



**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)



D00782



Distr.  
LIMITED

ID/WG.47/2  
22 September 1969

ORIGINAL: ENGLISH

United Nations Industrial Development Organization

Expert Group Meeting on Industrial Co-operation  
between Developed and Developing Countries  
for Exports

CO-OPERATION BETWEEN ROMANIA AND DEVELOPING COUNTRIES  
IN PROMOTION OF INDUSTRIAL EXPORTS <sup>1/</sup>

by

N. Belli and I. Burstein  
Institute of Economic Research  
Romanian Academy of Sciences  
Bucharest, Romania

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

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.

Contents

	<u>Page</u>
CHAPTER I INDUSTRIAL CO-OPERATION - AN ADVANCED FORM OF INTERNATIONAL ECONOMIC RELATIONS	1 - 32
1. Introduction	1
2. Industrial Co-operation Agreements - A Stimulus to Romania's Economic Relations with the Developing Countries	2
3. Promotion of Modern Forms of Industrial Co- operation between Romania and the Developing Countries	4
4. Main Spheres of Industrial Cooperation	12
CHAPTER II CONCLUSIONS	32 - 34

## I. INDUSTRIAL CO-OPERATION - AN ADVANCED FORM OF INTERNATIONAL ECONOMIC RELATIONS

### 1. Introduction

1. Contemporary society, on the one hand, is characterized by the historical trend towards national independence and sovereignty of the peoples, and, on the other hand, by the intensification of international interdependence and economic co-operation among the nations. Industrial co-operation has become one of the major stimuli to progress; an advanced form of international economic relations. It is obvious that a new historical reality has emerged, in which foreign trade cannot normally develop according to classical forms alone. Consequently, foreign trade is steadily adopting new forms, while the classical forms themselves undergo a number of changes with a view to stimulating economic expansion.

2. Industrial co-operation among countries comes ever more to the fore by a number of merits which make for its impact on industrial development and the prospect of its becoming the main instrument of international economic co-operation.

3. On the one hand, industrial co-operation enables to meet the divergent interests of the partners with regard to the inflow of additional investments, the organization of new industrial branches, the utilization of natural and human resources, the marketing of manufactured goods in third markets, etc.

4. On the other hand, international co-operation in the sphere of industry shifts the countries' economic relations from the sphere of commodity exchange to that of commodity production. Thereby international economic co-operation implicitly becomes a factor of modernization and expansion of industrial production to which all countries resort, irrespective of the level of their economic development or social system. Countries that have embarked upon a vast programme of economic construction, such as Romania and the developing countries, have met this new international economic factor

with interest. They have widely applied it to their reciprocal relations and used it to step-up their social and economic progress.

5. Like in all other spheres of international industrial co-operation, each country has acquired its own experience. In this connexion, the extraordinary diversity of the social, economic and historical conditions of each country (a diversity that has become incompatible with the mechanical copying of a foreign model of international industrial co-operation), should be taken into consideration.

6. However, bearing in mind the peculiar conditions and the specific features of each country, it is possible to give examples of generally valid significance. It is only natural that we should find them also in the case of Romania with regard to her industrial co-operation relations with the developing countries.

7. We intend to examine and present here the most significant aspects of Romania's experience in this sphere.

2. Industrial Co-operation Agreements - A Stimulus to Romania's Economic Relations with the Developing Countries

8. In compliance with the objective requirements of the promotion and diversification of international economic relations, the different forms of agreements of an institutional and legal nature are also in the process of constant expansion and diversification. Thus, concurrently with the trade and payments agreements, economic technical and cultural co-operation agreements are signed. This diversification goes further; apart from short-term agreements, usually covering a year's span - long-term agreements, for 5-10 years and an even longer period are concluded.

9. Romania has concluded economic and technical co-operation agreements, technical and economic co-operation protocols in different industrial branches with more than 20 developing countries, including Algeria, Saudi Arabia, Ceylon, Chile, Colombia, Guinea, India, Jordan, Iran, Morocco, Peru, the UAR, Syria, Somaliland, Tunis, Venezuela, etc. Furthermore, Romania has established technical and scientific collaboration with some 20 developing countries.

10. For illustration purposes, two practical examples are to be examined. The first example refers to the economic co-operation agreement concluded between Romania and Algeria on March 29th, 1968. It provides for: (a) long-term economic and technical co-operation in the field of industry, agriculture, sylviculture, the training of the Algerian personnel; (b) the supply by Romania of equipment, installation, studies and documents; and (c) the reimbursement of Romanian deliveries by raw materials, in the output of the establishments erected with Romanian assistance. A protocol attached to the agreement concerned provided for the Romanian-Algerian co-operation likewise to expand production capacities in oil exploitation. Romania committed herself to deliver drilling rigs and equipment; to render the requisite technical assistance; to turn to good use some of the iron-ore deposits; to build an enterprise for the maintenance and location of the mining material and coalfields. The protocol stipulated for the Algerian party calls to repay by iron-ore supplies. It is noteworthy, therefore, that the Romanian-Algerian economic co-operation agreement is a real programme for an all-round collaboration between the two countries, in which the spheres of collaboration are delineated and the parties' reciprocal obligation established, as are the ways and means of payment of the credits granted. All this makes evident the specific forms and type of cooperation between the two partners.

11. In the above case, the agreement referred to has created an auspicious framework for the promotion of an economic co-operation form which, on the one hand provides for the supply of Romanian equipment and installations on credit, the respective technical guidance for the fitting of the institutions and the training of Algerian personnel included; and, on the other hand, for the reimbursement of the granted credit by supplies of industrial

productivity turned out by the present achievements resulting from the co-operation and also by supplies of other Alcofer products.

12. The second example we would like to examine is the Agreement on economic and technical co-operation between Romania and the USSR, concluded in 1960 for a 14-year period. This agreement which, in fact, is an industrial co-operation agreement, stipulated for:

- (a) the delivery, on credit, of Romanian equipment for the construction of some industrial projects in the USSR; (b) the granting of technical assistance in the setting up, commissioning and exploitation of industrial enterprises; (c) the reimbursement of the Romanian credit by deliveries of iron-ore, phosphates, soda ash, etc; and (d) the setting up of a joint commission for Romanian-Egyptian co-operation.

3. Promotion of Modern Terms of Industrial Co-operation between Romania and the Developing Countries

13. Aiming at economic progress, industrial co-operation simultaneously aims (a) the utilization and expansion of the creative potentialities of each country; and (b) overcoming any barriers standing in the way of the promotion of various forms.

14. The benefits arising from it vary for the different countries. For developing countries and, in general, for countries in the process of industrialization and diversification of production, Romania insisted, co-operation should be based on free exploitation of the natural resources by either private or state-owned additional payment means or on enterprises taking over certain investments; the promotion of technical progress is to reach the rest world

achievements; a rise in the competitive level of production and its competitiveness abroad; facilitating the introduction of new kinds of products, etc.; the introduction, in the case of licences, patents, of advanced technology; production and experience; contribution to the development of automation of exports in general, etc.; manufactured equipment, etc. All these factors can serve as additional criteria of evaluation and promotion of the international co-operation between elements and the developing countries.

15. International experience brings to light a multitude of co-operation forms according to the specific conditions of the different countries, branches and enterprises, and to the nature of the concrete targets aimed at by the partners. From this viewpoint, mention should be made of bilateral and multilateral co-operation.

16. Bilateral co-operation, a form of mutual economic collaboration in general, has the advantage of great flexibility to the effect that an entire agreement concluded in one can be built up between countries, covering every sphere of operation, and each country being in position to choose the partner it considers most suitable for the respective sphere. Moreover, such a wider liberty of determination may be entrusted to partners, thus, etc., will provide the multilateral co-operation. It should be noted, moreover, that bilateral co-operation is the basis upon which multilateral co-operation, which is more difficult to implement, can be based. The former can be easily transformed into the latter.

relations, and their continuous improvement, is one of the pre-requisites that create the necessary conditions for further promotion of multilateral co-operation. Romania's industrial co-operation with the developing countries is mainly bilateral co-operation, based on mutual advantage.

17. Multilateral co-operation, under specific circumstance, both in the economic and scientific spheres, appears itself thanks to the development it offers. In certain cases, a number of problems can be solved only by multilateral co-operation. The experience of Romania of other countries demonstrates that the multilateral agreements cannot be opposed to the bilateral ones. Both methods and forms of co-operation are useful either in mutual complementarity, or separately, according to the concrete conditions of each case.

18. As already shown, the road to multilateral co-operation necessarily passes through the full development and consolidation of bilateral relations at the interstate level. The experience accumulated so far by Romania in other countries points to a comprehensive and continuously diversifying range of forms of co-operation with the developing countries in various spheres. While not claiming to make a classification of these forms, we shall evidence some basic types of this co-operation which have largely been used recently. Mention should be made of:

1. Co-operation managed as a result of developing countries benefit from Romanian investments for the expansion of brancher or enterprises.

These often embrace different practice, forms, but mainly that of the construction in the developing countries of industrial projects, the Romanian partner supplying equipment and installations, or long-term credits, to be repaid

by products turned out by the respective installations and by other goods. In this category falls the Romanian-Indian co-operation for the construction of a factory of an engine plant at Alay, Giza, for which Romania supplies the requisite equipment, sub-assemblies and tractor components, licenses, technical documentation and assistance know-how; the organization of an industrial complex for lumbering and woodworking in the Giza area region; the organization of the agro-zootechnical complex at Resht, within which a number of industrial factories are to be built, etc.; The Romanian-Indian co-operation in the construction of the oil refineries at Gauhati and Haltia; Romanian-Egyptian co-operation in the construction of a soda works and other industrial projects, etc.

2. Co-operation measures aiming at the modernization of production, its growth and diversification and, at the same time, at a rise in the economic efficiency and expansion of exports.

The experience recorded in this file demonstrates the possibilities of such forms as:

- (i) agreements entered into with a view to jointly delivering equipment, installations and parts of installations to third markets;
- (ii) co-operation in the production of machinery and equipment to meet both parties' demand, each turning out certain components or subassemblies;

(iii) the manufacture in a country of some equipment, components and devices according to the licence and documentation of the Romanian Technical Institute.

**3. The setting up of companies whose aim is to increase export.**

This may be another form of co-operation. The conclusion of agreements with foreign trade firms for the distribution of Romanian products in different markets or Romania's participation in joint ventures, under different forms etc. represent possibilities less unknown to by Romania up to now, but an outcome of similar experience of other countries.

**4. An ever-more important sphere of Romania's international co-operation with the developing countries is that of technical and scientific co-operation. The transformation of science from an exogenous into an endogenous factor of economic growth is characteristic of our epoch.**

19. Our own experience points to the fact that countries at a lower economic level should apply two criteria: in their technical and scientific co-operation, (a) to assimilate the achievements in this field, not a low level, neither at the average one, but at the level of the latest and most efficient achievements on a world level, and (b) to achieve such an economic growth which, by raising the productivity of the entire social labour, would contribute to overcoming their backwardness and change their world position in the spheres of material and scientific production.

20. There are large co-operation possibilities for joint programmes of bilateral or multilateral research, determined by the necessity of extending the scientific knowledge. These should widen, by their nature, international co-operation, making available human resources that are beyond the possibilities of one country alone.

21. Within international economic relations, the trade in licences and patents or the "title to know-how" has developed rapidly in the recent two decades. In the area of international technical and scientific cooperation, which among other economic consequences has also brought about a rapid ageing and modernisation of machinery, the trade in licences and patents has become one of the most important sources for increasing economic efficiency and profitability. That is the reason why co-operation, in this sphere, acquires particular importance for every country, and mainly for countries on a lower economic level. Such co-operation is implicitly presumed by co-operation agreements providing for the construction by Romania of industrial complexes in the developing countries.

22. The training of experts in economic and scientific activities is also an important form of international co-operation. The different forms of co-operation in this sphere may consist: the establishment and development of national patterns for the training of engineers and for scientific research; the training in Romania of the relevant personnel; the qualification on-the-site of the workers who are to commission the ~~available~~ economic projects, etc.

23. Among the various forms of industrial co-operation between Romania and the developing countries, mention should be made of the form implying the delivery of equipment, on credit, for the

construction of industrial projects which are the national property of the country in which co-operation occurs, payment being made in products turned out by the enterprises thus built or by other private mutually-traded firms. This form, as Romania's experience shows, acquires ever greater importance because of the mutual advantages accruing as far as economic relations are concerned.

24. For the country which delivers equipment on credit, advantages accrue primarily from the possibility of enlarging its foreign market for a longer period, a most important element under the national development programme. Secondly, in exchange for the equipment supplied on credit, the former receives a number of products needed in order to ensure reproduction under the stipulated conditions. Thirdly, this form of co-operation strengthens international specialization in production - a major factor for the promotion of development and trade.

25. For the country granted such credits, advantages firstly accrue from the acquisition of foreign long-term investment funds needed for the implementation of their industrialization programmes. For instance, Iran will start producing tractors with the equipment and installations supplied on credit by Romania. India, Algeria and the UAR are increasing their production capacities in the petroleum, chemical and cement industries. Secondly, advantages are gained from the payment facilities offered for the credit received: on the one hand, the credit provides for payment of interest, usually of only 2.5 per cent which is below the 3 per cent recommended some years ago on the occasion of a meeting in Geneva; on the other hand, the payment of credit is made in products turned out by the respective works or by

other products which depend on the extension of the respective country's foreign market. Thirdly, to some form of co-operation organized on the basis of a common economic policy is required to participate in international trade. This factor, in addition, is an important factor both for the implementation of industrialization of their national industry and the consequent improvement of their position in the international market. Consequently, the term of co-operation or membership in the community of large economic potentialities. That is why Romania has upheld within the international organization, and in practice, this form of co-operation practising it to meet economic requirements both with developing and developed countries.

26. Developing countries are concerned with promoting various forms of industrial co-operation. However, prevailing among them are those which involve them in different processes of international specialization in production. In order to achieve specialization, the fulfilment of a number of conditions is required: namely, the developing countries and their co-operation partners. It is obvious that the developing countries need equipment at a high technical level, technical assistance, credit facilities, and that they must open up their foreign market. However, as no industrial companies are engaged in international specialization relations, they are faced with problems such as the qualification of manpower, the adjustment to a discipline brought over by modern industry, so that the product to be supplied under specialization agreements shall be in accordance with the stipulated technical and economic parameters.

27. Considering the immediate prospects, many of the developing countries will evidently envisage specialization agreements in the processing trades.

4. Main sphere of industrial co-operation

28. In the process of development of Romania's economic relations with the developing countries, several co-operation spheres and trends materialized, or are in the process of materialization. Taken together, they define the pattern of the national economy itself, and within its framework, the structure and industry of the country.

29. The exploitation of important natural resources in the developing countries is the more general sphere of Romania's co-operation with the former. The natural resources in point are hydrocarbons, ferrous and non-ferrous ores, other useful metal-bearing and non-metallic bearing materials, wood, etc., whose turning to advantage is vital for stepping up the economic progress of the developing countries. In pursuance of this line, Romania has been promoting complex co-operation starting with studies, geological prospecting and research for the location of deposits, continuing with the organization of the exploitation of deposits and ending with the high-grade industrial processing of the raw materials. All along these phases of production cooperation, Romania undertakes studies and carries out assignments for the construction of the respective projects; it supplies the local, foreign and central funds on credit; provides the partners with experts that will be able to provide the requisite technical guidance in the construction of the

enterprise, the fitting of the installations, the exploitation proper or the initial stages; supplier-technical and scientific documentation, know-how, etc.; training the technical specialists who are to take over work in the newly-built enterprises.

30. A sphere in which Romania's industrial co-operation with the developing countries is assuming more important development is that of the exploitation of the oil deposits and the expansion of the oil industry. It is a matter of common knowledge that the developing countries still possess, at the present level of knowledge of the subsoil, sizeable oil deposits. On the other hand, Romania has not only a long-standing tradition and experience in the field of oil extraction and processing (it has been carrying out activities in this field for more than 100 years), but also a modern oil industry. As a result of intense national efforts, in the recent two decades this industry has turned into a branch which enjoys abreast of the latest techniques in world petroleum practice and which, moreover, makes an own contribution to the improvement of the activity in this field.

31. The experience of over one century which Romania has acquired in the expansion of the petroleum industry is shared with the developing countries by means of co-operation. In each and every case this co-operation aims at:

- (a) Carrying out geological research with a view to locating oil and gas deposits. For this purpose, the co-operation agreement usually provides for the delivery of equipment for exploration drilling and for the granting of technical assistance. Such geological research has been carried out by Romanian experts in Afghanistan, Burma, Ghana, Guinea, India, Somalia, the UAE, Syria, Turkey, etc.

- (b) Carrying out prospecting work for the exploitation of the oil-bearing formations followed by exploitation well-drilling and/or the organization of the extraction; also at supplying installations, equipment and materials required by exploitation activities, the requisite technical assistance included. Such work and deliveries have been carried out within the co-operation between Romania and Algeria, Burma, India, Pakistan, the UAR etc.
- (c) Giving technical assistance through Romanian experts for the drilling of exploration and exploitation wells, also supplying a number of requisite installations to this aim. Such work and deliveries were carried out, for example, in Algeria, Burma, Brazil, India, Ghana, Turkey, the UAR, etc.
- (d) Undertaking studies, experts' surveys, consultations in the sphere of the petroleum industry with a view to establishing oil deposits in certain areas, and the working out of programmes for geological research; the exploitation and stimulation programmes for the exploitation of the deposits (crude and gas); the technological profile of the refineries, transport, etc. In recent years such studies, surveys and consultations have been carried out within co-operation agreements with Algeria, Burma, Ethiopia, Ghana, India, Pakistan, Somalia, Syria, the UAR, Yemen, etc.

- (e) Building concrete refineries (both oil or deep fuel oil only). The design, construction and operation of these refineries can be carried out by the Romanian company, which can provide the latest technology. It is planned at under the following countries: **Saudi Arabia, Iran, Iraq, Pakistan, Dimitra, Turkey, Venezuela, etc.**
- (f) Supplying installations for gas removal of associated gases of a daily capacity of 1 million cu. m. and working at a pressure of maximum 5 atm. (co-operation with Burma).

12. Therefore, Romania's co-operation with the developing countries in the oil industry mainly embraces the prospecting and exploitation of the deposits, the drilling and extraction of oil and its mid-grade processing, the design and manufacture of modern drilling equipment and refining installations, the delivery and exploitation of this equipment, the training of highly qualified native experts and personnel.

13. The examination of concrete co-operation comes between Romania and the developing countries will allow us to draw interesting conclusions regarding the existing experience in this sphere.

14. Thus, under a long-term economic and technical co-operation agreement, concluded between I.M.U.P.R.D.O. of Saudi Arabia and General Petroleum and Mineral Organization of Romania, the Romanians offered to collaborate in the expansion and modernization of a few units of the oil industry and the construction of new projects

(refineries, oil fields, petroleum mining enterprises) either on the territory of a third state or in other countries, in compliance with the principles of free trade and competition. In addition, it would have to purchase (at current world market prices, effective for the period), in general, the crude oil at terms of payment, at competitive prices at the level of those prices negotiated in transactions for the respective types of crude oil.

35. The arrangement enables for the Romanian party to provide industrial concern, complete installations, machinery and equipment, engineering and technical assistance. Romania will also undertake studies and carry out research work. All these deliveries and services offered by the Romanian enterprises were to be repaid by crude oil. In essence, the co-operation agreement stipulated for a barter exchange of goods.

36. A similar arrangement was concluded by INDAUTRADEPORT and the Venezuelan Petroleum Corporation. Under the arrangement, Romania was to import some 15 million tons of crude oil from Venezuela by 1980, offer in exchange drilling and extraction equipment, petroleum refining equipment, oil well equipment and installations for other branches, viz. the mining, chemical, petrochemical, metallurgical, construction industry. In general, there are real possibilities for the organization of a closer long-term co-operation - of the type already referred to - between state enterprises and organizations of the two countries in the sphere of

crude exploration and exploitation in Venezuela. As pointed out by experience, the promotion of co-operation with the state petroleum organization is especially important in the developing countries enjoy most favorable conditions for this cause. The ever-growing economic and technical collaboration of these state organizations and enterprises, to which the co-operation with the socialist countries of India contributes, makes them reliable partners for a lasting and fruitful cooperation between both.

37. Romania's capacity of contributing to the expansion of the petroleum industry has been turned to greater advantage in her co-operation with India. Initiated more than one century ago, this collaboration has developed considerably. It started with the granting of technical assistance in prospecting work consequent upon which oilfields were located. In 1917 at Jashnmalai, a Romanian drilling company employing both Romanian and Indian specialists dug the first well-say of the Indian state petroleum industry. Romania has supplied the country with numerous drilling and special production techniques and equipment. Romanian experts have given technical guidance on-the-spot in the several oil fields of Assam, Assam, and have trained a great number of Indian borers. From the technical, functional and economical points of view, Romanian drilling rigs are highly appreciated in India.

38. Concurrently with the support given in the exploration and exploitation of crude oil, Romania has contributed to the organization and expansion of the Indian state petroleum processing industry. Already in 1962, the first Indian state-owned refinery was commissioned at Gauhati. The refinery, designed by Romanian experts, fitted out with Romanian-made installations and equipment, and commissioned with the

technical assistance of the Romanian experts, attained an annual production capacity of 1,000,000 tonnes. The rate applies to the ordinary operations of the company or the refinery that is working at full capacity.

The Department of Posts and Telegraphs, which has been given a large budget for  
the construction of new post offices, has decided to have these buildings, or  
at least parts of them, built by contractors, either on the one, under  
the other, or on both systems. We have agreed that the contractor works  
and contributes all the expenses of the building, and the government  
will pay him the amount of the original estimate plus 10%.  
The contractor will be responsible for the quality of his work, and approxi-  
mately 10% of the total amount will be deducted from his payment.  
The contractor will be responsible for the delivery of the building, and  
will be liable for any damage caused by his own negligence.  
All the equipment required for the operation of the post office, such as Indian  
electric lamps, etc., will be supplied by the contractor. The contractor will be  
responsible for the delivery of the equipment, and will be liable for any damage  
caused by his own negligence.  
The contractor will be responsible for the delivery of the equipment, and will be liable  
for any damage caused by his own negligence.  
The contractor will be responsible for the delivery of the equipment, and will be liable  
for any damage caused by his own negligence.  
The contractor will be responsible for the delivery of the equipment, and will be liable  
for any damage caused by his own negligence.

41. At present, Romaric, alongside three French companies and societies, participates in the construction of the refinery at Haldia (Bengaluru), whose supplying the contractor, installations for the manufacture of fertilizer oil, deliveries will be effected according to a sum of 15 million tonnes by Romanian firms (regular period, total amount of 15,000 m<sup>3</sup>, and whose payment is to be made in Indian iron ore. The commissioning of the refinery is to take place with the assistance of both Romanian and French specialists.

42. The forms of co-operation resorted to in the construction, with the collaboration of three countries, of the Barauni refinery and in the erection of the Haldia project offers, in our opinion constitute a possible model of international industrial co-operation to the advantage of all partners, and, in the first place, in the interest of the higher and more utilization of natural resources of the developing countries. We find it useful to underline a few problems of industrial co-operation on the basis of the above-quoted examples and of other cases studied by other authors.

43. One of these problems is the way in which the different forms of co-operation enable the local organizations and enterprises to participate in the construction of the industrial projects envisaged by the agreements. In this respect, Romaric has been adhering to the principle of participation of the organizations and enterprises in the partner country in the execution of the designs and deliveries of equipment and materials for the projects under construction in the respective country. Both the amount of design-work and of deliveries of installations and materials to be carried out by each party are envisaged under the respective contracts.

44. Another problem is that of the practical ways and means of regular co-operation in the field of oil industry. It is noteworthy that the majority of economic relations are mainly carried out under long-term bilateral agreements, both at a governmental level and at the level of the state organizations, and enterprises. It is also possible to enter into agreements with private organizations and firms in the developing countries. Apart from bilateral agreements, economic cooperation may enter into multilateral agreements, as the case may arise.

45. Let us take, for example, the long-term economic co-operation agreements concluded between Romania, Algeria and Tunisia in 1968. As was shown, these agreements provided, among others for Romanian co-operation in: investigating studies and prospecting work; carrying out geological research; supply of drilling rigs and drilling equipment, the granting of technical assistance in their assembly and exploitation; the supply of designs and complete installations for the oil-processing industry; the training of the national personnel, etc. In order to translate to practice the targets under the co-operation agreements, one may resort to additional protocols and the implementation of each project is to constitute the object of contracts between the Romanian Foreign Trade State Companies and the competent organizations in the partner countries. Subject to preliminary approval by the competent authorities of the two countries, the contracts offer the participants one more guarantee of good execution and prompt payment.

46. Another method of establishing a framework for co-operation in the oil industry is the conclusion, at a governmental level, of co-operation agreements of a specific nature. Recently such a co-operation agreement in the field of oil was concluded by Romania and Jordan. Generally, such an agreement may stipulate for a complex collaboration, with a view to turning to advantage some of the oilfields of the partner country. To this effect, under technical guidance of Romanian specialists, a programme and a budget are worked out of the entire co-operation programme. It includes all the details of the studies to be undertaken and designs to be carried out by the Romanians, the list of drilling and production equipment to be supplied, and specifies the technical assistance services to be provided by the Romanian party. Moreover, indications are made regarding the equipment and technical services to be provided by the partner country from domestic resources or by purchases from other countries.

47. Under such agreements, Romania may be entitled to effect oil prospection and exploration over a longer period, in one or several zones, the choice of which is made according to the geological documentation produced by the partner country. The costs of the delivery of machinery and equipment required by the work and the drilling operation would be borne by the Romanian party. Should oilfields be located, whose exploitation proves useful, the partner country will repay Romania the expenses made for prospection and exploration and exploitation of deposits. As for the payment of expenses, other modalities, jointly agreed upon, may also be adopted.

48. Romania grants a number of facilities as regards the payment of the deliveries and services provided. She is ready to space out payments over a longer period - in most cases 5 years - at an advantageous interest rate (2.5 per cent). The partner country may repay, in the first place, by deliveries of crude oil extracted as a result of the co-operation arrangement itself, and by deliveries of other useful mineral substances or by commodities required by the Romanian economy. Partially, the payment of the Romanian deliveries is made in free currency.

49. Co-operation in the oil industry may also be regulated by special agreements of a wider scope, concluded at the level of the two countries state enterprises and organizations. Such agreements have become possible, and in future there are favourable prospects for their being more frequently resorted to, because in recent years state organizations and enterprises have been set-up in the oil-bearing developing countries, whose task is to exploit their own oil deposits. Romania is interested in establishing a long-term complex co-operation - over 5-10 or more years - with these state oil organizations and enterprises in the developing countries. She has already scored good results in this respect. Thus, the Romanian foreign trade companies and other competent economic organizations

have established relations with state organizations and enterprises such as SONATRACH of Algeria, India Oil Corporation, the Venezuelan Oil Corporation, ECOPETROL of Colombia, General Petroleum and Mineral Organization of Saudi Arabia. The negotiations conducted with these organizations pointed to ample possibilities of economic and technical co-operation, whose turning to advantage may be the object of long-term joint action. A few agreements have already been entered into to this purpose.

50. Another field of Romania's co-operation with the developing countries is the utilization of useful mineral resources by the expansion of the mining industry. Romania is in a position to co-operate in mining because it has an outstanding experience in this field. First of all, this experience relies on the existence of numerous mineral resources in Romania and also on the fact that mining has been one of the Romanian people's pursuit since time immemorial. The second factor is the rapid expansion of these branches in the nearly two decades of steady industrialization of Romania. Due to the fact that the Romanian state has earmarked important investments, the basis of geological reserves has been enlarged, the production capacities have been increased, and great progress has been made in the rise in the technical level and economic efficiency of production in the mining areas.

51. Concurrently with satisfying the requirements of the national economy in mining products to a large extent out of her own output, Romania imports in order to meet the country's ever-growing demand, sizable quantities of iron-ore, coking, coke, metallurgical coke, copper-phosphates, apatite concentrates, bauxite, etc. All this enables

Romania, within the framework of its co-operation agreements with other countries in the abovementioned branches, to purchase over a long period of time certain equipment and products provided for under co-operation arrangements.

52. In the mining industry also, it is possible to enter into three-party deals: renowned firms in the industrially developed countries may join Romania in the elaboration of sections and the supply of part of the equipment and machinery. In this last case, part of the expenses (v.i.z. those regarding the co-operation with abovementioned firms), are to be repaid to Romania in free convertible currency or discounted within the framework of direct economic relations between the partner country and the countries in which the respective firms have their head office. Of course, other discounting arrangements of these expenses are also possible.

53. Having large possibilities at her disposal, Romania has entered into numerous mining industry co-operation agreements with countries including Iran, the U.S.A., Syria, Algeria, Tunisia, Morocco, Guinea, Somalia, Kenya, Zambia, the Central African Republic, Colombia, etc. At the same time, the lists appended to the trade agreements concluded by Romania with India, Pakistan, Iran, Jordan and other countries, provide for Romanian supplies of equipment and machinery for the mining industry.

54. Co-operation in the utilization of ores (geological research work and prospection, mining exploitation) is finalized by collaboration in the metallurgical industry (ferrous and non-ferrous), which is meant to increase the efficiency of the whole operation by turning the ores into metals.

55. In this connexion, Romania is well able to work out designs and documentation, supply installations and equipment and grant technical assistance. As a matter of fact, some of these possibilities have already started to bear fruit in a number of co-operation agreements in the iron and steel industry between Romania and numerous developing countries. For instance, the lists of goods appended to the new long-term trade and payments agreement between Romania and India include among others deliveries of Romanian machinery and installations, exports of iron and steel equipment, steel pipe-rolling mills included. Likewise, deliveries of installations and equipment for the iron and steel industry (blast furnaces, open-hearth furnaces, steel pipe rolling mills, coking coal installations, etc.) are included in the list of Romanian export goods attached to the long-term trade agreement between Romania and Pakistan, concluded in 1968.

56. There are notable possibilities of co-operation in the iron and steel industry, within the framework of Romanian-Iranian economic relations. For instance, Romania could collaborate in the construction of iron and steel projects whose output could cover not only Iran's requirement but also some needs of the neighbouring countries, such as Turkey and Pakistan, which alongside Iran make up the Regional Development Co-operation Organization. The possibility of co-operation in the construction of industrial projects with production capacities that could cover the consumption requirements of a group of countries, members of a regional co-operation organization, is worth particular mention. It

helps to remove an obstacle often standing in the way of economic relations with numerous developing countries, whose productive consumption needs are still below the level of the production capacities of some modern industrial units.

57. Under the existing economic and technical co-operation arrangements, Romanian metallurgical works and installations could be delivered to many other countries, such as Jordan, Saudi Arabia, Algeria or some Latin American countries. From these countries, Romania would receive, in exchange, iron-ore and other ores and goods needed by the Romanian economy. Some possibilities are also to be taken into account of Romania's being in a position to mutually exchange rolled metals.

58. Today, the expansion of the chemical and petrochemical industries proves to be one of the main ways and means for the complex and efficient exploitation of numerous natural resources. Moreover, it brings about a great diversity of products both for productive and personal consumption and for export. Hence, the particular significance of the progress of this industrial branch for the developing countries. The promotion of international economic, technical and scientific co-operation may make a substantial contribution to the implementation of this programme.

59. Romania is well able to bring an effective and great contribution to the promotion of international co-operation in the field of chemical and petrochemical industries. Its capacity of co-operation in this sphere is based on at least two major prerequisites. On the one hand,

Romania possesses considerable natural resources, thus being able to expand both chemistry and petrochemistry. It is rich in petroleum, methane, coal, salt. Thanks to the country's industrialization policy, these minerals are used in the big chemical works and combines today, which turn out more than 10 per cent of the entire industrial output of the country in 1965.

60. Having accumulated great experience in the expansion of all sectors of chemical industry - research, design, construction, production, sales, the training of personnel - Romania has large possibilities for international economic, technical and scientific co-operation in this basic branch of modern industry, through the construction of a great number of chemical factories and works. Along this line, some projects have already been implemented, and the construction of other projects is underway, some of which have been recently agreed upon in the contracts.

61. For instance, already many years ago, the UAR witnessed the commissioning, with Romanian technical assistance and equipment, of a chlorosulphonic acid plant. At present, in the same country, a sodium products works is being built with an annual capacity of 1000,000 tons, for which Romania worked out the designs and is delivering the equipment, while also giving technical assistance in their assembly, commissioning and in training the necessary personnel. For this purpose, a team of 104 Romanian experts will give technical assistance on-the-spot and an equal number of Egyptians will attend specialization in Romania.

62. Another sodium products factory of an annual capacity of 60,000 tons is to be built in Iran, under a recently-signed contract, in co-operation with Romania. Romania is to execute the design for the location and the construction of the factory, to supply respective installations and equipment; to give technical assistance in both construction and assembly work. Romanian experts will also take care of the training of Iranian personnel to work in the factory. The payment of the Romanian deliveries will be made by Iranian products.

63. In Turkey, Romania will collaborate in the construction of a sulphuric acid plant (after the West German Luigi licence), of an annual capacity of 210,000 tons and a simple granulated superphosphate factory of an annual capacity of 220,000 tons (by supplying both designs and equipment).

64. In addition to the abovementioned chemical units, Romania has other numerous possibilities to collaborate in the expansion of the chemical industry in the developing countries. Partially these possibilities have been included in a number of economic and commercial agreements with different developing countries.

65. Thus, the long-term Romanian-Indian trade and payments agreement provides for Romanian exports of soda ash and caustic soda factories, of installations of sulphuric acid based on pyrites, of carbon black installations, of installations of detergents from oil products, as well as other factories, installations and equipment for the chemical industry.

66. Romanian export lists attached to the long-term Romanian-Pakistani trade agreement, signed in 1968, also provide for supplies of chemical projects similar to those specified above, as well as for factories of superphosphates and medical drugs. Romania's possibilities of supplying technical documentation, know-how, technological procedures, and thorough knowledge of modern chemistry, science and technique, are also particularly reflected in the contracts concluded with Turkey and the negotiations underway with different countries for the delivery of the relevant documentation for the manufacture of the well-known medicine GEROVITAL H3<sup>R</sup>.

67. Economic co-operation in the expansion of the machine-building industry also represents a sphere of prime importance for the future of Romania's co-operation with the developing countries. Targets of co-operation in this branch may be more than any other, are most diverse. The goals envisage either the introduction of new industrial products and, on their basis, the setting-up and expansion of priority branches and sub-branches for the development and diversification of the national economy, or the introduction of new technologies for the modernization of production already going on and the growth of the respective products' competitiveness and various other targets.

68. Romania's possibilities of co-operation with other countries in the field of machine-building are based on the very level and structure reached by the expansion of this branch in our country, and on the network of scientific research and the numerous personnel in the branch. Turning these possibilities to advantage Romania participates in a number of co-operation arrangements with an increasing number of developing countries.

69. The most interesting and complete mode of these actions is offered by Romania's economic and technical co-operation with Iran in the organization of the latter's tractor production, which we are going to subsequently describe. The two countries entered into a special agreement in 1966, which provided for the implementation of the targets over several stages, displayed over a period of 8-9 years, whereby in 1974-1975, Iran will boast an own annual output of some 10,000 Romanian-type tractors of 65 HP.

70. In the first stage of the implementation of the projects, delivery was stipulated to Iran (over the 1966-1971 span) of 15,000 Romanian tractors to be supplied and assembled up to the moment a tractor assembly line will have been commissioned in Iran with Romania's co-operation. From that moment, Romania will deliver only non-assembled tractors, with the possibility of their completion with parts and components of Iranian make. In order to ensure the best functioning and maintenance of the tractors supplied, Romania grants technical assistance by sending her experts to Iran and by training the Iranian personnel in Romania. Moreover, Romania worked out and supplied designs and documentations, delivered machinery, equipment and tools and granted technical assistance for the

organization in Iran of tractor haulage and repair shops, under the forms of workshops, also portable. For the same purpose, Romania annually supplies the necessary spare parts. By mid-1968, more than one-third of the total quantity of tractors under contract has been delivered. Concurrently with the tractors, Romania supplied fully assembled ploughs for tractors. At the beginning of 1968 a contract was signed for supplementing exports of farming machinery to Iran.

71. Another stage of the Romanian-Iranian co-operation in the production of tractors, will include the construction in Iran, of a complete assembly-line of an annual capacity of some 7,000 tractors. To this aim, Romania will work out and supply Iran with the requisite designs and technical documentation; will supply machine tools, equipment and tools, and will grant the technical assistance required for the construction and commissioning of the line; will train the Iranian personnel. The assembly-line will be designed and built in such a way that it should become a future section of the tractor works. The construction of the latter, completes the project of Romanian-Iranian co-operation in the production of tractors.

72. Romania will elaborate and furnish the ensemble designs, the technical designs by buildings; supply equipment, machinery and tools; will grant technical assistance in both construction and assembly jobs, and train the Iranian personnel required for the commissioning of the tractor works. Besides, Romania will grant Iran licences, furnish technical and technological documentation and know-how for the manufacture of the 65 hp Romanian tractor. The reconstruction

of the tractor works started in the mid-1968's, in the vicinity of Tabriz, and is expected to last for 10 years. The first tractor will leave the conveyer belt of the factory in 1969 and 1974. The factory's output will amount to 10,000 pieces per year. Some 5,000 Iranian workers are to be employed in the works.

73. The payment of the Romanian tractors and of the deliveries of designs and equipment and granting of technical assistance for the assembly-line and the tractor works, is spread out over a long period; Romania will use payments made by Iran to purchase crude oil from Iran. The Romanian-Iranian agreement on economic and technical co-operation in the production of tractors in Iran is a model of constructive collaboration with careful observance of the principles of mutual interest and advantage. The implementation of the provisions under the agreement, shows that such a complex form of industrial co-operation between Romania and Iran has real prospects of extension to economic relations with other developing countries.

### II. CONCLUSIONS

74. The promotion of different forms and spheres of Romania's industrial co-operation with the developing countries has considerably increased trade exchanges. Along this line, the impact of the extension of co-operation on the supplies of machinery, equipment, raw materials, chemicals, fertilizers, etc. is worth mentioning.

75. The most general image of the development of this trade is given by its level and evolution. In 1967, the value of Romania's foreign trade with developing countries amounted to 221 million. The growth rate in 1960-1967 was equal to 11.6 per cent. Home and foreign trade as a whole, the coefficient of which increased over the period under review.

Romania's Foreign Trade with Developing Countries

1960 - 1967

(in million dollars)

	1960	1967	Annual average rate of growth (percentage)	1960-1967	1965-1967
Romanian Foreign Trade, total	1,624.9	2941.4	11.6	16.2	
out of which					
Trade with Developing Countries	64.1	230.9	20.1	31.2	
Shares 2:1	4.7	7.3	x	x	

76. As a consequence of the considerable increase in foreign trade, since 1965, in particular, Romania's trade with the developing countries has marked a still greater development: the respective coefficients are equal to 1.7% in the 1960-1967 period and 1.4% over the 1965-1967 span. As a consequence of this particular growth, the share of the developing countries within Romania's foreign trade rose from 4.7 per cent in 1960 to 6.0 per cent in 1965 and 7.3 per cent in 1967.

77. At the same time, Romania's foreign trade with the developing countries has steadily expanded its geographical area. Today, Romania maintains trade relations with over 60 developing countries; with nearly 30 of them, trade is regulated by long-term or annual trade agreements.

78. In this paper we have endeavoured to present some practical aspects of co-operation between Romania and the developing countries in various industrial branches. It is obvious that these aspects do not exhaust the whole experience of Romania in this sphere which especially at present is being considerably expanded. However, they suffice to give a general image of the scope and trends of Romania's international co-operation with the developing countries in the industrial sector, as well as of a few more special problems facing this co-operation.

79. Romania, as a socialist country, on the one hand, and as a formerly insufficiently developed country, on the other hand, with an unsatisfactory place in world division of labour, has been promoting co-operation with the developing countries. She has steadily sought new forms and spheres in accordance with the mutual interests and advantages of the partners. And, as shown by experience, with this principle as a guide, difficulties can be overcome and the problems raised by different situations solved. With this conviction, Romania looks forward to the future of its economic co-operation relations with the developing countries.



9. 8. 72