's steel industry.

In **India**, steelmaking capacity is expected to reach 37.1 million tpy in 2000, increasing from 28.9 million tpy in 1998. A number of ambitious projects have been announced, including the construction of several integrated steelworks. Many of these projects, however, have not been completed due to the recession, even after a part of the equipment was put on stream. In an attempt to cope with this situation, the Finance Ministry reportedly instructed leading financial institutions to arrange a loan worth $2 billion, to be extended to 11 uncompleted steel projects, including Essar, Ispat Industries, Ispat Metallics, Jindal Vijaynagar, Malavica and Rajinder.

In April 1998, trial runs on a 1.7 million tpy meltshop began at Ispat Industries. The company is proceeding with the construction of a 3 million tpy hot-rolling mill. Full-scale operation is unlikely to take place until 1999, when a blast furnace comes on stream at its affiliate Ispat Metallics.

Jindal Vijaynagar started trial runs on its 1.6 million tpy hot-strip mill in 1997, by rolling purchased slabs. The construction of two Corex units and a 1.57 million tpy meltshop is under way. The first Corex plant is expected to come on stream in 1998, and the second in the early 1999.

Essar is targeting to have its 1 million tpy blast furnace operational by April 1999, after having commissioned a 2 million tpy hot-rolling plant that is equipped with three electric arc furnaces, refining facilities, two continuous casters and a hot-strip mill between 1995 and 1996.

The project to build a greenfield integrated plant with a capacity of 10 million tpy by Tata Iron and Steel is facing environmental objections from state government authorities. Although the company has not formally abandoned the project, it is not likely to be realised in the near future.

In **Indonesia**, a 1.0 million tpy flat-rolling mini mill project, undertaken by KS-Posco, a joint venture headed by Posco and Krakatau, has been put on indefinite hold, although construction had been under way since October 1997. In the middle of 1998, Perkasa Indo Steel was reported to be in negotiations on the purchase of a used 2 million tpy integrated plant facility from Spain, with the projected start-up in 2000. This, however, seems to be at a very early stage of planning. The economic crisis has either suspended or significantly delayed all cold-rolling projects in this country. These include Gunawan, Krakatau (a joint venture with Krupp Nirosta) and Ponesia (a joint venture with Posco).

In **Malaysia**, the construction of a 2.0 million tpy flat-rolling mini mill by Megasteel has been making progress, and is expected to become operational by the end of 1998. China Steel Corporation of Chinese Taipei is reportedly negotiating to take over a 30 per cent stake in Megasteel, which is currently wholly owned by Malaysian interests. The 2.0 million tpy mill will be the first hot-strip mill in Malaysia. Following this, Nusantara Steel announced its plan to construct a 1.3 million tpy hot-strip mill, accompanied by a 1.6 million tpy meltshop and a DRI plant. Several long-product producers, including Amsteel and Anshin Steel, are proceeding with expansions in steelmaking capacity. Some of these, however, may face a delay and commissioning could be delayed until after 2001.

In the **Philippines**, work at the site of a 1.25 million tpy flat-rolling mini mill by Jacinto Group began in August 1997. Start up is not expected until after 2001.

In **Thailand**, where the Asian economic crisis first hit in July 1997, a number of steelmaking projects have been either cancelled or suspended, including a 2.3 million tpy integrated steel mill by Thai Special Steel Industry that was cancelled despite having a wire rod mill that was operational since early 1998. A 1.0 million tpy cold-rolling mill, undertaken by Siam United Steel, a Thai-Japan-Korea joint venture, came on stream in November 1998. This is the second large-scale cold-rolling mill in Thailand, following Thai Cold-Rolled Steel Sheet, also a joint venture between Thai and Japanese interests, which commissioned a 1.0 million tpy cold-rolling mill in June 1997. Siam Strip Mill is proceeding with a 1.7 million tpy flat-rolling mini mill. This will be the third hot-strip mill in Thailand, after Sahaviriya (commissioned in 1994) and Nakornthai Strip Mill (commissioned

in 1997). Commissioning is expected in 1999, after a delay in the initially projected start-up of third-quarter 1998.

China Steel Corporation (CSC) of **Chinese Taipei** completed its fourth-phase expansion in 1997. Major facilities constructed in this phase included a blast furnace (the fourth, 2.4 million tpy, in 1996), two LD converters (the sixth and seventh, 2.4 million tpy combined, in 1996) and two continuous slab casters, a hot-strip mill (the second, 2.2 million tpy, in 1997), and a coke oven. Total annual steelmaking capacity of CSC has been raised to 8.05 million tonnes.

The project to build the second integrated steelworks in the country, undertaken by Yieh Loong Group, has encountered environmental problems, and construction has not yet started. Although the company has already placed an order with a Japanese engineering manufacturer for three blast furnaces, with a combined capacity of 7.5 million tpy, recent news reports indicated that the size of the plant could be reduced to one or two furnaces, depending on the results of a feasibility study that Yieh Loong has been carrying out on a directly-reduced iron plant in Australia.

Kuei Yi is proceeding with a 3.4 million tpy steelwork. In 1998, a 600 000 tpy H section mill, fed by a 900 000 tpy electric arc furnace and an accompanying continuous caster, was commissioned. A delay is expected, however, for the rest of the facilities involved in the first phase, including additional electric arc furnaces, beam blank continuous casters and a wire rod mill. These are not expected to come on stream until after 2001. A 900 000 tpy hot-strip mill is planned for the second phase. The company reportedly has not made the final decision on whether or not to go ahead with the Corex units and DRI plants which were included in the initial planning.

Table 1. Non-OECD crude steelmaking capacity

In million tonnes per year

	1989	1992	1994	1996	1998	2000	Annual growth rate (% per annum) 1996/94	1998/96	2000/98
Central and Eastern Europe	**23.9**	**24.7**	**17.2**	**20.7**	**20.2**	**21.1**	**9.7**	**-1.2**	**2.2**
Bulgaria	3.7	3.7	2.8	2.8	2.8	2.8	0.0	0.0	0.0
Romania	14.9	15.7	9.1	12.6	12.1	13.0	17.7	-2.0	3.7
Slovak Republic	4.8	4.8	4.8	4.8	4.8	4.8	0.0	0.0	0.0
NIS Republics	**180.0**	**175.1**	**147.4**	**141.3**	**141.3**	**141.9**	**-2.1**	**0.0**	**0.2**
Russia	..	..	80.0	74.7	74.7	74.7	-3.4	0.0	0.0
Ukraine	..	..	55.8	55.8	55.8	56.4	0.0	0.0	0.5
Kazakhstan	..	..	6.3	6.3	6.3	6.3	0.0	0.0	0.0
Latin America	**42.7**	**43.3**	**48.0**	**50.8**	**46.8**	**54.1**	**2.9**	**-4.0**	**7.5**
Argentina	5.3	5.3	5.1	6.1	6.4	7.8	9.4	2.1	10.5
Brazil	27.3	27.5	28.2	29.6	30.5	33.8	2.5	1.4	5.3
Chile	1.1	1.1	1.1	1.2	1.4	1.7	4.4	9.5	9.3
Peru	0.8	0.8	1.0	1.0	1.0	1.0	0.0	0.0	0.0
Venezuela	5.3	5.5	6.0	7.8	4.4	6.7	14.0	-24.6	23.2
Africa	**16.0**	**16.0**	**18.3**	**18.8**	**19.6**	**22.5**	**1.4**	**2.1**	**7.1**
Algeria	2.1	2.1	2.5	2.5	2.5	3.0	0.0	0.0	10.6
Nigeria	1.1	1.1	2.5	2.5	2.5	2.5	0.0	0.0	0.0
South Africa	11.3	11.3	11.4	11.9	13.1	13.1	2.2	4.7	0.0
Middle East	**7.2**	**10.0**	**15.5**	**15.8**	**16.2**	**23.7**	**1.0**	**1.2**	**21.1**
Egypt	2.6	2.7	2.9	3.2	3.4	5.8	5.0	3.4	30.0
Iran	1.9	2.7	7.3	7.3	7.5	10.5	0.0	1.3	18.3
Libya	-	1.3	1.3	1.1	1.1	1.1	-6.8	0.0	0.0
Saudi Arabia	1.2	1.8	2.5	2.5	2.7	3.6	0.0	3.9	15.5
South East Asia	**115.7**	**141.2**	**175.9**	**193.7**	**203.3**	**241.5**	**4.9**	**2.4**	**9.0**
China	67.7	85.9	106.3	118.2	124.2	131.5	5.4	2.5	2.9
Chinese Taipei	8.7	11.3	15.6	15.8	16.2	21.5	0.6	1.2	15.3
India	17.8	20.1	25.9	28.3	28.9	37.1	4.5	1.0	13.4
Indonesia	2.7	3.9	5.2	5.9	7.0	10.0	6.5	8.9	19.3
Malaysia	1.2	1.3	2.4	3.9	4.0	10.8	27.5	1.4	64.2
Pakistan	1.5	1.5	1.5	1.5	1.5	2.5	0.0	0.0	27.5
Philippines	0.7	0.8	0.8	0.8	1.4	2.9	0.0	31.2	45.8
Thailand	0.7	1.2	2.7	3.5	5.1	7.2	13.9	20.4	19.3
Non-OECD total	**385.5**	**410.3**	**422.3**	**441.1**	**447.4**	**504.9**	**2.2**	**0.7**	**6.2**

Note: "..": Figures not available.

Source: OECD Secretariat, except for Russia and Ukraine (UN/ECE).

Table 2. Non-OECD crude steel production

In million tonnes

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Central and Eastern Europe	**..**	**..**	**..**	**10.75**	**11.33**	**12.26**	**13.22**	**12.12**	**13.12**
Bulgaria	2.90	2.18	1.62	1.55	1.94	2.49	2.72	2.46	2.60
Romania	14.42	9.76	7.11	5.38	5.45	5.80	6.56	6.08	6.66
Slovak Republic	..	..	..	3.80	3.92	3.95	3.92	3.55	3.84
NIS Republics	**160.10**	**154.44**	**132.84**	**117.98**	**98.11**	**78.26**	**79.07**	**77.17**	**79.00**
Russia	..	..	77.10	67.03	58.35	48.81	51.59	49.25	46.92
Ukraine	..	52.65	45.00	41.76	32.61	24.08	22.31	22.33	25.50
Kazakhstan	..	..	..	5.68	4.28	2.97	3.03	3.22	3.85
Latin America	**34.91**	**29.99**	**31.61**	**33.07**	**34.46**	**35.74**	**35.61**	**36.60**	**38.12**
Argentina	3.91	3.64	2.99	2.70	2.89	3.29	3.58	4.08	4.19
Brazil	25.06	20.57	22.62	23.93	25.21	25.75	25.08	25.24	26.15
Chile	0.80	0.77	0.81	1.01	1.07	1.04	1.01	1.18	1.20
Peru	0.36	0.27	0.40	0.34	0.42	0.51	0.51	0.58	0.61
Venezuela	3.20	3.23	3.32	3.49	3.39	3.52	3.57	3.73	3.91
Africa	**11.48**	**10.56**	**11.35**	**10.96**	**10.31**	**9.98**	**10.13**	**9.15**	**9.13**
Algeria	1.04	0.84	0.84	0.84	0.87	0.81	0.83	0.65	0.43
Nigeria	0.21	0.22	0.25	0.20	0.19	0.19	0.04	0.02	0.02
South Africa	9.34	8.62	9.36	9.06	8.73	8.53	8.74	7.97	8.16
Middle East	**5.75**	**6.80**	**8.05**	**8.90**	**10.57**	**11.30**	**11.67**	**12.56**	**13.43**
Egypt	2.11	2.25	2.56	2.52	2.77	2.62	2.64	2.62	2.70
Iran	1.08	1.43	2.20	2.94	3.67	4.50	4.70	5.41	6.32
Libya	..	0.49	0.72	0.79	0.92	0.87	0.91	0.86	0.90
Saudi Arabia	1.77	1.79	1.78	1.82	2.32	2.41	2.45	2.68	2.54
South East Asia	**98.62**	**105.00**	**111.43**	**121.48**	**132.37**	**134.46**	**141.34**	**149.30**	**159.82**
China	61.59	65.35	71.00	80.94	89.54	92.61	95.36	101.24	107.31
Chinese Taipei	9.05	9.75	10.97	10.71	11.97	11.59	11.61	12.35	15.99
India	14.61	14.96	17.10	18.12	18.16	19.28	22.00	23.75	23.75
Indonesia	2.38	2.89	3.09	2.95	3.80	3.22	4.13	4.11	3.82
Malaysia	1.00	1.10	1.13	1.56	1.81	2.05	2.45	3.22	2.96
Pakistan	0.95	0.78	0.87	0.85	0.99	1.10	1.10	1.10	1.10
Philippines	0.55	0.60	0.61	0.50	0.62	0.47	0.92	0.92	0.98
Thailand	0.69	0.69	0.71	0.93	0.95	1.46	2.13	2.14	2.10
Non-OECD total	**310.85**	**306.79**	**295.28**	**303.13**	**297.14**	**282.00**	**291.04**	**296.90**	**312.61**

Note: ".." : Figures not available.

Source: IISI.

APPENDIX

STEELMAKING CAPACITY IN NON-OECD COUNTRIES: TWO-YEARLY REPORT

TABLE OF CONTENTS

NOTES TO THE APPENDIX

Methodology

In order to estimate the steelmaking capacity of non-OECD countries in the year 2000, the expansion projects of those countries were classified as "firm", "possible", or "unlikely" on the basis of whether they would proceed and be completed by 2000. The criteria used to classify the projects included:

- current stage of each project – feasibility study, planning, government approval, tendering, construction or suspension of construction;
- availability of financial resources for each project;
- domestic steel market – apparent steel consumption in terms of current size;
- intention of government to establish and expand the industry; and
- availability of raw materials and energy.

Each project was evaluated for the likelihood of its completion by 2000 according to the above criteria. Although information on a number of aspects was often lacking, the figures included in the tables are considered appropriate in the light of the original sources of information and the evidence available. The classification of projects and comments on their progress do not in any way represent a judgement or imply a view on the advisability or feasibility of the projects.

A project classified as "firm" is one which is under construction or for which contracts have been awarded and to which a major financial or state commitment has been made and which is due and on schedule for completion before 2000. "Possible" projects are those under construction or those for which contracts have been awarded, but which have been delayed due to financial or technical problems and whose completion may not be realised by 2000. "Unlikely" projects are those at the feasibility or early planning stage, those yet to receive financial or state backing and those not scheduled for completion by 2000. In the Appendix, those projects are noted in the column "Comments" and, in some cases, presented in brackets in the column "Increase in capacity", but are not included in the estimation of steelmaking capacity in the year 2000.

The estimate of each country's capacity in 2000 has been obtained by adding to their existing capacity the capacity of "firm" projects and half the proposed capacity of all "possible" projects in the country. The principle of including only half the total capacity of possible projects is used as a surrogate for complete project-by-project assessments.

EXPLANATORY NOTES

Abbreviations used for equipment are:

BF	Blast furnace, of which:
	– charcoal
	– coke-based
	– mini
EPIF	Electric pig iron furnace
Corex	Corex ironmaking unit
DR	Direct reduction unit, of which:
	– Codir
	– Finmet
	– Fior
	– HYL
	– Krupp
	– Midrex
	– Plasma
	– SLRN
Iron Carbide	Iron Carbide
OH	Open hearth furnace
LD	LD Basic oxygen furnace
BS	Basic Bessemer converter
EF	Electric arc furnace, of which:
	– DC
EOF	Energy optimising furnace
CC	Continuous casting machine, of which:
	– slab
	– thin slab
	– bloom
	– billet
	– round billet
SLM	Slabbing mill
BLM	Blooming mill
BTM	Billet mill
WR	Wire rod mill
STR	Bar, section, shape, beam or angle mill
Plate	Plate mill
Hot	Hot strip mill
SMLS	Seamless tube mill
Cold	Cold strip mill
HGL	Hot-dip galvanising line
EGL	Electro galvanising line
Tin plate	Tin plate
Ptg	Painting (colour coating)
ERW	Electric-resistance welded pipe mill

Capacity figures are nominal or rated capacity. The unit of capacity figures is thousand tonnes per year, unless otherwise stated.

"Existing capacity" and "Existing equipment" are those estimated in the middle of 1998. "Capacity" in 2000 is that estimated at the end of 2000.

The capacity figures given in this report have been estimated on the basis of the most reliable information available. Nevertheless, as the information sources are limited, many of the capacity figures quoted relate to nominal or rated capacity. In some cases, however, nominal capacity figures have been modified in line with data on actual production or aims of modernisation projects.

The "Ownership" column shows a distinction between state-owned plants or projects (S) and those which are privately owned (P).

Sources of information are indicated in the column "Source". Listed capacity figures are not necessarily identical to these sources' estimates. The abbreviations used in the "Source" column are:

AMM	American Metal Market
MB	Metal Bulletin
MBM	Metal Bulletin Monthly
ISWW	Iron and Steel Works of the World (published by Metal Bulletin Books)
ST	Steel Times
TS	Tekko Shimbun (published in Japan)
SS	Sangyo Shimbun (published in Japan)
SEAISI	South East Asia Iron and Steel Institute Newsletter
FT	Financial Times
WSJ	Wall Street Journal
IHT	International Herald Tribune
NW	Nikkei Weekly
CNN	Cable News Network (on the Internet)
DJ	Dow Jones Newswires (on the Internet)
Bday	Business Day (published in Thailand, on the Internet)
Bpost	Bangkok Post (published in Thailand, on the Internet)
ET	The Economic Times (published in India, on the Internet)
FE	The Financial Express (published in India, on the Internet)
Hindu	The Hindu (published in India, on the Internet)
ManiB	Manila Bulletin (published in the Philippines, on the Internet)
Net	Information obtained on the Internet
HP	Internet home page of the company concerned

LES CAPACITÉS DE PRODUCTION D'ACIER DANS LES PAYS NON OCDE : RAPPORT BIENNAL

I. Introduction

Conformément au programme de travail du Comité de l'acier de l'OCDE pour 1998, le Secrétariat a établi une nouvelle version du rapport biennal sur les tendances d'évolution des capacités de production d'acier dans les pays non membres de l'OCDE. Le présent rapport fait le point sur les niveaux actuels des capacités de production d'acier dans ces pays et sur les évolutions prévisibles d'ici l'an 2000.

Ce rapport comprend un appendice qui donne des informations détaillées sur les pays, les entreprises, les installations et les projets, ainsi que sur les capacités, les équipements de service, les changements proposés, les dates prévues de mise en service, la structure du capital et les sources d'informations consultées. Il fait aussi brièvement le point sur l'état d'avancement des projets, les changements intervenus dans le déroulement des travaux et, le cas échéant, les modalités de financement des projets. Les chiffres sur les capacités mentionnés dans le texte et dans l'appendice sont des chiffres nominaux ou théoriques. Ils ne sont donc pas strictement comparables avec les capacités effectives calculées pour les pays Membres.

Dans la présente version, le Secrétariat s'est efforcé en particulier de mieux refléter l'ampleur des capacités en service en Chine et dans certains pays asiatiques, essentiellement en s'appuyant sur des sources devenues disponibles depuis peu. En revanche, la Corée, la République tchèque, la Hongrie et la Pologne ne figurent pas dans le présent rapport, ces pays étant désormais Membres de plein droit de l'OCDE.

Le présent rapport a pour objet de regrouper les informations et les données recueillies. Les commentaires formulés sur l'état d'avancement des projets et leur classement ne constituent aucunement un jugement sur la faisabilité ou l'opportunité des projets en question.

II. Résumé

Les capacités de production d'acier des pays non membres de l'OCDE devraient continuer à augmenter jusqu'à l'an 2000. Cette année-là, elles devraient totaliser 504.9 millions tpa contre 447.4 millions tpa en 1998, soit une hausse de 57.5 millions tpa en volume et de 6.2 pour cent, en taux annuel moyen.

Ventilées par région, ces tendances font apparaître la forte progression attendue au Moyen-Orient où les capacités devraient augmenter de 21.1 pour cent en moyenne par an. Par contre, en volume, c'est en Asie du Sud-Est, et notamment en Chine, que la progression devrait être la plus forte avec une augmentation de 38.2 millions de tonnes sur l'accroissement total de 57.5 millions tpa estimé pour l'ensemble des pays non membres de l'OCDE. Les principaux producteurs d'acier de

l'ASEAN[1], ainsi que le Taipei chinois et l'Inde, prévoient d'augmenter leurs capacités de production d'acier de plus de 10 pour cent par an d'ici l'an 2000. Bon nombre de ces projets devraient néanmoins se ressentir de la crise économique actuelle et plusieurs d'entre eux devraient être annulés ou retardés, bien que les sources d'informations disponibles ne permettent pas de retracer toutes ces évolutions.

Par contre, dans les efforts qu'elle déploie pour s'orienter vers une économie de marché, la Chine met actuellement l'accent sur l'amélioration de la qualité, la diversification des gammes de produits et la réduction des coûts, tout en freinant l'expansion de la production en volume. En conséquence d'un tel changement de politique, ses capacités de production d'acier ne devraient augmenter que de 2.9 pour cent par an, soit nettement moins vite que dans d'autres grands pays asiatiques. Les capacités de production d'acier de la Chine devraient donc s'établir à 131.5 millions tpa en l'an 2000.

En Amérique latine, ces capacités devraient s'accroître de 7.5 pour cent en moyenne par an entre 1998 et l'an 2000. Au Brésil, les projets sidérurgiques sont relativement peu nombreux, bien qu'un grand nombre de projets d'expansion des installations en aval aient été annoncés. Au Venezuela, plusieurs projets de construction de vastes unités de production de fer par réduction directe sont en cours de réalisation.

En Europe centrale et orientale, la privatisation des entreprises sidérurgiques s'accélère. Bien que la modernisation des aciéries devrait progresser avec la mise en place de nouvelles équipes de direction, les capacités de production d'acier ne devraient pas augmenter dans le proche avenir, la modernisation devrait plutôt se traduire, comme on l'a vu en Roumanie, par l'élimination des capacités inutiles et obsolètes.

Dans les NEI, on ne prévoit guère de variation des capacités de production d'acier, tandis que la modernisation des aciéries progresse. Par contre, certaines entreprises sidérurgiques ont annoncé qu'elles étaient en faillite en raison des bouleversements économiques dont souffre actuellement cette région du monde.

III. Évolutions récentes

On passera ci-dessous en revue les évolutions de capacités de production d'acier intervenues entre 1989 et 1998 ainsi que les niveaux actuels des capacités, de la production et de la consommation dans les pays non membres de l'OCDE.

Tendances d'évolution des capacités, de la production et de la consommation

Les capacités totales de production d'acier des pays non membres de l'OCDE sont passées de 385.5 millions de tonnes à 447.4 millions de tonnes entre 1989 et 1998, soit une augmentation de 16.0 pour cent en dix ans. Les accroissements les plus notables se sont produits en Asie du Sud-Est, et notamment en Chine, où les capacités de production d'acier sont passées de 115.7 à 203.3 millions de tonnes durant la décennie, alors qu'elles ont diminué dans les NEI et les pays d'Europe centrale et orientale.

1. L'ASEAN (Association des pays d'Asie du Sud-Est) comprend : le Brunei, l'Indonésie, la Malaisie, les Philippines, Singapour, la Thaïlande, le Vietnam, le Laos et la Birmanie.

Variation des capacités de production d'acier

Unité : million de tonnes

	1989 (A)	1992	1994	1996	1998 (B)	Variation (B-A)	(B/A %)
Europe centrale et orientale	23.9	24.7	17.2	20.7	20.2	-3.7	-15.6
Républiques des NEI	180.0	175.1	147.4	141.3	141.3	-38.7	-21.5
Amérique latine	42.7	43.3	48.0	50.8	46.8	4.1	9.7
Afrique	16.0	16.0	18.3	18.8	19.6	3.6	22.6
Moyen-Orient	7.2	10.0	15.5	15.8	16.2	9.0	124.6
Asie du Sud-Est	115.7	141.2	175.9	193.7	203.3	87.6	75.7
Total non OCDE	**385.5**	**410.3**	**422.3**	**441.1**	**447.4**	**61.9**	**16.0**

Source: Secrétariat de l'OCDE.

Utilisation des capacités et taux de couverture des besoins

Le tableau ci-dessous[2] montre qu'au milieu de 1998, le taux d'utilisation des 447.4 millions tpa des capacités de production d'acier de l'ensemble des pays non membres de l'OCDE atteignait près de 70 pour cent. On constate que ces taux d'utilisation tournaient autour de 80 pour cent en Amérique latine, au Moyen Orient et en Asie du Sud-Est alors qu'ils étaient nettement inférieurs en Europe centrale et orientale, dans les NEI et en Afrique.

Taux d'utilisation des capacités de production d'acier brut

Unité: million de tonnes

	Capacités mi-1998 (A)	Production d'acier brut 1997 (B)	Taux d'utilisation (B/A %)
Europe centrale et orientale	20.2	13.1	65.0
Républiques des NEI	141.3	79.0	55.9
Amérique latine	46.8	38.1	81.4
Afrique	19.6	9.1	46.6
Moyen-Orient	16.2	13.4	83.1
Asie du Sud-Est	203.3	159.8	78.6
Total non OCDE	**447.4**	**312.6**	**69.9**

Source: Secrétariat de l'OCDE.

Quant aux taux de couverture des besoins en produits sidérurgiques finis[3], ils se situaient à des niveaux remarquablement élevés – dépassant 200 pour cent en 1997 – en Europe centrale et orientale ainsi que dans les NEI, l'Amérique latine se situant au troisième rang à cet égard. Ils étaient par contre inférieurs à 100 pour cent en Afrique, au Moyen Orient et en Asie du Sud-Est.

2. Ce tableau permet de comparer les capacités en 1998 et la production d'acier en 1997. Cette comparaison peut paraître pertinente lorsque l'on tient compte du fait qu'il faudra un certain temps pour que la plupart des installations mises en service en 1998 deviennent pleinement opérationnelles et que la production corresponde à la capacité prévue.

3. Les chiffres sont exprimés en équivalents produits finis, c'est-à-dire qu'ils sont calculés sur la base de production d'acier brut, à l'aide de formules qui tiennent compte des proportions obtenues par coulée continue et des rendements au laminage.

Taux de couverture des besoins en produits sidérurgiques finis

Unité : million de tonnes

	Produits sidérurgiques finis 1997 (C)	Consommation apparente 1997 (D)	Taux de couverture des besoins (C/D %)
Europe centrale et orientale	10.6	4.7	225.5
Républiques des NEI	59.1	25.2	234.5
Amérique latine	33.1	25.4	130.3
Afrique	8.2	8.7	94.3
Moyen-Orient	12.2	28.7	42.5
Asie du Sud-Est	135.9	182.1	74.6
Total non OCDE	**259.1**	**274.8**	**94.3**

Note: Les chiffres sont exprimés en équivalents produits sidérurgiques finis.
Source: Secrétariat de l'OCDE.

Ces chiffres montrent que, même si les unités de production d'acier en Europe centrale et orientale et dans les NEI sont utilisées à des taux nettement inférieurs à leurs taux théoriques, quand elles ne sont pas arretées, le niveau de la production dans ces régions reste néanmoins supérieur aux capacités d'absorption des marchés nationaux.

IV. Perspectives à l'horizon 2000

Entre 1998 et l'an 2000, les capacités de production d'acier brut dans tous les pays non membres de l'OCDE devraient passer de 447.4 à 504.9 millions tpa, selon une estimation moyenne, ce qui donnerait un taux moyen de progression de 6.2 pour cent[4]. C'est au Moyen-Orient que l'accroissement devrait être le plus marqué, puisque les capacités devraient augmenter d'environ 21.1 pour cent par an. C'est ensuite en Asie du Sud-Est, et notamment en Chine, que la progression devrait être la plus forte, de l'ordre de 9.0 pour cent par an.

En volume, c'est en Asie du Sud-Est que l'on attend la plus forte expansion des capacités, puisqu'elle devrait atteindre 38.2 millions tpa sur un accroissement total de 57.5 millions tpa escompté dans les pays non membres de l'OCDE. Viennent ensuite le Moyen-Orient (avec 7.5 millions de tonnes) et l'Amérique latine (7.3 millions de tonnes). Par contre, les capacités de production d'acier ne devraient guère varier dans les NEI et en Europe centrale et orientale. Dans cette région du monde, la modernisation de l'industrie sidérurgique devrait intervenir avant les accroissements de capacités. Diverses initiatives sont prises pour privatiser les aciéries en attirant des investisseurs étrangers.

4. La méthode utilisée pour estimer les capacités de production d'acier en l'an 2000 qui est la même que celle qui avait été utilisée dans les rapports précédents est décrite dans l'appendice. Les expansions de capacités mentionnées ci-après correspondent donc à l'estimation moyenne.

Estimations des capacités de production d'acier en l'an 2000

Unité : million de tonnes

	En service en 1998	Accroissement		Capacités en l'an 2000 Estimation			% Variation
		Ferme	Possible	Moyenne	Faible	Elevée	par an
	(A)			(B)			(B/A)
Europe centrale et orientale	20.2	0.0	1.8	21.1	20.2	22.0	2.3
Républiques des NEI	141.3	0.6	0.0	141.9	141.9	141.9	0.2
Amérique latine	46.8	0.9	12.8	54.1	47.7	60.5	7.5
Afrique	19.6	0.3	5.2	22.5	19.9	25.1	7.1
Moyen-Orient	16.2	5.9	3.4	23.7	22.0	25.4	21.1
Asie du Sud-Est	203.3	29.7	17.1	241.5	233.0	250.1	9.0
Total non OCDE	**447.4**	**37.3**	**40.3**	**504.9**	**484.7**	**525.0**	**6.2**

Source: Secrétariat de l'OCDE.

Europe centrale et orientale

Le niveau des capacités de production d'acier ne devrait guère varier dans cette région du monde. Le seul élément nouveau qui pourrait influer sur ce niveau serait l'ouverture en **Roumanie** d'une aciérie intégrée de 1.8 million tpa par Siderca lorsque la privatisation espérée aura été réalisée. L'aciérie en question n'a jamais été opérationnelle bien que les principaux équipements aient été installés vers la fin des années 80. La mise en service de l'aciérie par des investisseurs potentiels paraît cependant très peu probable.

En Roumanie, la priorité est accordée à la modernisation de l'industrie sidérurgique plutôt qu'à l'expansion des capacités. Des efforts sont déployés pour améliorer les installations tout en supprimant les capacités non rentables. Le Fonds des propriétés de l'État s'est engagé en faveur de la modernisation de la sidérurgie en accordant les crédits et en encourageant sa privatisation. Un article précise que ce Fonds engagera au second semestre de 1998 le processus de mise en vente des trois plus grandes aciéries du pays : Galati, Targoviste et Resita. Cet article signalait que ces ventes mettront un terme à la privatisation de l'industrie sidérurgique roumaine qui a commencé en 1993 et a duré jusqu'en 1996, époque pendant laquelle la quasi-totalité des petites et moyennes entreprises sidérurgiques ont été vendues.

La privatisation de l'industrie sidérurgique s'accélère aussi en **Bulgarie.** Les autorités ont procédé à la privatisation des trois plus grandes aciéries du pays, à savoir Kremikovtsi, Promet et Stomana. La vente de Promet et de Stomana a été annoncée en juin 1998, et le délai pour l'envoi des offres a été fixé à la fin de juillet 1998. L'appel d'offres pour Kremikovtsi, la plus grande et la seule aciérie intégrée du pays, a été officiellement annoncé en juillet 1998 ; la vente de 71 pour cent de son capital d'ici la fin de 1998 est l'une des conditions de la négociation.

En **République slovaque**, la modernisation des installations de laminage de VSZ est engagée mais n'aura pas d'effet sur les capacités de production d'acier. Au début de 1998, VSZ et US Steel se sont entendus pour créer une entreprise commune 50/50 qui produira des tôles étamées. L'unité d'étamage, de 340 000 tpa, devrait entrer en service en décembre 1999. Aucun autre projet sidérurgique n'a été signalé pour ce pays.

Les Nouveaux États Indépendants

En **Russie**, on ne prévoit pas de variation des capacités de production dans un proche avenir, tandis que la modernisation de la sidérurgie progresse. A Magnitogorsk, l'une des plus grandes aciéries du pays, les quatre fours Martin encore en service devraient être fermés d'ici la fin de 1999 et être remplacés par un convertisseur LD à l'oxygène pur qui est en construction. Des coulées continues devraient être installées dans les aciéries de Nizhny Tagil, d'Orsk-Khalilovo et de Seversky Tube. L'industrie sidérurgique s'est trouvée confrontée à des difficultés grandissantes en raison des bouleversements économiques que connaît actuellement ce pays. Plusieurs aciéries, dont celles de Zapsib, en Sibérie occidentale, et de Zlatoust, seraient en faillite.

En **Ukraine**, la modernisation et la privatisation des aciéries se poursuit et, d'après ce que l'on sait ce processus ne devrait avoir de répercussions sur les capacités d'acier que dans un cas seulement. A l'aciérie de Donetsk, la construction d'un four à poche et d'une coulée de billettes devrait entraîner une augmentation des capacités de production d'acier de 600 000 tpa. La construction de coulées continues est en cours dans les aciéries de Dneprovsky et de Krivoy Rog.

Le Fonds des propriétés de l'État prévoit de terminer la privatisation d'Azovstal en vendant d'ici la fin de 1998 52.75 pour cent des parts qu'il détient encore. Ce Fonds prévoit aussi de terminer la vente du reste de ses parts de l'aciérie de Donetsk et de vendre une partie de celles qu'il détient dans l'aciérie de Zaporozhye.

La privatisation de l'industrie sidérurgique est aussi engagée dans d'autres républiques des NEI. En **Géorgie**, l'État est disposé à vendre 47 pour cent du capital de Rustavi, qui est le seul fabricant d'acier du pays. Début 1998, les autorités de **Moldavie** ont terminé la première étape de la privatisation de l'aciérie Moldova en vendant à un collectif de salariés 28.8 pour cent du capital détenu par l'État. En **Ouzbékistan**, l'État a vendu, en 1998, 34 pour cent des parts qu'il détenait dans l'aciérie Ouzbek. Dix pour cent supplémentaires devraient être vendus à des investisseurs étrangers.

La modernisation a progressé parallèlement aux initiatives prises pour attirer des capitaux dans l'industrie sidérurgique. Dans l'aciérie de Rustavi (Géorgie), il est prévu d'installer un four à arc électrique et une coulée continue de billettes. La construction de fours à arc est également envisagée dans l'aciérie Moldova et dans celle de Liepajas Rupnica Sarkanais Metallurgs, en **Lettonie**. La plupart de ces équipements sont cependant destinés à remplacer des installations obsolètes et ne devraient pas entraîner de variations significatives des capacités de production d'acier.

Amérique latine

Les capacités totales de production d'acier de la région devraient passer de 46.8 à 54.1 millions tpa entre 1998 et l'an 2000, soit un taux annuel d'expansion de 5.7 pour cent.

Au **Brésil**, CST, qui est un fabricant de produits demi-finis, a acheté un nouveau haut fourneau de 1.2 million tpa qui devait entrer en service en juillet 1998, alors qu'une coulée continue de brames de 2.2 millions tpa avait été inaugurée en février 1998. Parmi d'autres projets récents, on signale la mise en service par Acesita, au début de 1998, d'un laminoir à froid de 130 000 tpa.

Les projets d'expansion des capacités de production de l'acier sont en nombre relativement limité. Ces capacités qui totalisent 30.5 millions de tonnes devraient passer à 33.8 millions de tonnes d'ici l'an 2000. Le projet de construction d'une mini-aciérie, qui fabriquera les produits plats, de la

Cia Siderúrgica do Ceará (CSC), entrepris par CSN, devrait accroître les capacités de 1.2 million tpa. CSN a également annoncé un projet de construction d'une aciérie de 5 millions tpa sur le site acquis précédemment. Ces deux projets sont classés dans la catégorie "possible" dans le présent rapport, dans la mesure où ils se trouvent encore aux premiers stades de la planification. On n'a pas signalé d'autre projet d'accroissement notable des capacités de production d'acier.

Au Brésil, une priorité plus marquée a été accordée à la construction d'installations en aval. CST poursuit la construction d'un laminoir à bandes à chaud de 2.0 millions tpa pour développer ses activités en aval. L'installation d'un laminoir à froid de 1.3 million tpa et d'une ligne de galvanisation de 300 000 tpa est également à l'étude. CSN réalise plusieurs projets de construction d'installations de laminage à froid et de galvanisation, seul ou dans le cadre d'entreprises communes créées avec Imsa (Mexique) et Thyssen Krupp (Allemagne), GalvaSud. Gerdau et Usiminas poursuivent l'installation d'unités de laminage à froid ou de galvanisation.

Les capacités de production d'acier brut de l'**Argentine,** qui s'élèvent actuellement à 6.4 millions tpa, devraient passer à 7.8 millions tpa en l'an 2000. La plus grosse partie de cet accroissement proviendrait de la construction par Siderar d'un atelier de fusion de 2.0 millions tpa dans son aciérie de San Nicolas. Les chances de réalisation de ce projet ne semblent pas très grandes, il a donc été classé parmi les projets "possibles" dans ce rapport.

Au **Venezuela**, d'importants investissements dans la sidérurgie ont été annoncés par Ferrominera Orinoco (2.2 millions tpa) et Sidor (2.4 millions tpa) ; leurs chances de réalisation cependant paraissent incertaines. En janvier 1998, l'État a vendu 70 pour cent des parts qu'il détenait dans Sidor à un consortium composé de plusieurs investisseurs étrangers et vénézuéliens. Il envisage aussi de vendre les 30 pour cent restants. Ce pays est le plus grand producteur mondial de fer obtenu par réduction directe et plusieurs entreprises sidérurgiques procèdent à la construction d'installations nouvelles.

Afrique

Très peu d'investissements dans la sidérurgie sont prévus dans cette région du monde. En **Afrique du Sud,** une mini-aciérie de 1.25 million tpa, qui fabriquera des produits plats, a été mise en service en août 1998 par une co-entreprise d'Iscor and Industrial Development Corp (IDC). Une aciérie Corex et une unité de production de fer par réduction directe selon le procédé Midrex devraient entrer en service ultérieurement. Dans l'intervalle, Iscor a annoncé la fermeture définitive de son aciérie de Pretoria, seule l'unité Corex devrait continuer à fonctionner. Un autre article a néanmoins signalé que, juste après l'annonce de cette fermeture, Iscor avait envisagé de remettre en route son unité de production d'acier inoxydable de Pretoria. La construction d'un laminoir à froid de 610 000 tpa et d'une ligne de galvanisation par une co-entreprise réunissant le négociant suisse Duferco et l'IDC est en cours et la mise en service est prévue pour le début de 1999.

Moyen-Orient

Les expansions de capacités prévues dans cette région du monde sont circonscrites à l'Iran et l'Egypte. En **Iran,** la société publique National Iranian Steel (Nisco) possède un vaste programme d'expansion qui devrait lui permettre d'augmenter sa capacité de production d'acier de près de

3.0 millions tpa. Toutefois, une partie de ce programme ne sera pas réalisée avant l'an 2001. Aucun autre projet sidérurgique n'a été signalé dans ce pays.

Le développement de l'industrie sidérurgique s'accélère en **Egypte.** A la suite de la mise en service d'une mini-aciérie de 600 000 tpa par Al Ezz Steel Rebars au milieu de 1998, plusieurs autres sociétés ont fait part de leur intérêt pour la construction de mini-aciéries. Alexandria National Iron and Steel (ANSDK) construit une mini-aciérie de 1.0 million tpa, qui fabriquera des produits plats, ainsi qu'une unité de production de fer par réduction directe de 800 000 tpa, sur un site adjacent à celui sur lequel se trouve la mini-aciérie de la société qui fabrique des produits longs à El-Dikheila. ANSDK a déjà passé des commandes pour les principales installations et la mise en service est prévue pour l'an 2000.

Dernièrement, trois sociétés, à savoir Aswan Iron and Steel (Ademco), le Groupe El-Gerhy and Suez Steel, ont annoncé successivement leurs plans concernant la construction d'ateliers de fusion pour fabriquer des produits longs. Chaque atelier aura une capacité de 600 000 tpa. Suez Steel a démarré les travaux et l'ouverture est prévue pour 1999.

Au **Qatar**, une unité de réduction directe de 2.0 millions tpa, construite par Qatar Hot Briquetted Iron (Qabico), devrait entrer en service en l'an 2000. Ce projet ne prévoit pas d'installations de production d'acier. Deux projets sidérurgiques ont été annoncés par une co-entreprise Qatar/Koweït et la société publique Qasco. Les deux projets en sont néanmoins au stade de l'évaluation et la mise en service ne devrait pas intervenir avant l'an 2000.

Asie du Sud-Est

L'industrie sidérurgique de cette région du monde est tombée brusquement au point mort au terme d'une décennie de croissance dynamique. Entre 1998 et l'an 2000, les capacités de production d'acier des pays asiatiques non membres de l'OCDE, y compris la Chine, devraient passer de 203.3 à 241.5 millions tpa. Il est cependant vraisemblable qu'une partie de cet accroissement n'interviendra pas avant la fin de l'an 2001, c'est-à-dire à un moment où la situation économique devrait devenir plus favorable.

En **Chine,** les autorités privilégient la modernisation de l'industrie sidérurgique en vue de lui permettre de mieux répondre aux besoins d'une économie de marché. La priorité a été accordée à l'amélioration de la qualité, à la diversification des gammes de produits et à la réduction des coûts, plutôt qu'à l'expansion des capacités. En conséquence, tous les grands projets d'ouverture d'installations sidérurgiques sur des sites nouveaux ont été gelés, à l'exception de la construction par Guangzhou Zhujiang Iron and Steel d'une mini-aciérie de 820 000 tpa, qui fabriquera des produits plats, et dont la mise en service est prévue pour 1999. Les capacités de production d'acier devraient progresser de 2.9 pour cent par an jusqu'à l'an 2000, c'est-à-dire beaucoup moins vite que dans d'autres grands pays producteurs d'acier d'Asie du Sud-Est, qui pour la plupart, ont enregistré des taux de progression supérieurs à 10 pour cent. Toutefois, en volume, la capacité de production d'acier de la Chine devrait augmenter de plus de 7 millions tpa entre 1998 et 2000. Dans l'intervalle, la construction d'installations en aval, et en particulier pour le laminage à froid d'acier inoxydable, l'étamage et la galvanisation se poursuivent, essentiellement dans le cadre de co-entreprises.

La troisième phase d'expansion de Baoshan est pratiquement terminée. En avril 1998, deux convertisseurs LD et deux coulées continues de brames ont été mis en service, portant ainsi la

capacité totale de production d'acier de Baoshan à plus de 10 millions tpa. Les autres installations prévues dans cette troisième phase comprennent un laminoir à fil-machine (400 000 tpa), un laminoir à froid (720 000 tpa), deux lignes d'étamage et deux lignes de galvanisation.

En juillet 1998, Anshan a remplacé ses derniers fours Martin en service par des convertisseurs LD. L'entreprise poursuit sa modernisation avec la construction de deux coulées continues qui devraient entrer en service en 1999.

Wuhan Iron and Steel Group cherche à porter sa capacité de production d'acier à 10 millions tpa avec la construction d'un atelier fusion de 2.5 millions tpa équipé de deux convertisseurs LD et de deux coulées continues de blooms. Il envisage aussi de remplacer les six fours Martin en activité par deux convertisseurs supplémentaires.

Handan Iron and Steel General Works poursuit la construction d'un laminoir à froid pour produits plats de 2.5 millions tpa, équipé de deux convertisseurs LD, de coulées de brames minces et de laminoirs à bandes à chaud et à froid. La mise en service est prévue pour l'an 2000. Maanshan Iron and Steel devrait devenir le premier producteur de poutrelles en H du pays lorsque sa coulée continue de brames et son laminoir à poutrelles en H, d'une capacité de 400 000 tpa chacun, deviendront opérationnels en 1998.

Parallèlement à la modernisation et à l'expansion de ces grandes aciéries d'État, un certain nombre de co-entreprises ont été créées pour construire des installations en aval. Dans le secteur du laminage à froid, Ningbo Baoyang Special Steel Cold Rolling, co-entreprise nippo-chinoise dont Baoshan détient 51 pour cent des parts, a mis en service en juillet 1998 un laminoir à froid de 80 000 tpa qui produit des aciers inoxydables. Deux autres co-entreprises : Shanghai Krupp Stainless et Zhangjiagang Pohang Stainless Steel poursuivent la construction d'installations de laminage à froid pour aciers inoxydables. Shanghai Krupp, qui appartient à 60 pour cent à Krupp Thyssen Stainless, a été créé en décembre 1997 et construit actuellement un laminoir à froid de 72 000 tpa. Zhangjiagang Pohang, qui a été créé en avril 1997 par Posco et le Groupe Jiangsu Shagang, devrait mettre en service à la fin de 1998 un laminoir de 110 000 tpa.

Posco s'est aussi engagé dans trois projets de galvanisation. Le premier des trois, mené par Dalian Posco-CFM Coated Steel (aciers revêtus) a mis en service en septembre 1997 une ligne de galvanisation de 100 000 tpa et Zhangjiagang Posco Steel a ouvert en mai 1998 une unité de galvanisation de 100 000 tpa. En mai 1998 également, Fujian Sino-Japan Metal Corp, une co-entreprise regroupant des intérêts du Japon et du Taipei chinois, a mis en service une ligne d'étamage de 150 000 tpa. Il s'agirait de la première entreprise sidérurgique à capitaux entièrement étrangers implantée en Chine.

En **Inde**, la capacité de production d'acier, qui s'élève en 1998 à 28.9 millions tpa, devrait passer à 37.1 millions tpa en l'an 2000. Un certain nombre de projets ambitieux avaient été annoncés, parmi lesquels la construction de plusieurs aciéries intégrées. Bon nombre de ces projets n'ont cependant pas été menés à bien en raison de la récession, bien qu'une partie des équipements aient été mis en service. Pour tenter de remédier à cette situation, le ministre des Finances aurait chargé de grandes institutions financières de s'organiser en vue de prêter une somme de $2 milliards pour financer l'achèvement de 11 projets sidérurgiques, dont ceux d'Essar, Ispat Industries, Ispat Metallics, Jindal Vijaynagar, Malavica and Rajinder.

En avril 1998, Ispat Industries a procédé aux essais de mise en route d'un atelier de fusion de 1.7 million tpa. Cette société construit actuellement un laminoir à chaud de 3 millions tpa. Il est peu probable qu'il devienne entièrement opérationnel avant 1999, c'est-à-dire avant la mise en service du haut fourneau de l'une de ses filiales, Ispat Metallics.

Jindal Vijaynagar a procédé en 1997 aux essais de mise en route d'un laminoir à bandes à chaud de 1.6 million tpa alimenté par des brames achetées. La construction de deux unités Corex et d'un atelier de fusion de 1.57 million tpa est en cours. La première unité Corex devrait entrer en service en 1998 et la seconde au début de 1999.

Essar compte que son haut fourneau de 1 million tpa deviendra opérationnel en avril 1999, après avoir mis en service en 1995 et 1996 une unité de laminage à chaud de 2 millions tpa, équipée de trois fours à arc électrique, d'installations de raffinage, de deux coulées continues et d'un laminoir à bandes à chaud.

Le projet de construction par Tata Iron and Steel sur un nouveau site d'une aciérie intégrée de 10 millions tpa se heurte actuellement à des objections pour des raisons écologiques de la part des autorités gouvernementales. Bien que la société n'ait pas officiellement renoncé à ce projet, il est peu vraisemblable qu'il soit réalisé dans un proche avenir.

En **Indonésie**, le projet de construction, par une co-entreprise KS-Posco (dirigée par Posco et Krakatau), d'une mini-aciérie de 1 million tpa qui devrait produire des laminés plats a été reporté à une date non précisée, bien que les travaux de construction aient commencé en octobre 1997. Au milieu de 1998, Perkasa Indo Steel avait engagé des négociations en vue d'acquérir en Espagne une aciérie intégrée d'occasion de 2 millions tpa, en vue de la mettre en service en Inde en l'an 2000. Ce projet n'en serait qu'au tout premier stade de la planification. La crise économique a eu pour effet de suspendre, ou de retarder considérablement, la réalisation de tous les projets d'installation d'unités de laminage à froid dans ce pays, notamment ceux de Gunawan, Krakatau (en co-entreprise avec Krupp Nirosta) et de Ponesia (co-entreprise conclue avec Posco).

En **Malaisie**, la construction par Megasteel d'une mini-aciérie de 2 millions tpa, qui produirait des produits plats, avance et devrait être opérationnelle à la fin de 1998. La China Steel Corporation du Taipei chinois serait en train de négocier la reprise de 30 pour cent des parts de Megasteel qui actuellement appartient en totalité par des intérêts malaysiens. Cette installation de 2 millions tpa sera le premier laminoir à bandes à chaud de Malaisie. Par la suite, Nusantara Steel a annoncé son projet de construction d'un laminoir à bandes à chaud de 1.3 million tpa ainsi qu'un atelier de fusion de 1.6 million tpa et une unité de réduction directe. Plusieurs fabricants de produits longs, parmi lesquels Amsteel et Anshin Steel, procèdent à l'expansion de leurs capacités de production d'acier. Certains de ces projets pourraient cependant être retardés et la mise en service ne pas intervenir avant la fin de l'an 2001.

Aux **Philippines**, les travaux de construction, par le Groupe Jacinto, d'une mini-aciérie de 1.25 million tpa qui produira des produits plats a commencé en août 1997. La mise en service ne devrait pas intervenir avant la fin de l'an 2001.

En **Thaïlande**, où la crise économique asiatique a éclaté en juillet 1997, un certain nombre de projets de production d'acier ont été soit annulés, soit suspendus ; le projet de construction d'une aciérie intégrée de 2.3 millions tpa par Thai Special Steel Industry a ainsi été annulé, en dépit de la mise en service au début de 1998 d'une unité de fabrication de fil-machine. L'installation d'un

laminoir à froid de 1.0 million tpa par Siam United Steel, une co-entreprise Thaïlande-Japon-Corée, devrait entrer en service en novembre 1998. Il s'agira de la deuxième plus grande unité de laminage à froid de Thaïlande, Thai Cold-Rolled Steel Sheet, co-entreprise Thaïlande-Japon – ayant mis en service en juin 1997 une unité de laminage à froid de 1.0 million tpa. Siam Strip Mill procède à la construction d'une unité de laminage de produits plats de 1.7 million tpa. Il s'agira du troisième laminoir à bandes à chaud de Thaïlande, après ceux de Sahaviriya (entré en service en 1994) et de Nakornthai Strip Mill (mis en service en 1997). La mise en service du laminoir de Siam Strip Mill, attendue pour 1999, a été retardée, puisqu'elle avait été initialement prévue pour le troisième trimestre de 1998.

China Steel Corporation (CSC) du **Taipei chinois** a terminé sa quatrième phase d'expansion en 1997. Les principales installations construites durant cette phase comprennent un haut fourneau (le quatrième, de 2.4 millions tpa, en 1996), deux convertisseurs LD (le sixième et le septième : 2.4 millions tpa en 1996), deux coulées continues de brames, un laminoir à bandes à chaud (le deuxième : 2.2 millions tpa en 1997) et un four à coke. La capacité annuelle totale de production d'acier de CSC a été ainsi portée à 8.05 millions de tonnes.

Le projet de construction, par le Groupe Yieh Loong, de la seconde aciérie intégrée du pays, a soulevé des problèmes sur le plan de l'environnement et les travaux n'ont pas encore démarré. Bien que le Groupe ait déjà passé auprès d'un fabricant japonais commande pour trois hauts fourneaux, d'une capacité totale de 7.5 millions tpa, des articles récents signalent que l'aciérie pourrait, en définitive, ne compter que un ou deux hauts fourneaux, en fonction des résultats de l'étude de faisabilité menée par Yieh Loong sur une unité de réduction directe en Australie.

Kuei Yi procède à la construction d'une aciérie de 3.4 millions tpa. Un laminoir à profilés en H de 600 000 tpa, alimenté par un four à arc électrique de 900 000 tpa et une coulée continue, est entré en service en 1998. L'ouverture des autres installations prévues dans la première phase devrait cependant être différée, notamment celle de fours à arc électrique supplémentaire, de coulées continues d'ébauches de profilés et d'un laminoir à fil-machine. Ces différentes installations ne devraient pas entrer en service avant la fin de l'an 2001. La seconde phase prévoit l'installation d'un laminoir à bandes à chaud de 900 000 tpa. La société n'aurait pas encore pris une décision définitive concernant la construction des unités Corex et des unités de réduction directe prévues dans le projet initial.

Tableau 1. Capacité de production d'acier brut des pays non membres de l'OCDE

En millions de tonnes par an

	1989	1992	1994	1996	1998	2000	Taux de croissance (% annuel)		
							1996/94	1998/96	2000/98
Europe centrale et orientale	**23.9**	**24.7**	**17.2**	**20.7**	**20.2**	**21.1**	**9.7**	**-1.2**	**2.2**
Bulgarie	3.7	3.7	2.8	2.8	2.8	2.8	0.0	0.0	0.0
Roumanie	14.9	15.7	9.1	12.6	12.1	13.0	17.7	-2.0	3.7
République slovaque	4.8	4.8	4.8	4.8	4.8	4.8	0.0	0.0	0.0
Républiques des NEI	**180.0**	**175.1**	**147.4**	**141.3**	**141.3**	**141.9**	**-2.1**	**0.0**	**0.2**
Russie	..	..	80.0	74.7	74.7	74.7	-3.4	0.0	0.0
Ukraine	..	..	55.8	55.8	55.8	56.4	0.0	0.0	0.5
Kazakhstan	..	..	6.3	6.3	6.3	6.3	0.0	0.0	0.0
Amérique latine	**42.7**	**43.3**	**48.0**	**50.8**	**46.8**	**54.1**	**2.9**	**-4.0**	**7.5**
Argentine	5.3	5.3	5.1	6.1	6.4	7.8	9.4	2.1	10.5
Brésil	27.3	27.5	28.2	29.6	30.5	33.8	2.5	1.4	5.3
Chili	1.1	1.1	1.1	1.2	1.4	1.7	4.4	9.5	9.3
Pérou	0.8	0.8	1.0	1.0	1.0	1.0	0.0	0.0	0.0
Venezuela	5.3	5.5	6.0	7.8	4.4	6.7	14.0	-24.6	23.2
Afrique	**16.0**	**16.0**	**18.3**	**18.8**	**19.6**	**22.5**	**1.4**	**2.1**	**7.1**
Algérie	2.1	2.1	2.5	2.5	2.5	3.0	0.0	0.0	10.6
Nigeria	1.1	1.1	2.5	2.5	2.5	2.5	0.0	0.0	0.0
Afrique du Sud	11.3	11.3	11.4	11.9	13.1	13.1	2.2	4.7	0.0
Moyen-Orient	**7.2**	**10.0**	**15.5**	**15.8**	**16.2**	**23.7**	**1.0**	**1.2**	**21.1**
Egypte	2.6	2.7	2.9	3.2	3.4	5.8	5.0	3.4	30.0
Iran	1.9	2.7	7.3	7.3	7.5	10.5	0.0	1.3	18.3
Libye	-	1.3	1.3	1.1	1.1	1.1	-6.8	0.0	0.0
Arabie Saoudite	1.2	1.8	2.5	2.5	2.7	3.6	0.0	3.9	15.5
Asie du Sud-Est	**115.7**	**141.2**	**175.9**	**193.7**	**203.3**	**241.5**	**4.9**	**2.4**	**9.0**
Chine	67.7	85.9	106.3	118.2	124.2	131.5	5.4	2.5	2.9
Taipei chinois	8.7	11.3	15.6	15.8	16.2	21.5	0.6	1.2	15.3
Inde	17.8	20.1	25.9	28.3	28.9	37.1	4.5	1.0	13.4
Indonésie	2.7	3.9	5.2	5.9	7.0	10.0	6.5	8.9	19.3
Malaisie	1.2	1.3	2.4	3.9	4.0	10.8	27.5	1.4	64.2
Pakistan	1.5	1.5	1.5	1.5	1.5	2.5	0.0	0.0	27.5
Philippines	0.7	0.8	0.8	0.8	1.4	2.9	0.0	31.2	45.8
Thaïlande	0.7	1.2	2.7	3.5	5.1	7.2	13.9	20.4	19.3
Total hors OCDE	**385.5**	**410.3**	**422.3**	**441.1**	**447.4**	**504.9**	**2.2**	**0.7**	**6.2**

Note: "..": Chiffres non disponibles.

Source: Secrétariat de l'OCDE, sauf pour la Russie et l'Ukraine (CEE-ONU).

Tableau 2. Production d'acier brut des pays non membres de l'OCDE

En millions de tonnes

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Europe centrale et orientale	**..**	**..**	**..**	**10.75**	**11.33**	**12.26**	**13.22**	**12.12**	**13.12**
Bulgarie	2.90	2.18	1.62	1.55	1.94	2.49	2.72	2.46	2.60
Roumanie	14.42	9.76	7.11	5.38	5.45	5.80	6.56	6.08	6.66
République slovaque	..	..	..	3.80	3.92	3.95	3.92	3.55	3.84
Républiques des NEI	**160.10**	**154.44**	**132.84**	**117.98**	**98.11**	**78.26**	**79.07**	**77.17**	**79.00**
Russie	..	..	77.10	67.03	58.35	48.81	51.59	49.25	46.92
Ukraine	..	52.65	45.00	41.76	32.61	24.08	22.31	22.33	25.50
Kazakhstan	..	..	..	5.68	4.28	2.97	3.03	3.22	3.85
Amérique latine	**34.91**	**29.99**	**31.61**	**33.07**	**34.46**	**35.74**	**35.61**	**36.60**	**38.12**
Argentine	3.91	3.64	2.99	2.70	2.89	3.29	3.58	4.08	4.19
Brésil	25.06	20.57	22.62	23.93	25.21	25.75	25.08	25.24	26.15
Chili	0.80	0.77	0.81	1.01	1.07	1.04	1.01	1.18	1.20
Pérou	0.36	0.27	0.40	0.34	0.42	0.51	0.51	0.58	0.61
Venezuela	3.20	3.23	3.32	3.49	3.39	3.52	3.57	3.73	3.91
Afrique	**11.48**	**10.56**	**11.35**	**10.96**	**10.31**	**9.98**	**10.13**	**9.15**	**9.13**
Algérie	1.04	0.84	0.84	0.84	0.87	0.81	0.83	0.65	0.43
Nigeria	0.21	0.22	0.25	0.20	0.19	0.19	0.04	0.02	0.02
Afrique du Sud	9.34	8.62	9.36	9.06	8.73	8.53	8.74	7.97	8.16
Moyen-Orient	**5.75**	**6.80**	**8.05**	**8.90**	**10.57**	**11.30**	**11.67**	**12.56**	**13.43**
Egypte	2.11	2.25	2.56	2.52	2.77	2.62	2.64	2.62	2.70
Iran	1.08	1.43	2.20	2.94	3.67	4.50	4.70	5.41	6.32
Libye	..	0.49	0.72	0.79	0.92	0.87	0.91	0.86	0.90
Arabie Saoudite	1.77	1.79	1.78	1.82	2.32	2.41	2.45	2.68	2.54
Asie du Sud-Est	**98.62**	**105.00**	**111.43**	**121.48**	**132.37**	**134.46**	**141.34**	**149.30**	**159.82**
Chine	61.59	65.35	71.00	80.94	89.54	92.61	95.36	101.24	107.31
Taipei chinois	9.05	9.75	10.97	10.71	11.97	11.59	11.61	12.35	15.99
Inde	14.61	14.96	17.10	18.12	18.16	19.28	22.00	23.75	23.75
Indonésie	2.38	2.89	3.09	2.95	3.80	3.22	4.13	4.11	3.82
Malaisie	1.00	1.10	1.13	1.56	1.81	2.05	2.45	3.22	2.96
Pakistan	0.95	0.78	0.87	0.85	0.99	1.10	1.10	1.10	1.10
Philippines	0.55	0.60	0.61	0.50	0.62	0.47	0.92	0.92	0.98
Thaïlande	0.69	0.69	0.71	0.93	0.95	1.46	2.13	2.14	2.10
Total hors OCDE	**310.85**	**306.79**	**295.28**	**303.13**	**297.14**	**282.00**	**291.04**	**296.90**	**312.61**

Note: ".." : Chiffres non disponibles.
Source: IIFA.

APPENDICE

LES CAPACITÉS DE PRODUCTION D'ACIER DANS LES PAYS NON OCDE : RAPPORT BIENNAL

TABLE DES MATIERES

NOTES sur l'APPENDICE

Méthodologie

Aux fins d'estimation des capacités d'acier dans les pays non membres de l'OCDE en l'an 2000, les différents projets d'expansion de ces pays ont été classés en trois catégories : "ferme", "possible" ou "improbable", selon qu'ils devraient être mis en route ou achevés d'ici l'an 2000. Les projets ont été classés en fonction des critères suivants :

- stade actuel d'avancement de chaque projet - étude de faisabilité, planification, autorisation officielle, appel d'offres, exécution, ou arrêt, des travaux ;
- disponibilité des ressources financières nécessaires pour chaque projet ;
- taille du marché intérieur de l'acier, telle qu'elle ressort de la consommation apparente d'acier ;
- volonté de créer une industrie sidérurgique et/ou de la développer ; et
- offre de matières premières et d'énergie.

Les possibilités d'achèvement d'ici l'an 2000 des différents projets étudiés ont été évaluées au regard des critères mentionnés ci-dessus. Certes, les informations sur un certain nombre d'aspects faisaient assez souvent défaut mais les chiffres indiqués dans les tableaux sont considérés comme exacts, en fonction des sources d'informations et des données disponibles. Le classement des projets et les commentaires formulés sur leur état d'avancement n'expriment en aucun cas un jugement de valeur sur l'opportunité ou la faisabilité des projets.

Ont été classés dans la catégorie "ferme" les projets qui sont en cours de réalisation ou pour lesquels des contrats ont été attribués, qui ont fait l'objet d'engagements majeurs sur le plan financier ou au niveau officiel et dont le calendrier de réalisation prévoit l'achèvement avant l'an 2000. Ont été classés dans la catégorie "possible", les projets qui sont en cours de réalisation ou pour lesquels les contrats ont été attribués, mais qui ont été retardés par des problèmes d'ordre financier ou technique et qui ne devraient pas être achevés pour l'an 2000. Ont été classés dans la catégorie "peu probables", les projets qui en sont au stade des études de faisabilité ou au premier stade de la planification et n'ont pas encore reçu de concours financier ou de soutien de l'État de même que les projets qui doivent être terminés après l'an 2000. Dans l'appendice, ces projets sont signalés dans la colonne des "commentaires" et dans certains cas, présentés entre crochets dans la colonne "accroissement des capacités", mais ne sont pas pris en compte dans les estimations des capacités de production d'acier en l'an 2000.

L'estimation des capacités en l'an 2000 a été obtenue pour chaque pays en ajoutant à leurs capacités actuelles les capacités des projets "fermes" et la moitié des capacités envisagées de tous les projets classés dans la catégorie "possible" du pays considéré. Il a été décidé de ne tenir compte que de la moitié de la capacité totale des projets classés "possibles" au lieu de procéder à une évaluation plus précise de chaque projet.

NOTES EXPLICATIVES

Les signes et abréviations utilisés sont les suivants :

BF	Haut fourneau : – au charbon de bois – au coke – mini
EPIF	Four électrique, fonte
Corex	Unité de réduction directe utilisant le procédé Corex
DR	Unité de réduction directe, procédés : – Codir – Finmet – Fior – HYL – Krupp – Midrex – Plasma – SLRN
Iron Carbide	Iron Carbide
OH	Four Martin
LD	Convertisseur LD à l'oxygène pur
BS	Convertisseur Bessemer
EF	Four à arc électrique, dont : – DC
EOF	Four à optimisation énergétique
CC	Machine de coulée continue utilisée pour fabriquer des : – brames – brames minces – blooms – billettes – billettes rondes
SLM	Train à brames
BLM	Train à blooms
BTM	Train à billettes
WR	Train à fil-machine
STR	Train à barres, à profilés, à poutrelles ou à cornières
Plate	Train à tôles
Hot	Train à bandes à chaud
SMLS	Train à tubes sans soudure
Cold	Train à bandes à froid
HGL	Ligne de galvanisation par immersion à chaud
EGL	Ligne d'électrogalvanisation
Tin plate	Tôle étamée
ERW	Unité de fabrication de tubes soudés à résistance électrique

Les chiffres des capacités correspondent à des capacités nominales ou théoriques. Sauf indication contraire, ces chiffres sont exprimés en milliers de tonnes par an.

Les chiffres indiqués pour la “capacité existante” et les “équipements actuels” correspondent aux estimations établies au milieu de 1998. Les chiffres sur les “capacités” en l’an 2000 correspondent aux estimations établies pour la fin de l’an 2000.

Les chiffres sur les capacités indiqués dans le présent rapport ont été estimés sur la base des informations disponibles les plus fiables. Toutefois, les sources d’informations étant limitées, les chiffres cités correspondent souvent à la capacité nominale ou théorique. Dans certains cas cependant, les chiffres des capacités nominales ont été modifiés pour tenir compte des chiffres de la production effective ou des objectifs des projets de modernisation.

La colonne “origine des capitaux” fait une distinction entre les entreprises ou projets d’État (E) des entreprises ou projets du secteur privé (P).

L’origine des informations est précisée dans la colonne “Sources”. Les chiffres indiqués sur les capacités ne sont pas nécessairement identiques aux estimations tirées de ces sources. Les abréviations utilisées dans la colonne “sources” sont les suivantes :

AMM	American Metal Market
MB	Metal Bulletin
MBM	Metal Bulletin Monthly
ISWW	Iron and Steel Works of the World (publié par Metal Bulletin Books)
ST	Steel Times
TS	Tekko Shimbun (publié au Japon)
SS	Sangyo Shimbun (publié au Japon)
SEAISI	South East Asia Iron and Steel Institute Newsletter
FT	Financial Times
WSJ	Wall Street Journal
IHT	International Herald Tribune
NW	Nikkei Weekly
CNN	Cable News Network (Internet)
DJ	Dow Jones Newswires (Internet)
Bday	Business Day (publié en Thaïlande, Internet)
Bpost	Bangkok Post (publié en Thaïlande, Internet)
ET	The Economic Times (publié en Inde, Internet)
FE	The Financial Express (publié en Inde, Internet)
Hindu	The Hindu (publié en Inde, Internet)
ManiB	Manila Bulletin (publié aux Philippines, Internet)
Net	Informations obtenues sur Internet
HP	Page d’accueil Internet de l’entreprise

AFRICA

Unit: thousand tonnes per year

Country	Nominal Capacity							Crude Steel Production	Apparent Consumption*
	Exist	Increase to 2000			Capacity in 2000				
	1998	Firm	Possible	Unlikely	Mean	Low	High	1997	1996
ALGERIA	2 475	0	1 100	0	3 025	2 475	3 575	427	1 572
NIGERIA	2 475	0	0	0	2 475	2 475	2 475	20	365
SOUTH AFRICA	13 050	0	0	0	13 050	13 050	13 050	8 164	4 890
ZIMBABWE	1 000	120	0	0	1 120	1 120	1 120	214	320
OTHERS	613	150	4 112	580	2 819	763	4 875	305	2 061
TOTAL	**19 613**	**270**	**5 212**	**580**	**22 489**	**19 883**	**25 095**	**9 130**	**9 208**

Note: Apparent consumption is in terms of crude steel.

Source: Capacity: OECD Secretariat. Production and apparent consumption: IISI.

Country: **ALGERIA** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
A JV with Marcial Ucin								
				(Possible)			Negotiations are under way between Marcial Ucin, Spanish mini mill group, and potential local partners to set up a rolling mill in Algeria. The mill would use billets from Ucin's new Aciérie de l'Atlantique melting shop in Bayonne, France.	MB 09-Jul-98
METAL SIDER					P			
Arbaa	345							
		EF						
	(300)	STR						
SNS (Sté Nationale de Sidérurgie):					S			
Bellara			1100	(Possible)		1998 ?	Bids invited for supply of 1.1m tpy DR-based steel plants, but the project has experienced significant delays due to lack of financing and seems doubtful for completion by 1995. A 600 000 tpy rod and bar mill and a 450 000 tpy medium section mill to be built at different locations. The mills will roll semi-products produced at Bellara.	
				DR				
				EF				
				BTM				
El Hadiar	2100							
		BF x 2						
		LD x 6						
		EF						
		CC x 5						
		WR						
		STR						
		Hot						
		Cold						

Country: **ALGERIA (2)**

Unit: million tonnes per year

Company	Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
	La Macta (Oran)	30	OH CC STR						

Country: **NIGERIA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Ajaokuta Steel Co Ltd					S			
Aiaokuta	1350			(Possible)			The Nigerian government allocated $800 million towards rescuing the nation's idled steel industry. Ferrostaal of Germany and VAI of Austria have been working on completing Ajaokuta's flat products plant which had been left incomplete.	MB 05-Mar-98
		BF		Hot				
		LD x 3						
		CC x 3						
		BTM						
		WR						
		STR						
Delta Steel Co Ltd					S			
Aladja, Warri	1000						Delta Steel was inaugurated in January 1982, but production was stopped at the end of 1995 due to shortfalls in raw material supplies. The Nigerian government is seeking to resume the production at Delta.	MB 11-Jun-98
		DR (MIDREX)						
		EPIF x 4						
	(1000)	EF x 4						
	(1000)	CC (billet) x 3						
	(300)	STR						
Katsina Steel Rolling Co Ltd (KSRC):					S			
							The mill has been faced with a shortage in billets and a halt in production is expected.	MB 07-Sep-98
	(200)	STR						
Others								
	125							

Country: **SOUTH AFRICA** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Columbus Stainless (joint venture):					P			
Middelburg							Gencor's fission into a London-based metal company Biliton plc and Gencor Ltd on 1 July will change the ultimate structure of Columbus Stainless and open the gate for indirect foreign investment. Biliton is fully committed to going forward with the Columbus project where full production and break-even are expected in 1999.	MB 23-Jun-97
	(600)							
		EF						
		CC						
		SLM						
		Cold						
Davsteel (Pty) Ltd					P			
Vanderbijlpark	400							
		EF						
		CC						
		WR						
		STR						
Duferco Steel Processing Ltd					P			
Saldanha Bay				(Firm)		1999	The company is a 50/50 joint venture between Swiss trader Duferco and the Industrial Development Corp (IDC) of South Africa. The construction is under way at the site adjacent to the Iscor/IDC hot-coil plant. Commissioning is expected to be in early 1999.	MB 11-Dec-97
			(610)	Cold				
				HGL				

Country: **SOUTH AFRICA (2)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Highveld SteeI & Vanadium Corp.					P			
Witbank	1100							
		Pre-Reduct						
		KILNS x 3						
		LD x 3						
		CC						
		STR						
		Plate						
		Hot						
ISCOR (South Africa Iron & Steel Industrial Corp.):					P			
Durban	100							
		EF						
		CC						
		BTM						
Newcastle	2800							
		BF x 4						
		LD x 3						
		CC x 4						
		BTM						
		WR						
		STR x 2						
Pretoria	800						In August 1998, the company announced the closure of the Corex plant at its Pretoria works. Steelmaking at the plant had already ceased. However, Iscor has been studying the possibility of resuming stainless steel production at Pretoria works.	AMM 14-Aug-98 MB 20-Aug-98
		Corex						
		EF x 2						
		CC (slab)						

Country: **SOUTH AFRICA (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Saldanha Steel (JV with IDC)	1250			(Firm)		1998-1999	Saldanha Steel is a 50/50 joint venture between Iscor and Industrial Development Corp (IDC). A twin-shell 170 tonne EF was commissioned in August 1998. Saldanha plans to complete the mechanical testing of the Corex plant by the beginning of September, and hot commissioning is expected to be completed during November. The hot commissioning of a Midrex unit is expected in January 1999. The plant is expected to be running at full capacity by June 2000.	AMM 07-Jul-98 MB 17-Aug-98
		EF		Corex				
		CC (tsc)		DR (MIDREX)				
		Hot						
Vanderbijlpark	5200						Iscor announced in May 1998 the closure of its hot strip mill and blast furnace B at its Vanderbijlpark works in a move to cut costs and improve efficiency.	MB 25-May-98
		BF x 4						
		LD x 3						
		DR (SLRN)						
		EF x 3						
		CC x 3						
		SLM						
	(300)	Hot x 2						
		Plate						
		Cold x 3						
		EGL						
Scaw Metals Ltd					P			
Germiston	500					1997	Scaw Metals has commissioned a new 75MW electric arc furnace and a 150 000 tpy direct reduced iron kiln at its Germiston works.	MB 23-Jan-97
		DR x 3						
		EF x 6						
		CC x 3						
		WR						
		STR						

Country: **SOUTH AFRICA (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
USCO (The Union Steel Corp. of South Africa Ltd):					S/P			
Vaal Klip	300	DR (Plasma) EF x 5 CC x 2 STR					Carbon and alloy steelmaker owned by ISCOR, METKORS and members of the public.	

Country: **ZIMBABWE**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Steelmakers Ltd					P			
Redcliff			120	(Firm)		1999	Steelmakers Ltd, a Kenya-based mini-steel plant and hot-rolled coil maker, set up a light section mill in Redcliff, Zimbabwe. Production at the $20 million mill started in January 1998. The construction of a meltshop is under way, and is due to become operational by the first quarter of 1999. The capacity of the meltshop is rated at 10 000 tpm.	MB 25-May-98 MB 17-Nov-97
	(42)	STR	(120)	EF				
				CC (billet)				
ZISCO (Zimbabwe Iron & Steel Co.):					S/P			
Redcliff	1000			(Firm)		August1999	Zimbabwe's government is planning to privatise Zisco by the end of 1999. Zisco is currently held 89% by the government. The construction of a ladle furnace and a continuous caster began. The work is expected to be completed by August 1999. Zisco is also tendering for contractors to refurbish its 230 000 tpy bar mill and to build a new 230 000 tpy light section mill.	MB 25-Jun-98 MB 30-Jul-98
		BF x 4		LF				
		LD x 2		CC				
		CC	(230)	STR				
		BTM						
		STR						
		WR						

Country: **OTHERS** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
ANGOLA								
Siderurgica National					S			
Luanda	30							
		EF						
		WR						
		STR						
CAMEROON								
Sté de laminage de Douala								
Vierling								
ETHIOPIA								
BMEIB					S			
Debrezeit				(Firm)				
			(120)	STR				
GABON								
SOGASIDOR (Sté Gabonaise de sidérurgie):					S/P			
			12	(Possible)			Plan for backward integration from bar mill.	
		EF						
		STR						

Country: **OTHERS (2)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
GHANA								
Tema Steelworks					S			
Tema	35							
		EF x 2						
		CC						
		WR						
		STR						
Wahome Steel			(25)	(Unlikely)			Planning to install an electric arc furnace.	
		STR		EF				
KENYA								
Austroplan					S			
Port Reitz			(500)	(Unlikely)			Under consideration.	
				BF				
				LD				
				CC				
				Hot				
KUSCO (Kenya United Steel Co. Ltd):					P			
Mombasa	25						The continuous caster was installed in 1997.	MB 27-Aug-98
		EF x 2						
		CC						
		WR						
		STR						

Country: **OTHERS (3)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Steel Billet Casting Ltd					P			
Nairobi	20							
		EF						
		CC						
MAURITANIA								
Arab Metal Ind.					S			
Nouadhibou	12							
		EF						
		STR						
MOROCCO								
Gonvarri					P			
Casablanca				(Firm)			Spanish industrial group Gonvarri has started work on a 200 000 tpy steel plant.	NET 12-Nov-97
			(200)	STR				
MASID (Maroc Sidérurgie):								
Casablanca			130	(Firm)		1997	Contracts for the $78m project are due to be signed this month between Moroccan oil and gas company Oismine and a European partner, as yet unidentified, which will take a minority stake of about 30 per cent.	MB 13-Mar-95 MB 24-Oct-94
			(130)	EF			The main plant and equipment to be installed on site include a 30-tonne electric arc furnace, continuous billet caster and a rolling mill.	
				CC				
			(125)	STR				

Country: **OTHERS (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
SONASID (Sté Nationale de Sidérurgie):					S/P			
Nador			600	(Possible)		2000	The company agreed to buy Casablanca-based Longometal Industries, which has 100 000 tpy reinforcing bar capacity. Sonasid plans to construct a meltshop to feed its rolling mill, whose expansion is also planned. The company was privatised in December 1997, and is controlled by Spain's Marcial Ucin which holds a 8.5% stake.	MB 16-Feb-98 MB 06-Feb-97
	(480)	WR	(600)	EF				
				CC				
			(180)	WR				
MOZAMBIQUE								
Beira Iron project								
				(Possible)			Beira Iron aims to build a plant to produce 2.5 million tpy of hot-briquetted iron for export. A feasibility study is to be carried out, and a decision on whether to proceed with the project will be made according to the result.	SA 01-May-98
			(2500)	DR				
Cia Industrial de Fundicao e Laminagen Sarl								
	100						The company purchased and relocated disused production plant from a steelworks in Spain. The plant includes a 70-tonne electric arc furnace and a 4-strand Danieli continuous caster.	MB 16-Nov-95
		DR						
		EF						
		CC						
		WR						
		STR						

Country: **OTHERS (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
ENE (Enron Corp.):					P			
Maputo			3500	(Possible)		2003	The Mozambiquan government has approved the construciton of a 3.5 million tpy slab plant in Maputo. An official agreement was signed in September 1998 between the government and the project's main backers composed of Enron Corp of the United States and the Industrial Development Corp (IDC) of South Africa. Construction work is expected to begin early in 2000, and production is scheduled to start by the middle of 2003. It is expected that around 40% of the $2 billion total will be financed by equity investment, with the remainder coming from loan funding.	MB 10-Sep-98
			(4000)	DR				
			(3500)	EF				
			(3500)	CC (slab)				
TANZANIA								
Aluminium Africa Ltd.								
Dar es Salaam	25							
		EF						
		STR						
		Cold						
Tanzania National Development Center								
Monhanie							500 000 tpy DR based plant under consideration. UNIDO is carrying out a feasability study.	

Country: **OTHERS (6)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
TOGO								
Sté Togolaise de Sidérurgie					P			
Lomé	20							
		EF						
		STR						
TUNISIA								
El fouladh, sté Tunisienne de Sidérurgie					S/P			
Menzel Bourghuiba	200						Modernisation programme for the rod mill underway. Project postponed by budget problems.	
		BF x 2						
		LD x 3						
		EF						
		CC x 3						
		WR						
		STR						
UGANDA								
Steel Manufacturers of East Africa Ltd.					S/P			
Jinia	26						Electric furnace being modernised and continuous caster added. Involves small capacity increase.	
		EF						
		WR						
		STR						
		CC						

Country: **OTHERS (7)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
ZAIRE								
Sté Nationale de Sidérurgie					S			
Maluku	120							
		EF						
		CC						
		WR						
		STR						
ZAMBIA								
Art (Art Engineering):					P			
Ndola			20	(Firm)		1998	A joint venture between Zambia's Art Engineering and Mombasa-based Kenya United Steel Co (Kusco) will provide this central African country with its first steel plant in the next few months. Trials on the 20 000 tpy re-rolling mill are expected to commence in July with the production range consisting of a variety of small sections. Billet supply will probably come from Ziscosteel. The joint venture plans eventually to add a melting shop to take advantage of scrap generated by the mining activities in the area.	MB 29-Jul-97
				STR				
Zambia Steel and Building Supplies Ltd.					P			
Kafue			(55)	(Unlikely)			Proposal for a rolling mill and backward integration to coal-based DR steelmaking.	
				DR				
				EF				
				CC				
				STR				
				WR				

CENTRAL AND EASTERN EUROPE

Unit: thousand tonnes per year

Country	Nominal Capacity							Crude Steel Production	Apparent Consumption*
	Exist	Increase to 2000			Capacity in 2000				
	1998	Firm	Possible	Unlikely	Mean	Low	High	1997	1996
ALBANIA	450	0	0	0	450	450	450	24	69
BULGARIA	2 800	0	0	0	2 800	2 800	2 800	2 596	1 053
ROMANIA	12 120	0	1 800	0	13 020	12 120	13 920	6 660	3 990
SLOVAK REPUBLIC	4 800	0	0	0	4 800	4 800	4 800	3 835	1 490
TOTAL	**20 170**	**0**	**1 800**	**0**	**21 070**	**20 170**	**21 970**	**13 115**	**6 602**

Note: Apparent consumption is in terms of crude steel.

Source: Capacity: OECD Secretariat. Production and apparent consumption: IISI.

Country: **ALBANIA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Elbasan Steelworks								
Elbasan	400						The plant operates electric arc furnaces fed with domestic scrap, having stopped all blast furnace operations in 1992. In October 1997, Marc Rich signed a memorandum of understanding with the Albanian government to run the plant. Rich plans to restart one of the two blast furnaces to produce pig iron for export. Steelmaking and rolling facilities are also to be taken over by Rich.	MB 03-Nov-97
(formerly Steel of the Party Metallurgical Combine)		BF x 2						
		LD						
		EF x 3						
		CC x 2						
		STR x 2						
Enver Hoxha Tractor Plant								
Tirana	50							
		EF						

Country: **BULGARIA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Kremikovtsi Iron and Steel Works					S			
Sofia	2000						The Bulgarian government has been carrying on the privatisation of Bulgaria's three steelworks -- Stomana, Promet and Kremikovtsi. The first bidding of Kremikovtsi was officialy announced in July 1998. In the deal, 71% stake in the company is to be sold. The decision on the preferred bidder is expected in December 1998. A continuous casting shop is being installed, supplied by VAI, with a slab caster first to come, followed by a billet caster, and another slab caster.	AMM 06-Aug-98 MB 04-Jun-98 MB 02-Mar-98 ST 01-Feb-98
		BF x 3		CC (slab)				
		LD x 3		CC (billet)				
		OBM		CC (slab)				
		EF x 3						
		CC (slab) x 2						
		BLM						
		SLM						
		Hot						
		Cold x 3						
		SMLS						
Promet					S			
Burgas							The original plan in the 1980s included the installation of a DRI unit, a meltshop and a bar/section rolling mill, but only the rolling mill was built in 1986. The mill is operating using Stomana blooms and Kremikovtsi billets. The privatisation of the company is in progress, and the government announced the sale of Promet in June 1998, with the deadline for the bidding being set on 28 July 1998.	MB 03-Aug-98 MB 04-Jun-98 ST 01-Feb-98 MB 02-Mar-98
	(800)	STR						

Country: **BULGARIA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Stomana Iron and Steel Works (formerly Lenin Iron and Steel					S			
Pernic	800						The company closed its blast furnaces and open hearth furnaces in 1991, and is operating only its electric furnaces. The privatisation of Stomana has been under way and the government launched the sale of Stomana in June 1998, with the deadline for bids being set on 29 July 1998.	MB 03-Aug-98 MB 04-Jun-98 ST 01-Feb-98 MB 02-Mar-98
		EF x 2 CC x 3 STR x 2 Plate WR						

Country: **ROMANIA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
COST SA Tirgoviste								
Tirgoviste	740						In the second half of 1998, the State Ownership Fund of Romania is expected to begin the process of privatisation of the company.	MB 01-Jun-98
		EF x 11						
		CC						
		BLM						
		STR x 2						
		Cold x 2						
CSR SA Resita								
Resita	530			(Firm)		1997	CSR Resita, the oldest Romanian steelmaker, is transforming itself into an EAF-based plant. Its coke ovens, sinter plant and blast furnaces were closed down and its open hearth furnaces are being fed entirely with scrap. Spanish contractors are installing an 80-tonne EAF together with a ladle furnace. In the second half of 1998, the Romanian State Ownership Fund is expected to begin the process of privatisation of CSR Resita	MB 01-Jun-98 MB 26-Jun-97
		BLM		EF				
		SLM		LD				
		STR x 2						
		Plate						
Ductil SA					P			
							In October 1997, Singaporean trader Windmill Internaitonal acquired a 50.98 per cent stake in Ductil which had been held by the Romanian State Ownership Fund.	MB 27-Oct-97
	(280)	WR						
	(25)	HGL						
Lamdro SA (formerly Intreprinderea Metallurgica):								
							The company started up in October 1987 as Intreprinderea Metallurgica and changed its name to Lamdro in 1989. Romania's privatisation authorities began the process of the privatisation of the company in the early 1998.	MB 27-Apr-98
	(450)	STR						

Country: **ROMANIA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Otelinox SA Târgoviste								
							The company is a stainless re-roller. In October 1997 it was purchased by Samsung Deutschland, which intends to invest some $35 million to double production of cold-rolled stainless steel. The plant also has a 100 000 tpy carbon-steel bar/wire rod mill.	MB 27-Oct-97
	(100)	STR						
		Cold						
SC Industria Sârmei SA								
Cluj	300							
		EF						
		BTM						
		WR						
Siderca SA Calarasi					S			
(Integrated mill)			1800	(Possible)			The Calarasi project was initiated in 1976. Initially, two EFs and continuous casters, and a medium sections mill were put on stream. Subsequently, work started on a 3.6 million tpy integrated plant, and 1.8 million tpy of steelmaking equipment was installed in the late 1980s. This plant, however, has never been put into operation. Privatisation of Siderca is under way, and bids for the purchase of the company took place in June 1998. After the privatisation, the completion of the 1.8 million tpy integrated plant is considered as one of the options.	MB 04-Jun-98 MB 01-Jun-98
				BF				
			(1800)	LD x 2 CC x 4				
				STR				
(Mini mill)	400						In early 1997, a new 80-onne EBT furnace, supplied by Mannessmann Demag, replaced two older furnaces. A continuous bloom caster was also brought on stream. The completion of the modernisation of this existing mini mill is considered as one of the options after the privatisation of the company.	MB 04-Jun-98 MB 27-Nov-97
	(400)	EF						
		CC (bloom) x 2						
		STR						

Country: **ROMANIA (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Siderurgica SA Hunedoara					S			
Hunedoara	2100						Romania's largest long products producer is to install a new electric arc furnace and a billet caster.	MB 13-Jun-96
	(1100)	BF x 2		CC				
	(635)	EF x 6		EF				
	(1500)	OH x 4						
		BLM x 2						
		BTM x 2						
		STR x 4						
		WR x 2						
Sidex SA Galati					S			
Galati	7000						In 1994, the government initiated a study into the restructuring of Sidex. According to this programme, steelmaking capacity of Sidex in 2002 is foreseen at 6.25 million tpy, and crude steel production at 5.57 million tonnes in the same year. Some facilities are to be closed, while concentrating on the ones to be modernised in the programme. The State Ownership Fund of Romania is expected to begin the process of selling Sidex Galati in the second half of 1998.	MB 01-Jun-98 MB 11-Jun-98
		BF x 6						
	(7000)	LD x 9						
		CC x 7						
		SLM						
		Plate x 2						
		Hot						
		Cold						
		HGL						

Country: **ROMANIA (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Societ Com Socomet SA (formerly Otelul Rosu Works):								
Calan	450	OH EF x 2 CC x 2 STRx2 Hot						
Societ Comerc Ind SA Cimpia Turzii								
Cimpia Turzii	250	EF WR STR					Products: wire rod, light sections.	MBM 01-Aug-91
Tepro SA Lasi								
Lasi	350	EF x 2 SMLS STR						

Country: **SLOVAK REPUBLIC** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Vychodoslovenske Zeleziarne AS (VSZ):					P			
Kosice	4800					2000	VSZ is the largest flat-rolled steel producer in central Europe. The company has awarded a contract for the modernisation of two strip steel pickling lines and the modification of the cold-rolling mill. This is expected to raise its cold-rolling capacity from 1.2 million tpy to 1.9 million tpy. The completion is scheduled for early 2000. The company and US Steel Group of USX set up a 50/50 joint venture to produce tin plates in February 1998, following a memorundum of understanding that was signed in November 1997.	MB 09-Jul-98 AMM 06-Jul-98 AMM 18-Feb-98
		BF x 3 LD x 4 CC x 2 SLM Hot Cold x 2 Tin Plate HGL						
VSZ/ USS JV				(Firm)		1999	The joint venture between US Steel and VSZ produces tin plates for use largely in cans for the food industry. VSZ contributes to the venture its existing tin-plate and processing facilities, while USS contributes capital for the expansion project to add 200 000 tpy tin plate capacity. The start-up of new facilities is expected in December 1999. An order has been placed with Danieli for an electrolytic tinning line and a continuous annealing line.	MB 02-Apr-98 AMM 18-Feb-98 DJ 05-Feb-98 FT 13-Nov-97 MB 10-Nov-97
	(140)	Tin Plate	(200)	Tin Plate				

LATIN AMERICA

Unit: thousand tonnes per year

Country	Nominal Capacity							Crude Steel Production	Apparent Consumption*
	Exist	Increase to 2000			Capacity in 2000				
	1998	Firm	Possible	Unlikely	Mean	Low	High	1997	1996
ARGENTINA	6 360	400	2 000	0	7 760	6 760	8 760	4 190	4 230
BRAZIL	30 455	200	6 200	3 000	33 755	30 655	36 855	26 151	13 824
CHILE	1 440	280	0	0	1 720	1 720	1 720	1 200	1 862
COLOMBIA	830	0	0	0	830	830	830	710	1 689
CUBA	500	0	0	0	500	500	500	340	377
PERU	960	0	0	0	960	960	960	610	885
VENEZUELA	4 440	0	4 600	0	6 740	4 440	9 040	3 910	2 018
OTHERS	1 840	0	0	460	1 840	1 840	1 840	1 007	2 044
TOTAL	**46 825**	**880**	**12 800**	**3 460**	**54 105**	**47 705**	**60 505**	**38 118**	**26 929**

Note: Apparent consumption is in terms of crude steel.

Source: Capacity: OECD Secretariat. Production and apparent consumption: IISI.

Country: **ARGENTINA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources	
Aceros Zapla SA (formerly Altos Hornos Zapla):					P				
Ciudad Palpala, Jujuy	360						The company uses charcoal blast furnaces to produce mainly specialty steel.	MBM	24-Dec-97
		BF x 3 LD x 2 EF x 2 BLM WR STR							
ACINDAR (Industria Argentina de Aceros SA):					P				
La Tablada							The La Tablada works has been closed down.		
Villa Constitucion	1200		400	(Firm)		2000	Acindar plans to increase its steelmaking capacity from 1.2 million tpy to 1.6 million tpy by 2000. This increase is likely to be attained by eliminating bottlenecks, without the construction of new steelmaking facilities. The company contracted with Morgan Construction of the United States to revamp its WR mill, which will increase its capacity to 645 000 tpy through increased rolling speed. At the general meeting in December 1997 Acindar decided to take over Laminfer SA and Impeco SA, both welded tube producers.	MB MB	24-Dec-97 20-Nov-97
		DR (MIDREX) EF x 3 CC x 2 WR STR ERW HGL							
	(600)								

Country: **ARGENTINA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Comesi (Comesi Saci):					P			
Buenos Aires							Siderar has bought up Comesi for $65 million. Comesi is Argentina's biggest galvanizing company.	
	(150)	HGL x 2						
Others								
	400							
Siderar Saic (formerly Aceros Parana, ex Somisa):					P			
Arsa, Haedo								
		HGL						
Florencio Varela								
		EGL						
		HGL						

Country: **ARGENTINA (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
San Nicolas	3500		2000	(Possible)			Considerable iron- and steelmaking capacity is idled at San Nicolas works. The production of long products has been ceased since the privatisation of the company. An $800 million plan to construct a new steelmaking facility and a thin slab caster at the San Nicolas works, which the company has been considering for several years, will possibly be taken into account by the board this year.	AMM 15-Dec-97 MB 30-Mar-98
		BF x 2	(2300)	Hot				
	(3500)	LD x 3	(2000)	EF				
		CC	(2000)	CC (tsc)				
		STR						
	(1900)	Hot						
		Cold						
		Tin Plate						
Siderca					P			
Caompana	900							
		DR (MIDREX)						
		EF x 2						
		CC (round) x 2						
		SMLS x 2						
Sipar Laminacion de Aceros								
Rosario, Santa Fe							Gerdau of Brazil acquired a 33% stake in Sipar in 1998.	MB 25-May-98
	(160)	STR						
Sociedade Industrial Puntata SA (Sispa)								
Villa Mercedes, San Luis							The company was acquired by Brazilian steelmaking group Gerdau in late 1997.	MB 18-Dec-97
							Gerdau plans to bring the works up to full capacity within 12 months, which is currently working at half of the capacity.	MB 13-Oct-97
	(75)	STR						

Country: **BRAZIL**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
ACESITA (Cia Aços Especiais Itabira):					P			
Timóteo, Minas Gerais	760						Usinor signed in May 1998 an agreement to purchase a 35 per cent common-share stake in Acesita and a 49.9 per cent stake in a new company which will consist of Acesita's 37 per cent stake in CST.	AMM 17-Jul-98 ST 01-Jul-98
		BF (Charcoal) x 2						
		LD						
		EF x 2						
		CC x 3						
		SLM						
		BLM						
		STR						
		Hot						
		Cold x 3						
Timóteo, Minas Gerais - stainless plant						1998	A new 130 000 tpy CR mill was brought on stream in April/May 1998. This installation came as part of a total $548 million modernisation and expansion programme which the Timoteo works has been undergoing since 1994.	MB 07-May-98
	(160)	Cold						
	(130)	Cold						
ACOMINAS (Aço Minas Gerais SA):					P			
Ouro Branco	2400			(Possible)		1999	A consortium including NatSteel of Singapore, Gerdau of Brazil, Marubeni of Japan and SSB of Malaysia took a share in Acominas in 1997. This is regarded as a move to prompt the company's improvement programme which includes the installation of a continuous billet caster and the introduction of pulverised-coal injection in the blast furnace and an oxygen sublance in the steelmelting shop. The programme is expected to be completed in two years time. A plan to expand steelmaking capacity by 1.2 million tpy is still under consideration.	MB 08-Sep-97 MB 28-Aug-97
		BF		CC (billet)				
		LD x 2						
		BLM						
		SLM						
		BTM						

Country: **BRAZIL (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
ACOS VILLARES S.A. (Usina Anhanguera):					P			
Mogi das Cruzes SP	350						Aços Villares comprises: Vibasa plant/SP and Anhanguera plant/SP. A $53 million continuous billet caster was installed during 1996-97.	SA 01-Jun-98 IBS 14-Nov-97
		EF x 2 CC BLM BTM STR						
Pindamonhangaba - Sao Paulo	450			(Possible)		1998-2000, suspended	A plan to install a continuous bloom caster and a ladle furnace at Pindamonhangaba plant between 1998-2000, at the cost of $120 million has been put on hold because of a slowdown in the domestic market.	SA 01-Jun-98 IBS 14-Nov-97
	(450)	EF x 3 BLM BTM STR WR		LF CC (bloom)				
Belgo-Mineira Participacao Industria e Comercio Ltda					P			
Juiz de Flora	650							
		EF CC WR STR						

Country: **BRAZIL (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Cia Siderurgica Belgo-Mineira					P			
Grande Vitória, Cariacica (formerly Cofavi)	360						In October 1997, Belgo-Mineira restarted light/ medium section mills at its Grande Vitória plant, which were formerly run by Cofavi and were idle for nearly two years. In 1993 Belgo-Mineira acquired the plant and restarted a 360 000 tpy meltshop. Billets from the plant had been shipped to the company's main steelworks at João Monlevade.	MB 20-Oct-97
	(360)	EF						
		CC x 3						
	(300)	STR x 2						
Joao Monlevade Sabara	1000			(Firm)		2000	The company announced a $260 million investment programme which includes the installation of a new blast furnace and the expansion of its billet casting capacity. The new blast furnace will replace four existing blast furnaces at the site which are charcoal and coke based.	MB 20-Oct-97
		BF x 5	(1040)	BF				
	(1000)	LD x 2						
	(800)	CC						
	(1200)	WR x 2						
Cia Siderurgica Pains					P			
Divinopolis	400		200	(Firm)		1997	The Gerdau Group is currently undertaking the Pain 600 development programme which has already incurred investments worth $24.6 million in modernisation and aims to raise the mill's raw steel capacity to 600 000 tpy by 1997.	MB 06-Apr-95
		BF (Charcoal) x 3		EOF				
		OH x 3						
		EOF x 2						
		CC x 2						
		BLM						
		WR						
		STR						
		BTM						

Country: **BRAZIL (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
COSIPA (Cia Siderurgica Paulista):					P			
Cubatao	4000			(Firm)		1999	Cosipa, Brazil's third-largest flat-rolled producer, has approved a $200m investment to install a 1.2m tpy continuous slab caster by 1999. By 1999, all the flat-rolled output will be continuously cast. The new continuous caster will improve product quality and reduce costs by $20 to $30 per tonne of slabs.	AMM 04-Apr-97
		BF x 2	(1200)	CC				
		LD x 6						
		SLM						
		CC x 3						
		Plate						
		Hot						
		Cold x 2						
CSN (Compania Siderurgica Nacional):								
CSC (Cia Siderúrgica do Ceará)			1200	(Possible)		1999-	CSN plans to construct a flat-rolling mini mill in the northeastern state of Ceará with total investment of $650 million. Site work started in 1997 for the first stage, in which a 200 000 tpy galvanizing line is constructed.	MB 03-Nov-97 MB 22-Sep-97
(mini-mill project)				DR			Following its start-up, expected in 1999, a cold-rolling mill, a steel meltshop, a thin slab caster and a DRI plant are to be constructed. The company is reportedly considering the construction of two more flat-rolling mini mills, each with 1 million tpy capacity.	
			(1200)	EF				
				CC (tsc)				
				Hot				
				Cold				

Country: **BRAZIL (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Presidente Vargas, Volta Redonda	4600			(Possible)		2000	CSN is proceeding with its $1.4 billion investment programme running from 1995 through 2000. The construction of a 300 000 tpy hot-dip galvanizing line is a part of the programme.	AMM 15-Jan-98 MB 23-Oct-97 REU 20-Oct-97
	(4400)	BF x 2	(300)	HGL				
	(4600)	LD x 3						
		CC (slab) x 3						
		STR						
		Hot x 2						
		Cold x 3						
	(750)	HGL x 3						
		Tin Plate x 5						
Sepetiba			5000	(Possible)			The construction of a new 5 million tpy steelwork is under consideration at a site already owned by CSN.	MB 13-Aug-98
CSN-Imsa Aceros Revestidos								
Southern Brazil				(Firm)		2000	Imsa Acero SA of Mexico and CSN signed a definitive agreement to go ahead with a 450 000 tpy cold rolling and coil-coating plant. CSN-Imsa, the joint venture company, will be held 51% by CSN and 49% by Imsa. The new plant is due to start production in 2000.	MB 27-Jul-98
			(450)	Cold				
			(200)	HGL				

Country: **BRAZIL (6)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
CST (Cia Siderurgica Tubarão):					P			
Jardim Limoeiro - Vitoria	3800			(Firm)		2001-2002	In February 1998 a $150 million, 2.2 million tpy continuous slab caster was installed. A new $182 million blast furnace was inaugurated in July 1998. A 2 million tpy hot-strip mill is expected to come on stream in 2001. Usinor of France is expected to acquire a 16% stake in CST. A feasibility study is under way into the installation of a CR mill, a galvanizing line and a third blast furnace.	MB 30-Jul-98 AMM 24-Jul-98 ST 01-Jul-98
	(3300)	BF		CC (tsc)				
	(1200)	BF	(2000)	Hot				
	(3800)	LD x 2	(1300)	Cold				
	(2000)	CC (slab)	(300)	HGL				
		SLM		BF				
	(2200)	CC (slab)						
GalvaSud (CSN-Thyssen JV):								
				(Firm)		2000	In May 1998, a letter of intent was signed between CSN and Thyssen Krupp Stahl to establish a 350 000 tpy hot-dip galvanizing joint venture. GalvaSud, the new venture, will be held 51% by CSN and 49% by TKS. The plant will be built at a site between CSN's existing wirks in Volta Redonda in Rio de Janeiro state and Mogi das Cruzes in Sao Paulo state.	MB 18-Jun-98
			(350)	HGL				
Gerdau SA					P			
- Nova Santa Rita, Rio Grande do Sul				(Firm)		2000	Gerdau plans to move into flat products with the creation of a subsidiary which will build a CR mill and a galvanizing line. Gerdau has already purchased the site, and civil construction work will start in second-half of 1998. The plant is expected to begin operation by 2000, at the capacity of 400 000 tpy (a total of cold-rolling and galvanizing) at the first stage, and subsequently expanded to 500 000 tpy by 2005-06 as the second stage. The product is mainly aimed at automakers in southern Brazil.	AMM 02-Apr-98 MB 19-Mar-98 AMM 17-Mar-98 AMM 04-Dec-97
(CR mill joint venture)								
			(300)	Cold				
			(200)	HGL				

Country: **BRAZIL (7)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Barão de Cocais (formerly Cosigua)								
		LD						
		CC (billet)						
		STR						
Contagem								
		BF						
Maracanau (formerly Siderúrgica Cearense)								
		EF						
		CC (billet)						
		STR						
Neves (formerly Cosigua)								AMM 04-Dec-97
	(100)	STR						
Recife (formerly Siderúrgica Aconorte)								
		EF x 2						
		LF						
		CC (billet)						
		STR						

Country: **BRAZIL (8)**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Santa Cruz, Rio de Janeiro	2445			(Firm)		1999	Gerdau has signed an agreement with the Rio de Janeiro state government to confirm its decision to invest in expanding its Santa Cruz works. A new 450 000 tpy bar/ section mill has already been ordered with Danieli and is scheduled to come on stream in 1999. Steelmaking capacity (2.445 000 tpy) is for the total of Gerdau SA.	MB 16-Apr-98 AMM 04-Dec-97
(formerly Cosigua)								
	(1000)	EF x 2	(250)	STR				
		CC (billet) x 2						
		STR						
		WR						
Simões Filho (formerly Usiba)								
	(320)	DR (HYL)						
	(350)	EF						
		LF						
		CC (billet)						
		STR						
Itaminas Group					P			
Maraba	140							
Mannesmann SA					S/P			
Belo Horizonte	1000						A new 155 000 tpy seamless tube mill has been brought on stream in a $130m investment. This new installation does not represent a capacity expansion as it replaces two old extrusion presses. With an extra $30 million investment, the new mill's capacity could be doubled to 300 000 tpy, but any development in this area will depend on the market.	MB 19-Jun-95
		BF (Charcoal) x 2						
		EF x 3						
		LD						
		CC						
		BLM						
		STR						
		SMLS						

Country: **BRAZIL (9)** *Unit:* million tonnes per year

Company	Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Others		2250						Some 25 small electric furnace steel producers.	
SIDERAMA (Cia Siderurgica de Amazonia):									
	Manaus	80	BF LD x 2 CC STR						
Siderurgica Barra Mansa						P			
	Sao Paulo	420	BF (Charcoal) x 2 LD x 2 OH x 2 EF x 2 CC STR WR						
Siderurgica Coferraz						P			
	Utinga	280	EF x 4 STR						

Country: **BRAZIL (10)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Siderurgica Dedini					P			
Piracicaba	350							
		EF x 6 CC x 2 WR STR						
Siderurgica J.L. Aliperti					P			
San Paulo	400							
		BF (Charcoal) x 2 EOF BLM STR WR BTM						
Siderurgica Riograndense					P			
Supucaia do Sul							Part of Gerdau Group.	
		EF x 3 CC x 3 WR STR						
Simara (Siserurgica Maraba):					P			
Maraba	120							
		BF						

Country: **BRAZIL (11)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
USIMAR (Usina Siderurgica do Maranhao):								
			(3000)	(Unlikely)			Plans for a new 3 million tpy steelworks based on charcoal ironmaking to produce hot coils in Maranhao state. The feasibility study has been approved by the government but no financial commitment made.	
USIMINAS (Usinas Siderurgicas de Minas Gerais):					P			
Ipatinga	4200			(Firm)		1998-2000	Usiminas has placed orders for the rebuilding of its two continuous slab casters and the building of a new slab caster. The investment is part of a programme to increase cold-rolling capacity by 1 million tpy by 2000. The new caster is expected to become operational in the second quarter of 1998.	MB 26-Feb-98 AMM 07-Apr-97
		BF x 3		CC (slab)				
		LD x 5	(1000)	Cold				
		CC (slab) x 3						
		SLM						
	(960)	Plate						
	(2400)	Hot						
		Cold x 2						
	(360)	EGL						
Ipatinga (galvanizing JV)				(Firm)		1999	In December 1997, Usiminas and Nippon Steel of Japan agreed to set up a joint venture to build and operate a 400 000 tpy galvanizing plant aimed at supplying mainly to vehicle manufacturers. A production line will be built alongside existing Usimians Ipatinga facilities. The venture is held 60 per cent by Usiminas and 40 per cent by Nippon Steel.	MB 26-Feb-98 AMM 22-Dec-97 MB 15-Dec-97 FT 09-Dec-97
			(400)	HGL				

Country: **CHILE** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
AZA (Gerdau Group):					P			
Colina (Santiago)	70		280	(Firm)		1997	Brazil's Gerdau Group has announced a major expansion of its Chilean operations with the construction of a new mini-mill by its subsidiary Siderurgica Aza at Cotina near Santiago. The new plant will raise Aza's capacity from 70 000 tpy to 350 000 tpy of bar and rod. Aza's expansion represents a $65 million investment.	MB 18-Jan-96
		EF		EF				
		CC		STR				
		STR		WR				
CSH (Cia Siderurgica Huachipato):					P			
Huachipato	1300			(Firm)			CSH plans to install a 1 million tpy billet caster to allow it to increase long product output for the growing domestic market. The installation of a 5- or 6-strand caster to make 150mm billets should help CSH to achieve a 96% product yeld rate from its crude steel output.	MB 14-Apr-97
		BF x 2	(1000)	BTM				
		LD x 2						
		EF						
		CC						
		BLM						
		Hot						
		Plate						
		Cold						
		SLM						
Others								
	70							

Country: **COLOMBIA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Acerias Paz del Rio SA					P			
Belencito	300						The company is Colombia's sole integrated steelmaker, currently in receivership.	AMM 01-May-98 MB 20-Nov-97
	(330)	BF						
		LD x 2						
		OH						
		CC						
		SLM						
		BTM						
		STR						
	(225)	WR						
	(75)	Hot						
Acesco (Acerias de Colombia SA):					P			
Baranquilla				(Firm)		1997	Colombian galvanizing company Acerias de Colombia SA (Acesco) is in the final stage of installing a 280 000 tpy CR mill in order to serve potential growth in the Colombian market. At present Colombia imports all its CR steel from Venezuela, and the local market consumes around 450 000tpy. The new $40 million installation, supplied by Kvaerner Davy's Spanish subsidiary Cosim, includes a pickling line, single stand reversing mill, annealing facilities and cut to length lines. In a second phase it may be possible to expand the installation up to a capacity of 600 000 tpy.	MB 02-Dec-96
	(80)	HGL	(70)	HGL				
			(280)	Cold				
Others								
	240						Some three electrical furnace steel producers.	

Country: **COLOMBIA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Siderurgica del Caribe SA					P			
Cartagena	80							
		EF STR						
Mamonal	80							
		EF WR STR						
Simesa (Siderurgica de Medellin):					P			
Medellin	130							
		EF x 2 CC WR						
Cia Siderurgica ACINOX SA					P			
El Cotorro	350							
		EF x 3 CC x 2 WR STR						
Las Tunas	150							
		EF CC (slab)						

Country: **PERU**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Aceros Arequipa					P			
Pisco	340			(Possible)		2001	The company is seeking a partner for a project to build a new DRI plant.	MB 17-Nov-97
	(30)	DR x 2 EF x 3 CC x 2 STR STM		DR				
Others								
	70						Small electric furnace producers.	
SIDERPERU (Empresa Sidergurgica del Peru):					P			
Chimbote	550						Siderperu will spend about $200 million over the next seven to ten years to upgrade its equipment and boost production threefold. GS Industries of the United States controls Siderperu.	MB 10-Sep-98
		BF						
		DR (SLRN) x 3 LD x 2 EF x 4 BTM WR STR Plate Hot Cold						
	(24)	WR STR						

Country: **VENEZUELA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
COMSIGUA (Complejo Siderurgico de Guayana):					P			
								MB 12-Nov-98
Punta Cuchillo						Oct. 1998	Inaugurated in October 1998.	MB 02-Nov-98 MB 08-Dec-97
(Puerto Ordaz)							First planned in 1989 as an HBI and steel slab DR (MIDREX) plant, but the slab element was discontinued in 1991. Held by Kobe Steel, CVG Ferrominera Orinoco (FMO), Tamsa of Mexico and others.	
(1000)								
Ferrominera Orinoco (FMO)					S			
Puerto Ordaz			2200	(Possible)			A state-owned iron ore producer FMO is planning to construct a new joint venture iron ore pellet and HBI plant at Puerto Ordaz. It is also considering the construction of a meltshop to produce slabs.	MB 30-Mar-98 MB 08-Dec-97
			(2500)	DR				
			(2200)	EF				
			(2200)	CC (slab)				
ISPAT GUAYANA					P			
Puerto Ordaz				(Firm)		1999	An agreement to construct a new 1.2 million tpy Midrex Megamod hot-briquetted iron plant in Puerto Ordaz has been signed by Carribean Ispat, Ispat America and Ferromina Orinoco. Ispat Group will hold 80 per cent of the capital. The project cost is estimated at $236 million. It is planned to come on stream in March 1999.	MB 26-Feb-96
			(1200)	DR (MIDREX)				

Country: **VENEZUELA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
MINORCA (Minerales Ordaz C.A.):								
Puerto Ordaz		DR (MIDREX)					The plant has resumed output following a revamp using MIDREX technology after being paralysed for eight years. The plant, owned by stated-owned CVG, has been leased to Midrex's parent, Japan's Kobe Steel, for an 11-year period. It makes hot-briquetted iron, 60-70 per cent of which is expected to be exported to the United States.	
Posven (Posco Venezuela):					P			
Punta Cuchillo				(Firm)		1999	Posco, Hyundai and Dongbu Steel, are to go ahead with a project to build a large new DR plant in Punta Cuchillo. The plant will consist of two HYL III DR modules each with a capacity of 750 000 tpy. The plant is due to be commissioned in 1999.	MB 27-Jan-97 MB 08-Dec-97
			(1500)	DR (HYL III) x 2				
SIDETUR (Siderurgica del Turbio):					P			
Antímano	200							
		(200) EF x 2 STR						
Barquisimeto	290						A subsidiary of Sivensa.	
		EF x 2 CC x 2 STR						

Country: **VENEZUELA (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Casima, Matanzas	350							
	(350)	EF CC (billet)						
Firo Plant, Matanzas								
	(400)	DR (Fior)						
Guarenas							There is a plan to install melting capacity at the Guarenas works.	MB 07-Sep-98
		STR						
Venprecar, Matanzas								
	(715)	DR (MIDREX)						

Country: **VENEZUELA (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
SIDOR (CVG Siderurgica del Orinoco CA):					P			
Matanzas	3600		2400	(Possible)		2002	In January 1998, a 70% stake in Sidor was sold to Consorcio Siderurgia Amazonia Ltd., a consortium which had won the bid in an auction of Sidor on 17 December 1997. The consortium comprises Techint group (including Argentina's Siderar, Mexico's Tasma and Panama's Techint Engineering Co), Hylsamex of Mexico, Sivensa of Venezuela and Usiminas of Brazil. The Venezuelan government hopes to sell a part of its 30% stake in Sidor to Sidor employees and float the remainder in the local market. The consortium is reportedly studying plans to spend around $850 million to expand annual capacity to 6 million tonnes from 3.6 million tonnes.	MB 25-Jun-98 AMM 09-Jul-98
		DR (MIDREX) x 4						
		DR (HYL) x 4						
	(3600)	EF x 10						
	(1200)	CC (billet) x 3						
	(3000)	CC (slab) x 3						
		CC (round)						
	(750)	STR						
	(450)	WR						
	(90)	Plate						
	(2100)	Hot						
	(1450)	Cold x 2						
		SMLS						
		Tin plate x 2						
SIVENSA (Siderurgica Venezolana):					P			
Orinoco Iron project (JV with BHP)				(Firm)		1999	Orinoco Iron is a 50/50 joint venture between International Briquette Holding (IBH) of Venezuela and Australia's BHP. Sivensa and Ferrominera Orinoco have about 55% and 18% stakes in IBH, respectively. Civil construction work is under way and the plant is due to start up in November 1999. Orinoco Iron will absorb the existing 400 000 tpy Fior DRI plant, resulting in the total capacity of 2.6 million tpy.	MB 20-Apr-98 AMM 20-Nov-97
(Puerto Ordaz)								
	(400)	DR (Fior)	(2200)	DR (Finmet)				

Country: **VENEZUELA (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Venprecar							Some 450 000 tpy of output is used at the Sidetur steel mills, a subsidiary of Sivensa.	MB 04-Dec-97
(Puerto Ordaz)	(715)	DR (MIDREX)					Sivensa plans to expand DR capacity by 100 000 tpy to 815 000 tpy in September 1998 by enlarging its furnace diameter.	
TUBORCA (Tubor del Orinoco CA):					P			
				(Possible)		1995	This new company is to be set up by private sector interests, being owned 51% by private capital, 40% by Sidor and 9% by Sidor's employees, to run a 306 000 tpy seamless pipe production. The plant will come on stream in early 1995.	
			(306)	SMLS				

Country: **OTHERS** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
BOLIVIA								
SIDERSA (Empressa Boliviana de Siderurgica):					S			
S-Cruz de la Sierra			(150)	(Unlikely)			Project under consideration.	
				BF (Charcoal)				
				LD				
COSTA RICA								
Laminadora Costarricense San Jose					P			
	10							
		EF						
		WR						
DOMINICAN REPUBLIC								
METALDOM (Complejo Metalurgico dominicano C por A):					S			
Santa Domingo	100							
		EF x 3						
		CC x 3						
		STR						
ECUADOR								
ECUASIDER					S			
Machala			(210)	(Unlikely)			Project under consideration.	
				EF				
				CC				
				WR				
				STR				

Country: **OTHERS (2)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Fundiciones Nationales								
Guavaquil	60							
		EF x 2						
		CC						
		STR						
EL SALVADOR								
Others								
	10							
SICEPASA (Siderurgica Centro-americana del Pacifico SA):					P			
Sonsonate	100							
		EF						
		CC						
		WR						
		STR						
NICARAGUA								
SIDENICA					S			
			(100)	(Unlikely)				
		EF						
		CC						

Country: **OTHERS (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
PANAMA JAMAICA GUATEMELA HONDURAS								
Others								
	230						A number of electric furnace producers.	
PARAGUAY								
Acepar (Aceros del Paraguay SA):					S/P			
Villa Hayes	150						Acepar is Paraguay's sole steelworks. In October 1997 the Paraguayan government sold the company to Cosipar consortium, a group of private sector Paraguayan investors.	MB 08-Dec-97
		(175) BF (Charcoal) x 2						
		(180) LD x 2						
		CC						
		(150) STR						
PUERTO RICO								
INSID (Industrial Siderurgica Inc.):								
Bavamon	110							
		EF x 2						
		CC						
		STR						

Country: **OTHERS (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
TRINIDAD TOBAGO								
Caribbean Ispat					P			
Point Lisas	1000			(Firm)		1998	Plans to construct a 1.36 million tpy DRI plant in Trinidad and Tobago were announced by ISPAT International Ltd and Midrex. Cost estimates range from $243 million to $ 250 million. The plant is scheduled for completion and start-up in September 1998.	AMM 09-Jan-97
	(1200)	DR (MIDREX) x 2	(1360)	DR (MIDREX)				
	(1000)	EF x 2						
		CC x 2						
	(730)	WR						
Essar Group/ Nasco Ltd					P			
Point Lisas				(Possible)			Essar of India and Nasco of Trinidad are studying a project to construct a 1.2 million tpy DRI plant in Trinidad. Nasco applied for a licence to produce DRI more than two years ago and has since been looking for a partner. Essar already operates a 1.7 million tpy DRI plant india, and has a cold-rolling joint venture indonesia.	MB 13-Nov-97
			(1200)	DR (MIDREX)				
Nucor Iron Carbide Inc					P			
							The plant produced 105 000 tonnes of iron carbide in 1997, down from 126 133 tonnes in 1996.	MB 04-Dec-97
	(300)	Iron Carbide						
URUGUAY								
INLASA (Industrial Nacional Laminadora):								
Montevideo	70							
		EF						
		CC						
		BTM						
		STR						
		WR						

MIDDLE EAST

Unit: thousand tonnes per year

Country	Nominal Capacity							Crude Steel Production	Apparent Consumption*
	Exist	Increase to 2000			Capacity in 2000				
	1998	Firm	Possible	Unlikely	Mean	Low	High	1997	1996
EGYPT	3 420	1 760	1 200	110	5 780	5 180	6 380	2 700	3 654
IRAN	7 490	3 000	0	0	10 490	10 490	10 490	6 322	6 427
LIBYA	1 130	0	0	500	1 130	1 130	1 130	897	1 049
SAUDI ARABIA	2 700	900	0	0	3 600	3 600	3 600	2 539	3 554
OTHERS	1 430	200	2 200	0	2 730	1 630	3 830	973	4 742
TOTAL	**16 170**	**5 860**	**3 400**	**610**	**23 730**	**22 030**	**25 430**	**13 431**	**19 426**

Note: Apparent consumption is in terms of crude steel.

Source: Capacity: OECD Secretariat. Production and apparent consumption: IISI.

Country: **EGYPT** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Al Ezz Steel Rebars Co					P			
Sadat City	600					1998	A 600 000 tpy meltshop, comprising a 105-tonne EF, a ladle furnace and a five-starnd caster, started up in the middle of 1998. Prior to this, a 320 000 tpy bar mill started up in October 1996.	MB 09-Jul-98
	(600)	EF						
	(600)	CC						
	(320)	STR						
	(400)	STR						
Alexandria National Iron & Steel Co (ANSDK):					S/P			
El-Dikheila	840			(Firm)		1998	A second DRI module began trial operations in September 1997. The $115-million module was supplied by Kobe Steel. A second bar mill with a capacity of 300 000 tpy is under construction.	MB 16-Feb-98
	(716)	DR (MIDREX)	(300)	STR				
	(800)	DR (MIDREX)						
	(840)	EF x 4						
		CC x 3						
		WR						
		STR						
Flat-product works, El-Dikheila			1000	(Firm)		2000	ANSDK is proceeding with the construction of its first flat-rolling mill. The contract for the supply of equipment was concluded in December 1997. A Midrex DRI module (800 000 tpy) is to be supplied by Kobe Steel, a 160-tonne electric furnace (1 million tpy) and a 160-tonne ladle furnace by NKK, a thin slab caster and hot strip mill (1 million tpy each) by Germany's SMS.	MB 16-Feb-98
			(800)	DR (MIDREX)				
			(1000)	EF				
			(1000)	CC (tsc)				
			(1000)	Hot				

Country: **EGYPT (2)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Alexandria Steel Melting Co (The Hatem El-Hawary Group):					P			
				(Possible)			A 30-tonne electric furnace has been acquired from Danieli and is to be installed in 1998. The commissioning of the furnace, however, is expected to be delayed until the company secures an adequate electricity supply.	MB 10-Feb-97
				EF				
Alexandria Steel Works (The Hatem El-Hawary Group):					P			
								MB 10-Feb-97
		(200) WR						
Arab Company for Special Steel (Arcosteel):								
Sadat City			160	(Firm)		1999		ISWW
			(160)	EF				
			(160)	CC (billet)				
				STR				
Aswan Iron & Steel (Ademco Gr):								
south of Aswan			600	(Possible)			Ademco was set up in December 1997 as a company to develop the iron ore deposits to the south of Aswan. The company is planning to establish Aswan Iron & Steel, a 60% subsidiary to undertake the construction of a 600 000 tpy reinforcing bar mill, which will be fed with the ore. The mill is expected to be based on a fully integrated route, instead of the EF steelmaking route.	MB 22-Jun-98
			(600)	Steelmkg				
			(600)	STR				

Country: **EGYPT (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Delta Steel Mill SAE					S			
Mostorod	200							
		EF x 5						
		CC						
		STR						
El-Gerhy/ Saudi Basic Industries Copr JV								
near Suez			600	(Possible)			In July 1998, the El-Gerhy group's trading and industrial company revealed details of a joint venture with the Saudi Basic Industries Corp to install a new 600 000 tpy mini mill near Suez. The El-Gerhy group is a trader and importer in the steel business.	MB 09-Jul-98
			(600)	EF				
				LF				
			(600)	CC (billet)				
			(250)	STR				
International Steel Rolling Mills (ISRM):					P			
Sadat City							The company bought a used 600 000 tpy reinforcing bar mill from Bethlehem Steel's Steelton works in 1990. The mill was shipped to Egypt and commissioned in December 1995.	MB 11-Dec-95
	(600)	STR						
National Metal Industries Co.					S			
Abou Zaabal	280						The new melting shop with two electric furnaces and a continuous caster started up and the larger OH furnace replaced the existing OH furnaces in 1988.	
		EF						
		OH						
		STR x 3						
		CC						

Country: **EGYPT (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Pan Arab Special Steels Mill Project								
			(110)	(Unlikely)			Middle Eastern parties involved in plans to build the region's first specialty steel plant have reportedly selected Egypt for its location. AIDO (the Arab Industrial Development Organisation) is to invest 51 per cent of the project's estimated $210 million, the remaining stake being held by the Arab League. It is not clear when construction will start. The plant will produce long products.	
Sadat City Steel Co (The Hatem El-Hawary Group):					P			
				(Possible)				MB 10-Feb-97
	(80)	STR	(120)	STR				
Suez Steel Co					P			
Adabia, Suez			600	(Firm)		1999	The company awarded a contract to Voest-Alpine Industrieanlagenbau GmbH for a 600 000 tpy billet mini mill. The civil works at the plant are almost complete and commissioning is scheduled for July 1999.	MB 09-Jul-98
			(600)	EF				
				LF				
			(600)	CC (billet)				
The Egyptian Copper Works					S			
Alexandria	200						Modernisation underway.	
		OH						
		EF x 2						
		CC						
		STR						

Country: **EGYPT (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
The Egyptian Iron & Steel Co. (Hadisolb):					S			
Helwan	1300						In 1997 it was decided to divide the company into two entities in preparation for its privatisation: one part will comprise the steel plant while the other will comprise ancillary activities such as mining, transport, workshops and housing.	MB 06-Nov-97
		BF x 4						
		LD x 3						
		EF x 2						
		CC x 6						
		STR x 3						
		Plate						
		Hot						
		Cold						

Country: **IRAN**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Iran Alloy Steel Co (Nisco Group):								
Yazd, central Iran						1998	The plant is owned 63% by National Iranian Steel Co and 37% by Bank Saderat. Two 40-tonne EFs, two 40-tonne LFs, a continuous caster and two rolling mills for light and heavy sections are about to be commissioned. The plant produces stainless and alloy steel. In a subsequent phase, the capacity will be raised to 220 000 tpy.	MB 14-Sep-98
	(140)							
	(140)	EF x 2						
		LF						
		CC (billet)						
		STR x 2						
National Iranian Steel Co (Nisco):					S			
Ahwaz	1700		2300	(Firm)		2001	The capacity of four of the six existing 180-tonne EAFs is being raised by increasing the transformer capacity from 78 to 120 MVA. Total capacity should rise from 1.7 million to 4 million tpy. An eighth DRI module is to be commissioned early in 1998.	MB 27-May-97
	(1800)	DR (MIDREX) x 3		LD x 2				
		DR (HYL) x 3		CC x 2				
		EF x 6	(700)	DR				
		CC x 3	(550)	STR				
		STR						
Esfahan Steel Co, Esfahan	1900							
		BF						
		LD x 3						
		CC x 6						
		STR x 2						
Insig, Ahwaz	350		150	(Firm)		1998	Two of the four electric arc furnaces have been demolished and, under a contract with Fuchs of Germany, a new 60-tonne EAF with a ladle furnace and billet caster is to be commissioned in early 1998. This site's capacity will then rise to 500 000 tpy.	MB 27-May-97
		EF x 2		EF				
		CC x 2		CC				
		WR						
		STR						

Country: **IRAN (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Khorasan Steel Complex, Neyshabur			550	(Firm)		1999	The contract for a new bars and light sections mini mill was finalised in November 1996 with Danieli. Construction is being carried out in three phases. In the first phase, whose commssioning is expected by mid-1999, a 110-tonne electric furnace, a ladle furnace, a billet CC and a rolling mill will be constructed. The ground work of the site has already been completed. The mini mill will be fed with a mixture of local scrap, pig iron and DRI sourced from Nisco's other plant. In the following two phases, the steelmaking capacity is to be raised to 1.8 million tpy, and the construction of DRI unit is planned.	MB 12-Jun-97
			(550)	EF				
				LF				
				CC (billet)				
				STR				
Mobarakeh Steel Co, Esfahan	3200						The company placed an order with Demag Italimpianti for the revamp of the hot strip mill, which will increase its capacity from 2.6 million tpy to 3.1 million tpy.	MB 09-Feb-98
	(3200)	DR (MIDREX) x 5	(500)	Hot				
	(3200)	EF x 8						
	(2700)	CC x 4						
	(2600)	Hot						
	(1000)	Cold						
	(200)	HGL						
Others								
	200						Electric arc furnace producer.	

Country: **LIBYA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
State Steel Corporation					S			
Misurata	1100		(500)	(Unlikely)			There are plans to build a third MIDREX DR plant to produce a further 500 000 tpy of sponge iron. Austrian plantmaker Voest-Alpine is likely to take the contract. There are also plans to install a galvanizing line to produce about 60 000 tpy.	MB 23-May-96
		DR (MIDREX) x 2		DR (MIDREX)				
		EF x 6	(60)	EGL				
		CC x 4						
		STR						
		WR						
		Hot						
		Cold						
Tripoli	30							
		EF x 2						
		BTM						

Country: **SAUDI ARABIA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Al-Shamrany Industrial Group					P			
Al-Jubail				(Firm)		1997	A Saudi Arabian manufacturer has joined up with Iscor and BMI in a project to build a 250 000 tpy cold rolling mill.	MB 27-Jul-95
			(250)	Cold				
HADEED (Saudi Iron & Steel Co):					S/P			
Al-Jubail	2700		900	(Firm)		1999	Saudi Iron and Steel Co. (Hadeed) has signed a $1.26 billion bank loan to finance expansion. Most of the loan will be used to finance the flat rolled steel project, construction of which has already begun. The remainder will be used to finance the construction of a new DRI plant that will supply raw material for the steel plant.	AMM 08-Jan-97
		DR (MIDREX) x 3	(1100)	DR (HYL III)				
		EF x 3	(900)	EF				
		CC x 3		CC				
		STR x 2	(800)	Hot				
		WR	(400)	Cold				
Seamless Tube Project								
				(Possible)			A private sector group has formed a consortium of investors to set up the first seamless tube mill in Saudi Arabia.	MB 30-Oct-97
			(110)	SMLS				

Country: **OTHERS**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
ABU DHABI								
General Industry Corp.					S			
				(Firm)			Construction of a 300 000 tpy rolling mill to produce reinforcing bars should start in 1996.	
			(300)	STR				
BAHREIN								
Arab Iron and Steel Company								
Pellet Plant							Plans for a 2 million Direct Reduction Unit plant are under onsideration.	
IRAQ								
State Company for Iron & Steel					S			
Kohr al Zubair	400						Mothballed since September 1980 because of the Iran-Iraq war.	
		DR (HYL) x 2						
		EF x 4						
		CC x 2						
		STR						
		WR						

Country: **OTHERS (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
ISRAEL								
United Steel Mills Ltd					P			
Akko	140							
		EF						
		CC						
		STR x 2						
Yehuda Steel					P			
Ashdod	120						The Cape Gate Group was behind the recent $46 million acquisition of Israel's Ashdod steelworks. The 25-tonne furnace is to be upgraded to increase production of the plant's rated capacity to 150 000 tpy.	
		EF						
JORDAN								
General Specialised Steel Manufacturing Co					P			
Sahab				(Firm)		1998	The company installs second-hand facilities from a variety of suppliers in Canada, France and the United Kingdom.	MB 03-Jul-97
			(250)	STR				
Jordan Iron & Steel Co.								
Zarga-Awaian	75							
		EF						
		CC						
	(120)	STR x 2						

Country: **OTHERS (3)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Others								
	80							
KUWAIT								
United Industrial Steel Co					P			
Kuwait City				(Firm)		1999	Kuwait's National Industries Co and the Qatar Steel Co (Qasco) signed a memorandum of understanding to build a 300 000 tpy rolling mill in Kuwait. A feasibility study is to be carried out at the beginning of 1998. The joint venture is likely to be held 40% by Qasco, 9% by Qatar Industrial Manufacturing Co, and 41% by NIC, with the balance by Gulf Investment Corp.	MB 26-Feb-98 MB 15-May-97
			(300)	STR				
LEBANON								
Lebanon Steel Mill co.								
Tripoli	100						Not operating in recent years.	
		EF						
		STR						
OMAN								
DRI plnat project								
				(Possible)			A feasibility study to set up a 1.2 million tpy DRI plant is under way.	NET 19-Jan-98
			(1200)	DR				

Country: **OTHERS (4)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
QATAR								
A Qatar/Kuwait slab JV								
			1000	(Possible)		2001	A Kuwaiti/Qatar Steel Co joint venture to produce 1 million tpy of slab in Qatar is under evaluation. The feasibility study is to be conducted and production is expected to begin the first quarter of 2001.	MB 05-Mar-98
				EF				
				CC (slab)				
QASCO (Qatar Steel Co Ltd.):					S			
	415		500	(Possible)			The company has been looking into diversifying into flat products. A feasibility study for a 500 000 tpy capacity plant is due to be completed in 1999 or 2001. The privatisation of the company is under consideration. The company is currently 100% state-owned, after the government bought out a 30% stake in the company from Japanese interests in early 1997.	MB 05-Mar-98 DJ 14-Jan-98
		DR (MIDREX)		EF				
		EF x 2 CC x 2		Hot				
		STR						
Qatar Hot Briquetted Iron Company (QABICO):								
				(Firm)		2000	A letter of intent to build a 2 million tpy HBI plant was signed in May 1998 by Qatar Hot Briquetted Iron Co, Lurgi, Metallurgie of Germany and Midrex Corp of the United States. Production at the plant is scheduled to start in the second half of 2000. Qasco will manage the project, and will hold a 31% stake in the plant.	MB 14-May-98
			(2000)	DR				
SYRIA								
GECOSTEEL (Société Générale des Produits Sidérurgiques):					P			
Hama	100							
		EF x 2						
		CC x 2						
		STR						
		WR						

Country: **OTHERS (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
General Organisation of Engineering Industries					S			
El Zora			700	(Possible)		1995	Italy's Danieli will build the new 0.7million tpy steelworks in Syria. The new plant, based on direct reduction, will produce bars, rods and sections.	MB
				DR (MIDREX)				
				EF x 2				
				STR x 2				
UNITED ARAB EMIRATES								
Ahli Steel Co.					P			
Al-Ramool/Dubai							The government required the company to shift its operations from Al Ramool, Dubai, to a heavy industrial zone in Jebel Ali, Dubai. The operations at the old Al Ramool have already been closed down.	MB 09-Feb-98
Jebel Ali, Dubai			200	(Firm)		Sept-1999	The company is building a new mill, rather than moving the old plant to the new site. The new facilities include an electric furnace, continuous caster and rolling mill. The company plans to add light structural sections and wire rods to its current product mix of reinforcing bars.	MB 09-Feb-98
				EF				
				CC				
				STR				
General Industry Corp (GIC):					S			
				(Firm)		2000	A $74 million contract for a 500 000 tpy bar rolling mill was signed in May 1997 between SMS Schloemann Siemag of Germany and state-owned General Industry Corp. The contract come into effect in February 1998 and SMS has started work on designing and manufacturing the plant. Start-up is expected early 2000.	NET 15-Apr-98 MB 02-Dec-96
			(500)	STR				
Hyundai Pipe Co.					P			
							Project of ERW plant with 72 000 tpy delayed. Korean firm has a 40 per cent stake in the project.	

NEW INDEPENDENT STATES

Unit: thousand tonnes per year

Country	Nominal Capacity							Crude Steel Production	Apparent Consumption*
	Exist	Increase to 2000			Capacity in 2000				
	1998	Firm	Possible	Unlikely	Mean	Low	High	1997	1996
RUSSIA	96 290	0	0	0	96 290	96 290	96 290	46 920	19 919
UKRAINE	60 730	600	0	0	61 330	61 330	61 330	25 500	9 295
OTHERS	12 220	0	0	0	12 220	12 220	12 220	6 575	3 592
TOTAL	**169 240**	**600**	**0**	**0**	**169 840**	**169 840**	**169 840**	**78 995**	**32 806**

Note: Apparent consumption is in terms of crude steel.
A considerable part of the existing capacity which appears in this table is likely to have already been closed down, although little information is available to specify at which facilities the reduction took place.

Source: Capacity: OECD Secretariat. Production and apparent consumption: IISI.

Country: **RUSSIA** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Amurstal (Amur Steel Works):					P			
Komsomolsk-on-Amur	1500						The open hearth meltshop was closed down by the end of 1997. The company is under restructuration and the production in 1997 was 34 000 tonnes in crude steel and 49 200 tonnes in rolled products.	MB 16-Apr-98
	(1500)	EF x 7						
		CC x 5						
		STR x 2						
		Hot						
Asha Iron and Steel Works								
Asha	2200						A flat product works.	
		BF x 2						
		OH x 4						
		SLM						
		Hot						
		Cold						
Beloretsk Iron and Steel Works								
Beloretsk	1000							
		BF x 2						
		EF						
		OH x 4						
		BTM						
		SLM						
		STR						
		WR						
		Plate						

Country: **RUSSIA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Chelyabinsk Iron and Steel Works								
Chelyabinsk	7000						Mechel, the company which runs the works, will substancially boost its production of carbon and stainless steel. The aim is to increase production and efficiency while bringing underlying economies to the business by producing higher-value products for export.	MB 18-Jul-96
		BF x 6						
		LD x 3						
		EF x 13						
		CC x 2						
		BLM x 2						
		BTM						
		STR						
		Plate						
		Hot						
		Cold						
Chelyabinsk	450						Mechel has a capacity of 7 million tpy of crude steel and 450 000 tpy of stainless steel.	
Chelyabinsk Tube Rolling Works								
Chelyabinsk	430							
		EF x 2						
		OH x 4						
		BTM						
		SMLS						
		ERW						

Country: **RUSSIA (3)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Izhevsk Iron and Steel Works								
	1000							
		EF						
		OH						
		BLM						
Kirov Works								
St. Petersburg (Leningrad)	900							
		EF x 3						
		OH x 6						
		BTM						
		STR						
		SMLS						
Kuznetskiv Metallurgical Kombinat								
Novokuznetsk	4510						Bankruptcy proceedings against the company started by the local administration in the middle of 1998.	MB 11-Jun-98
		BF x 4						
		EF x 4						
		OH x 14						
		CC (billet) x 2						
		SLM						
		BLM						
		STR						
		Plate						

Country: **RUSSIA (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Lebedinsky GOK					P			
Belgorod						1998	A 1 million tpy HBI plant was scheduled to come on stream in July 1998. Commercial production is expected to begin October 1998.	MB 04-Jun-98
	(1000)	HBI (HYL)						
Magnitogorsk Iron and Steel works Combine (MMK):								
Magnitogorsk	16000			(Firm)		1999, 2001	In April 1998, the No1 blast furnace, which was closed for reconstruction in 1987, was relit. The company hopes to have all ten of its blast furnaces operational by 2005 (currently six are under operation). The construction of the third converter and a cold rolling mill is proceeding. The converter is expected to be commissioned by the end of 1999. On completion of the converter, the company plans to close down its remaining four open hearths. The cold rolling mill is scheduled to be completed by 2001. In the middle of 1998, the EBRD confirmed that it would provide the company with a $105 million loan to help improve its liquidity, reduce its dependence on barter trade and facilitate the purchase of raw materials, energy and transport services.	MB 10-Aug-98 MB 16-Apr-98
		BF x 10	(2000)	Cold				
		OH x 4 LD x 2	(2000)	LD				
		CC x 4 SLM						
		BLM x 2						
		BTM Hot						
		Cold						
		STR x 5						
		WR x 2						

Country: **RUSSIA (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Nizhny Tagil Iron & Steel Works (NTMK):					P			
	5300			(Firm)			NTMK started re-building its production facilities in the early 1990s. In the programme, two continuous casters were installed, in 1995 and 1996. The third, a specialised beam-blank caster, was scheduled to be commissioned by the end of 1997. The company is currently seeking funding for a fourth continuous caster. It also plans to install a new plate mill to replace an antiquated one.	MB 12-Sep-97
		BF x 6		LF				
		LD x 3		CC x 2				
		OH x 8		Plate				
		CC x 2						
		BLM						
		STR						
		Plate						
		Hot						
		Cold						
Novolipetsk Iron and Steel Works					S/P			
Lipetsk	9900							
		BF x 6						
		LD x 5						
		EF x 5						
		CC x 12						
		Hot x 2						
		Cold x 5						
		HGL						

Country: **RUSSIA (6)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Novosibirskiv Met Zavod Kuzmin					P			
Novosibirsk	600							
		BF						
		OH x 6						
		BTM						
		Hot						
		Cold						
		ERW						
Orsk-Khalilovo Iron and Steel Combine								
Novo-Troitsk	4500			(Firm)			The works has a capacity of around 3 million tpy of pig iron, 4.5 million tpy of crude steel and 3 million tpy of rolled products.	MB 28-May-98
								MB 01-Dec-97
							The company placed an order for a slab caster and ladle furnace with Mannessmann Demag. Demag will also carry out a comprehensive modernisation of the hot-rolling mill, which will increase its capacity by 800 000 tpy.	AMM 18-Dec-97
		BF x 4		CC (slab)				
		OH x 6		LF				
		BS x 3	(800)	Hot				
		EF x 2						
		CC						
		BLM						
		Plate						
		Hot						
		STR						

Country: **RUSSIA (7)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
OSKOL Electric Steel Works (Formerly Kurk Works OEMK):					S/P			
Stary Oskol	1700			(Firm)		1999	The company has obtained a total of $118 million in financing for its modernisation and expansion plans from the European Bank for Reconstruction & Development and others, which helped the company to construct the mill.	MB 09-Mar-98
		DR (MIDREX) x 4	(1000)	WR				
		LD x 2						
		EF x 4						
		CC x 4						
		STR						
		WR						
Red October Steel Works								
Volvograd	5400							
		EF						
		OH x 16						
		BLM						
		BTM						
		STR						
		Plate						
Serov Iron and Steel Works								
Serov	3150							
		BF x 7						
		OH x 9						
		EF						
		BLM						
		STR						

Country: **RUSSIA (8)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Severskiy Tube Works								
Polevskoy	800			(Possible)			The company is studying a report by UK consultants, which recommended that the company install a new bloom caster and a Mandrel-type seamless tube mill to replace the current Pilger mill.	MB 09-Jul-98
	(800)	OH x 4		CC (bloom)				
		BTM		SMLS				
		SMLS						
	(750)	ERW x 6						
Severstal (Cherepovest Iron and Steel Works):								
Cherepovest	10900							
		EF x 9						
		OH x 7						
		LD x 3						
		CC x 7						
		BLM						
		BTM						
		Hot x 2						
		Cold						
		STR						
		WR x 2						
Sickle and Hammer Works					P			
Moscow	70							
		EF x 4						
		CC x 2						
		STR						
		WR						
		Hot						
		Cold						

Country: **RUSSIA (9)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Taganrog Iron and Steel Works								
Taganrog	800							
		OH x 4						
		BTM						
		SMLS						
		ERW						
Verkh-Isetsk Iron and Steel Works								
Sverdlovsk	4600							
		BF						
		EF x 3						
		OH						
		SLM						
		Cold						
Volvograd Tube Works								
Volvograd	1030							
		EF x 2						
		CC x 2						
		ERW						
Vyksa Iron and Steel Works								
Vyksa	500							
		EF x 2						
		OH x 3						
		ERW						

Country: **RUSSIA (10)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Zapsib-West Siberian Steel Works								
Antonovskava	11250						The company was declared bankrupt in 1997 and is ungergoing a 15-month period of protection from creditors. Although the merger with neighbouring Kuznetsk steelworks was considered, the procedure is not yet settled.	MB 02-Feb-98 MB 09-Feb-98 MB 12-Feb-98
(near Novokuznetsk)								
		BF x 6						
		LD x 6						
		EF						
		CC x 2						
		BLM						
		Hot						
		STR						
		WR						
Zlatoust Iron and Steel Works								
Zlatoust							The company went bankrupt and was taken over by a government-appointed administrator after a local court ruling which decreed that the plant be taken into receivership.	MB 12-Mar-98
	(800)							
		EF						
		OH x 9						
		BLM						
		STR						

Country: **UKRAINE**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Azovstal Iron and Steel Works								
Zhdanov (Mariupol)	8300						The state property fund of Ukraine will sell a 52.75% stake in the plant by the end of December 1998, thereby completing the privatisation of the company. Prior to this, the company was reported to be merged with Ilych Iron and Steel Works, also located in Mariupol. The merger was agreed at a June 24 meeting in Kiev.	MB 17-Aug-98 MB 27-Jun-96
		BF x 6						
		LD x 4						
		EF						
		CC x 5						
		STR						
		Plate						
Dneprovsky Iron and Steel Works (DMK) (former Dzerzhinsky								
Dneprodzerzhinsk	4000						DMK is slowly but surely financing its own modernisation in the absence of investors. DMK currently operates five BF, three OH and two converters. It produces billets, rounds, rails, sheet piles, channels, beams, etc. The mill's crude steel capacity is 4 million tpy. DMK has been running at a profit since 1991, and profits have been invested in the fund for the modernisation programme. The first major steps are the addition of another converter, the addition of a third continuous caster and the closure of the open hearth furnaces. The total cost for this work will be $100 million, but further modernisation of the rail mill, heavy and medium section mills, axle mill and ball-rolling mills will bring the figure up to $290 million.	MB 26-Jun-97
		BF x 5		LD				
		LD x 2		CC				
		OH x 3		STR				
		BLM						
		STR						
		Plate						
		WR						
		CC x 2						
Dnieper Special Steel Works								
Zaporozhye	(5800)						Products: tool steels, alloy and special steels.	
		EF x 20						
		OH x 18						
		BLM						
		STR x 3						

Country: **UKRAINE (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Donetsk Iron and Steel Works (Donetsk Metallurgical works					P			
Donetsk	1300		600	(Firm)		1999	Danieli of Italy is to supply Donetsk with a 120-tonne LF and a continuous billet caster, which are expected to raise steelmaking capacity by 600 000 tpy. These new facilities are scheduled for July 1999. The State Property Fund of Ukraine hopes to release its remaining 20% stake in the plant by the end of 1998, thereby completing the privatisation of the company. In a separate move, a plan to install a new EF is under way. The furnace, to be completed by December 1999, is expected to raise the plant's total EF capacity to almost 1 million tpy. One of the two existing EFs will be closed down upon completion of the new furnace.	MB 12-Oct-98 MB 17-Aug-98 MB 02-Apr-98 AMM 03-Apr-98
		BF x 2		LF				
		EF x 2	(780)	CC (billet)				
		OH x 5		EF				
		CC						
		BTM						
		STR x 3						
Electrostal Machine Building Works								
Kramatorsk	600						The plant supplies the engineering works for the steel industry.	
		EF						
		OH x 4						
		BLM						
		STR						
Frunze Iron and Steel Works								
Konstantinovka	1000							
		BF x 2						
		OH x 5						
		BTM						
		STR						

Country: **UKRAINE (3)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Kommunarsk Iron and Steel Works								
Kommunarsk	4080							
		BF x 5						
		EF x 3						
		OH x 10						
		BLM						
		STR						
		Plate x 2						
		Cold						
Kramatorsk Steel Works								
Kramatorsk, Donetsk	400						The company is seeking new investors to finance the upgrade of its blast furnaces and steelmaking facilities.	MB 13-Jul-98
		BF x 2						
		OH						
		STR x 3						
Krivoy Rog Iron and Steel Works								
Krivoy Rog	10650			(Firm)		2000	The company is installing a ladle furnace and two continuous casting machines. The facilities have already been ordered and the work is scheduled to start in June 1998, and set to become operational in 2000.	MB 16-Apr-98
		BF x 7		LF				
		OH x 2		CC x 2				
		LD x 10						
		EF x 4						
		BLM x 3						
		STR x 6						
		WR x 2						
		Hot						

Country: **UKRAINE (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Kuribyshev Iron and Steel Works								
Kramatorsk	700						Products: reinforcing bars; sections, stainless bars, tool steels.	
		BF x 4 EF OH x 5 BLM BTM STR Hot Cold						
Makeyevsky Kirov Iron & Steel Works								
Makayevka	3750						The company is reportedly facing possible bankruptcy.	MB 30-Jul-98
		BF x 4 EF x 3 OH x 11 BLM BTM STR x 2 WR x 2 Hot						

Country: **UKRAINE (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Mariupol Iron & Steel Works (Ilyich):								
Mariupol, Donetsk	7300						The company will begin production of carbody sheets, aiming to supply to the joint venture between Korea's Daewoo Corp and Ukrainian carmaker Avtozaz.	MB 22-Jun-98
		BF x 5 OH x 6 LD x 3 CC SLM Plate x 3 Hot Cold SMLS HGL						
Nizhnedneprovsky Tube Rolling Works								
Dnepropetrovsk	850						Products: wheels and rims, seamless tubes and pipes.	
		OH x 5 BLM SMLS						
Petrovky Iron and Steel Works								
Dnepropetrovsk	3500							
		BF x 6 LD x 3 OH x 8 BLM WR Plate STR						

Country: **UKRAINE (6)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Yenakiyevo Iron and Steel Works								
Yenakiyevsky	3500						Products: heavy rails, medium plates, heavy plates.	
		BF x 6 LD x 3 BLM STR Plate						
Zaporozhye Steel Works (Zaporozhstal):								
Zaporozhye	5000			(Possible)			The State Property Fund of Ukraine, the state privatisation body, following a government decision to keep a majority shareholding in the plant, redeced its release of a stake in the company from an initial plan of 54.63% of shares to 24%.	MB 13-Aug-98 MB 16-Mar-98 MB 16-Feb-98
		BF x 5 OH x 9 SLM Hot Cold HGL		Cold				

Country: **OTHERS** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
AZERBAIJAN								
Azerbaijan Tube Rolling Plant Works (Azerboru):								
Samgait	800						The state property commission of Azerbaijan took over the running of the plant from the Metallurgia holding company and is aiming to attract foreign investors.	MB 11-Jun-98
	(800)	OH x 6 BLM BTM SMLS						
BELARUS								
Zhlobin Metallurgical Works (Belarussian Steel Works (BMZ)								
Zhlobin	1200			(Firm)		2000	Work on the installation of a new 320 000 tpy wire rod mill supplied by VAI was set to begin in August 1998. The start-up is expected in August 2000.	MB 11-May-98
		EF x 3 CC x 3 STR WR	(320)	WR				
GEORGIA								
Rustavi Iron and Steel Works								
Rustavi	1400			(Firm)			The plant is the sole steelworks in Georgia. The government is set to sell a 47% stake in the company at auction. The operation at the plant was temporarily ceased at the beginning of the year and reopened in April, following the award to Metallurgoilgazinvest of a tender to manage a 51% controlling stake in the works. Under its managemant, a modernisation programme of the plant has been under way, which involves the installation of a 50-tonne EF and a 300 000-400 000 tpy billet caster, the reconstruction of the blast furnace and the upgrade of the finishing line at the tube production shop. The contract for the EF was said to be closed in July 1998 and Fuchs was reportedly to supply the furnace.	MB 25-Jun-98
		BF EF x 3 OH x 8 CC BLM BTM STR SMLS ERW		EF CC				

Country: **OTHERS (2)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
KAZAKHSTAN								
Ispat Karmet JSC					P			
Karaganda	6300			(Firm)		1998	Ispat International acquired the Karaganda Metallugirca Combine from the Kazakh government in November 1995. In December 1997, Ispat Karmet signed a $450 million loan agreement with the European Bank for Reconstruction and Development and the International Finance Corporation. The loan will be allocated to the company's $800 million modernisation programme, with the remaining $350 million paid by Ispat itself. The main projects in the programme are the construction of a new Galvalume coating line and a new coke oven battery, and the reconstruction of the plant's No.3 blast furnace. A part of the loan will be spent on environmental improvements.	HP MB 11-Dec-97 AMM 10-Dec-97
	(5260)	BF x 4 OH x 2	(320)	HGL				
	(6300)	LD x 3						
	(6000)	SLM						
	(5200)	Hot						
	(1400)	Cold						
	(800)	Cold						
	(375)	Tin Plate						
LATVIA								
Liepajas Rupnica Sarkanais Metallurgs (Red Metal Worker					S			
Liepaja	550			(Possible)			The company is seeking to replace one of its three open hearths with an electric arc furnace. Negotiations are under way with several companies for the supply of the new furnace. The company is Latvia's only steel producer.	MB 27-Aug-98
		OH x 3		EF				
		CC x 2						
	(540)	STR x 2						

Country: **OTHERS (3)**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
MOLDOVA								
Moldova Steel Works (MMZ):								
Rybnitsa	800			(Possible)		1999	The company completed the upgrading of one of the two furnaces, which raised capacity from 700 000 tpy to 800 000 tpy. The company is considering the addition of a 105-tonne EF equipped with an 80 MVA transformer some time in 1999. This, however, depends on outside investment, which MMZ is continuing to seek, following the completion of the first stage of privatisation in early 1998 in which a 28.8% stake in the company was transfered to a collective body of employees.	MB 17-Aug-98 MB 01-Jun-98 MB 23-Oct-97
	(800)	EF x 2		EF				
	(800)	CC x 2						
	(700)	STR						
UZBEKISTAN								
Uzbek Iron and Steel Works								
Bekabad	1170						In 1998, a 34 per cent of the stake was sold to four investors – the National Bank of Uzbekistan, the Almalyk metals plant, the Navoi metals plant and Daewoo (each an 8.5% share). A further 10 per cent is planned to be sold to foreign investors in the near future.	MB 02-Mar-98
	(750)	EF x 2						
	(320)	OH x 3						
	(1180)	CC (billet) x 4						
	(1240)	STR x 2						

SOUTH EAST ASIA

Unit: thousand tonnes per year

Country	Nominal Capacity							Crude Steel Production	Apparent Consumption*
	Exist	Increase to 2000			Capacity in 2000				
	1998	Firm	Possible	Unlikely	Mean	Low	High	1997	1996
CHINA	124 240	6 940	610	8 600	131 485	131 180	131 790	107 306	110 415
CHINESE TAIPEI	16 171	5 020	645	0	21 514	21 191	21 836	15 870	21 610
INDIA	28 868	5 741	5 000	20 250	37 109	34 609	39 609	23 750	27 400
INDONESIA	6 996	1 960	2 000	5 000	9 956	8 956	10 956	4 100	7 179
MALAYSIA	4 010	6 800	0	0	10 810	10 810	10 810	3 200	9 011
PAKISTAN	1 520	0	1 900	0	2 470	1 520	3 420	1 100	1 660
PHILIPPINES	1 377	1 550	0	0	2 927	2 927	2 927	950	5 060
THAILAND	5 070	1 700	900	2 300	7 220	6 770	7 670	2 000	11 993
VIETNAM	340	0	6 000	1 400	3 340	340	6 340	320	1 781
OTHERS	14 702	0	0	600	14 702	14 702	14 702	1 223	8 012
TOTAL	**203 294**	**29 711**	**17 055**	**38 150**	**241 533**	**233 005**	**250 060**	**159 819**	**204 121**

Note: Apparent consumption is in terms of crude steel.

Source: Capacity: OECD Secretariat. Production and apparent consumption: IISI.

Country: **CHINA**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
An Feng Steel					P			
Shantou						end 1998	An Feng Steel of Chinese Taipei is planning to build a new galvanising and colour coating plant in China.	MB 16-Oct-97
			(300)	HGL				
Angang New Steel Co/ Thyssen Krupp Stahl JV								
				(Possible)		2000	Negotiations are under way with Thyssen Krupp Stahl and Angang New Steel by the end of 1998 on a 50/50 galvanized steel venture.	MB 30-Apr-98
			(300)	HGL				
Anhui Jinguang Steel Workd								
	50							
			(50)	EF				
			(200)	STR				

Country: **CHINA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Anshan Iron and Steel Co. (Angang):					S			
Liaoning	8800			(Firm)		1999 & 2002	The last remaining open hearth was closed in July 1998, after a 20-month programme of conversion to LD converters. Two continuous casters, one for slabs and one for blooms, are to be constructed by 1999, raising the company's CC ratio from 40 per cent to 70 per cent. The company is reportedly aiming at raising its CC ratio further to 90 per cent by 2000 with the installation of more casters. A Japanese consortium lead by Mitsubishi Corp and Mitsubishi HI signed in January 1997 for the supply of a 3.5 million tpy hot strip mill, which is expected to be commissioned by 2002.	NET 17-Jul-98 AMM 20-Aug-98 AMM 06-Jan-97 MB 16-Jan-97
	(8867)	BF x 11	(1100)	CC (slab)				
		LD	(700)	CC (bloom)				
	(148)	EF x 12	(3500)	Hot				
	(2820)	CC x 5						
	(6460)	BLM x 2						
	(2500)	Hot x 2						
		Cold x 2						
		Plate x 2						
		STR						
		SMLS						
Anyang Iron & Steel Group Co. Ltd.					S			
Anyang, Henan	1540		700	(Firm)		end 1999	The company has contracted with VAI of Austria to build a new steel plant and continuous caster. The mill will consist of a 100 tpy finger shaft furnace, a 100 tpy LF and a single-strand continuous slab caster.	MB 09-Mar-98
	(1560)	BF x 9	(700)	EF (shaft furnace)				
	(1440)	LD x 5		LF				
	(100)	EF x 2	(700)	CC (slab)				
	(930)	CC x 7						
	(450)	BLM						
	(875)	SMLS						

Country: **CHINA (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Baoshan Iron and Steel Co. (Baoshan):								
Shanghai	10785			(Firm)		1998-2000	The company is proceeding with the third phase expansion, which consists of: the third BF (commissioned in 1994), two LD converters (commissioned in April 1998), two twin-shell EAFs (commissioned in 1997), two slab CCs (commissoned in April 1998), the second hot-strip mill (commissioned in 1996), the second cold-strip mill (commissioned in March 1998) and two tin-plate mills. A 400 000 tpy WR mill, a 720 000 tpy cold-strip mill, a 260 000 tpy EGL and an HGL was added subsequently in the third phase expansion.	SS 13-May-98 SS 10-Jun-98 SEAISI 01-Mar-98
	(9750)	BF x 3	(400)	WR				
	(6485)	LD x 3	(720)	Cold				
	(3300)	LD x 2		HGL				
	(1000)	EF x 2	(260)	EGL				
	(3445)	SLM	(400)	Tin Plate x 2				
	(4000)	CC x 3						
	(3200)	CC (slab) x 2						
	(6700)	Hot x 2						
	(2100)	Cold						
	(720)	Cold						
		HGL						
		EGL						
	(500)	SMLS						
Baotou Iron and Steel Co. (Baogang):					S			
Baotou City, Inner Mongolia	4030			(Firm)			German plantmaker SMS, under a contract signed in May 1996, is to supply a thin slab caster and a rolling plant to China's three steelworks including Baotou Iron & Steel.	MB 03-Sep-98
	(4552)	BF x 6		CC (tsc)				
	(1710)	OH x 3		Hot				
	(2300)	LD x 4						
	(22)	EF x 10						
	(3320)	BTM x 3						
		STR						
		SMLS						

Country: **CHINA (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Baotou Steel & Rare Earth Co								
Inner Mongolia						early1998	A new steelshop was commissioned in early 1998. Capacity unknown.	MB 03-Sep-98
		EF						
		CC (bloom)						
Beigan Iron and Steel Co					S			
	830							
	(8)	BF						
	(250)	OH x 3						
	(580)	EF x 6						
	(100)	CC						
	(490)	BLM						
	(430)	STR						
Benxi Iron and Steel Co. (Bengang):					S			
Benxi City (Liaoning)	2455							
	(3090)	BF x 5						
	(2000)	LD x 3						
	(455)	EF x 13						
	(2000)	SLM						
		Hot						
		Cold						
		HGL						

Country: **CHINA (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Bohai NKK Drillpipe Co., Ltd.					S/P			
Gangzhou							Bohai NKK Drillpipe, a subsidiary of NKK Corp., began commercial operation of a seamless drill pipe mill with a capacity of 16 000 tpy, which was shipped from NKK's Keihin Works.	AMM 24-Feb-97
	(16)	SMLS						
Changcheng Special Steel (Group) Co Ltd (Changte):					S			
	555							
	(555)	EF x 12						
	(60)	CC						
	(320)	BLM						
	(610)	Rolling						
Changzhi Iron and Steel (Group) Co Ltd (Changgang):					S			
	320							
	(513)	BF x 5						
	(278)	LD x 3						
	(42)	EF x 2						
	(200)	CC x 2						
	(370)	BLM						
		STR						
		Hot						
		Cold						
		SMLS						

Country: **CHINA (6)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Chengde Iron and Steel Group Co Ltd (Chenggang):					S			
	1085							
		(520) BF x 3						
		(1000) LD x 5						
		(85) EF x 3						
		(350) CC x 2						
		(200) BLM						
		(470) Rolling						
Chengdu Seamless Steel Tube Plant (Chengwu):								
	637							
		(450) OH						
		(187) EF x 2						
		(507) CC x 5						
		(530) SMLS						
Chongqing Iron and Steel (Group) Ltd (Chonggang):								
Chongqing, Sichuan	1790							
		(1397) BF x 4						
		(410) OH x 4						
		(1170) LD x 4						
		(210) EF x 2						
		(1210) CC x 7						
		STR						
		Plate						
		ERW						

Country: **CHINA (7)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Chongqing Special Steel (Group) Co Ltd								
Chongqing, Sichuan	360							
	(360)	EF x 12						
	(60)	CC						
	(320)	BLM x 3						
		STR x 3						
		Plate x 2						
		Hot						
		Cold						
Dalian Posco-CFM Coated Steel Co Ltd					S/P			
							The company is a Korea-China joint venture, held 40 per cent by Posco. Production started in September 1997.	AMM 01-Oct-97
	(100)	HGL						
Dalian Pujin Tinplate								
				(Possible)		suspended	Posco signed a basic agreement in July 1997 with Chinese partners, before deciding to put the project on indefinite hold.	MB 29-Jun-98
			(100)	Tin Plate				
Dalian Steel Plant					S			
	390							
	(390)	EF x 11						
	(190)	BTM						
	(200)	WR						

Country: **CHINA (8)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Daye Steel (Group) Co., Ltd								
Hubei	648							
	(246)	OH x 3						
	(402)	EF x 12						
	(150)	CC (billet)						
	(560)	BLM						
		STR						
		SMLS						
Echeng Iron and Steel Works (Egang):								
	700							
	(650)	BF x 2						
	(573)	LD x 3						
	(120)	EF x 6						
	(350)	CC (billet) x 2						
		STR x 4						
		WR						
		Hot						
		Cold						
Fujian Maweizhong Steelworks								
	300						The company operates a 50-tonne AC furnace built in 1996.	MBM 01-Nov-97
	(300)	EF						

Country: **CHINA (9)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Fujian Sino-Japan Metal Corp					P			
Fuzhou, Fujian						May 1998	The company is the first foreign-owned company in China's steel industry, without the involvement of any local Chinese interests. A 65 per cent stake is held by the Japanese investors, which include NKK (15%), Okura & Co (12%), Marubeni Corp and Sumitomo Corp (11.5% each), while Tung Ho Steel of Chinese Taipei holds 35 per cent. A second-hand electronic tinning line had been relocated from NKK's Keihin works. The official operation began in May 1998, while a trial had been under way since February.	SS 29-May-98 AMM 01-Jun-98 MB 02-Feb-98
	(150)	Tin Plate						
Fushun Iron and Steel Co					S			
	1016							
	(513)	BF x 3						
	(900)	LD x 3						
	(116)	EF x 6						
	(290)	CC x 2						
		BTM						
		STR						
Fushun Special Steel Co Ltd					S			
	577							
	(577)	EF x 11						
	(200)	BLM						
		STR						
		Hot						
		Cold						
		SMLS						

Country: **CHINA (10)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Great Wall Special Steel Co.								
Sichuan			500	(Possible)		2000-	The company announced a plan to build a new 500 000 tpy steelworks.	MB 24-Nov-97
			(500)	EF (DC)				
				CC				
Guangdong EGL project by Posco								
Guangdong Province				(Possible)		suspended	Posco signed an MoU with the Guangdong authorities in September 1997 to construct a 150 000 tpy capacity electro-galvanizing line. The construction was scheduled to start in May 1998; however, Posco announced in June 1998 that it was putting the project on indefinite hold.	MB 29-Jun-98
			(150)	EGL				
Guangzhou Iron & Steel (Guanggang):								
	700							
		(455) BF x 2						
		(350) LD x 3						
		(350) EF x 5						
		(400) CC x 2						
		(500) BLM						
		STR						
Guangzhou Iron & Steel/ Boulder JV					S/P			
			110	(Possible)		late1998	Australian Overseas Resources and the Boulder Group of Sydney set up a joint venture with Guangzhou Iron & Steel of China to build a 110 000 tpy stainless steel rod and bar mill in China's Guangdong province.	MB 27-Mar-97
			(110)					MB 02-Dec-96
			(110)	EF				
			(110)	CC				
			(110)	WR				

Country: **CHINA (11)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Guangzhou Nanfang Steel Plant								
Guangzhou	150							
	(150)	EF x 3						
		CC						
		STR						
Guangzhou Pacific Tinplate (Patin):								
							Patin began commercial production of a 120 000 tpy tinning line in February 1997.	MB 03-Mar-97
	(120)	Tin Plate					The company was established in 1994 as a Japan-Hong Kong-China joint venture. Among the shareholders are Nippon Steel, Itochu Corp and Mitsui & Co. of Japan, CNT Tin Plate of Hong Kong, Guangzhou Economic & Technological Development Zone Industrial Development Corp and Guanzhou Brewery of China. The product is mainly supplied for food canning applications.	
Guangzhou Zhujiang Iron & Steel Co.								
Zhujiang			820	(Firm)		1999	Guangzhou Zhujiang Steel was established in 1993 as the first flat product minimill in China.	MB 03-Sep-98
							Voest-Alpine and Fuchs have won a contract to supply a 150-tonne EF and relevant equipment.	AMM 04-Sep-96
			(820)	EF			A contract for CSP slab caster and hot strip mill has already been placed, and the plant is expected to be completed in 1998 with production expected to start in 1999. This is China's only major greenfield steel plant expansion at present.	
			(792)	CC (tsc)				
			(792)	Hot				
			(300)	Cold				
Guiyang Steel (Guigang):								
Guizhou	300			(Firm)		June2000	Italian plantmaker Techint is to supply a 60-tonne electric arc furnace (300 000 tpy) which will replace the existing ones. The project is financed by the Asian Development Bank. Construction began in June 1998.	MB 13-Jul-98
	(300)	EF x 4	(300)	EF				
	(300)	BLM	(300)	CC (billet)				
	(310)	STR						

Country: **CHINA (12)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Handan Iron & Steel General Works (Hangang):					S			
Hebei	1530		2500	(Firm)		2000	The company is the first steelmaker to win the status of Model State Enterprise in 1996.	MB 03-Sep-98
							Construction began in November 1997. The company took over Hebei Nen Shui Steel Pipe and Wuyang Steel in 1997.	MB 16-Oct-97
	(1523)	BF x 4	(2500)	LD				
	(1530)	LD x 6	(2500)	CC (tsc)				
	(1795)	CC	(2500)	Hot				
	(1530)	STR	(1000)	Cold				
Hangzhou Iron and Steel Works (Hanggang):					S			
Hangzhou City, Zhujiang	985		420	(Firm)		early1999	An order was placed in 1997 with VAI and Clecim for an 80-tonne DC furnace and a three-strand billet caster.	MBM 01-Sep-97
								MB 17-Feb-97
	(606)	BF x 3	(420)	EF				
	(847)	LD x 3	(420)	CC (billet)				
	(138)	EF x 4						
	(900)	CC x 3						
	(330)	BLM						
		STR						
Hefei Iron and Steel Co (Hegang):					S			
	700							
	(500)	BF x 4						
	(600)	LD x 3						
	(100)	EF x 5						
	(450)	CC x 3						
	(240)	BLM						
		STR						
		Hot						
		Cold						
		SMLS						

Country: **CHINA (13)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources	
Hengyang Steel Tube Group									
Hengyang, Hunan	200								
	(200)	EF							
	(200)	CC							
	(100)	SMLS							
	(50)	ERW							
Huhehot Iron and Steel Works									
Huhehot									
		BF							
		LD							
		BTM							
		STR							
Jiangsu Huaiyin Steel									
	300						A 75-tonne electric arc furnace was commissioned in 1995.	MBM	01-Nov-97
	(300)	EF							
Jiangsu Xigang Group Corp									
Xingu, Jiangxi	500						Paul Wurth, the Luxembourg-based plantmaker, constructed an 80-tonne electric arc furnace and a bloom caster. These seem to have been commissioned in 1997. The plant is located some 120 km from Shangai, and produces engineering steels.	MB	11-Mar-96
	(500)	EF							
		CC (bloom)							
		STR							

Country: **CHINA (14)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Jiangsu Xingchen Steelworks								
	600						A 100-tonnet DC electric arc furnace was commissioned in 1997.	MBM 01-Nov-97
		(600) EF						
Jianxi Xinyu Iron and Steel Co Ltd								
	1163							
		(902) BF x 4						
		(940) LD x 6						
		(223) EF x 7						
		(914) CC x 6						
		(900) BLM						
		STR						
		Hot						
		Cold						
Jinan Iron and Steel Group Co. (Jigang):					S			
	2140							
		(2500) BF x 12						
		(1840) LD x 5						
		(300) EF x 6						
		(990) CC x 7						
		(300) SLM						
		STR						
		Plate						

Country: **CHINA (15)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Jining Iron and Steel Works								
Jining, Shangdong	50							
	(50)	EF						
Jiuquan Iron and Steel Co. (Jiugang):					S			
Jayuguan, Gansu Province	1010			(Possible)				FT 06-Jan-98
	(1200)	BF x 2	(500)	Plate				
	(1000)	LD x 3						
	(10)	EF						
	(630)	CC x 3						
	(400)	WR						
		Plate						
Kunming Iron & Steel Corp. (Kisco; Kungang):					S			
	1593							
	(800)	BF x 4						
	(1400)	LD x 5						
	(193)	EF x 8						
	(1060)	CC x 6						
		BLM						
		Plate						
		SMLS						
		ERW						

Country: **CHINA (16)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Laiwu Iron and Steel General Works (Laigang):					S			
Laiwu	1600						Nipppon Steel constructed a 500 000 tpy heavy section mill capable of producing angles, H-beams, I-beams and other shapes. The mill was commissionned in 1997.	
	(1430)	BF x 6						
	(1200)	LD x 3						
	(400)	EF x 6						
	(900)	CC x 3						
	(500)	BTM						
	(500)	STR						
		STR x 2						
		Hot						
		Cold						
Lanzhou Iron and Steel Group Co (Langang):								
	440							
	(300)	LD						
	(140)	EF x 6						
	(166)	CC x 3						
	(170)	BTM						
	(240)	STR						
Lianyuan Iron and Steel Co (Liangang):								
	1100							
	(740)	BF x 4						
	(700)	LD x 3						
	(400)	EF x 4						
	(950)	CC x 7						
	(1120)	STR						

Country: **CHINA (17)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Linfen Iron and Steel Co (Lingang):								
	300							
		(470) BF x 4						
		(300) LD x 3						
		(250) CC x 2						
		(160) STR						
Lingyuan Iron and Steel Co (Linggang):								
	1070							
		(640) BF x 4						
		(950) LD x 3						
		(120) EF x 4						
		(575) CC x 2						
		(200) BLM						
		STR						
		Hot						
		Cold						
		ERW						
Liuzhou Iron and Steel (Group) Ltd (Liugang):								
	624							
		(900) BF x 4						
		(500) LD x 3						
		(124) EF x 2						
		(660) CC x 6						
		(320) BLM						
		STR						

Country: **CHINA (18)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Luoyang Steel Plant (Luogang):								
	775							
	(70)	BF						
	(390)	LD						
	(385)	EF x 6						
	(150)	CC						
	(140)	BTM						
	(350)	STR						
Maanshan Iron and Steel Co Ltd (Magang):					S			
Anhui	2290			(Firm)		1998	A 400 000 tpy H-beam mill, together with a bloom continuous caster, are to be commissioned. Maanshan will become China's first H-beam producer. The company is looking for a new meltshop in an effort to close remaining open hearths.	MB 03-Sep-98
	(3890)	BF x 15	(400)	CC (bloom)				
	(60)	OH x 2	(400)	STR				
	(2010)	LD x 6						
	(221)	EF x 9						
	(1730)	CC x 7						
	(950)	BLM						
		Plate						
		WR						
		STR x 2						
	(600)	STR						

Country: **CHINA (19)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Nanchang Iron and Steel Co Ltd								
	500							
		(360) BF x 3						
		(360) LD x 3						
		(140) EF x 4						
		(150) CC						
		(270) BTM						
		(370) STR						
Nanjing Iron and Steel Group Co. Ltd (Nangang):					S			
	1500						A 75-tonne AC arc furnace (300 000 tpy) was commissioned in 1996.	
		(1100) BF x 4						
		(1100) LD x 3						
		(400) EF x 3						
		(1570) CC x 4						
		(400) BLM						
		STR x 3						
		(350) WR						
		Hot						
		(500) Plate						
Ningbo Baoyang Special Steel Cold Rolling Co.					S/P			
						1998	The company is a 66/34 joint venture between China and Japan. Main shareholders include: Baoshan (51%), Zheyong (Ningbo) Investment Co of China and Nisshin of Japan. Commissioned in July 1998.	MB 20-Jul-98
		(80) Cold						

Country: **CHINA (20)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Ningbo project								
Ningbo			(1600)	(Unlikely)		2000-	China is to go ahead with plans to build a new integrated steel plant at Ningbo. The project involves Baoshan Steel, Zhyong Iron & Steel and a foreign partner. Construction will begin next year and will cost 20 billion yuan. When complete, the works will prduce 1.6 million tpy of crude steel and 1.44 million tpy of rolled products. Not likely to be realised before 2000.	MB 11-Jan-96
			(1600)	Steelmkg				
			(1440)	Rolling				
Others								
	23311						China's official statistics indicate that the country's steelmaking capacity in 1995 was 117.15 million tpy.	
Panzhihua Iron & Steel Co. (Pangang):					S			
Sichuan Province	2000							
			(3024)	BF x 5				
			(1758)	LD x 5				
			(247)	EF x 6				
			(1000)	CC				
			(1500)	BLM				
				STR				
				Hot				

Country: **CHINA (21)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Pingxinag Iron and Steel Works (Pinggang):								
	450							
		(375) BF x 3						
		(450) LD x 4						
		(150) CC						
		(150) BTM						
		(80) STR						
Qingdao Iron and Steel Group Co (Qinggang):								
	680							
		(132) BF x 3						
		(650) LD x 3						
		(30) EF						
		(320) CC x 2						
		(400) BTM						
		STR x 3						
		WR						
Sanming Iron and Steel Works								
	620							
		(600) BF x 3						
		(520) LD x 3						
		(100) EF x 4						
		(450) CC x 3						
		(330) BTM						
		STR x 2						
		WR						

Country: **CHINA (22)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Shaanxi Steel Plant (Shaangang):								
	204							
	(204)	EF x 8						
	(60)	CC						
	(120)	BTM						
		STR						
		WR						
Shangdong Laiwu Steelworks								
	200						A 50-tonne electric arc furnace was commissioned in 1996.	MBM 01-Nov-97
	(200)	EF						
Shanghai Ergang Co Ltd								
							The company was formerly known as Shanghai No. 2 Iron and Steel Works.	
	(750)	WR						
Shanghai Krupp Stainless Steel Co. Ltd								
Pugond New Area, Shanghai				(Firm)		2001	Krupp Thyssen Stainless (KTS) and Shanghai Pudong Iron & Steel signed in December 1997 to establish a 500 000 tpy stainless strip mill in Shanghai by 2006. The joint venture company will be held 60 per cent by KTS, with Pudong taking the balance. At an initial stage, a 72 000 tpy cold-rolling mill is to be completed by 2001. The construction of an additional cold-rolling mill, hot-rolling mill and meltshop is planned at the subsequent stages, to be completed by 2006. The first stage construction began in July 1998.	MB 27-Jul-98 AMM 19-Dec-97
			(72)	Cold				

Country: **CHINA (23)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Shanghai Meishan Group Co Ltd.					S			
Jiangsu Province	26		(2000)	(Unlikely)			It is planned to integrate the works by installing steelmaking and slab casting facilities. An agreement was signed in 1990 for the purchase of a hot strip mill from Nippon Steel.	
	(1750)	BF x 2		BF				
	(26)	EF		LD				
				CC				
				Hot				
				Cold				
Shanghai No1 Iron and Steel (Group) Co. Ltd (Shanggang1):					S			
Shanghai	2370							
	(850)	BF x 3						
	(2080)	LD x 6						
	(294)	OH x 2						
	(1800)	CC x 9						
	(600)	SLM						
		STR						
Shanghai No5 Iron and Steel (Group) Co. Ltd (Shanggang5):					S			
Shanghai							A 100-tonne DC electric arc furnace (550 000 tpy) was commissioned in 1997.	MBM 01-Nov-97
	(1165)							
	(65)	LD						
	(550)	EF x 10						
	(550)	EF						
	(630)	CC x 5						
	(430)	BLM						
	(300)	STR						
		Hot						
		Cold						

Country: **CHINA (24)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Shanghai Pudong Iron and Steel (Group) Co. Ltd (Pugang):					S			
Shanghai	2754						Two 100-tonne DC arc furnaces with combined annual capacity of 800 000 tonnes and an 800 000 tpy continuous slab caster were installed in 1995. Slabs from the caster are fed into the plate mill, used equipment imported in 1993 from the Netherlands.	MBM 01-Nov-97
	(1303)	LD x 3						
	(404)	OH x 2						
	(247)	EF x 7						
	(800)	EF x 2						
	(1037)	CC x 7						
	(800)	CC (slab)						
		BLM						
		STR						
		Plate						
		Hot						
		Cold						
Shaoguan Iron and Steel Group Co (Shaogang):								
	782							
	(503)	BF x 3						
	(566)	LD x 4						
	(216)	EF x 5						
	(600)	CC x 4						
	(270)	BTM						
		STR						
Shenyang Toyo Steel Co.					S/P			
Liaoning Province	240						The company was set up in 1993 as a 60/40 joint venture of Japan's Toyo Steel Mfg. and Shenyang Steel Rolling General Mill. It started trial operation in 1996.	MB 12-Sep-96
	(240)	EF						
	(240)	CC						
	(240)	STR						

Country: **CHINA (25)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Shijiazhuang Iron and Steel Works (Shigang):								
	1000							
	(350)	BF x 2						
	(900)	LD x 2						
	(100)	EF x 2						
	(370)	CC x 2						
	(350)	STR						
Shougang Co. (Shougang):					S			
Beijing	8829			(Possible)			A 2 160-mm hot strip mill is being planned.	AMM 20-Aug-98
	(8000)	BF x 5		Hot				
	(50)	OH x 2						
	(8720)	LD x 7						
	(59)	EF x 14						
	(6260)	CC x 10						
	(2280)	BLM						
		STR						
		WR						
		ERW						
Qilu			(5000)	(Unlikely)		1996	The Chinese government has formally approved the first 5 million tpy stage of Shougang's project to build an integrated steelworks at Qilu in Shandong province.	

Country: **CHINA (26)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Shuicheng Iron and Steel Group Co. (Shuigang):					S			
Quizhou	670							
	(986)	BF x 4						
	(650)	LD x 3						
	(16)	EF						
	(500)	CC x 4						
	(150)	BTM						
		STR						
Shunde Pohang Coated Steel					S/P			
Guangdong							The company was established in November 1996 as an 80/ 20 joint venture between Posco and Chinese partners. The No1 CGL line of Posco's Pohang Works was relocated and the operation started in 1998.	MB 29-Jun-98 MB 13-Mar-97
	(100)	HGL						
Special Steel Co. of Shougang Corp.					S			
Shijingshan								
		EF x 15						
		CC						
		BLM						
Sugang Group Co Ltd								
	300							
	(316)	BF x 5						
	(300)	LD x 2						
	(310)	BTM						
	(420)	STR						

Country: **CHINA (27)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Taiyuan Iron and Steel (Group) Co. (Taigang):					S			
Taiyuan, Shanxi	2244						In 1995 the company installed a used hot strip mill of Kure Works of Nisshin Steel.	
	(1986)	BF x 4	(160)	Cold				
	(240)	OH x 2						
	(1660)	LD x 3						
	(344)	EF x 13						
	(540)	CC x 2						
	(1410)	BLM						
		STR						
		Plate						
		Hot						
		Hot						
		Cold						
Taiyuan/ Ugine JV								
Shangxi				(Unlikely)		cancelled	A venture between Ugine of France and Taiyuan to construct a 250 000 tpy stainless cold-rolling mill was abandoned in 1997.	AMM 09-Jul-97
			(250)	Cold				

Country: **CHINA (28)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Tangshan Iron and Steel Group Co. Ltd (Tanggang):					S			
Tangshan, Hebei	2070						An 800 000 tpy Danieli bar mill was installed in 1996.	
	(2100)	BF x 6						
	(1990)	LD x 7						
	(80)	EF x 3						
	(1290)	CC x 7						
	(850)	BTM						
		STR x 2						
	(800)	STR						
Tianjin Seamless Steel Tube Co (Tianguan):								
	563						A used 150-tonne electric arc furnace (563 000 tpy) was installed in 1991.	MBM 01-Nov-97
	(563)	EF						
	(563)	CC						
	(500)	SMLS						
Tianjin Tiangang Group Co. Ltd (Tiangang):					S			
Tianjin City	1290							
	(400)	OH x 2						
	(750)	LD x 3						
	(140)	EF x 4						
	(850)	CC x 4						
	(370)	BLM						

Country: **CHINA (29)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Tianjin Tiantie Metallurgical Group Co Ltd (Tiantie):								
	600							
	(1650)	BF x 5						
	(600)	LD x 2						
	(400)	CC x 2						
Tonggang Iron and Steel Co								
	1010							
	(1010)	BF x 5						
	(840)	LD x 3						
	(169)	EF x 9						
	(1040)	CC x 6						
	(170)	BTM						
		STR						

Country: **CHINA (30)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Wuhan Iron and Steel Group Co. (Wugang):					S			
Wohan, Hubei	4028		2500	(Firm)		1999 -	The company aims at raising its steelmaking capacity to 10 million tpy by constructing a No. 3 meltshop (2.5 million tpy). An order was placed with VAI for two five-strand bloom casters, whose commissioning is expected by the end of 1999. The replacement of existing open hearth with two more converters (2.5 million tpy) is under consideration. Negotiations are under way for the supply of a second hot strip mill (4.5 million tpy). The supplier is expected to be chosen by September 1998.	AMM 20-Aug-98 SEAISI 01-May-98 MBM 01-Jun-98 SS 07-Apr-98 AMM 03-Apr-98
	(6240)	BF x 5	(2500)	LD x 2				
	(2500)	OH x 6	(1700)	CC (bloom) x 2				
	(1500)	LD x 3	(4500)	Hot				
	(28)	EF x 2						
	(2500)	CC x 5						
	(2450)	BLM						
		STR x 2						
	(700)	WR						
	(3000)	Hot						
	(550)	Plate						
	(2300)	Cold x 2						
	(300)	Tin Plate						
	(100)	HGL						
Wujing NatSteel								
Wujin, Jiangsu	200						The company is a joint venture between NatSteel of Singapore (51%) and the Jiangsu Wujin Steelmill Group (49%).	
	(200)	EF						
	(200)	CC (billet)						
	(190)	WR						

Country: **CHINA (31)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Wuxi Steel Group Co								
	510							
		(510) EF						
		(590) BTM						
		(650) STR						
Wuxi Xiying Steel								
	300						A 70-tonne electric arc furnace was commissioned in 1995.	MBM
		(300) EF				01-Nov-97		
Wuyang Iron and Steel Co								
	500						The company was taken over by Handan on 8 September 1997.	
		(500) EF x 2						
		(400) CC						
		(400) STR						
Xiangtan Iron and Steel Co. (Xianggang):					S			
Hunan Province	1010							
		(1250) BF x 3						
		(1000) OH x 3						
		(10) EF x 2						
		(650) BLM						
		(200) CC						
		(1060) Rolling						

Country: **CHINA (32)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Xilin Iron and Steel Group Co (Xigang):								
	400							
		(160) BF x 2						
		(130) LD x 2						
		(270) EF x 6						
		(150) CC						
		(300) BTM						
		(340) STR						
Xin Da Iron and Steel Co Ltd								
Datong, Shanxi	250						Fletcher Challenge Steel of New Zealand acquired a 58 per cent stake in the company in 1994.	
		(300) BF x 3						
		(250) LD x 2						
		(250) CC (billet)						
		(70) STR						
Xingcheng Iron & Steel Co								
	600						Started up in 1998. The mill is said to be China's first dedicated producer of engineering steel bars.	MB 20-Aug-98
		(600) EF						
		(600) CC (billet)						
		(600) STR						
Xingtai Iron and Steel Co Ltd (Xinggang):								
	480							
		(600) BF x 4						
		(480) LD x 2						
		(480) CC x 2						
		(150) STR						

Country: **CHINA (33)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Xining Special Steel Group Co Ltd								
	450							
		(450) EF x 10						
		(360) Rolling						
Xinjiang Bayi Iron and Steel Co Ltd								
	1030							
		(920) BF x 4						
		(900) LD x 3						
		(130) EF x 4						
		(800) CC x 3						
		(300) BLM						
		(930) Rolling						
Xuanhua Iron and Steel Co (Xuangang):								
	766							
		(1500) BF x 5						
		(745) LD x 5						
		(21) EF x 2						
		(500) CC x 3						
		(80) BTM						
		(420) STR						

Country: **CHINA (34)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Yunnan Metallurgical Corp.								
Kunming				(Possible)		1997	The Japanese trader Marubeni Corp. and Yunnan Metallurgical Corp. of China reached a basic agreement to form a 50 000 tpy galvanized sheet joint venture at the town of Kunming, southern China.	MB 05-Sep-96
			(50)	HGL				
Zhangjiagang Pohang Coated Sheet (ZPCS):								
Zhangjiagang, Jiangsu							The company was set up in July 1996 as a joint venture with Posco and the Jiangsu Shagang Group. This is the second galvanizing venture for Posco in China. Held 90% by Posco's Hong Kong subsidiary. Started operation in May 1998.	MB 22-Jun-98 MB 27-Jul-98
	(100)	HGL						
Zhangjiagang Pohang Stainless Steel (ZPSS):								
Jiangsu				(Firm)		December1998	A joint venture between Posco and the Jiangsu Shagang Group, set up in April 1997.	MB 27-Jul-98
			(110)	Cold				
Zhangjiagang Runzhoung Steel								
	650						A 90-tonne shaft furnace became operational in 1995.	MBM 01-Nov-97
	(650)	EF (shaft furnace)						

Country: **CHINA (35)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Zhangjiagang Shatai Steel Co								
Jiangsu							Morgan equipped the company with a 630 000 tpy wire rod mill.	
	(630)	WR						
Zhangjiagang Sheen-Faith Steel Corp								
Jenseng	400						A Morgan wire rod mill was commissioned in 1997.	MB 08-Sep-97
	(400)	EF						
		STR						
	(420)	WR						
Zhangjiagang Yougying Steel								
	300						A 70-tonne electirc arc furnace was commissioned in 1991.	MBM 01-Nov-97
	(300)	EF						

Country: **CHINESE TAIPEI** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
An Feng Steel Co. Ltd					P			
Kaohsiung								
	(2000)	Hot						
Chang Mien Industries Co Ltd					P			
Kaohsiung				(Firm)		May1999	The first cold-rolling mill became operational in 1994. In January 1998, the company awarded a contract to a consortium led by Mannesmann Demag for the supply of the second cold-rolling mill.	AMM 05-Jan-98 MB 15-Jan-98
	(70)	Cold	(70)	Cold				
Chia I Industrial								
Tainan							An Feng group. Kobe Steel supplied the equipment. Put on stream in 1997. Rolling imported billets.	
	(500)	WR						
Chia San Iron & Steel Industries Co Ltd								
Tao Yuan								
	(90)	STR						

Country: **CHINESE TAIPEI (2)**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Chiah Hsin Metal Industries					P			
	30							
		(30) EF						
		(30) STR						
Chih Lien Industrial Co Ltd								
Tao Yuan Hsien								
		(91) STR						
Chin Hio Fa Steel & Iron Co Ltd								
		(36) STR						
Chin Ling Steel Co Ltd								
Tao Yuan								
		(500) STR						

Country: **CHINESE TAIPEI (3)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Chin Tai Steel Enterprise Co Ltd								
	35							
		(35) EF						
		(35) STR						
China Steel Corp.					S/P			
Kaohsiung	8054						CSC commissioned its No. 4 blast furnace in November 1996, which is part of the fourth expansion of the company. The expansion, including two basic oxygen converters, a slab CC and a hot strip mill, has increased steelmaking capacity by 2.4 million tpy to 8.05 million tpy. A revamp in 1998 increased capacity of a wire rod mill from 480 000 tpy to 700 000 tpy.	MB 28-Nov-96
		(7790) BF x 4						
		(8054) LD x 7						
		CC x 9						
		(900) BLM						
		(700) WR						
		(650) STR x 2						
		(600) Plate						
		(5690) Hot x 2						
		(952) Cold x 2						
		(200) EGL						
Ching Fu Steel Enterprise					P			
Kaohsiung								
		(40) STR						

Country: **CHINESE TAIPEI (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Ching Sang Iron Works					P			
Taipei	85							
		EF x 3						
		STR						
		CC						
Chun Ho Fa Steel & Iron Co Ltd								
Taipei								
	(36)	STR						
Dah Yung Steel Mfg					P			
Kaohsiung	160							
	(160)	EF x 2						
		CC						
		WR						
		STR						
Ever Steel Enterprise Co Ltd								
Kaohsiung Hsien								
	(443)	STR						

Country: **CHINESE TAIPEI (5)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Feng An Metal Industries (An Feng Steel Group):					P			
Kaohsiung							Commissioned in 1997.	
	(500)	WR						
Feng Hsin Iron & Steel Co Ltd								
Taichung	1000						A 600 000 tpy EF (85-tonne DC), a billet CC and a section mill were commissioned in 1996.	
	(1000)	EF x 3						
	(1000)	CC x 2						
	(1380)	STR x 4						
Fu Sheng Steel Industrial Corp								
Kaohsiung								
	(300)	STR						
Gloria Heavy Industrial Corp					P			
Hsin Ying, Tainan	70							
	(70)	EF						
	(80)	STR						

Country: **CHINESE TAIPEI (6)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Hai Kwang Enterprises					P			
Kaohsiung	550							
	(550)	EF x 2						
	(550)	CC						
	(770)	STR x 2						
Jenn An Steel Co Ltd (An Feng Steel Group):								
Kaohsiung							Commissioned in 1998.	
	(1000)	Cold						
	(300)	HGL						
Kao Hsing Chang Iron & Steel					P			
Kaohsiung								
	(322)	Cold x 3						
	(120)	ERW x 3						
Kuei Yi Industrial Corp								
Taichung	900		2520	(Firm)		2001-	Held 30% by CSC. In 1998, a part of the facilities, including a 600 000 tpy H section mill, a 150-tonne DC furnace and a continuous caster, came on stream. Although designed capacity of the H section mill is 900 000 tpy, the company is targeting only 600 000 tonnes for 1999. The projected completion of the first phase in 1998 has been postponed after 2001. The facilities to be included in the first phase are: EFs (150-tonne DC, 3.42 million tpy), beam blank continuous caster (3.42 million tpy) and a wire rod mill (400 000 tpy). A 900 000 tpy hot-strip mill is expected to be constructed in the second phase. The construction of corex furnaces and DRI facilities are also planned.	MBM 01-Oct-98
	(900)	EF	(2520)	EF				
	(900)	CC (bloom)	(2520)	CC (bloom)				
	(600)	STR	(400)	WR				
			(960)	Hot				
				Corex x 3				
				DR				

Country: **CHINESE TAIPEI (7)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Li-Chong Steel & Iron Works					P			
Chia-Yi Hsien	70							
	(70)	EF						
	(80)	CC						
	(100)	STR x 2						
Lung Ching Steel Enterprise					P			
Kaohsiung	350							
	(350)	EF						
	(350)	WR						
Nan Lung Steel & Iron Corp								
Kaohsiung	12							
	(12)	EF						
	(30)	STR						
	(60)	Plate						
Ornatube Enterprise					P			
				(Firm)		1998		MB 03-Jun-96
	(300)	Cold	(200)	Cold				
	(200)	HGL	(200)	EGL				

Country: **CHINESE TAIPEI (8)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Others								
	1329						According to the Taiwan Iron and Steel Assn., the country's total electirc-arc-furnace steelmaking capacity as of 1994 was 5.466 million tonnes.	
Sheng Yu Steel (SYSCO):					P			
Kaohsiung				(Firm)		1999	Held by Yodogawa (65%), Tomen (17%), both of Japan, and Taiwanese partners. The company reached an agreement with Nippon Steel for the supply of a continuous galvanizing line in May 1998.	SS 11-May-98 MB 25-May-98 MBM 01-Jul-98
	(450)	Cold x 2	(250)	HGL				
	(210)	HGL	(150)	Ptg				
	(85)	Ptg						
Shyeh Sheng Fuat Steel & Iron Works					P			
Kaohsiung	420							
	(420)	EF x 2						
	(420)	CC						
Suanchin Steel Industry Co.					P			
Taipei	100							
		EF						
		CC						
		STR						

Country: **CHINESE TAIPEI (9)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Taiwan Machinery Manufacturing (TMMC):					S			
	(60)	Tin Plate						
Tang Eng Iron Works					S			
Stainless Steel Plant, Kaohsiung	(260)							
	(260)	EF						
	(100)	CC (billet)						
	(250)	CC (slab)						
	(250)	Cold x 2						
Steel Plant, Kaohsiung	156							
	(156)	EF x 2						
		CC						
	(54)	WR						
	(124)	STR x 2						
Tong Shen Steel & Iron					P			
Taipei	180							
		EF						
		CC						

Country: **CHINESE TAIPEI (10)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Tong Yi Industrial					P			
Yung Kang City, Tainan							Kawasaki holds minor share.	
	(600)	Cold						
	(240)	Tin Plate x 2						
Tong Yi Industrial Corp								
Kaohsiung								
	(90)	Tin Plate						
Tung Gen Steel Mfg Co Ltd								
Tao Yuan								
	(113)	STR						
Tung Ho Steel Enterprise					P			
Kaohsiung	250					1997	Converting the existing bar mill into an H-beam mill. This revamp will increase the capacity of the mill from 250 000 tpy to 400 000 tpy.	MB 09-Nov-95
	(250)	EF	(400)	STR				
	(250)	CC (billet)						
	(250)	STR						

Country: **CHINESE TAIPEI (11)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Miao-Li	800		645	(Possible)		after2000	The construction of an LF in 1996 increased steelmaking capacity from 645 000 tpy to 800 000 tpy. Tung Ho has a plan to install a second EF (110tDC) at Miao-Li plant.	SS 21-Jul-95
	(800)	EF	(645)	EF				
	(800)	CC						
	(645)	STR						
Taoyuan	360							
	(360)	EF x 2						
	(360)	STR x 2						
Tung Mung Dev. Co.								
Tainan								
	(200)	Cold x 2						
Walsin-Cartech Specialty Steel					P			
Yenshui Chen, Tainan							A joint venture company between Walsin Lihwa (Chinese Taipei) and Carpenter Technology (United States).	
	(200)							
	(200)	EF x 2						
	(200)	CC (billet)						
	(200)	WR						
Yieh Hsing Enterprise					P			
Chiao Tou Hsiang, Kaohshiung							The company is taking part in the construction of an integrated mill which is being undertaken by Yieh Loong Group. This is treated independently in this report.	
	(200)	WR						
	(66)	Cold						
	(196)	ERW x 4						

Country: **CHINESE TAIPEI (12)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Yieh Loong Enterprise					P			
Kaohsiung							Yieh Loong commissioned a 2.4 million tpy hot-strip mill in 1997. The company is undertaking the construction of a 7.5 million tpy integrated steel mill with its affiliate companies. This is treated independently in this report.	
	(2400)	Hot						
	(420)	Cold x 2						
	(100)	ERW						
Yieh Loong Group					P			
Chigu, Tainan			2500	(Firm)		2002-	A contract was signed with IHI for the supply of three blast furnaces in 1995. The project, however, has been faced with environmental problems and the construciton has not started. The company, meanwhile, reportedly started a feasibility study on the construction of a DRI plant in Australia. If the decision were made to proceed with the construction in Australia, the size of Tainan project could be reduced, to one or two blast furnaces, instead of three furnaces as initially planned.	SS 21-Sep-98 MB 20-Oct-97
(Integrated steel plant)								
			(7500)	BF x 3				
			(7500)	LD x 5				
			(750)	STR				
			(600)	WR				
			(2300)	Hot				
Yieh Phui Enterprise (Yieh Loong Group):					P			
Yu Liao Works							The construction of a cold mill started in 1996, while the fourth HGL plan is reportedly cancelled.	SS 19-Jul-95
	(600)	Cold x 2	(1300)	Cold				
	(750)	HGL x 3	(400)	HGL				
	(210)	Ptg x 2						
Yieh United Steel (Yieh Long Group):					P			
Kaohsiung	800			(Firm)		1997	The third CR mill, supplied by France's DMS, with a capacity of 75 000 tpy (stainless), was due on stream in 1997. Its commissioning has not been confirmed.	MB 02-Jun-97
	(800)	EF x 2	(75)	Cold				
	(800)	CC x 2						
	(600)	Hot						
	(160)	Cold x 2						

Country: **INDIA** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Apeejay Industries								
Calcutta	100							
	(100)	EF						
	(100)	CC						
		STR						
		ERW						
Apeejay-Surrendra Group					S/P			
Durgapur			500	(Possible)		2000	Apeejay Surrendra Group set up a joint venture with a Japanese trading company in mid-1996. The plant uses existing coke ovens in Durgapur.	MB 06-Mar-97
			(150)	BF (mini)				
			(500)	LD				
			(500)	CC				
			(300)	WR				
Bellary Steels & Alloys Ltd								
Bellary, Karnataka	50		500	(Firm)		1999-2000	Concast India has been contracted to provide a 500 000 tpy billet caster. Also, the company issued a letter of intent with Kvaerner Metals for the supply of a 400 000 tpy wire rod mill.	MB 02-Apr-98 MB 20-Apr-98
	(60)	DR (SLRN) x 2	(500)	BF				
	(50)	EF	(500)	LD				
	(50)	CC (billet)	(500)	CC (billet)				
		STR	(400)	WR				
Bhoruka Steel Ltd								
	150							
	(150)	EF						
	(150)	CC x 2						
	(150)	WR						

Country: **INDIA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Bhushan Steel & Strips					P			
Delhi							The second CR mill with a capacity of 360 000 tpy started up in 1997.	MBM 01-Nov-97
		EF						
		STR						
	(500)	Cold x 2						
		HGL x 2						
Maharashtra				(Possible)		2001	The company plans to set up two separate cold-rolling and galvanizing steel plants in Maharashtra and West Bengal. The total investment is estimated at $400 million. Both units are scheduled to start up by 2001.	AMM 10-Apr-98
			(300)	Cold				
				HGL				
Maharashtra			500	(Possible)				MB 06-Mar-97
			(500)	EF				
West Bengal				(Possible)		2001		AMM 10-Apr-98
			(300)	Cold				
				HGL				
Bihar Sponge Iron Ltd								
Chandil, Bihar							Commissioned in 1989.	
	(150)	DR (SLRN)						

Country: **INDIA (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Birla Jute & Industries					P			
Madhva Pradesh				(Possible)				
				DR				
Canara Steel Ltd								
Mangalore			500	(Possible)		end1999-2000	Co-Steel Sheerness (USA) and Gamma Engineering (Canada) carried out an FS to establish a 500 000 tpy mini mill. Gamma is expected to take an equity stake in the venture, while Sheerness's consulting arm will provide training and other services. The initial plan to reopen a 250 000 tpy steelmaking facility that Canara steel had shut down is likely to have been replaced by this mini mill project. The new plant will be built about 1km away from where the old plant is located.	AMM 18-May-98 MB 21-May-98
			(500)	EF				
			(500)	CC				
			(500)	STR				
Ellora Steels Ltd								
	54							
		(54) EF						
		(62) STR x 2						
Essar Steel					P			
Hazira, Gujarat	2000			(Firm)		1999-2001	Essar has placed an order with Demag Italia for a 1 million tpy blast furnace. The work is expected to start during fiscal 1998 and the furnace is likely to become operational by April 1999. The company also hopes to increase its hot-rolling capacity by 1 million tpy to 3 million tpy.	MB 29-Jun-98 AMM 19-Mar-98 ET 25-Jul-98
		(1680) DR (MIDREX) x 3	(1000)	BF				
		(2000) EF (DC) x 3	(600)	Cold				
		(2000) CC x 2	(1000)	Hot				
		(2000) Hot						

Country: **INDIA (4)**

Unit: million tonnes per year

Company	Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Ganapati									
	Jaipur			(5000)	(Unlikely)		1997 & 2000	The Ganapati group is proposing to build in the Jaipur district of Orissa state a 5 million tpy capacity steel plant. The project has been estimated at Rs 50 billion. The plant will be designed to produce 1 million tpy of pig iron for sale, 2.2 million tpy of HR and CR coils and 1 million tonnes of structurals and wire rods. The plant is expected to go into production by 2000 but the hot-strip mill will start up in December 1997.	MB 14-Sep-95
	(Orissa)				BF				
					Cold				
					STR				
					WR				
				(2200)	Hot			The steelworks will be based on the blast furnace route with Russian companies supplying technology and equipment.	
GKW Ltd									
	West Bengal	162							
			(162) EF						
			(162) STR						
Gold Star									
								Started operation in 1992.	
			(220) DR x 2						
Gopal Group									
								Produces stainless and alloy steel.	HP
		(36)							
		(36) IF x 4							

Country: **INDIA (5)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Graham Firth Steel Products (India) Ltd								
Maharashtra								
	(27)	Cold x 3						
Mumbai								
	(16)	Cold x 3						
Grasim Industries (Vikram Ispat Division):								
Raigad, Maharashtra				(Possible)			Started up in 1993.	
	(750)	DR (HYL III)						
HEG Ltd								
Borai							Started up in 1992.	
	(60)	DR x 2						

Country: **INDIA (6)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Indian Iron and Steel Co., Ltd. (Subsidiary of SAIL):					S			
Burnpur	1000						The seven open hearths range in age from 45 to 57 years, and need of replacement. The plant's rolling mills are also outdated. Due to lack of funds, IISCO has not been able to take comprehensive measures to modernise its plant. Many modernisation schemes were proposed but none has yet been implemented.	AMM 21-Jul-98
	(1300)	BF x 4						
	(1000)	OH x 7						
	(1000)	BLM						
	(1000)	BTM						
	(300)	STR						
Indian Seamless					P			
Orissa			(1250)	(Unlikely)			The Indian Seamless Company is proposing to build a 1.25 million tpy integrated steel plant in Orissa at a cost of Rs 25 billion. The project will use the traditional blast furnace route with ore from nearby deposits. It will have a hot-strip mill to produce coils above 1.5mm thickness to meet the needs of auto and consumer goods.	MB 31-Jul-95
				BF				
				Hot				
Ipitata Sponge Iron					S/P			
Joda, Orissa							A joint venture of Tata Iron and Steel and the State Government Agency of Orissa	
	(120)	DR						
Ishar Alloy Steel Ltd								
	150							
	(150)	EF						
	(150)	CC						
	(124)	STR						

Country: **INDIA (7)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources	
Isibars Ltd									
Khopoli, Maharashtra	50								
	(50)	EF							
		CC							
	(40)	STR							
Ispat Industries Ltd (former Nippon Denro Ispat):									
Kalmeshwar, Nagpur, Maharashtra									
	(285)	Cold x 2							
	(125)	HGL							
	(50)	Ptg							
Raigad, Dolvi, Maharashtra	1700						Trial runs on the meltshop and the hot-strip mill started in April and February 1998, respectively. A full hot-rolling capacity of 3 million tpy is not expected until the new blast furnace comes on stream at Ispat Metallics in 1999.	ET AMM MB	07-Mar-98 05-Jan-98 30-Apr-98
	(1700)	EF							
	(1700)	CC (slab)							
	(1700)	Hot							
	(1300)	Hot							

Country: **INDIA (8)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Ispat Metallics								
Raigad, Maharashtra				(Firm)		1999	The company is relocating a used Thyssen blast furnace which was shut down in 1992. The commissioning is likely to be postponed until 1999, instead of the initial plan of August 1998. A 1.0 million tpy Midrex DRI unit was commissioned in 1994. A 600 000 tpy direct reduced iron project was bought from Mukand-Kalyani, which has dropped the project after having invested Rs 200 million. A modification of the 1.0 million tpy DRI plant, which has been producing over its design capacity, is planned in October 1998 during annual maintenance and repairs. This is expected to raise its capacity to 1.8 million tpy.	MB 30-Apr-98 MB 27-Aug-98 MB 03-Aug-98 ET 16-Feb-98
	(1000)	DR (MIDREX)	(2000)	BF				
			(600)	DR				
			(800)	DR (MIDREX)				
Ispat Profiles Ltd								
	250							
	(250)	EF						
		STR						
JAI Corp Ltd (former Sipta Coated Steels):								
	(180)	Cold x 3						
	(90)	HGL						
Jaiprakash Industries								
Mangalore			(1000)	(Unlikely)			The company plans to set up a 1 million tonne export-oriented integrated steel plant. The plant is likely to favour high-value-added items such as cold rolled coils, galvanised and tin plate.	MB 28-Jan-93

Country: **INDIA (9)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Jindal Iron & Steel Co Ltd (JISCO)								
Tarapur, Maharashtra							Modifications on the two galvanizing lines (both continuous galvanizing) are expected to raise capacity from 150 000 tpy to 400 000 tpy.	HP
	(240)	Cold x 4						
	(150)	HGL x 2						
Vasind, Maharashtra								HP
	(280)	Hot						
	(260)	Cold x 3						
	(150)	HGL						
Jindal Strips Ltd								
Hisar				(Possible)		1998 or 1999	After the failure of negotiations with Ugine to set up a stainless cold-rolling joint venture, Jindal Strips decided to build a cold-rolling mill on its own. Construction of a 60 000 tpy cold-rolling mill is under consideration.	FE 20-Apr-98 NET 02-Jul-98
	(250)							
	(250)	EF x 2 CC x 2	(60)	Cold				
	(250)	Hot Plate						
	(30)	Cold						
Raigarh				(Possible)			An agreement was reached with Romelt-Sail India Ltd to prepare a feasibility study on a 300 000 tpy Romelt ironmaking plant.	MB 20-Jul-98
	(500)	DR x 5 EF x 2 CC	(300)	DR (Romelt)				

Country: **INDIA (10)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Vasind, Mumbai								
	(270)	Cold x 4						
Jindal Uginox Ltd					P			
Gujarat				(Unlikely)		cancelled	A 50/50 joint venture between Jindal Strips and Ugine (France) has reportedly been cancelled because of the high cost of imported equipment. Jindal, instead, decided to build a cold-rolling mill on its own.	FE 20-Apr-98 MB 12-Sep-96 AMM 30-Apr-96
			(70)	Cold				
			(280)	Cold				
Jindal Vijaynagar Steel Ltd (JVSL)								
Vijaynagar, Karnataka			1570	(Firm)		1998-99	The trial run on the first hot-strip mill, which rolls purchased slabs, started in October 1997. The first Corex-C2000 unit is expected to start-up in the second quarter of 1998, followed by the second in the early 1999. The company submitted a bid through an international trading company to buy a Corex and a DRI unit from bankrupt Hanbo Iron & Steel of Korea.	MB 29-Jun-98 MB 19-Feb-98 AMM 20-Jul-98
	(1600)	Hot	(800)	Corex				
			(800)	Corex				
			(1570)	LD				
				CC				
			(800)	Corex				
			(800)	DR				

Country: **INDIA (11)**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Kalinga Steel Ltd					S/P			
Daitiri			(3000)	(Unlikely)		1996		
				BF				
				CC				
				Hot				
Kalyani Seamless Tubes Ltd								
Baramati								
	(76)	SMLS						
Kalyani Steel Ltd								
Pune, Maharashtra							Agreements were signed with Carpenter Technology of the United States to set up Kalyani-Carpenter Special Steels, a joint venture held 74% by Kalyani and 26% by Carpenter. The joint venture company is expected to purchase Kalyani's existing mill. Kalyani has been undertaking the construction of a new plant at Hospet, Karnataka. Production of some of high-volume alloy steel products will be shifted to the new plant.	MB 20-Jul-98
	(100)							
	(100)	EF x 2						
		CC						
		STR						
KAP Steel Ltd								
Bangalore	48							
	(48)	EF x 2						
	(58)	CC						
		STR						

Country: **INDIA (12)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
KR Steelunion Ltd								
Gujarat								
	(100)	Cold						
Maharashtra								
	(150)	Tin Plate						
West Bengal	36							
	(36)	EF						
	(72)	CC						
	(120)	STR x 2						
Kumar Metallurgical Corp								
	(60)	DR						
Lloyds Metals & Engineers Ltd								
Dombivli, Thane								
	(24)	Cold x 2						

Country: **INDIA (13)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Ghughas, Maharashtra								
	(300)	DR x 2						
Lloyds Steel Industries Ltd								
Barbade, Wardha	500							
	(500)	EF x 2						
	(500)	CC						
	(600)	Hot						
	(350)	Cold x 2						
	(125)	HGL						
Mahindra Ugine Steel Co Ltd (Musco):								
	90							
	(90)	EF						
		CC						
		BLM						
	(150)	STR						
Malavika Steel (Usha Group):					P			
Jagdishpur			650	(Firm)			Two blast furnaces (350 cubic meters, each) came on stream in 1996.	MB 11-Mar-96
	(600)	BF x 2	(650)	LD x 2				
				CC x 2				
			(650)	WR				

Country: **INDIA (14)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Mesco Kalinga (MKSL)								
				(Possible)		2000	The plan has been scaled down from the initial 2.25 million integrated hot-strip complex.	MB 05-Sep-96
			(450)	Cold				
Metalman Industries Ltd								
Coated Products Div								
	(70)	HGL						
Cold Rolled Strip Div								
	(100)	Cold						
Mideast Integrated Steel Ltd (MISL) (Mesco Group):								
Kalinga, Orissa			500	(Firm)		1999	After the completion of the first phase, in which two blast furnaces came on stream, the second phase construction has been facing a delay. A recent report said that the contract would be awarded to Voest-Alpine for the steel melting shop and continuous casting shop.	AMM 02-Sep-98
	(600)	BF x 2		BF				
			(500)	LD				
			(450)	WR				
			(550)	STR				

Country: **INDIA (15)**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Modern Steels Ltd								
Mandi Gobindgarh, Punjab	100							
	(100)	EF x 2						
	(100)	CC						
	(50)	STR x 2						
Monnet Ispat Ltd								
	(100)	DR						
Mukand Ltd								
Maharashtra	338							
	(338)	EF x 4						
	(475)	CC x 3						
	(114)	STR						
	(222)	WR						
Nagarjuna Steels Ltd					P			
Mangalore, karnataka			2500	(Possible)		1999	The company bought and is relocating a sinter plant, three converters, three continuous slab casters and a hot-strip mill from Altos Hornos Vizcya of Spain. A subsequent report, however, indicated the uncertainty of this project.	AMM 06-Jul-98
				BF x 2				
			(2500)	LD x 3				
			(2500)	CC x 3				
			(2500)	Hot				

Country: **INDIA (16)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
National Steel Industries Ltd								
	(100)	Cold						
	(70)	HGL						
Neelachal Ispat Nigam Ltd (MMTC Group):					P			
Daitari			1100	(Firm)		2000	The Indian Metals Trading Company (MMTC) plans to enter steel production through Neelachal Ispat Nigam Ltd. (NINL), which operates the new integrated steel plant where a 1 920 cubic meter, 1.1 million tpy blast furnace is to be constructed.	MB 02-Dec-96
(Orissa)			(1100)	BF				
			(1100)	LD x 2				
				CC				
			(300)	WR				
Nova Iron and Steel Ltd								
Bilaspur, Madhya Pradesh								
	(150)	DR (SLRN)						
Orissa Sponge Iron Ltd								
Keonjhar, Orissa				(Firm)				
	(100)	DR						

Country: **INDIA (17)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Prakash Industries Ltd								
Champa, Madhya Pradesh								
	(150)	DR (SLRN)						
Raipur Alloys & Steel Ltd								
Raipur, Madhya Pradesh	150							
	(150)	EF						
	(150)	CC						
Siltara, Raipur								
	(66)	DR (SLRN)						
Rajinder Steel					P			
Kanpur Dihat, Utter Pradesh								
	(170)	Cold						
Siltara, Raipur	450							
	(450)	EF						
	(450)	CC (slab)						
	(300)	Hot						

Country: **INDIA (18)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Rashtriya Ispat Nigam Ltd (Vizag Steel):					S			
Vishakhapatnam, Andhra Pradesh	3200		1000	(Possible)		2000	In June 1998, the Indian government approved a rehabilitation plan for RINL, under which loans of $325 million will be converted to preferred shares. The company was set up in 1992, and is one of the most modern state-owned steel plants india. RINL, however, is reportedly facing an accumulated loss and is said to be in a state of virtual bankruptcy.	AMM 22-Jun-98 AMM 03-Jun-98 MB 13-May-96 HP
	(3400)	BF x 2	(1000)	LD x 2				
	(3200)	LD		CC				
	(3196)	CC (bloom) x 6	(500)	Hot				
	(1510)	STR x 2						
	(850)	WR						
Rathi Alloys & Steel Ltd								
Rajasthan	72							
	(72)	EF						
	(72)	CC x 2						
	(100)	Hot						
Raymond Ltd								
Nasik, Maharashtra							Raymond produces cold-rolled grain-oriented and non-grain-oriented silicon steel at the plant which was built in 1996.	
	(200)	Cold						
Remi Metals Gujarat Ltd								
Bharuch, Gujarat	100							
	(100)	EF						
	(100)	CC						
	(70)	SMLS						

Country: **INDIA (19)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Rocklane Steels Ltd								
	(120)	Hot						
	(100)	Cold						
	(100)	HGL						
SAIL (Steel Authority of India Ltd):					S			
Alloy Steel Plant (Durgapur)			140	(Firm)			Steelmaking capacity is planned to be increased to 400 000 tpy.	MB 20-Apr-95
	(260)							
	(260)	EF x 3		CC				
		CC						
		BLM						
Bhilai	4000						SAIL hopes to shut down all existing open hearths at Bhilai Works by 2002.	
	(4080)	BF x 7						
	(2500)	OH x 6						
	(1500)	LD x 3						
		CC x 5						
	(2500)	BLM						
	(1500)	BTM						
	(400)	WR						
	(1250)	STR x 2						
	(950)	Plate						

Country: **INDIA (20)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Bokaro	4000		360	(Firm)		1998	A continuous slab caster was installed in 1997. A modernisation project in 1998 will raise steelmaking capacity by 360 000 tpy.	HP
	(4585)	BF x 5						
	(4000)	LD x 7						
		CC (slab)						
	(3449)	SLM						
	(3363)	Hot						
	(100)	Cold x 2						
	(170)	HGL						
Dagaon, Assam				(Firm)		early 1999	The first venture of SAIL in the north eastern states of India. The civil works are at an advanced stage.	HINDU 14-Mar-98
			(40)	HGL				
Durgapur, West Bengal	3402			(Possible)			The facilities are planned to roll materials currently being sold as semifinished products.	MB 12-Feb-96
	(2088)	BF x 4	(400)	STR				
	(1802)	LD x 3	(400)	WR				
	(1600)	OH x 8						
	(773)	CC x 2						
	(950)	BLM						
	(491)	BTM						
	(492)	STR x 2						
	(100)	Hot						

Country: **INDIA (21)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Rourkela, Orissa	1900						A 1.36 million tpy continuous slab caster was commissioned in 1996.	
	(2000)	BF x 4						
	(1900)	LD x 7						
	(1660)	CC (slab) x 2						
	(1800)	SLM						
	(280)	Plate						
	(1106)	Hot						
	(669)	Cold x 3						
	(130)	ERW						
	(150)	Tin Plate						
	(160)	HGL x 2						
Salem, Tamil nadu			421	(Firm)		1999	SAIL is planning to convert its Salem stainless steel plant into a fully integrated works with the installation of an electric arc furnace and a continuous slab caster. The cost of this project is expected to be Rs 5.95 billion.	SA 01-May-98
			(421)					
	(270)	Hot x 2	(421)	EF				
	(72)	Cold x 2	(421)	CC				
Sarigam Seamless Pipes								
Kerala							The company is planning a Rs 250 million plant to make 10 000 tpy of seamless pipe and 5 000 tpy of ERW pipe, having already acquired land for the plant.	MB 15-Oct-92
Saw Pipes								
	(250)	SMLS						
	(100)	ERW						

Country: **INDIA (22)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Sesa Industries Ltd								
Bichelim Taluka, Goa								
	(310)	BF x 3						
Sponge Iron India								
Paloncha, Andhra Pradesh								
	(60)	DR (SLRN) x 2						
	(60)	DR x 2						
Steel Tubes of India Ltd								
	(50)	Cold						
	(50)	ERW						
Taloja Rolling Mills								
Taloja, Raigad								
	(50)	STR						

Country: **INDIA (23)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Tamil Nadu Sponge Ltd								
	(30)	DR						
Tata Iron & Steel Co.					P			
Gopalpur, Orissa			(10000)	(Unlikely)		2000 -, suspended	The project to construct a greenfield integrated mill with a capacity of 10 million tpy is facing environmental objections from the state government authorities. Although the company said that the project had not yet been abandoned, a significant delay is expected, and it is not likely to be realised before 2000.	AMM 17-Jun-98 ET 24-Jul-98 MB 12-Mar-98

Country: **INDIA (24)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Jamshedpur, Bihar	3000		500	(Firm)			In the fourth phase modernisation, the company plans to replace the existing open hearths with new LD converters; this is expected to result in a capacity increase of 500 000 tpy. The modernisation programme will also realise a 100 per cent CC operation. The company placed orders with Hitachi and Mitsubishi for a 1.3 million tpy cold-rolling mill, which is expected to be commissioned in September 2000.	AMM 09-Apr-98 MB 12-Mar-98 MB 10-Mar-97 ET 24-Oct-97
	(2852)	BF x 7	(1200)	CC (slab)				
	(800)	OH x 3	(1000)	Hot				
	(2200)	LD x 4	(600)	WR				
	(2000)	CC x 4	(1300)	Cold				
	(2000)	SLM x 2						
		BLM x 2						
		BTM						
	(680)	STR x 2						
	(1180)	Hot x 2						
	(52)	SMLS x 2						
	(193)	ERW x 2						
	(66)	HGL						
Tata-Yodogawa Ltd								
Singhbhum West, Bihar	30							
	(30)	EF						
		IF						
	(30)	CC						
The Indian Seamless Metal Tubes Ltd								
Ahmadnagar								
	(50)	SMLS x 2						

Country: **INDIA (25)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
The Southern India Iron & Steel Co Ltd								
Tamil Nadu	220						The first integrated steel plant india's far south. The continuous billet caster and wire rod mill were acquired from Thyssen (used facilities).	
	(30)	BF						
	(220)	EOF						
	(220)	CC						
	(160)	WR						
The Sunflag Iron and Steel Co.					P			
Bandhara	450							
	(150)	DR (Codir)						
		EF x 2						
		CC x 2						
		STR						
The Tinplate Co of India Ltd								
Jamshedpur, Bihar							Held 35 per cent by Tata.	
	(130)	Cold						
	(90)	Tin Plate						
	(70)	HGL						
Universal Steel (Raunaq Industrial Corp):								
							The facility has been idled, since it is not economically viable to run.	
	(50)	EF						

Country: **INDIA (26)**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Usha Ispat								
Redi, Maharashtra								
	(400)	BF (mini) x 3						
Usha Martindustries Ltd								
Jamshedpur, Bihar	200						Pig iron from the mini BF is fed into the EAF.	
	(109)	BF (mini)						
	(200)	EF						
	(200)	CC						
	(265)	WR						
Uttam Steel								
Raigad, Maharashtra								
	(250)	Cold x 2						
	(50)	HGL						
Vidarbha Iron & Steel Corp Ltd								
Nagpur	60							
	(60)	EF						
		CC						
	(70)	STR x 2						

Country: **INDIA (27)**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Viraj Impoexpo Ltd								
Tarapur	40							
	(40)	IF CC BLM						
Visvesvaraya Iron & Steel Ltd								
Shimoga, Karnataka	106						SAIL has a partnership for 60% and the State Government of Karnataka for 40%.	
	(205)	BF						
	(73)	LD x 2						
	(33)	EF x 3						
		CC STR x 2 WR						
Western Ministil Ltd								
Mumbai	64							
	(64)	EF x 2 CC						

Country: **INDONESIA** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Barawaja PT								
	35							
		(35) EF						
		(35) CC						
		(35) STR x 4						
Korindo Group					P			
				(Possible)		1997	Joint Venture project between Korindo (Indonesia) and Korea's Dongyang Steel Pipes.	MB 16-Jun-97
			(150)	ERW				
Maspion								
			300	(Firm)		1997	Transfering used facilities from Mitsuboshi Kinzoku Kogyo (Japan). Start-up not confirmed.	TS 08-Mar-95
			(300)	EF				
			(300)	CC				
			(300)	STR				
Perkasa Indo Steel (Texmaco):								
			2000	(Possible)		2000	Negotiations are under way to buy a plant and equipment from Spain's Bilbao plant of AHV, which was closed in 1996.	MB 25-May-98
			(2000)	BF				
			(2000)	LD				
			(2000)	CC				
			(2000)	Hot				

Country: **INDONESIA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Baja Inti Manunggal (Gunawan Group):					P			
Batan Island			(2500)	(Unlikely)		2008, delay expected	The Gunawan Group of Indonesia announced its intention to build two new integrated steel plants from 1999 to 2008, each with steelmaking capacity of 2.5 million tpy. PT Baja Inti Manunggal will handle both projects. These are likely to have been suspended or significantly delayed.	MB 15-Sep-97
			(2000)	BF				
			(2000)	LD				
			(500)	EF				
				CC				
			(1200)	Hot				
			(500)	Cold				
			(800)	Plate				
			(300)	STR				
Gresik, East Java			(2500)	(Unlikely)		2008, delay expected		MB 15-Sep-97
			(2000)	BF				
			(2000)	LD				
			(500)	EF				
				CC				
			(1200)	Hot				
			(1000)	Cold				
			(500)	STR				
			(100)	Tin Plate				
			(100)	EGL				
PT Bhirawa Steel								
Surabaya								
			(250)	STR				

Country: **INDONESIA (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Bisma Narendra								
Bikasi, West Java				(Firm)		1997-98	Aims mainly to supply the roofing and cladding industries. Some products are also used in automotive and white-goods sectors. CR coils are to be supplied from Essar Dhananjaya.	MB 22-Feb-96
			(100)	HGL				
PT Budidharma					P			
Ciling, Jakarta Utara	150							
		(150) EF						
		(150) CC						
		(150) STR						
PT Dharma Niaga Putera Steel								
Sumatra Selatan								
		(18) HGL						
PT Essar Dhananjaya								
Jakarta							Started operation in 1997. Hot band is supplied from Essar's Hazira works india. Essar holds 90 per cent.	
		(200) Cold						

Country: **INDONESIA (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
PT Fumira								
Semarang, Central Java							Piling works began in 1996.	MB 22-Feb-96
	(60)	HGL	(150)	HGL				
PT Gowth Sumatra Industry								
Medan								
	(50)	STR						
PT Gunawan Dian Steel Pipe (Gunawan Group):					P			
Surabaya				(Firm)		1998	Commercial production of UOE pipes at the company's 300 000 tpy mill will begin the second quarter of 1998.	MB 15-Sep-97
			(300)	ERW				
PT Gunawan Dianjaya Steel					P			
Surabaya				(Possible)		1999 & 2000, delayed	A second cold-rolling mill will be relocated from Austria. A significant delay is expected.	MB 15-Sep-97
	(400)	Plate	(220)	Cold				
			(60)	HGL				

Country: **INDONESIA (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Gunung Gahapi Steel					P			
	120							
		(120) EF						
		(120) CC						
		(200) WR x 3						
PT Gunung Garuda								
	180							
		(180) EF						
		(180) CC						
		STR x 3						
		WR						
PT Hanil Jaya Metal Works					P			
Surabaya	180							
		(180) EF						
		CC						
		(200) STR x 2						
PT Indonesia Steel Industries								
Cilegon				(Possible)		July1999	Held 55% by Yieh Phui of Chinese Taipei.	MB 04-Apr-96
			(1600)	Cold				
			(600)	HGL x 2				
			(300)	ptg x 2				

Country: **INDONESIA (6)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Industri Badja Berlian								
Medan, Sumatra							Adding to the existing two HGLs (batch), a new 150 000 tpy CGL was commissioned in 1996.	
	(36)	HGL x 2						
	(150)	HGL						
PT Industri Galvaneal Mas					P			
	(86)	WR						
	(6)	STR						
	(148)	Cold x 2						
	(240)	HGL x 2						
	(36)	ERW						
PT Intan Nasional Iron Industri								
Medan								
	(72)	HGL						
PT Inter World Steel Mills Indonesia					P			
Ji Pangeran, Jakarta	150							
	(150)	EF						
	(150)	CC (billet)						
	(240)	STR						

Country: **INDONESIA (7)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Inti General Yaja Steel								
	100							
	(100)	EF x 2						
	(100)	CC (billet)						
	(156)	STR x 3						
PT Ispat Indo					P			
Surabava	700							
	(700)	EF						
	(700)	CC (billet)						
	(700)	WR						
PT Jakarta Cakratunggal Steel Mills								
Pulogadung	420							
	(420)	EF						
	(420)	CC (billet)						
	(360)	STR						
PT Jakarta Kyoei Steel Works					P			
Cikande, Serang			360	(Firm)		1999	PT Jakarta Kyoei Steel is constructing a new mini mill to produce structural sections. Main facilities transferred from Toa Steel (Japan). Construction is in progress.	MB 26-May-97
			(360)	EF				
			(360)	STR				
Jakarta Selatan							PT Jakarta Kyoei Steel began operations in 1974 as a joint venture company with Kyoei Steel of Japan. Kyoei relinquished its share in the 1980s and the mill has since been fully Indonesian-owned.	
	(120)	STR						

Country: **INDONESIA (8)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Jakarta Prima Steel					P			
Jakarta	900							
	(900)	EF x 4						
	(900)	CC (billet) x 3						
		STR						
PT Jakarta Steel Megah Utama								
Pulogadung	410							
	(410)	EF						
		LF						
	(410)	CC (billet)						
		STR						
PT Jakarta Steel Perdana INdustry								
Tangerang								
	(180)	STR						
PT Jatim Taman Steel Mfg.								
Sodoarjo	175							
	(175)	EF x 2						
	(175)	CC						
	(120)	STR x 3						

Country: **INDONESIA (9)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Jaya Pari Steel Co Ltd								
	(100)	Plate						
PT Kalimantan Steel Co								
Pontianak								
	(18)	HGL						
Surabaya								
	(2)	HGL						
PT Kerismas Witikco Makmur								
	(36)	HGL						
	(50)	ptg						

Country: **INDONESIA (10)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
PT Krakatau Steel					S			
Cilegon, West Java	2500		300	(Firm)		1998-99	Orders have been placed for two 70-tonne EFs and a cold-rolling mill, aiming at producing stainless steel.	SA 01-Jun-98 MB 01-Dec-97 ST 01-Jan-98
			(300)					
	(3030)	DR (HYL) x 5	(300)	EF x 2				
	(2500)	EF x 10	(250)	CC				
	(2400)	CC x 8	(50)	Cold				
	(240)	WR						
	(2000)	Hot						
	(850)	Cold						
PT Krakatau Wajatma								
Cilegon								
	(150)	STR						
PT KS-Posco								
Cilegon, West Java			1000	(Firm)		Nov1999, suspended	Held by Posco (40%), Krakatau (40%), Korindo (10%) and Nusamba (10%). Construction began in October 1997; however, due to financing difficulites, it was decided to put the project on indefinite hold.	MB 29-Jan-98 MB 27-Jul-98
			(1000)	EF				
			(1000)	CC (tsc)				
			(1000)	Hot				

Country: **INDONESIA (11)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
PT Latinusa					P			
Cilegon				(Possible)			PT Latinusa is planning to add a second tinplate line to double its capacity.	MB 14-May-97
	(130)	Tin Plate	(130)	Tin Plate				
PT Little Giant Steel					P			
Semarang, Java							PT Little Giant is a joint venture between Kao Hsing (Chinese Taipei) and PT Raja Besi Semarang. Came on stream in 1996. Hot band is sourced from the United States, Japan and Krakatau.	
	(250)	Cold						
PT Maspion Stainless Steel Indonesia					P			
Manyar Gresik, East Java						1997	PT Maspion Stainless Steel Indonesia (MSSI) is a joint venture between PT Alumindo Light Metal Industry, Kanematsu, Sumitomo Metal Industries and Nippon Yakin Kogyo (Japan). Started operation in 1997 as the first stainless cold-rolling mill indonesia.	
	(50)	Cold						
PT Master Steel Mfg Co								
Pulogadung, Jakarta Timur	200							
	(200)	EF x 2						
		CC						
	(360)	STR						

Country: **INDONESIA (12)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Maxifero Steel Industry								
Jakarta Selatan	36							
		(36) EF						
		(36) STR						
PT Perusahaan Dagang dan Industri								
Surabaya								
		(50) Plate						
		(84) ERW						
PT Ponesia Stainless Steel (Perkasa):								
Cikarang				(Firm)		1999, suspended	The project first began under the name of PT Perkasa Stainless Steel. Posco holds 70 per cent. The contract for the supply of a stainless cold-rolling mill was signed with French plantmaker DMS in November 1997.	MB 27-Jul-98 MB 05-Mar-98
			(75)	Cold			Although the preparation of the site has been completed, construction has been put on hold.	
PT Pulogadung Steel Mfg Co Ltd								
Pulogadung	110							
		(110) EF						
		(110) CC						
		(110) STR						

Country: **INDONESIA (13)**

Unit: million tonnes per year

Company Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
PT Seamless Pipe Indonesia Jaya					S/P			
Cilegon				(Possible)				
			(350)	SMLS				
PT Segoro Adidaya Steel								
Gresik-Jatim								
	(72)	STR						
PT Semarang Makmur								
Semarang								
	(45)	HGL						
PT Sermani Steel Corp								
Surawesi Selatan							Partly held by NKK.	
	(30)	HGL x 2						

Country: **INDONESIA (14)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Surabaya Paribaja					P			
	100							
	(100)	EF						
		CC						
PT Tobu Indonesia Co Ltd								
	(360)	STR						
PT Toyogiri Iron & Steel								
Jawa Barat	120							
	(120)	EF						
	(120)	STR						
PT Tumbakmas Inti Mulia								
	(160)	HGL x 2						

Country: **INDONESIA (15)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
PT Wahana Garuda Lestari								
Pulogadung, Jakarta Timur	410							
	(410)	EF						
		LF						
	(410)	CC (billet)						
	(120)	STR						
PT Witikco								
Bitung								
	(12)	HGL						
PT Wuhan								
Jakarta Utara								
	(6)	STR						

Country: **MALAYSIA** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Amsteel Mills					P			
Klang, Selangor	750		750	(Firm)		1Q, 1999	Amsteel has a new meltshop and combination mill under construction at a site of Selangor, which are due to start up in the first quarter of 1999. The new facility will boost Amsteel's existing capacities to 1.5 million tpy for billet and to 1.3 million tpy for rolled products.	SS 05-Jun-98 CD 30-Apr-98 MB 10-Apr-97
	(750)	EF	(750)	EF				
	(750)	CC	(750)	CC (billet)				
	(300)	WR	(450)	STR				
	(550)	STR x 2						
Labuan, Sabah							Formerly Sabah Gas Industries Sdn Bhd.	
	(660)	DR (MIDREX)						
Anshin Steel Industries					P			
Shah Alam, Selangor			600	(Firm)		1999		MB 10-Apr-97
	(170)	STR x 2	(600)	EF				
			(500)	STR				
Antara Steel Mills Sdn Bhd								
Pasir Gudang	500							
	(500)	EF						
	(390)	STR x 2						

Country: **MALAYSIA (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
BHP Steel (Malaysia)								
Selangor							Held 60% by BHP International Div.	
	(150)	ZnAl						
	(60)	ptg						
Cold Rolling Industry (Malaysia)					P			
	(240)	Cold						
Dah Yung Steel (M) Sdn Bhd					P			
	40							
	(40)	EF						
	(40)	CC (billet)						
	(50)	STR						
Dahong Steel Sdn Bhd					P			
	(132)	STR						

Country: **MALAYSIA (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Federal Iron Works Sdn Bhd								
Klang, Selangor								
	(200)	HGL						
	(80)	ptg						
Gunawan Iron & Steel Sdn Bhd					P			
Kemanan			1350	(Firm)		1998, delayed	Gunawan relocates a used BF from Hoogovens (the Netherlands), which is under construction. Converter and CC are also second-hand equipments of Voest Alpine (Austria). There is no plan to construct coke ovens, and all the cokes are to be imported. A delay is expected until after 2001.	
	(250)	Plate	(1350)	BF				
			(1350)	LD				
			(1350)	CC				
Ji Kang Dimensi Sdn Bhd					P			
Pahang							Commercial operation started in 1997, rolling imported slabs.	MB 17-Feb-97
	(350)	Plate						
Maju Steel Sdn Bhd								
Merlimau, Melaka								
	(110)	STR x 2						

Country: **MALAYSIA (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Malayawata Steel					S/P			
Prai	450						No. 2 melting shop, comprising an EAF (80-tonne DC) and a billet CC, was opened in 1995, replacing No. 1 melting shop, comprising an LD converter (15-tonne), an EAF (10-tonne) and a billet CC (closed in 1996).	
	(158)	BF (Charcoal) x 2						
	(450)	EF						
	(450)	CC						
	(420)	WR x 2						
Malaysia Steel Works					P			
Klang, Selangor	360						A new meltshop comprising a 50-tonnet EF, a 50-tonne LF and a billet caster came into operation in April 1998. The billet will feed the company's bar rolling mill at Pataling Jaya, Selangor.	MBM 01-Jun-98 MB 27-Apr-98
	(360)	EF						
		LF						
	(360)	CC (billet)						
Pataling Jaya, Selangor								
	(150)	STR						
Maruichi Malaysia Steel Tube Bhd (Cold Rolling Industry (Malaysia) Sdn Bhd):								
Klang								
	(250)	Cold						

Country: **MALAYSIA (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Shah Alam, Selangor								
	(180)	ERW x 13						
	(24)	HGL						
Megasteel					P			
Selangor			2000	(Firm)		end1998	CSC of Chinese Taipei is expected to take over a 30% stake in Megasteel. The construction of the plant began in January 1997, and is expected to be completed by the end of 1998.	SS 05-Jun-98 MB 09-Mar-98
			(2000)	EF				
			(2000)	CC (tsc)				
			(2000)	Hot				
			(1000)	Cold				
Nusantara Steel Corp.					S/P			
Pulau Indah			1600	(Firm)		2001 & 1999	A groundbreaking ceremony for the construction of a DRI plant was held in February 1998. The DRI project is a joint venture between Nusantara, the Sabah State government and the Hylsa-Ferrostaal consortium, while the HR project is a joint venture between Nusantara, the Sabah State government and Danieli-Siemens.	MB 09-Mar-98 BPOST 20-Feb-98
			(1600)	DR				
			(1600)	EF				
			(1300)	Hot				
Ornasteel Enterprise Corp.					P			
Malacca							Trial runs began on a 200 000 tpy hot-dip galvanizing line in July 1998.	MB 30-Jul-98
	(280)	Cold						
	(200)	HGL						
	(120)	ptg						
	(72)	ERW						

Country: **MALAYSIA (6)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Perusahaan Sadur Timah Malaysia (Persitma) Bhd								
	(240)	Tin Plate x 2						
Perwaja Steel					S			
Gurun, Kedah							Blooms and beam blanks are sourced from Kemaman Works.	
	(700)	STR						
	(450)	WR						
Kemaman, Trengganu	1460							
	(1200)	DR (HYL III) x 2						
	(1460)	EF x 4						
	(1329)	CC x 4						
Progress Steel Galvanizing Sdn Bhd								
	(36)	HGL						
Sibu Steel (S) Sdn Bhd								
	(24)	STR						

Country: **MALAYSIA (7)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Southern Steel Bhd					P			
Prai	450		500	(Firm)		1997	Southern Steel is building its second 500 000 tpy meltshop. The third bar mill was commissioned in 1997, raising rolling capacity to 1 million tpy.	MB 10-Apr-97
	(450)	EF	(500)	EF				
	(450)	CC						
	(1000)	STR x 3						
Steel Industries (Sabah) Sdn Bhd								
Penang								
	(700)	WR x 2						
Steel Industry Sarawak Sdn Bhd								
Pending, Kuching				(Firm)		1998		DANIEL I 29-Mar-96 ST 01-Jan-96
	(65)	STR	(250)	STR				
Tahan Steel								
Klang, Selangor						2000		MB 10-Nov-97
			(800)	Hot				
Yung Kong Galvanising Industries Bhd								
				(Possible)		1998		SEAISI
	(24)	HGL x 2	(100)	HGL				
	(30)	ptg						

Country: **PAKISTAN**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
M/S Ittefag					P			
Lahore	120	EF x 5 CC x 2 WR STR						
Others	300							
Pakistan Steel Mills Corp					S			
Bin Oasim	1100	BF x 2 LD x 2 CC x 3 Hot Cold BTM	1900	(Possible)			A government-sponsored committee carried out a feasibility study on capacity increase to more than 3 million tpy from 1.1 million tpy. The recommendation is awaiting final approval.	AMM 25-Mar-98
Siddiqsons Tin Plate Ltd					P			
Windher				(Firm)		1999	The company is a joint venture to produce tin plate mainly for cans for vegetable oils.	AMM 12-Mar-98
							Mitsubishi Corp of Japan and Sollac unit of the Usinor Group of France each hold 7.1 per cent of the stake, while Pakistan's Siddiqsons Group holds 44.9 per cent. The remaining 40.9 per cent is financed by Pakistani banks.	MB 09-Mar-98
			(120)	Tin Plate			Cold-rolled sheet is to be imported mainly from Japan and France.	

Country: **PHILIPPINES** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Allied Integrated Steel								
	40							
		(40) EF x 2						
		(20) STR						
Armco-Marsteel Alloy Corp								
Napindan, Taguig	160							
		(160) EF						
		(160) CC						
		(160) STR						
Armstrong Industries Inc								
	160							
		(160) EF x 2						
		(160) CC						
		(24) STR						
Bacnotan Steel Corp								
Batangas			300	(Firm)		late1998	A 70/30 joint venture between the Philippines and Japan. Japan's interests include Kawasaki Steel and Mitsui.	AMM 17-Sep-96 MB 16-Sep-96
			(300)	EF				
			(300)	CC				
			(300)	STR				

Country: **PHILIPPINES (2)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
	(100)	HGL						
Best Industrial Steel manufacturing Corp								
	(12)	STR						
Binan Steel Corp								
Binan Laguna								
	(100)	STR						
Capitol Steel Corp								
Quezon								
	(210)	STR x 2						
Cathay Metal Corp								
	(240)	WR						

Country: **PHILIPPINES (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Cathay Pacific Steel Corp (Capasco)					P			
	280						Capacity of the bar mill was increased from 100 000 tpy to 400 000 tpy in 1996. The WR mill was commissioned in 1996.	
		(280) EF						
		(400) STR						
		(300) WR						
Cebu Steel Corp								
		(70) STR x 2						
Continental Steel Mfg Corp								
		(114) STR x 2						
Core Steel Industries Ltd.					P			
Cagayan de Oro							The 70 000 tpy CR mill (Sendzimir) which had been moved from Kobe Works of Kawasaki Steel was commissioned in March 1998. The company is held 67 per cent by Japanese interests lead by Itochu. Hot coil is supplied from Nasco's Illigan Works.	
		(70) Cold						

Country: **PHILIPPINES (4)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Eastern Steel Fabricators								
Meycauayan, Bulacan							Started operation in 1998.	MB 01-Dec-97
	(180)	STR						
Galaxie Steel Corp								
Quezon								
	(30)	STR						
Island Metal Manufacturing Corp							SteelAsia group.	
	(30)	STR						
Peninsular Steel							SteelAsia group.	MB 10-Jun-96
	(90)	STR						

Country: **PHILIPPINES (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Jacinto Group								
Mindanao Steel Corp, Phividec						2000		MB 29-Sep-97
			(360)	Cold				
			(150)	HGL				
Phividec, Villanueva			1250	(Firm)		2001 -	Work at the site began in August 1997. The first phase investment ($636 million) includes the construction of an EF, a thin-slab caster, HSM and plate mill. The construction of a DRI unit is projected in the second phase.	MB 09-Mar-98
			(1250)	EF				
			(1250)	CC (tsc)				
			(1250)	Hot Plate				
				DR				
Jacinto Iron & Steel Sheets Corp								
Quezon							Came into operation in 1997.	
		(22)	HGL					
Kudos Metal Corp								
Kaloocan								
		(100)	STR					

Country: **PHILIPPINES (6)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Lunar Steel Corp								
Manila								
	(100)	STR						
Marcelo Steel Corp (MSC)								
Punta Sta Ana, Manila	27							
	(27)	EF x 2						
		BTM						
	(67)	STR						
	(83)	WR						
Maxima Steel Corp								
	(200)	STR						
Metro Concast Steel Co.					P			
Manila	50							
	(50)	EF x 2						
	(50)	CC						
	(50)	STR						
		WR						

Country: **PHILIPPINES (7)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Milwaukee Industries Corp.					P			
Pampanga	250						Started operation in 1996.	
		(250) EF						
		(250) CC (billet)						
		(250) STR						
Mindanao Steel Corp								
Lugait, Misamis Oriental							The capacity of the HGL was increased from 30 000 tpy to 48 000 tpy in 1995.	
		(48) HGL						
		ptg						
National Steel Corp. (Nasco):					S			
Iligan	300							
		(300) EF x 2						
		(300) CC (billet)						
		(1700) Hot x 2						
		(850) Cold x 2						
		(300) Tin Plate x 3						
Pag-Asa Steel Works Inc								
Pasig, Metro Manila								
		(250) STR						

Country: **PHILIPPINES (8)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Philippine Steel Coating Corp.					P			
Balayan, Batangas				(Firm)		1999	Construction began in July 1996. Half of the hot band is to be supplied from Nasco and the rest to be imported.	MB 13-Jan-97
			(300)	Cold				
			(240)	HGL				
			(100)	Ptg				
Cabuyao, Laguna								
	(100)	HGL						
Phoenix Iron & Steel Corp								
Pasig, Metro Manila	110							
	(110)	OH x 2						
	(140)	STR						
	(48)	WR						
Puyat Steel Corp.					P			
Mandaluyoug								
	(100)	HGL						
Rosario, Batangas							The 150 000 tpy HGL (continuous) was commissioned in 1997.	
	(150)	HGL						

Country: **PHILIPPINES (9)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Riza Integrated Steel Mills Corp								
	(36)	HGL						
St Christopher Steel Corp								
	(60)	HGL						
Steel Corporatoin of the Philippines								
Balayan Batangas								
	(300)	Cold						
	(250)	HGL						
	(100)	ptg						
SteelAsia Manufacturing					P			
Meycauayan, Bulacan							A joint venture with NatSteel of Singapore. Began operation in 1997.	
	(320)	STR						

Country: **PHILIPPINES (10)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Smokey Mountain				(Firm)		1998	SteelAsia is a joint venture of Singapore's NatSteel and two Filipino partners. Construction started in 1997.	AMM 05-Mar-97 MB 20-Feb-97
			(500)	STR				
Super Industrial Corp								
Cainta, Rizal								
	(34)	HGL						
	(43)	ERW						
Venus Steel Corp								
Canto Rizal								
	(200)	STR						

Country: **THAILAND**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Bang Saphan Bar Mill Co					P			
Bang Saphan				(Possible)		1998 - 2001	Sahaviriya group.	MB 23-May-96
	(720)	STR x 2	(500)	WR				
			(800)	STR x 2				
Bangkok Iron & Steel Works					P			
Phrapradong, Samutprakarn	180		300	(Possible)		1997	A new WR mill and a bar mill, each with a capacity of 300 000 tpy, were commissioned in 1996 and 1997, respectively.	MB 31-Aug-95
	(180)	EF x 2	(300)	EF				
		CC						
	(490)	STR x 3						
	(300)	WR						
Bangkok Steel Industry					P			
Nakorn Rachasima				(Firm)		1997		ST 01-Jan-97
								MB 26-Feb-96
			(150)	HGL				
Samutprakam	300							
	(300)	EF x 2						
	(450)	CC x 2						
	(430)	STR x 2						
	(110)	HGL x 2						
	(20)	Ptg						

Country: **THAILAND (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
BHP Steel (Thailand) Ltd					P			
Mab Ta Phut, Rayong							The cold strip was commissioned in 1998. Held 75 per cent by BHP.	
	(300)	Cold						
Burapa Steel Industries Ltd								
Rayong								
	(150)	STR						
Chonviriya Steel Co Ltd								
	(20)	STR						
Italian Thai Group					P			
				(Unlikely)			Delay or cancellation is likely.	TK 12-May-98 MBM 01-May-97
			(900)	DR				

Country: **THAILAND (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
LPN Plate Mill Co.					P			
Samutprakarn				(Firm)		1998	LPN started the operation of a plate mill in 1994. The company decided to suspend the construction of both the CR mill and the second HR mill, in order to concentrate on the first HR mill. The contract with Tippins for the supply of the CR mill is still in force.	MB 27-Nov-97
	(300)	Plate	(1200)	Hot				
			(900)	Cold				
			(1200)	Hot				
Nakornthai Strip Mill (NSM):					P			
Chonburi, near Bangkok	1500			(Firm)		1999	The hot strip mill, together with the meltshop, started operation in 1997. A major portion of the DRI unit has been completed, but the DRI project has been put on hold until further financing. is obtained A group of three US companies, headed by Steel Dynamics, took a majoity stake in a management company of NSM in 1998. A cold-rolling mill and galvanizing line are expected to start up in early 1999.	MB 26-Feb-98 MB 05-Mar-98 MB 30-Mar-98
	(1500)	EF	(400)	DR				
	(1500)	CC (tsc)	(900)	Cold				
	(1500)	Hot	(650)	HGL				
Namheng Steel Co. Ltd								
Lop Buri	350						Commissioned in 1996.	
	(350)	EF						
		CC						
	(300)	STR						
Nippon Denro Ispat (NDIL)					P			
				(Possible)			The construction of a CR mill has been reportedly suspended.	MBM 01-May-97 BDAY 22-Sep-97
			(1200)	DR				
			(600)	Cold				

Country: **THAILAND (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
NTS Stee Groups					P			
Bowin	400			(Unlikely)		cancelled	The construction of a DR unit, CR mill and HGL has been cancelled. However, the company is still reportedly seeking an offshore loan to proceed with the DRI project.	MB 14-Jul-97
	(400)	EF	(1500)	DR (HYL)				
	(400)	CC	(1000)	Cold				
	(800)	WR	(800)	HGL				
		STR						
Sahaviriya Plate Mill (SPM):					P			
Bang Pakong				(Possible)			SPM is 75 per cent held by Sahaviriya Group. The company has a plan to increase capacity from 300 000 tpy to 500 000 tpy.	MB 07-Apr-97
	(300)	Plate	(200)	Plate				
Sahaviriya Steel Industries Public Co.					P			
Bang Saphan				(Unlikely)			Sahaviriya has decided not to go ahead with a DRI plant and hot-strip mill.	AMM 06-Jul-98
	(2400)	Hot	(2000)	EF				
			(2000)	CC				
			(2000)	Hot				
			(1800)	DR				
Siam Construction Steel								
Muang, Rayong	320						The company's plan to upgrade its melting shop and rolling mill facility in order to boost its capacity to 500 000 tpy has reportedly been cancelled.	MB 31-Aug-97
	(320)	EF						
	(320)	CC (billet)						
	(300)	STR						

Country: **THAILAND (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Siam Integrated Cold Rolled Steel (Sisco):					P			
Rayong				(Firm)		1998	Sisco is a subsidiary of SSM.	MB 23-May-96 MBM 01-May-97
			(500)	Cold				
			(250)	HGL				
Siam Iron & Steel Co.					P			
Ta Luang, Saraburi	375							
		(375) EF x 2						
		(375) CC (billet) x 2						
		(400) STR						
		WR						
Siam Matsushita Steel					P			
		(50) ERW						
Siam Nippon Steel Pipe (SNSP)					P			
							SNSP relocated a used mill from Nippon Steel's Konan Works, Japan.	MB 17-Jun-97
		(20) ERW						

Country: **THAILAND (6)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Siam Steel Pipe (SSP)					P			
				(Possible)		suspended	The project has reportedly been suspended.	BDAY 22-Sep-97 MB 23-May-96 MBM 01-May-97
			(1800)	DR				
			(500)	STR				
Siam Steel Syndicate Co Ltd					P			
Samutprakarn	80							
		(80) EF						
		(80) CC (billet)						
		(120) STR x 2						
Siam Strip Mill Co.					P			
Rayong			1700	(Firm)		1999	The commissioning is likely to be delayed from third-quarter 1998 to 1999. The company signed in June 1998 a 17.9 billion baht loan with Japanese and Thai financial institutions to fund the project.	BPOST 30-Jun-98 MB 25-Jun-98 MB 02-Apr-98
			(1700)	EF x 2				
			(1700)	CC (slab)				
			(1700)	Hot				
Siam Tinplate					P			
Map Ta Phut								
		(120) Tin Plate						

Country: **THAILAND (7)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Siam United Steel					P			
Mab Ta Phut, Rayong						Nov.1998	The re-capitalisation that took place in April 1998 resulted in raising Japan's share in the venture to 53%, while the Thai share declined from 58% to 44%. The remaining 3% is held by a Korean partner. Became operational in November 1998.	MB 20-Apr-98 SS 13-May-98
	(1000)	Cold						
Siam Yamato Steel Co.					P			
Muang, Rayong	600						Siam-Yamato is a 51/49 Thai-Japan joint venture. Shareholders include Siam Cement group of Thailand, Yamato Kogyo, Mitsui & Co., Sumitomo Corp. of Japan. The company is the first to produce wide-flange beams in Thailand.	
	(600)	EF						
	(600)	CC						
	(600)	STR						
Thai Coated Steel Sheet					P			
Bangsaphan				(Possible)			Thai Coated Steel Sheet is a joint venture between Sahaviriya and Japanese interests lead by NKK. It plans to increase its capacity to 240 000 tpy.	AMM 02-Jul-97
	(135)	EGL	(105)	EGL				
Thai Cold Rolled Steel Sheet Public Co.					P			
Bangsaphan							TCRSS is Thailand's first CSM, which became operational in 1997. In early 1998, the company underwent re-capitalisation in an attempt to stabilise its financial position. This resulted in an increase in Japan's stake in the company from 30% to 52%, while the Thai stake declined from 70% to 48%.	MB 20-Apr-98
	(1000)	Cold						

Country: **THAILAND (8)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Thai Pathana Steel Industry					P			
Samutprakarn	240							
	(240)	EF x 2						
	(240)	STR x 2						
Thai Special Steel Industry (TSSI):					P			
Rayong			(2300)	(Unlikely)		cancelled	The construction of an integrated mill has been reportedly cancelled. Faced with insufficient cash to buy its own billets, the company is seeking hire-rolling business for its wire rod mill. Negotiations are under way with potential forengn traders on possible conversion deals of billet into wire rod.	MB 30-Jul-98
	(500)	WR	(3800)	BF				
			(2300)	LD				
			(2300)	CC				
Thai Steel Bars Co Ltd					P			
	160						Formerly GS Steel Co Ltd.	
	(160)	EF x 3						
	(150)	CC						
	(150)	STR						
Thai Tinplate Manufacturing Co Ltd					P			
Phrapradang, Samuthoprakarn								
	(360)	Tin Plate x 3						

Country: **THAILAND (9)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Thai Tube Co Ltd					P			
	(100)	ERW						
Thai-German Products					P			
				(Possible)		suspended	The company is 100 per cent owned by Thai interests.	BDAY 22-Sep-97
	(39)	ERW	(700)	STR				
Thai-India Steel Co Ltd					P			
Phrapradang, Samutprakarn	65							
	(65)	EF x 3						
	(65)	CC						
	(65)	STR						
Thailand Iron Works Public Co Ltd					P			
	(90)	HGL x 3						
	(17)	Ptg						

Country: **THAILAND (10)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Thainox					P			
Rayong				(Firm)		1999	A France-Japan-Thailand joint venture. The French partner, Ugine, intends to increase its holding in Thainox from 28% to 61%.	AMM 28-Apr-98 MBM 01-May-97
	(60)	Cold	(100)	Cold				
The Sangkasi Thai Co Ltd								
	(160)	HGL x 7 Ptg x 2						
Triumph Steel Co Ltd					P			
Samutprakarn	120							
	(120)	EF						
	(120)	CC						
	(120)	STR						
Union Metal Co Ltd								
Samutprakarn	380							
	(380)	EF						
	(380)	CC (billet)						
	(200)	STR						

Country: **THAILAND (11)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
United Iron & Steel (UIS):					S/P			
				(Unlikely)		1997		SEAISI 01-Aug-94 MB 10-Mar-94 MBM 01-May-97
			(750)	DR				
VSST (Siam Steel Pipe (SSP) Group):					P			
			600	(Possible)			VSST has signed a letter of intent for a heavy-section mini-mill with the capacity of 600 000 tpy.	AMM 20-May-97
			(600)	EF				
			(600)	CC				
			(600)	STR				

Country: **VIETNAM**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Bian Hoa Steel Works (Viscasa):								
Bian Hoa	120							
		EF						
		STR						
Billet plant project (Cailan port)								
Cailan port, Quang Ninh			500	(Possible)			NKK and Mitsubishi Corp are carrying out a study to build a 500 000 tpy billet plant at Cailan port in Quang Ninh province.	MB 16-Oct-97
			(500)	EF				
				CC				
Billet plant project by SSC								
			500	(Possible)			A feasibility study to constrct a 500 000 tpy billet plant started by Southern Steel Corp of Vietnam.	MB 16-Oct-97
			(500)	EF				
				CC				
Integrated steel mill project					S			
Muiron, Thach Khe/ Dung Quat, Danang			4500	(Possible)		2010	A study for the construction of an integrated steel mill has been undertaken since October 1996 by the Japan International Cooperation Agency (JICA), in conjunction with Vietnam Steel Corp (VSC) and the Japanese steel industry represented by Nippon Steel. The report of the study's findings is expected to be presented to the Vietnamese government by March 1998.	MB 16-Oct-97
				BF x 2				
			(4500)	LD x 3				
				CC				
				Hot				

Country: **VIETNAM (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Maruviena								
Ho Chi Minh						1996	Maruviena started operation in March 1996. The company is a galvanizing venture jointly owned by Marubeni, Natsteel, NKK, and a local Vietnamese company.	MB 25-Nov-96 TS 04-Jul-95
	(18)	HGL						
Natsteel Vina					S/P			
Thai Nguyen						1995	The company is a joint venture between Thai Nguyen Iron & Steel Works of Vietnam and Singapore's NatSteel.	MB 28-Sep-95
	(120)	STR						
Posvina Co Ltd					S/P			
Ho Chi Minh							Posco plans to pull out from Posvina, a 50/50 joint venture with Vietnam Steel Corp (VSC), as part of Posco's restructuring efforts.	AMM 10-Apr-98
	(50)	HGL						
Saigon Steel Pipe Corp. (SSP):					S/P			
Ho Chi Minh						Sept. 1998	SSP is a 51/49 Korean-Vietnamese joint venture formed in 1995. Major shareholders include Waseco of Vietnam (49%), SeAh Steel (30%), Daewoo (21%), both of Korea. Trial runs were expected to start by end-September 1998, with commercial production by mid-October.	MB 10-Sep-98
	(70)	ERW						

Country: **VIETNAM (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Southern Steel Sheet Corp. (SSC):								
Bien Hoa						1997	SSC began the operation of Vietnam's first continuous galvanizing facility in July 1997. The company is owned by Vietnam's Southern Steel Union, Federal Iron Works of Malaysia and Nomura Trading of Japan.	MB 04-Sep-97
	(24)	HGL						
Tan Binh Steel Works (Song Chau):								
	15							
	(15)	EF						
Thai Nguyen Iron & Steel Works (Tisco):					S			
Thai Nguyen	140						Tisco is under the direction of the Vietnam Steel Corp. (VSC).	
		BF x 3						
		OH						
		EF x 5						
		STR x 2						
The Southern Steel Union (SSU):					S			
Ho Chi Minh, Bien Hoa	50						SSU originates from several private steel mills in southern Vietnam, which were nationalised and integrated into SSU in 1976. SSU is under the direction of the Vietnam Steel Corp. (VSC).	
		EF x 12						
		STR x 2						
	(36)	HGL						

Country: **VIETNAM (4)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
Thu Duc Steel Works								
	15							
		(15) EF						
		(15) WR						
Vietnam Shipbuilding Industry Corp. (Vinashin):								
Dung Quat industrial area			500	(Possible)			Vinashin is carrying out a pre-feasibility study to build a 500 000 tpy mini mill which will produce plate for the emerging shipbuilding industry. The construction is targeted to start in 1998. The scrap will be sourced from the company's planned activity of ship repairing and demolishing, which the company envisages will generate 200 000-300 000 tpy of scrap.	MB 24-Mar-97
			(500)	EF				
			(500)	Plate				
Vietnam Steel Corp. (VSC):					S/P			
Cam Pha			(1400)	(Unlikely)		2000	VSC is looking for a partner for a project to build the country's first hot-rolled coil plant. The $1.28 billion plant with a capacity of 1.4 million tpy will be located at Cam Pha. The proposed project will include Corex Technology to produce pig iron and Midrex to produce DRI as raw materials for steelmaking. Plant construction will start in 1997 and production of hot-rolled coil will start around the year 2000.	MB 29-Jun-95
				EF				
				DR (MIDREX)				
				Hot				
Hanoi						1998	VSC appears keen to proceed with a project calling for the construction of a 500 000 billet plant near Hanoi. Work on the plant would probably begin October after the Vietnamese government had approved a feasibility study.	MB 11-Mar-96
				EF				
				BTM				

Country: **VIETNAM (5)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Vina Kyoei Steel								
Phu My							Vina Kyoei Steel, part-owned by Japanese mini-mill Kyoei Steel, has a capacity of 240 000 tpy. The mill is designed to produce small bars, angles and wire rod. Initially, it will roll imported billets but has plans to add a melting shop.	
	(240)	STR						
		WR						
Vinausteel					S/P			
						1995	The company is a joint venture between the Thai Nguyen Iron and Steel Works of Vietnam and the Vietnam Investment Industry Co. of Australia.	MB 28-Sep-95
	(180)	STR						
VSC, China Steel Corp and Sheng Yu								
Ho Chi Minh				(Firm)		2001	In July 1998, China Steel Corp of Chinese Taipei, Vietnam Steel Corp, Yodogawa Steel Works of Japan and Sheng Yu Steel of Chinese Taipei reached a formal agreement to build and manage a 210 000 tpy cold-rolling mill. VSC and CSC will each hold 30% of the venture, Sheng Yu 25%, and the balance will be held by Yodogawa and aTaiwanese inventment firm.	MB 25-Jun-98
			(210)	Cold				
VSC-Posco					S/P			
Haiphong						1995	VSC-Posco, a joint venture company by Vietnam Steel Corp. (VSC) and Posco, inaugurated a 200 000 tpy bar/rod mill in September 1995.	MB 28-Sep-95
	(200)	STR						

Country: **OTHERS**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Ownership	Start-up Date	Comments	Sources
BANGLADESH								
Chittatong Steel Mills					S			
Chittatong	150						The government of Bangladesh is considering the sale of the company.	MB 22-Jun-98
	(150)	OH						
	(130)	BLM						
	(100)	STR						
	(36)	Hot						
	(36)	Plate						
	(50)	HGL x 3						
Chittatong DR Project			(600)	(Unlikely)			Plans for a gas-based DR plant. No firm time scale.	
				DR				
Maymyo Anisakan								
Mandalay	40							
		DR						
		EF x 2						
		CC						
		STR						
Myanmay Isen Steel Mill								
Ywana	12							
		EF						
		CC x 2						
		WR						

Country: **OTHERS (2)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
HONG KONG, CHINA								
Shiu Wong Steel					P			
Junk Bay	270							
		EF x 2						
		CC						
		STR						
NORTH KOREA								
Chongjin Works								
North Kankyo	2000							
		DR (SLRN)						
		EF						
		CC						
Hwanghai Iron Works								
Songnim	2500							
		BF x 3						
		OH						
		EF						
		LD						
		BLM						
		Hot						
		STR						
		Plate						

Country: **OTHERS (3)**

Unit: million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Integrated Works								
Taedonggang							Plans for a new 3 million tpy greenfield integrated works.	
Kangson Works								
Kangson	2960						Also known as Chollina works. Expansion programme underway.	
		BF EF x 8 LD BLM Hot SMLS STR						
Kimchaek Works								
Kimchaek	6000						The second stage of its expansion plans has been completed in 1989. A new 100-tonne converter, two oxygen plants and a lime kiln were the major achievements of the project.	
		BF x 3 LD BS OH EF Hot STR SMLS						

Country: **OTHERS (4)** *Unit:* million tonnes per year

Company / Plant or project	Existing Capacity	Existing Equipment	Increase in Capacity	Additional Equipment	Owner ship	Start-up Date	Comments	Sources
Songjin Works								
Songjin	100						Finished products include alloy steel bars and plates.	
		EF						
		Plate						
		STR						
		SLM						
SINGAPORE								
NatSteel Ltd								
Jurong	600						A new 80-tonne DC arc furnace replaced three existing EAFs in 1997.	MB 04-Sep-97
		(600) EF						
		(650) CC						
		(600) STR x 2						
		(350) WR						
SRI LANKA								
Ceylon Steel Corp.								
Athurugiriva	70							
		EF x 2						
		CC						
		STR						

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(58 1999 02 3 P) ISBN 92-64-05841-9 – No. 50541 1999