



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th 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.

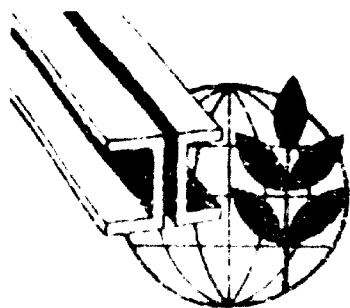
FAIR USE POLICY

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.

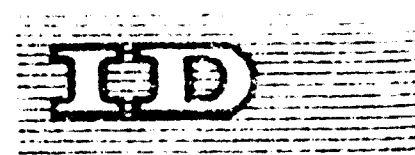
CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org



D00635



Distr.
REVISED
ID/WO.11/30
25 September 1969

ENGLISH
RUSIAN: RUSSIAN

United Nations Industrial Development Organization

Second Interregional Symposium
on the Iron and Steel Industry

Moscow, USSR, 19 September - 9 October 1968

C-9

TECHNICAL ASSISTANCE OF THE SOVIET UNION IN ESTABLISHMENT
AND PROGRESS OF FERROUS METALLURGY IN DEVELOPING COUNTRIES:

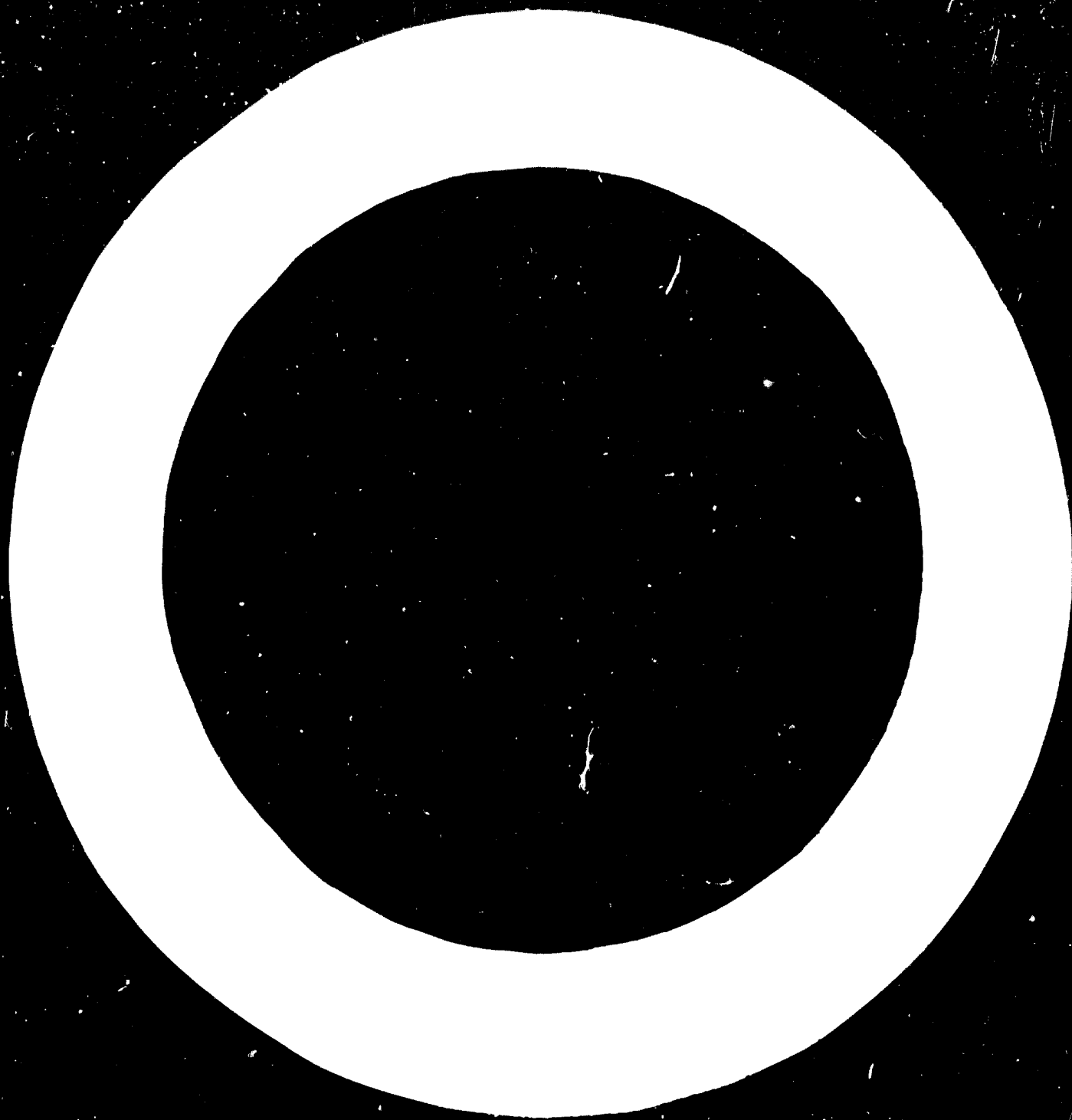
ITS MAIN PRINCIPLES AND ARRANGEMENT,
LONG-TERM CREDITS AND INVESTMENT^{1/}

by

M. I. Syngakov
State Committee for Science and Technology
Moscow, USSR

^{1/} 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.

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.



**TECHNICAL ASSISTANCE OF THE SOVIET UNION IN ESTABLISHMENT AND PROGRESS
OF FERROUS METALLURGY IN DEVELOPING COUNTRIES: ITS MAIN PRINCIPLES AND
ARRANGEMENT, LONG-TERM CREDITS AND THEIR PAYMENT**

1. Introduction.
2. Main principles of the Soviet Union's technical assistance to developing countries in establishment and progress of ferrous metallurgy.
3. Organizational forms of technical assistance.
4. Rendering of technical assistance by the USSR to developing countries in establishment and progress of ferrous metallurgy.
5. Credits granted by the Soviet Union to developing countries for progress of ferrous metallurgy and payment of these credits.

1. Introduction.

The post-war period can be characterized by great changes that have taken place in the world. There have appeared dozens of new independent states on the map of the world as a result of intensified national liberation movement of the peoples in colonial and dependent countries.

Colonialism has held up progress of productive forces in these countries for many decades. It has been the main cause of immense gap in the levels in economic growth of new independent countries in Asia, Africa, Latin America on the one part and advanced industrial Western states on the other.

There has been practically no ferrous metallurgy in the majority of the above countries, steel consumption being one of the most important criteria indicating the level of industrial progress in these countries is considerably lower than that in the advanced capitalist countries.

At the same time Asian and African countries possess raw material and power resources quite sufficient to provide with everything required for building up-to-date iron and steel enterprises for many years. Many of these countries possess considerable reserves of iron ores, coal and hydro-power.

Thus, for example, there is about one third of the world iron ore resources in India which are estimated at 30 milliard tons. Indian iron ores are characterized by high iron content being from 50 up to 60 per cent. The economic value of these iron ores became greater due to the fact that they are located quite close to the coking coal fields in the states of Bihar, Orissa, Madhya Pradesh. There are also large resources of iron ores in Iraq, Indonesia, the U.K., Turkey and others.

There are big deposits of manganese ore in India, Indonesia, the U.K. and other countries. The Indian deposits only are estimated at 92 billion tons, the manganese content in Indian and Indonesian ores being very high, namely 50-55 per cent.

The natural resources, their volume and geographical location in many of the developing countries allow to draw a conclusion that the availability of the raw material source in these countries is quite sufficient and reliable for establishment and progress of their own ferrous

more largely.

At present the peoples of these countries in salvaging their political and national independence are making great efforts to do away with their economic backwardness. Today many of the developing countries have started carrying out in practice their plans for the progress of the ferrous metallurgy as an important means to overcome their lagging economic backwardness.

The Soviet Union was one of the first to start rendering technical assistance to developing countries in construction and enlargement of iron and steel enterprises.

Continuous growth of the Soviet Union's production and resources potential allows our country to render technical assistance in ever increasing scope to the interested states in developing their own industrial bases. This assistance is rendered on the largest scale if desired by the customer.

When in 1955 the Soviet Union started to render technical assistance and loans to developing countries in constructing iron and steel works, an agreement to this effect was signed by with India, and trade and cooperation agreements were also concluded with Algeria. Within the next 13 years our country has rendered and keeps on rendering technical assistance to Algeria, India, Indonesia, Iraq, the U.S.S.R., Turkey, Ceylon and Madagascar in constructing iron and steel works to the total expenditure in these and other projects as follows:

	Total available obligations	There has been commitments as on 1.1.68
Iron ore output	13400	4000
Sinter production	11900	2120
Coke production	7300	2170
Iron making	9100	2400
Steel making	9500	2500
Rolled products production	8300	2100

In his relations with all other states when rendering his technical assistance the Soviet Union has been invariably following Lenin's foundations of peaceful co-existence as well as policy of every possible widening and strengthening of economic and foreign trade relations with all countries.

II. Main Principles of the Soviet Union's Technical Assistance to Developing Countries in Construction and Enlargement of Ferrous Metallurgy

Many years experience in the Soviet Union's economic cooperation with developing countries in constructing iron and steel enterprises has proved once again correctness of the main principles followed by the USSR which are on the whole as under:

The USSR economic cooperation with new Asian and African countries in their ferrous metallurgy progress has been based on equality and high respect of their national sovereignty. The iron and steel enterprises constructed and being constructed with the USSR technical assistance are complete property of these developing countries.

When rendering his technical assistance in establishment of ferrous metallurgy the Soviet Union takes into account mainly the young developing countries' interest to strengthen their government sector and by this to strengthen the planning trend of these countries' economy.

There are two factors explaining why the USSR gives preference to developing and strengthening the government sector: firstly, only the government sector can guarantee to the most extent economic independence, and secondly, the construction of iron and steel enterprises requires great capital investments that cannot be afforded by individual firms of the new developing

states.

When rendering technical assistance to developing countries we are well aware of the fact that any country's progress in its economy and in ferrous metallurgy in particular depends chiefly upon the efforts and labors of the peoples of these countries.

Following the principles of equality and mutual benefit the Soviet Union grants developing countries credits on favourable terms when rendering them technical assistance for the purpose of their iron and steel industry programs.

All the profits gained from working products developed from iron and steel enterprises constructed in collaboration with the Soviet Union organizations concerned are at complete disposal of the developing countries, thus facilitating the solution of the problem of repaying the credits granted.

Organizational Forms of Technical Assistance

Up to the present moment the Soviet Union's contribution to the establishment of ferrous metallurgy in developing countries has been carried out on the basis of bilateral inter-government agreements. It should be noted, however, that the Soviet Union renders technical assistance by the Soviet organizations concerned on the basis of special agreements, terms and conditions, with payment either under special conditions or on a grant basis, or by any other way agreed upon by the parties concerned.

The nature of the initial terms and conditions under which the scope and period of time for rendering such assistance are based on a plan approved by the Government or firms of a particular country.

In number of cases when a formal invitation from the Government or from corresponding organizations of the developing countries, Soviet teams of highly experienced specialists leave for these countries and they in cooperation with local specialists thoroughly examine the matters as regards economic necessity and expediency to construct or to enlarge some iron and steel enterprises in the near future.

The conclusions made up by the Soviet specialists allow the customer to decide whether it is expedient or not to construct some particular enterprise.

In some cases at the request of the customer the Soviet organizations concerned prepare a technical and economic report for the customer to take a final decision whether it is expedient and profitable to construct one or another unit.

Range of further activities in rendering technical assistance to foreign customers is the following:

- survey and exploratory work required for designing the enterprises and installations;
- design services;
- delivery of equipment, materials and spare parts;
- supervision of carrying out the construction and erection;
- supervision of commissioning plants and units as well as of attaining their design capacity;
- vocational training of personnel at the USSR industrial enterprises, as well as in the course of installation and adjusting on the construction site directly.

The above vocational training is carried out by highly experienced specialists, by specialized design organizations with participation of scientific research institutes and industrial enterprises of the USSR on the basis of the latest achievements in science and technique.

V/O "Tjazzpromexport" established in order to carry out technical assistance by the Soviet Union to foreign countries in constructing mining as well as iron and steel enterprises deliver equipment of up-to-date designs prepared on the basis of the latest requirements of production and tested in operation conditions. Delivery of equipment is made on the terms and conditions of

concluded Contracts.

In some particular cases foreign trade organizations and firms of other countries are invited to supply complete units of equipment under the contracts with V/O "Tjuzhpromexport".

When rendering technical assistance to foreign countries in order to set up their ferrous metallurgy the Soviet Union takes into account maximum use of available resources and technical potential of a particular country.

The above division of obligations and expenditures among corresponding organizations of the supplier and the customer favours to the best extent involving domestic resources and mobilizing national wealth as well as increasing population employment. This division also ensures accumulation of technical experience required for further development of national economy in these countries, as well as it creates their own personnel in qualified workers, technicians and engineers.

IV. Rendering technical assistance by the USSR to developing countries in establishing and expanding iron and steel works

Technical cooperation of the Soviet Union in establishment and progress of ferrous metallurgy is a specific material form of economic assistance to a number of African and Asian countries, this form means to share some part of national product made in the Soviet Union by transferring it to these countries as production capacities of iron and steel industry and also to share with them many years experience both in construction and operation.

The technical assistance rendered by Soviet organizations to Asian and African countries in progress of their ferrous metallurgy means quite a new era from economic point of view in the international collaboration, which has never existed and cannot exist under the conditions of capitalist way of production.

The information stated below on the iron and steel enterprises constructed, being constructed and to be constructed in new developing countries gives clear evidence of the aim and scope of the Soviet Union's technical assistance in establishment of ferrous metallurgy in these countries and also the importance of this assistance in strengthening their national economic independence.

In 1967 the construction of the second phase of Bhilai Integrated Iron and Steel Works was completed with the Soviet Union's assistance, this Iron and Steel works is in the state of Madhya Pradesh in India and it is one of the biggest works in Asia.

The works is equipped on the basis of the latest achievements of technique. It is an up-to-date Combine mining and producing an million tons per annum: iron ore - 4.0; sinter - 1.9; coke - 2.3; iron - 2.4; steel - 2.5; rolled products - about 2.0

Bhilai Iron and Steel Works is the symbol of Indo-Soviet friendship and technical collaboration.

In 1967 this works produced about 52 per cent of iron, 29.8 per cent of steel and 28.4 per cent of rolled products of the total volume of the similar products made in the country.

In the near future this Works capacity will be increased up to 3.2 million ton steel per annum with the USSR cooperation.

11 January of 1965 there was signed the agreement on technical collaboration between the Soviet Union and India in constructing another iron and steel works at Bokaro, its capacity being 3 million ton steel per year and the capacity of its first stage being 1.7 million ton per annum. Some units of the works first stage are expected to be commissioned in 1969.

By the end of the current year over 75.0 thousand tons of equipment, steel structures and materials will be delivered from the Soviet Union for this unit, the total quantity of equipment, steel structures and materials stipulated by the contract being 177.0 thousand tons.

The first iron and steel works of 500-600 thousand tons steel capacity per year will be set

up in Iran in 1971 with the Soviet Union's technical collaboration.

This works is being constructed in Isfahan region. The iron and steel works will be operated on the basis of local raw materials and will completely meet the requirements of Iran in such assortment of rolled products as beams, channels, angles, strips, rounds and wire rods. The country will be able to save 60-70 million dollars each year.

In compliance with the contract V/O "Tjashpromexport" shall carry out designing, supply main equipment, that cannot be manufactured by the Customer, and shall send on a mission Soviet specialists whose number will be agreed upon with the Customer. V/O "Tjashpromexport" shall deliver 185 thousand tons of equipment, materials and steel structures under the above contract.

At the end of March of 1966 the first Iron and Steel Works in Ceylon was commissioned with the USSR technical cooperation, the plant's capacity being 60 thousand tons of rolled products per year under the operation in two shifts.

Within a short period of time the output of the equipment reached the design capacity and at present this enterprise can meet the country's requirements in rolled products made at the Works up to 80 per cent.

In his message on the occasion of commissioning the first iron and steel works Mr. Gunawardena, Minister of Industry and Fishing of Ceylon said about the value of the Soviet Union's collaboration in construction of this works:

"I wish to express my gratitude to the Soviet Union for his having helped us to achieve a great progress in industrial front".

In the United Arab Republic there have been constructed and commissioned with the Soviet Union's technical cooperation the following units:

a) The first stage of Coke Oven and By-Product Plant in Helwan, its capacity being 2800 thousand tons of coke per year. At present the construction of the second coke battery of similar capacity is being finalized.

b) Sintering Plant of 1.0 thousand tons of iron ore per day capacity, it is possible to process ore fines at this plant.

This year it is planned to commission the Rolling Mill producing hot and cold rolled sheets as the construction and erection works are being completed.

Besides the Customer has recently approved the Detailed Project Report for the expansion of the existing Iron and Steel Plant in Helwan, its capacity is to be increased from 500 to 1500 thousand ton steel per year. After its commissioning the Plant will be able to meet the country's requirements completely in majority of the rolled product assortments.

Besides a team of Soviet experts is rendering their technical assistance to the Customer in achieving the design capacity by the plants of this Works constructed by some firms of German Federal Republic. In 1967 the Egyptian metallurgists managed for the first time to achieve the design capacity of the blast furnaces and rolling mills of this Works.

In Algeria the construction of a steelmaking plant at the Iron and Steel Works in the town of Annaba is being carried out with the USSR cooperation.

The above shop has been designed to produce 400 thousand tons of steel per annum.

During the current year V/O "Tjashpromexport" are to supply over 15 thousand tons of equipment and steel structures for the above plant.

As it is stipulated in the Intergovernmental Agreement the Soviet Union is to render technical assistance to Turkey in the construction of an iron and steel works. At present negotiations are being held as regards signing a contract on cooperation in constructing the above Plant which will have a complete metallurgical cycle, its capacity being 1.0 million tone steel per year.

Y. Credits granted by the Soviet Union to developing countries for progress of their ferrous metallurgy and payment of the credits

One of the most important forms of the USSR economic collaboration with developing countries is granting credits for the purpose of their ferrous metallurgy as well as other branches of industry progress.

Credits granted by the Soviet Union are of long-term and favourable nature therefore they are the most acceptable to the above countries, in other words the interest of annual reimbursement under the Soviet credits is low, credits are granted and reimbursed within a long period of time, i.e. the annual interest under the credits granted up to the present time by the USSR to these countries has been 2.5 per cent and the period of their reimbursement is usually 12-15 years.

The Soviet Union strictly observes the terms and conditions provided for in its credits granted to developing countries, the USSR credits stipulate gold clause, i.e. the gold content of the amount granted under a credit is guaranteed. One of the main features of the Soviet credits is that no special terms and conditions are stipulated in the Soviet agreements on granting them.

Since the Soviet credits are repaid within a long period of time, the countries granted these credits can reimburse them on account of profits earned after selling the products manufactured at the enterprises set up with the Soviet Union's cooperation. After commissioning these new enterprises these countries have every possibility to decrease import of metal and to increase the range of other goods nomenclature as well as the volume of export.

The Soviet Union is importing from developing countries their traditional exports on account of reimbursement of the granted credits.

And the developing countries on the other hand procure from the USSR exports the volume and range of which are constantly widening. This factor promotes to maintain the level of world prices for these exports on the market, and this in its turn strengthens the developing countries position in their struggle against international monopolies.

14 . 8 . 72