



**TOGETHER**  
*for a sustainable future*

## OCCASION

This publication has been made available to the public on the occasion of the 50<sup>th</sup> anniversary of the United Nations Industrial Development Organisation.



**TOGETHER**  
*for a sustainable future*

## DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

## FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

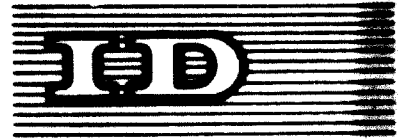
## CONTACT

Please contact [publications@unido.org](mailto:publications@unido.org) for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at [www.unido.org](http://www.unido.org)



04878



United Nations Industrial Development Organization

Distr.  
LIMITED

ID/WG.146/65  
24 May 1973

ORIGINAL: ENGLISH

Third International Symposium  
on the Iron and Steel Industry, 35,  
Brasilia, Brazil, 14 - 21 October 1973

Agenda item 2

MULTINATIONAL COMPANIES IN THE IRON AND STEEL INDUSTRY :  
THE EXAMPLE OF USIMINAS<sup>1/</sup>

by

Tokinaka Takahashi  
USIMINAS, Brazil

---

<sup>1/</sup> The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO. This document has been reproduced without formal editing.

id.73-3920

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

## S U M M A R Y

USIMINAS (Usinas Siderúrgicas de Minas Gerais S.A.) was set up in 1958. At that time, 60% of the capital was provided by Brazil and 40% by Japan. Since 1972, however, Japanese participation has been established at a lower level of 18.73%.

The paper traces the history of the company since the signing of the original Nippo-Brazilian agreement (the main provisions of which are listed) in 1957. During the construction stage, in addition to the capital participation, the Japanese government and industry provided credit facilities and technical assistance. The technical assistance was made available without charge for one year after the start-up of each plant unit: in all, 531 Japanese engineers and operators worked in Brazil up to the end of the original technical assistance agreement in 1966.

A further technical assistance agreement was signed in 1966, covering the production of deep-drawing quality and special steel sheet and strip. Nippon Steel Corporation Ltd concluded a general engineering agreement with USIMINAS in 1971 for the implementation of the expansion scheme, designed to bring the capacity of the plant up to 2.4 million tons per year.

- 1) **Multinational companies are those with sales over US\$100 million, business field at least in six countries and at least, 20% of liquid assets held by their overseas subsidiary companies.**

By this definition, there are now near 4,000 multinational companies, holding 15% of world production.

The fact is well known, but we might cite the following multinational companies as the main ones:

COMPANY NAME	HEADOFFICES	SALES (in million of US dollars)
General Motors	USA	28,300
Ford Motors	USA	16,400
Royal Dutch/Shell	Netherlands/ Great Britain	12,700
Unilever	Great Britain/ Netherlands	7,500
Volkswagen	West Germany	5,000
Du Pont	USA	3,800
R. C. A.	USA	3,700

- 2) **USIMINAS - Usinas Siderúrgicas de Minas Gerais S/A was founded in 1958 with a capital of Cr\$ 3,2 billion, 60% of which was Brazilian and 40% Japanese. Composition of USIMINAS capital, since January 31, 1972 has however been as follows:**

SHAREHOLDERS	VALUE (CR\$ 1 million)	PERCENTAGE
Japanese Group	226.4	18.73
B. N. D. E.	884.1	73.13
National Treasury	78.2	6.47
Other	20.2	1.67
<b>TOTAL</b>	<b>1,208.9</b>	<b>100.00</b>

and the rigorous view, etc. It is a joint-stock company and may not be considered as a trust. As for the Nippo-Brazilian operation in 1955, we wish to outline its evolution.

As is now known, the 1955 Agreement is the first element of the foundation of 1960, viz., a Brazil-Japan joint stock company, which was born between the Nippo-Brazilian Groups in the 1950's.

The spirit of this agreement is still the basic principle of Nippo-Brazilian cooperation.

In general terms, the Agreement has the following characteristics:

A - date signed: June 8, 1957;

B - Technical characteristics of the Plant.  
Annual production program  
1st stage:

Pig Iron-----	504,000 tons/year
Steel Ingots-----	240,000 tons/year
Plates-----	158,000 tons/year

2nd stage:

Pig Iron-----	504,000 tons/year
Steel Ingots-----	504,000 tons/year
Plates-----	240,000 tons/year
hot-rolled Sheets-----	45,600 tons/year
Cold-rolled Sheets-----	38,400 tons/year
Galvanized Sheets-----	33,600 tons/year

#### FACILITIES

1. Ore sintering plant for 2,000 ton sinter/day;
2. Coking plant, with nominal capacity for 1,100 ton metallurgical coke/day;
3. Two blast furnaces, each with nominal capacity for 700 ton pig iron/day;
4. Two converters, each with nominal capacity for 45 tons/heat;
5. One blooming mill;
6. One 120-in plate four-high reversing mill;
7. One 72-in hot strip semi-continuous mill;
8. One 56-in cold strip mill;
9. One continuous galvanizer.

#### C - Social Structure of the Company

The Board of Directors will consist of 5 Directors, 3 of which will be proposed by the Brazilian Group and two by the Japanese Group. The President, the Financial and the Commercial Directors will come from the Brazilian Group.

**D - Financial Structure**

The initial Company capital will be Cr\$ 3.2 billion, at current value, and increased to Cr\$ 4 billion in a second stage.

The Brazilian and Japanese Group will share 60% and 40% of this total, respectively.

**E - Floating Capital**

To be provided in Brazil.

**F - Conditions of A.M.L. Financing**

The sum of each period of effectiveness with that of amortization is estimated in 19 years, at 9% interests per year.

**G - Conditions of the Japanese Group Financing**

The sum of each period of effectiveness with the respective amortization term is estimated in 15 years, at 6% interests".

The document was signed by Dr Amaro Lanari Jr on the Brazilian part and Dr Teizo Horikoshi on the Japanese part. It is advisable to stress that, at that time, Dr Amaro Lanari Jr was member of the Work Group appointed by the President of Republic and also President of ACLSITA.

By the time the capital was increased, as a result of the Japanese partnership, Engineer Amaro Lanari Jr was elected President of USIMINAS and since then he has been re-elected.

At that time, Dr Teizo Horikoshi was the Secretary General to the Japan Economic Organizations Federation. Now he is in charge of Vice-President and Director-Secretary to the same Institution.

When Nippon USIMINAS, an organization constituted in Japan to share USIMINAS capital, was founded, Dr Teizo Horikoshi was elected 2nd President and was successively re-elected, still being holding the charge.

**5) Steps taken by both Brazilian and Japanese Governments up to the foundation of USIMINAS.**

**BRAZILIAN GOVERNMENT**

The Brazilian Government approved on November 7, 1957 the project for the construction of a steelworks plant in the State of Minas Gerais, also establishing that the concerned Organs took all necessary steps up to the end of December 1957.

**JAPANESE GOVERNMENT**

Considering that the project for the construction of the joint-stock steelworks plant - USIMINAS - would promote export of machinery and equipment from Japan and that this cooperation in the enterprise would contribute to promote economic and cultural exchange between Brazil and Japan, the Japanese Government, at their Board meeting held on April 12, 1957, decided to give complete support to the referred project.

a) Primarily, the Japanese Government approved the Japanese Group's partnership in USIMINAS capital with credit at the Export and Import Bank of Japan and resources of the private group to be supplied through Nippon USIMINAS.

As for the export of equipment and facilities it was set that financing would be provided on long-term through Nippon USIMINAS.

These conditions of financing coincided exactly with those agreed upon in the Horikoshi-Lanari Agreement.

b) Founded specially to be a partner in USIMINAS, Nippon USIMINAS has its capital integrated partly by the Japanese Government and partly by the Japan's biggest private organizations.

Its President is Bachelor Ieizo Horikoshi.

Nippon USIMINAS is the appointer of USIMINAS Director to represent the Japanese Group.

c) Since the foundation up to the moment the approximate value of the partnership in USIMINAS capital by the two groups has been the following, changed into US dollars currency at the time of the partnership:

Brazilian Group	-	US\$ 184,000,000
Japanese Group	-	US\$ 62,500,000

### USIMINAS CONSTRUCTION

1. USIMINAS - Usinas Siderúrgicas de Minas Gerais S/A was created in April 1956 (pilot plant). In January 1958, the first concrete step was taken to start its construction.

In April of the same year, Japan sent the first group of engineers and technicians to set the place for USIMINAS and definitely take several building steps together with Brazilian technicians.

On August 16, 1958, at Ipatinga, the ceremony, attended by the President of Republic Dr Juscelino Kubitschek, to set the initial stake was held.

The steelworks plant was named after Intendente Camara, a Brazilian naturalist, who, in 1814, first obtained molten iron in blast furnace.

Next deforestation and embankment jobs began. Thereafter, came jobs of rectification of the Vitória-Minas Railway that crossed the place, the installation of a crushing unit, and the construction of the job office and the construction of personnel housing.

In September 1959, the foundation jobs of the No. 1 coking plant and that of No. 1 Blast Furnace already appeared.

Ipatinga, which at the time of its construction was no more than a 300-house village, grew up with the Plant and nowadays, after 15 years, it has 50,000 inhabitants, being one of Minas Gerais' two greatest cities in tax collection.



## II. PROGRESS UP TO THE COMPLETION OF THE CONSTRUCTION JOBS

On October 26, 1962 the No.1 Coking Plant and No.1 Blast Furnace were complete.

The ceremony of the No.1 Blast Furnace blow-in was attended by the President of Republic Mr João Goulart, the Governor of Minas Gerais Dr Magalhães Pinto as well as the Foreign Minister of Japan Mr Kosaka and the President of the EXIMBANK of Japan Mr Furusawa, besides many other Nippon-Brazilian officers.

In January 1963, the Sintering, Plate and Thick-Plate Rolling Plants were complete.

In May 1965, the President of Republic Marshal Humberto de Alencar Castelo Branco, the Governor of Minas Gerais Dr Magalhães Pinto, State Ministers and other officers attended the solemn act when the Hot Strip Rolling Plant started operations.

In September 1965, the No.2 Coking Plant and No.2 Blast Furnace started operations.

In October 1965, the Cold Strip Rolling Plant was complete.

When the cold strip rolling mill started operations on October 24, 1965, the job of the initial 500,000-ton project of USIMINAS Steelworks Plant was complete. Before its present expansion plans, USIMINAS production reached over 1 million tons.

During the construction stage, USIMINAS faced many political and economical obstacles established by the excessive increase of paper currency and this happened before 1964.

### JAPANESE ECONOMICAL COOPERATION

#### (1) Societary Partnership

As it was agreed upon in 1957, USIMINAS capital would be CR\$ 3.2 billion in the first phase, and CR\$ 4 billion in the second, with the Japanese compromise to be a 40%-partner of this total, besides the financing that would increase the Japanese partnership to about ¥ 7 billion.

These resources however exhausted as a result from the abrupt increase of paper currency, cancellation of privilege cost exchange - that constituted the base of the construction and management output plan-, drop of exchange tax and other factors, besides large increase in expenses on jobs, materials, housing construction as well as increases in prices of imported equipment.

To arrange the necessary resources, the Nippo-Brazilian negotiations, at Government level, lasted four months counting from October 1961 and ended with the increase of USIMINAS capital. In this increase the Japanese partnership was kept at 40%, that represented the increase of the investment to about ¥ 9.7 billion.

As the increase of paper currencies went on, many financial negotiations were made between Brazil and Japan aiming at completing the 500,000-ton integrated plant. In January 1967, USIMINAS capital is increased to Cr\$ 150 billion in which the Japanese took part in with ¥ 3 billion. Consequently, the proportion of the Japanese partnership dropped to 2.8%.

By the time USIMINAS capital was doubled, in December 1971, when preferential bonds were issued to supply the necessary resources to complete the expansion plan, the Japanese Group subscribed their part.

### (2) Credit Supply

Most facilities and equipment pertaining to the initial 500,000-ton plan of USIMINAS came from Japan to which a ¥ 36,516-million credit was given.

In the first phase (1.4 million tons) of the expansion plan, begun in 1968, a new Japanese credit of US\$ 61 million was supplied.

To the second phase of the 2.4 million-plan, now under execution, a Japanese financing was given as bilateral quota.

### (3) Japanese Technical Assistance

Regarding the Japanese technical cooperation the Horikoshi-Lanari Agreement settles the following:

- (1) The Japanese shareholders will propose the Technical and Administrative Directors;
- (2) The departments directly under USIMINAS Technical Management will have their Heads proposed by the Japanese Group;
- (3) The Japanese Group will have a team of specialists come to Brazil to establish the local construction project;
- (4) The same group, at the same time, will range a Japanese team to set details for the steelworks plant equipment project.

Based on the Horikoshi-Lanari Agreement, and on a responsible position Nippon-USIMINAS went on making plans for the steelworks plant construction regarding equipment purchase, facilities and material, shipment, production and necessary personnel for the Plant, until the initial project was complete. Next, Nippon Usiminas made many projects necessary for the operation and work of the equipment and facilities.

In January 1958, a Technical Director came to Brazil to put into discussion the chronological sheet of construction and also the installations of the plant units.

In April 1958 also came the construction preparation team in order to develop the execution plan of construction and also to collect data that had not been surveyed by the groups previously sent.

In August 1959, "an agreement was signed to rule the engagement of personnel selected in Japan to be sent to USIMINAS". Then the sending of construction and operation assistance personnel was set. Technical Assistance faced great difficulties since the plant was in an antipodal position relative to Japan and also because of many obstacles, such as difference of language, of usage, etc.

In 1960, on President Lanari's request, the charge of Chief Adviser was taken over by Engineer Masao Yukawa who stayed in Brazil until the construction job of No.1 Blast Furnace was complete in 1962.

Thanks to Dr Yukawa's devoted orientation and the effective cooperation of Directors and personnel sent, all the construction jobs of the plant successively began at Ipatinga which, up to then, was a desert area. No.1 Blast Furnace was blown in the short period of 3 years - a unique event up to then.

After No. 1 Blast Furnace blow-in, the personnel sent not only carried on the construction jobs but also dedicated to operations, giving effective technical assistance under the direction of the Directors sent.

In July 1963, production of thick plates began and, in the end of the same year, the London Lloyd Register of Shipping and, next, the Brussels Veritas Bureau approved the equipment and plates for shipbuilding.

As the Cold Strip Rolling Plant was complete in October 1965, the construction of the integrated 500,000-ton/year steelworks plant was complete.

Speaking exclusively about installation with the productive capacity of 500,000 tons and with regards to construction and operation, Nippon USIMINAS provided technical assistance free of charge until 1 year after each unit had started operations. To the completion of technical assistance to all units, in 1966, Japan sent 531 people to the Plant.

As the installation relative to 500,000 tons was complete, practically all the personnel sent came back to Japan. As a result, the Plant management was put in Brazilian hands.

Simultaneously, the Agreement for Technical Assistance was held as described below. Along with it, the reorganization and rationalization of the Company was made upon a contract held with Booz-Allen & Hamilton.

According to the societary partnership, the number of Directors was also changed to 5 Brazilian and 1 Japanese.

After the completion of the Cold Strip Rolling Plant, a contract for technical assistance was signed in April 1966 between USIMINAS and the then Yawata Iron and Steel Co., Ltd., now named Nippon Steel Corp., for the production of deep-drawing sheets for automotive industry and other special steel sheets and strips.

Based on this contract, next to 10 people are regularly sent in order to give technical assistance for a period not exceeding 6 months. This contract also foresees training to USIMINAS personnel at Nippon Steel shops.

Through this contract, the production of high quality sheets began in July 1967 within standards required by the automotive industry. As a result, USIMINAS became one of the largest sheet suppliers to the Brazilian automotive industry.

It was parallely held, still being effective, the agreement for Study and Research, also between USIMINAS and Nippon Steel Corp.

To cope with the completion of the 2.4 million-ton expansion plan Nippon Steel Corp and USIMINAS held the General Engineering Agreement in January 1971. As a part of this contract, another one was signed and named Consultant Engineering Agreement.

The cooperation based on the above mentioned agreement is under wide execution giving contribution to carry out the 2.4 million-ton expansion plan.





9 . 8 . 74