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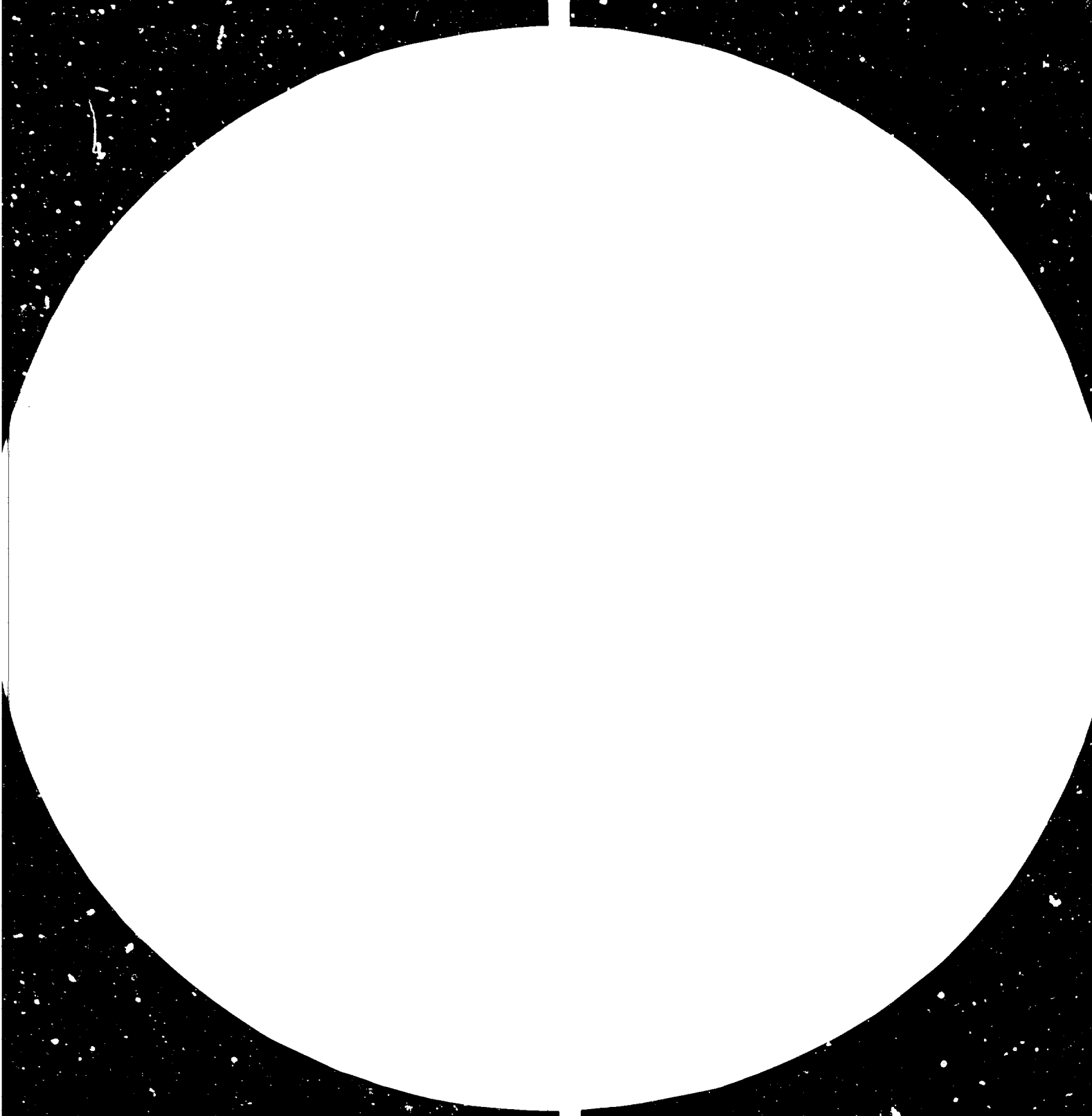
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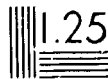
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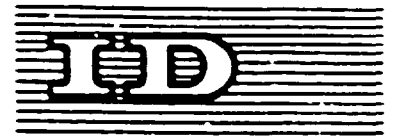


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**INTERNATIONAL STANDARDS AND THE NECESSITY FOR DEVELOPING COUNTRIES TO PARTICIPATE
EFFECTIVELY IN INTERNATIONAL STANDARDIZATION***

prepared by

International Organization for Standardization
(ISO)**

88111

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** Geneva, Switzerland.

The need for attention to international standardization matters by authorities in developing countries can best be judged by considering an overall pattern of interest. This pattern has an historical perspective which, when grasped, provides ready analogies between various states of development in this field.

Standardization existed long before any nationally organized activity. The company standard - that is the repeating technical specification applied by individual companies to particular products or components of products which they are marketing - was clearly in existence at the very dawn of trading practice, and reached its peak only quite recently. Coherent company standardization ranges between the extempore rationalization of basic components within companies and the development of technical rationalization by individual companies on a scale grand enough to sew up an entire market. Standardization as professional standardizers (national or international) like to see it catches this process somewhere in between, transforming the rather feeble efforts of an inexperienced group of users into a coherent procedure, ensuring that the interests of as wide a section of society as possible are served in the process.

This notion itself does not spring fully formed into existence at any specific point in history but has grown as a counterpoint to economic facts. Developing countries have to realize this in judging the results of modern standardization and understanding how far they can receive it without actually participating.

Even at the height of the Industrial Revolution in Europe all manner of fasteners, metal plates, tubes, bars and similar basic components often had to be designed and turned out individually. When the complications of the multiplicity of basic product sizes began to make itself felt the first national standards organizations were set up to deal with them. The ascendancy of productivity over exclusivity forced the transformation of many basic items from local to standard design. This gave an immediate benefit to the economy as a whole : the availability of a standard component allowed more people to enter the field with less or no involvement in the production of tools, so that industry became more competitive and had potential for expansion. The simplest possible example would be the availability of sawn timber (planed in some cases) into standard sizes, beading, nails, screws hinges, etc. which allowed a cabinet maker to go directly to work with little more than his tools, a few orders and some space. Standardization has got there before him, and to his advantage.

But there is a world of difference between the change in world history known as the Industrial Revolution and the process which we call "development". The big standards making countries set to work at the beginning of this century with the express purpose of tackling particular problems the solutions to which were well overdue. In Britain, for example, in 1900 there were 75 different sizes of tramlines. This was reduced to six by 1902 - the absorption of exclusive into standard design

made possible by demand.

A developing country is in the position of reaping the benefits of this earlier experience (something like 50 % of International ISO Standards are of direct interest to every country in the world) but these standards represent the latest manifestation of a continuing progress against which they are said to be "developing" and into which they will have to insert themselves in order to improve their status. International Standards are the ultimate example of the ascendancy of convenience and productivity over exclusivity. They represent the extent to which participating nations will give their time and their eventual sanction to a project for whatever reason. It may represent their interest - and though that interest includes the notion of users, producers, scientists, teachers, administrators, etc, it has to be recognized that the overall interest served is that of the economy in which all these entities operate. Thus if there is any virtue in implementing standards there must equally be virtue in helping to shape them : the cabinet maker must be able to ensure that the range of basic components available to him does not limit his own achievements.

This issue of participation is not exclusive to what we call developing nations. Other nations taking part in ISO work fall into two groups. The first is the group of large industrialized nations with well established and comprehensive standards machinery. This group numbers less than ten ISO members and consists primarily of countries possessing sets of national standards of such repute that industry and business can apply them not only nationally but also in their international activity. Examples are BSI for Britain, DIN for Germany and AFNOR for France. Nevertheless the industrial forces behind these standards fully recognize the importance of their standards institutes' participation in ISO work. Their input is very great - being felt in nearly all ISO technical committees. A great many International Standards are either technically identical with, or very closely related to a national standard from one of these countries.

The other group is made up of the small but highly industrialized nations. There are 20 to 25 ISO members in this group and include Sweden, Denmark, Norway and Austria. Their own national standards have a very limited recognition outside the borders of their country and can therefore only rarely be referred to in foreign trade. Usually their main contribution to the development of standards is concentrated in a comparatively restricted set of standards committees, working on subjects in which they happen to be highly qualified or specialized. This group of nations has a very special interest in International Standards because its products are actually in competition with those of the other group, possibly neighbouring countries, who may have well established national standards in many parts of the world.

Up till now developing countries' participation in ISO standards preparation work has been minimal, and can only be described as user participation. In specific terms of a total of 1994 ISO TC/SC/WG committees developing countries shoulder responsibilities for only 1,7 % of them (see attached table) annex 1. However developing countries are entering various fields of production and the need for them to obtain standards which satisfy their need both at home and in relation to their external trade becomes crucial.

Active and total participation cannot be attained overnight; however, their ability to help produce standards should grow side by side with the need for them to use international standards which have been prepared through long painstaking efforts.

Their participation can take one or both of two forms : as users they should be in a position to inform those who prepare the standards about needs which are pressing; from their point of view they should then follow closely the progress of the preparation. This is the least they can do in a matter which is so important to all. Secondly, and this is the ideal case, they could take part in the actual formulation of the standards by attending meetings arranged for the purpose. In suggesting this latter procedure sight is not being lost of the limitation in resources within most developing countries and which do not make for the attainment of this most desired situation; these are : lack of technical expertise or where expertise exists, lack of financial resources to be able to travel to those secretariats where such technical committee meetings are held.

However, in speaking of the developing countries, in the meantime as users of International Standards we can now attend to the practicalities. The contribution of developing countries as user participants must be informed. otherwise it does not carry the weight of conviction which is important in all work involving consensus and opinion. A good analogy would be between the interests of the developing country in highly developed industrial products and those of a group of non-technical consumers in a consumer product. Before the so-called "consumer movement" found its feet, consumers in developed countries were normally represented by non technical people - usually women who had a certain prestige conferred by social status and a great deal of vigour - but with no technical grasp of the exigencies of production. This has changed now - the "consumerist" is today a professional who knows where the priorities of her interests lie and may have made a close technical study of the particular field in which she claims championship. This technical assertiveness is needed in standardization work because of the very fact that it undertakes to represent the interests of many people. Gradually, but surely, developing countries should provide that informed contribution that will enable standards which take account of their needs to be prepared.

No standards are perfect - they represent the latest form of agreement and therefore cannot be taken for granted by those who do take advantage of them. As mentioned earlier, to go further to meet the challenge properly and actually take part in the preparation exercise a sound background in the standardization process itself is required. Fortunately the situation like that of the early participants in the preparation of national standards does not apply. The early efforts to provide workable standards procedures have already resulted in a battery of solutions which enable the field of standardization to stand - if not alone - certainly as a distinct discipline which can be passed on. The newcomer to standards does not have to start from scratch, any more than the cabinet maker has to saw down his own trees or make his own tools.

ISO and its member countries have established a fairly coherent map of standardization space with which anyone can become familiar.

As with any map, personal experience in the territory is certain to provide the best way of understanding the features of the landscape, and so ISO is continually aware of the importance to developing countries, not just of knowing about standards and specifying them, but also of actually taking part in their development. ISO thus constantly brings to the notice of developing countries the fact that many of the more experienced national member bodies of ISO run training schemes for those technicians who will provide the coherent channel for input from developing countries into International Standards. More significantly, ISO has its own Development Programme run by DEVCO the Council Committee which determines general

policy in relation to developing country members of ISO. DEVCO membership is open to interested member bodies. The terms of reference of DEVCO are :

- To identify the needs and requirements of the developing countries in the fields of standardization and related areas (e.g. quality control, metrology and certification, etc.) and to assist the developing countries as necessary in defining these needs and requirements.
- Having established these needs and requirements, to recommend measures to assist the developing countries in meeting them.
- To provide a forum for the discussion of all aspects of standardization and related activities in developing countries, and for the exchange of experience among the developed and developing countries, as well as among developing countries. This should be done in close liaison with the specialized agencies of the United Nations, IEC and ISO Council committees.

Arising from previous studies in DEVCO a provisional long-range programme was established :

- To identify and study the needs and requirements of developing countries with respect to international standardization.
- To study and take necessary action on all documents dealing with matters of direct concern to developing countries submitted to DEVCO by other ISO Council committees.
- To study and recommend concrete measures to foster the integrated approach to standardization (standardization, quality control, metrology, certification, etc.).
- To promote the publication of various guides, manuals and other documents and provide other information of particular interest to developing countries.
- To study their needs in training, while ensuring that information on existing training arrangements is circulated to them and also, if necessary, promote additional training arrangements both at national and international level.
- To study the contribution of regional standardization organizations, to assist in regional and international conferences, seminars, training workshops, etc.,

and to establish all necessary liaison with the United Nations and its specialized agencies.

A practical work programme incorporating the most important aspects of these objectives has been drawn up and is now in operation, a copy is attached as annex 2. It includes arrangements for participation in technical meetings, technical tours by senior officers, and several training schemes. ISO hopes that these measures will assist many people in the developing world, who are in positions of responsibility regarding standardization to acquire some of the comparatively advanced knowledge and experience that it demands.

PARTICIPATION OF DEVELOPING COUNTRIES IN ISO SECRETARIAT FUNCTIONS

Country	TC	SC	WG	Total
1. Brazil	-	1	1	2
2. India	4	12	5	21
3. Iran	1	1	-	2
4. Israel	1	1	-	2
5. Malaysia	-	-	1	1
6. Peru	1	2	-	3
7. Turkey	-	2	-	2
Total	7	19	7	33

Total ISO committees	163	608	1 223	1 994
Developing countries responsibilities (percent)	4,3	3,1	0,6	1,7

Source ISO Memento 1981

This table is in relation to a total number of 1 994 technical committees comprising 163 TCs, 608 SCs and 1 223 WGs. It would be noticed that at present developing countries are taking on only a small share of the technical secretariat work of ISO and there is a dire need, in the economic interest of developing countries that this situation should improve. It is however recognized that the shouldering of technical secretariats presupposes the following :

- a) Technical capability to service a secretariat effectively;
- b) Financial ability to support the technical work including participation in meetings overseas.

With respect to a) above, it may be mentioned that a country can only effectively discharge the functions of an international secretariat when there is in existence in the country a favourable climate for carrying out the technical work of the committee. In this respect the interest of the potential host in a particular TC/SC in relation to its trade is absolutely necessary. Other necessary conditions are that there should be the existence of testing research and development institutions, appropriate infra-structural facilities as well as adequate support from the government concerned.

If the above conditions are fulfilled in a country the problem with respect to b) above, becomes less formidable since the basis for the shouldering of secretariat responsibilities would have been established. Later, mention will be made of efforts being made on the part of ISO to solve this problem.

DEVCO WORK PROGRAMME

Background

DEVCO is the Council committee which determines general policy in relation to developing country members of ISO. DEVCO membership is open to interested member bodies as either participating (P) or observer (O) members. The terms of reference of DEVCO are:

- To identify the needs and requirements of the developing countries in the fields of standardization and related areas (e.g. quality control, metrology and certification, etc.) and to assist the developing countries as necessary in defining these needs and requirements.
- Having established these needs and requirements, to recommend measures to assist the developing countries in meeting them.
- To provide a forum for the discussion of all aspects of standardization and related activities in developing countries, and for the exchange of experience among the developed and developing countries, as well as among developing countries. This should be done in close liaison with the specialized agencies of the United Nations, IEC and ISO Council committees.
- To advise Council on the above matters.

Arising from previous studies in DEVCO a provisional long-range programme was established as follows:

1. To identify and study the needs and requirements of developing countries with respect to international standardization, and submit the appropriate recommendations to the ISO Council and the relevant Council committees.
2. To study and take necessary action on all documents dealing with matters of direct concern to developing countries submitted to DEVCO by other ISO Council committees particularly CERTICO, INFECO and STACO.
3. To study and recommend concrete measures to foster the integrated approach to standardization (standardization, quality control, metrology, certification, etc.).
4. To promote the publication of various guides, manuals and other documents and the provision of other information of particular interest to developing countries.
5. To study the needs of developing countries in training, while ensuring that information on existing training arrangements is circulated to them and also, if necessary, promote additional training arrangements both at national and international level.

6. To study the contribution of regional standardization organizations to the development of standardization and related activities in the developing countries, and make any necessary recommendations.

7. To assist in and contribute to the preparation of regional and international conferences, seminars, training workshops in standardization and related activities.

8. To establish all necessary liaison with the United Nations and its specialized agencies and other relevant national and international organizations with a view to obtaining, whenever required, their participation as well as technical, financial and educational assistance.

After operating for some time it has now become necessary to draw up a DEVCO long-term programme on a more permanent basis.

Ad hoc working group

At its meeting held in September 1979 in Geneva, DEVCO appointed an ad hoc working group with the following membership and terms of reference:

1. To draw up a long-term action programme for DEVCO having regard to all previous studies and resolutions in DEVCO, the opportunities and constraints, and the provisional long-range programme of DEVCO as well as ISO/DEVCO 105.

The action programme will define projects, priorities and target dates.

2. To circulate the drafts of its recommendations to DEVCO members for comments, and

3. To present the programme to DEVCO at its next meeting.

The membership of the ad hoc working group shall be

AFNOR
COST
ISI
JBS
KEBS
NSO
The Chairman of DEVCO
The Director, Development Programme

Any DEVCO member may attend the meetings of the ad hoc working group as an observer.

Meeting

The ad hoc working group held its first meeting on 13 September 1979 and proposed a programme which was finalized at its second meeting held in Geneva on 23 June 1980.

The aims and objectives of the programme being to identify the needs and to formulate programmes to meet these needs of ISO member bodies in developing countries, to enable them to function as equal partners in the development and promotion of ISO International Standards.

1. Programme elements

Six fields of activity were proposed namely

- A. Identification and accommodation of needs
- B. Preparation of guides
- C. Training
 - i) Regional training seminars
 - ii) Training of technical officers for NSB operations
 - iii) Training of technical officers for ISO/TC/SC secretariat functions
- D. Study tours by senior officers of NSBs
- E. Participation in technical meetings
- F. Development of standards related to products

2. Programme details

A. Identification and accommodation of needs

In order to assist developing countries to become equal partners in international standardization it would be necessary to identify their needs and submit such needs with the appropriate recommendations to ISO Council and the relevant UN bodies for assistance. Needs in the areas of international experts, testing equipment, documents on ISO work, and guidance in the adoption and application of international standards, are particularly pertinent.

A.1 Action to be taken

ISO carrying out with the assistance of regional liaison officers of enquiries among the standardization institutes of the developing countries.

ISO fostering close contacts with the senior staff of standardization institutes on the occasion of ISO meetings or through missions to their countries.

Circulation by the ISO Central Secretariat of requests for expert assistance made by developing countries, with a view to helping these countries recruit competent experts.

A.2 Timing

These activities to start immediately and continue.

A.3 Cost

This activity would be accommodated within the normal programme of the ISO Central Secretariat.

B. Preparation of guides

Development of manuals to guide various activities of NSB would be beneficial to member bodies at the initial stage of their operation. The following manuals are needed:

- a) Guide to the establishment and management of a national standards body. This manual would be in two parts - Part 1 will cover organization and management, and part 2 will cover technical activities of the NSB.
- b) Guide to the establishment of a testing laboratory - Mobilization of testing facilities and creation of additional in-house facilities for standardization and certification marking
 - External facilities: Methods and procedures for recognition of facilities existing for use by national standards body;
 - Internal facilities: Creation and management of in-house testing facilities.
- c) Guide to the operation of a certification scheme
 - Legal provisions for establishment of a national certification system;
 - Operational norms relating to its administration.
- d) Guide to the training of technical staff - national level; company level.

B.1 Action to be taken

Central Secretariat contract to person/persons/institutions.

B.2 Timing

Efforts to be made to prepare as many of the five guides as possible by the end of 1982.

B.3 Cost of preparation of guides

Each guide is estimated to cost Sw.fr. 28 000.

Total for the 5 Guides = Sw.fr. 140 000.

C. Training

- a) To provide two regional training programmes per year for middle to high level personnel who would in their turn provide training for new entrants to their organizations.
- b) To provide four fellowships per region per year for persons to participate in established training programmes. A number of ISO member bodies are conducting programmes of training annually with international participation and also provide special training. Fellowships to nominees of developing countries to these programmes will eliminate the existing financial constraints for participation.

c) Training of ten technical officers per year for ISO/TC/SC secretariat functions. Wider distribution of secretariats of ISO/TC/SC has been recognized as one of the ingredients which will ensure the involvement of member bodies in ISO technical work. Since most of the developing country member bodies do not have the required experience, training of technical officers of member bodies interested to take up the ISO/TC/SC secretariat functions would be a useful component of the Development Programme.

C.1 Action to be taken

- a) Sponsorship and conduct of the programmes would be arranged by ISO Central Secretariat as at present.
- b) ISO Central Secretariat in consultation with member bodies concerned to nominate and allocate in the case of each programme.
- c) Member bodies willing to undertake those secretariats in the area of economic interest to their countries would indicate their preferences to Central Secretariat for further processing. Offer of training will be made when allocation of secretariat is decided upon.

The programme of training would be

- a) familiarization at ISO Central Secretariat on rules and procedures, and
- b) work experience at the NSB holding the secretariat of allied ISO technical committees.

C.2 Timing

This is an activity that could be carried out continuously.

C.3 Costs

a) Training seminars

Each regional training seminar is estimated to cost Sw.fr. 120 000.

Total for 4 regional training seminars will be Sw.fr. 480 000.

b) Fellowships

The cost per annum for four candidates per region is estimated at Sw.fr. 40 000.

Total for the 6 regions will be Sw.fr. 240 000.

c) Training of technical officers for ISO/TC/SC secretariat functions

Cost - Ten fellowships per year to provide for the training for a period of 15 weeks each will cost Sw.fr. 100 000.

D. Study tours by senior officers of NSBs

An opportunity for senior officers of upcoming NSBs to study the organization and methods of operation of established NSBs would be an asset in guiding its national work effectively and in appreciating the role of international standardization.

D.1 Action to be taken

ISO Central Secretariat to act as coordinator in organizing the study tours in consultation with concerned NSBs. Arrangements for 10 directors per year would be satisfactory in the beginning.

D.2 Timing

This is considered to be an activity which, once started would be continuous.

The starting time would be determined by those developing countries interested in the exchange programme.

D.3 Cost

This activity is estimated to cost Sw.fr. 50 000 per year.

E. Participation in ISO technical meetings

Financial assistance to developing countries to participate in ISO technical committee meetings in the initial stages would assist in the realization of the importance of such meetings in the interest of national programmes of industrial development. Fellowships to countries for participation in one or two meetings would act as a catalyst in ensuring wider participation by developing countries in the meetings of ISO technical committees.

The requirement here is to make arrangements for the effective participation of developing countries in ISO technical meetings of special importance to them.

E.1 Action to be taken

- i) Identification of technical areas of interest to developing countries.
- ii) Making arrangements for the management of the scheme, which will include the selection of candidates to attend relevant meetings.

For i) it is expected that the developing countries and the ISO Central Secretariat will work jointly to arrive at a list of pertinent technical meetings.

For ii) the ISO Central Secretariat will take the initiative.

E.2 Cost

Fellowships to the value of Sw.fr. 50 000 would be needed.

F. Development of product standards

The identification of items of economic interest to developing countries for promotion of their international trade and development of corresponding international standards by ISO would associate developing countries more closely with ISO technical activities.

F.1 Action to be taken

- i) Identification of products in respect of which the standards are needed.
- ii) Request to ISO for action in this direction.

It is expected that the developing countries will identify the products in respect of which the standards are needed, with the Central Secretariat of ISO playing a coordinating role. The ISO established procedures will be followed in getting this activity undertaken.

F.2 Cost

To be undertaken under normal programme of ISO Central Secretariat.

PROGRAMME SCHEDULE INCLUDING COST FOR 1981, 1982

No.	PROGRAMME ELEMENTS	Sw.Fr.		
		1981	1982	Total
A.	<u>Identification and accommodation of needs</u>	Normal programme of ISO Central Secretariat		
B.	<u>Preparation of Guides</u>			
	- Guide a (parts 1 and 2)	56 000	-	56 000
	- Guide b	28 000	-	28 000
	- Guide c	-	28 000	28 000
	- Guide d	-	28 000	
	Sub-Total	84 000	56 000	140 000
C.	<u>Training</u>			
i)	<u>Regional Training Seminars</u>			
	- Two per year	240 000	240 000	480 000
	Sub-Total	240 000	240 000	480 000
ii)	<u>Training of Technical Officers for NSB Operations</u>			
	- 4 Fellowships per year per region	240 000	240 000	480 000
	Sub-Total	240 000	240 000	480 000
iii)	<u>Training of Technical Officers for ISO/TC/SC Secretariat Functions</u>			
	- 10 Fellowships per year	100 000	100 000	200 000
D.	<u>Study Tours of Senior Officers of NSBs</u>			
	- 10 Fellowships	50 000	-	50 000
	- 10 Fellowships	-	50 000	50 000
	Sub-Total	50 000	50 000	100 000
E.	<u>Participation in ISO/TC/SC meetings</u>	50 000	50 000	100 000
F.	<u>Development of product standards</u>	Normal programme of ISO Central Secretariat		
	TOTAL	764 000	736 000	1 500 000

