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**STATUS OF QUALITY CONTROL/QUALITY
ASSURANCE INSTITUTIONS IN THE ESCWA REGION
MAIN OBSTACLES AND IMPROVING THEIR EFFECTIVENESS**

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**Status of Quality Control/Quality Assurance
Institutions, in the ESCWA Region,
Main Obstacles and Improving their Effectiveness**

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INTRODUCTION

The aim of this paper is to give a summary of the status of quality control/quality assurance in ESCWA member countries; then a number of obstacles that hinder the expansion and improvement of services provided by the existing agencies are discussed; and finally few proposals are made to improve the effectiveness of agencies concerned.

I. STATUS OF INSTITUTIONS CONCERNED WITH QUALITY CONTROL/QUALITY ASSURANCE IN THE ESCWA REGION

Like in other regions, especially the developing ones, in the ESCWA member countries quality control/quality assurance services are rendered by a variety of institutions which are at the same time providing a number of closely related services in the fields of Metrology, Standardization, Testing and Quality (MSTQ).

- A. In many ESCWA countries a single public institution is authorized by law to undertake the following activities:
- Prepare and promulgate national standards.
 - Collect and disseminate information on standards and related technical matters.
 - Promote implementation of standards at all levels.
 - Protect consumers and the environment from hazards related to locally produced or imported products and processes.
 - Promote conformity of national products to standards through the establishment of a national certification system.
 - Promotes, and if necessary provide, legal and industrial metrology and calibration services. Maintain primary standards and provide calibrations services for Dimension, Electricity, Mass, Pressure, Temperature, Volume, etc.
 - Promote, or if necessary establish, an accreditation system for testing and calibration of laboratories, to promote precision of their work and enhance confidence in them.
 - Offer technical advice and organize training in standards and related subjects for the benefit of government agencies and private firms.
 - Participate in the international and regional standards work to harmonize the national standards with those of other countries, as well as regional and international standards.
- B. As we mentioned in many ESCWA countries the legislation calls for such an integrated approach in the field of MSTQ. In other countries, MSTQ activities are performed by a number of government agencies. It is interesting to notice that some of these agencies were established to take over certain activities which were performed previously by other organizations. Consequently, sometimes, overlapping and duplication of work is not uncommon which could lead to friction and waste of scarce resources.
- C. A recent but unfortunately incomplete survey by ESCWA (1998) of the National Institutes of Standards in the region, shows that with possible few exceptions (Saudi Arabia and

problems usually facing developing countries, are enough to explain the existence of weak MSTQ agencies in the region. This may be the case in some countries. For example, in Lebanon, according to the ESCWA survey of 1998, the Lebanese Standards Institution (LIBNOR) which was established as a financially and administratively independent body by a law dating back to 1962, had in 1998 a staff consisting of the Secretary General and two others. (ESCWA, 1998, p.84). Lebanon may be an exceptional case. Republic of Yemen which has also a very weak standardization body may be regarded a least developed country which can hardly afford financial requirements and skilled and sophisticated staff to maintain a properly functioning national standard body. But what can be said for a capital rich country like UAE. The ESCWA survey is silent on this case. But according to another ESCWA report in 1998 "Proposals for Industrial Strategies and Policies in the Context of Preparation of a Strategic Development Program for Abu Dhabi Emirates 2000-2020"; there are no standardization departments in any of the Emirates of the UAE. But Standardization activities are dealt with by the Directorate of Standardization and Metrology of the Federal Ministry of Finance and Industry.

According to Federal Law No. 14, of 1976, the Directorate was supposed to lay down, publish, supervise and apply rules concerning unification of measures, standards and specifications, quality control and all related tasks including testing and measurements in order to enhance production efficiency and improve the reliability of quality of products, and to protect consumers against fraud and abuse, safeguard human life and ensure public safety.

In order to achieve its objectives, the Directorate was supposed according to the law, to formulate, issue and implement standards including units of measurement. The Directorate is also empowered to establish and operate laboratories and institutes required to undertake investigations; analysis; testing and specific research related to standardization, metrology, testing of materials and products and calibration of measuring equipment. The Directorate is also expected to spread awareness of standardization by all possible means, educate, train and enhance the efficiency of personnel working at different levels in the field of standardization. The Directorate is further empowered, according to the law, to grant certificates of quality, and marks of conformity with national standards.

According to the above-mentioned law, there should have been by now an infrastructure capable to provide services in the fields of MSTQ, equipped with qualified people in sufficient numbers, as well as, a standards library and laboratories in different fields of interest to the UAE. But the Directorate has no laboratories, nor a standards library. Total number of its personnel is 8 persons few of them are qualified university graduates. Accordingly it is simply impossible for the Directorate to undertake functions required from it by law, or even one of those functions such as quality assurance in Abu Dhabi Emirate, let alone other Emirates, which the Directorate is supposed to serve them all.

It may be useful to compare the situation in UAE to that of a small developing country namely Trinidad and Tobago. Trinidad and Tobago has a population of 1.25 million people, an area of 5,128 km² and per capital income of USD 3800 (ISO 1997, pp.53, 61). It has 1763 manufacturing plants and 41962 people working in them (UNIDO, Industrial yearbook of statistics 1999). On the other hand, the number of population was 2.4 millions in UAE, with a per capita income of USD 18248. It has 1982 factories, an area of 84 thousand Km³ and 41962 workers (GOIC 98).

cooperation in these fields. This small, over burdened Centre is expected also to prepare suitable guides for the unification of Arab countries regulations for issuing conformity to standards certificates and unification of procedures for accreditation/certification of testing laboratories (ESCWA Survey, 1998, p. 23).

In 1982, Gulf Standardization and Metrology Organization was created by the Gulf Cooperation Council as a sub-regional organization located in Riyadh. The Organization works in close cooperation with Saudi Arabia's national body for standardization. It seems that this regional organization is run, at least technically, by the Saudi Arabia's National Organization to a large extent. According to the ESCWA survey (pp. 111, 146), they have the same man as their Chief Executive Officer. The aim of the organization is similar to other regional organizations such as preparation of unified standards for commodities products and instruments of measurement, follow up on the implementation of standards, develop a system for granting quality marks and conformity certification, promote awareness in the field of standards and organize training activities. The ESCWA survey does not give enough information about actual achievements of this organization, it only mentions that during 1984-1995 635 standards were formulated and approved, and that the Saudi standards directory for 1994 lists 167 Gulf standards as being adopted from Saudi standards. This means that this regional organization has prepared on average 56 standards per year, compared to 40 for the other regional standardization body AIDMO-CSM. If so, the Gulf Sub-regional Standardization body has done better than the Arab regional standardization body. But if we compare the number of standard prepared by the Gulf organization with the number of standards required per year which is 500 according to AIDMO, we get another picture. Needless to say, that far more information is needed to arrive at a meaningful conclusion. Nevertheless, the scanty available information is not encouraging.

It is interesting to note that the establishment of the Gulf regional Standardization body may have given the impression that there was perhaps no need for strong country based standardization agencies in the Gulf Region, since the job can be done by the regional organization. In fact, standardization involves a group of complicated technical, legal, administrative and economic factors which cannot be dealt with successfully unless the standardization body dealing with them has reached a certain level of competence in terms of the number of qualification of the personal, suitable physical facilities such as libraries, laboratories, means of communications, well defined rules, regulations and other institutional arrangements.

Under these circumstances, it is legitimate to question the usefulness of country based MSTQ activities such as say preparation of national standards and quality conformity systems at great costs, to be later coordinated or replaced by sub-regional, regional or international standards.

Unfortunately, what seems to be logical and obviously advantageous, faces in many cases, formidable institutional and administrative obstacles even if we forget for a minute the far more important political questions.

In any case, and as far as one can conclude from the experience of other regions, the strength of any regional standardization body depends to a large extent on the strength of the country based standardization agencies, and their technical and administrative capabilities, as well as, upon their willingness to cooperate. The regional organization can not formulate and adopt standards without full involvement and cooperation of concerned agencies in member countries. Even if, some how, regional standards are adopted and issued by a regional organization, they can hardly be

Privatization of National Standard Bodies in ESCWA Countries or even turning them into mixed sector institutions does not seem to be a serious question for the time being. But there is no need to neglect privatization of certain elements of the MSTQ agencies, especially in the fields of laboratory testing, product conformity to standards, quality assurance management, etc. In this respect, it is interesting to note, that testing stamping and monitoring of precious metals is performed in all ESCWA countries except Syria by government agencies, mostly affiliated to National Standards Bodies. In Syria, these functions are performed by the Syrian Association of Gold Traders. According to the previously mentioned ESCWA survey (p. 135), the Syrian Standards and Metrology Organization has indicated that these services are in fact carried out in a satisfying way. The question is why shouldn't this be the case in other ESCWA countries?. Why shouldn't other MSTQ related services be carried out the same way?.

These are of course complicated questions. Each particular country has its own culture, historical development, government policies etc. what is important is to have a well funded national standardization body which has clear administrative **financial and technical independence**, to allow for a measure of stability and continuity which **permits formulation and implementation** of long term plans to achieve its goals. This can best be achieved in the region through strong government commitment and through equally strong participation of the private sector.

III. IMPROVING THE EFFECTIVENESS OF MSTQ ACTIVITIES

From the previous two sections a number of conclusions can be made in order to enhance the effectiveness of the MSTQ activities in the ESCWA region, there are:

- A. The need to stress the relationship between MSTQ activities and economic development. Despite the fact that all ESCWA member countries has established National Standards Bodies of varying capabilities there is still an urgent need in most, if not all, countries of the region to explain to concerned government officials, the business community and consumers at large the relationship between MSTQ activities and economic development. Not only to upgrade technological capacity, improve productivity, enhance competitiveness locally and in foreign markets but also to safeguard environment and the well being of the people.
- B. Upgrade the MSTQ infrastructure in the region: Recent developments in the world economy in the fields of globalization and trade liberalization is certainly leading to increasing demand on the services of MSTQ agencies. At the same time, most of these agencies in the ESCWA member countries are suffering from reduced government support, lack of expertise in standardization and related activities, restrictive bureaucratic procedures and outdated legislation. An integrated approach is needed to tackle these problems on the basis of long-term plans as an integral part of the strategic development plans of countries of the region. The current activities in the context of preparation of the so called 2020 strategic plans for many countries of the region should take into due consideration upgrading of the MSTQ infrastructure.
- C. Streamlining MSTQ activities: In most ESCWA member countries different elements of MSTQ were introduced gradually over a relatively long period of time. This has lead to overlapping of activities of different agencies in certain cases and gaps in other services at the same time. It seems that in each case it is time to have a fresh critical look at the whole

Slide 1

Topics Covered

- 1- Status of Quality Control/Quality Assurance Institutions in the ESCWA Member Countries.
- 2- Main Obstacles that hinder the Expansion and Improvement of Services Provided by there Institutions.
- 3- Proposals to Improve the Effectiveness of Institutions Concerned.

Slide 2

**Metrology Standardization Testing
and Quality (MSTQ)**

Quality Control/Quality Assurance Services are provided by a variety of (Institutions=Agencies= Bodies) wwhich are at the same time providing a number of closely related services in the Fields of Standardization, Metrology and Testings.

Why We Need Standards

- Safety - Food, Fire, electricity, and gas appliances, transport equipment ...
- Measurement standards - dimensions, electricity, mass, pressure, etc.
- Trade facilitation.
- Interchangeability.
- Others.

What Standards to Adopt

- National.
- Sub-regional.
- Regional.
- International.
 - International Agencies: ISO, IEC, OIML Codex.
 - Multinational Corporations: Philips, GE.
 - National Standards of Major Industrial Countries: BS, DIN.

**Cont. - Obstacles Facing MSTQ
Activities**

- b- Until recently ESCWA countries were producers and exporters of primary commodities. Only recently vigorous attempts were made to industrialize and diversify exports, which requires more complex process, machines, higher skills and better management and control systems.

**Cont. - Obstacles Facing MSTQ
Activities**

- c- Standardization was initiated to ensure fairness of weights and measurements and health and safety. Other objectives of standardization and related activities were introduced gradually.

A Comparison Between UAE and Trinidad and Tobago in Certain Related Aspects

| | UAE 96 | T.T. 95 |
|---|--------|---------|
| - Area in square K/m. | 84241 | 5125 |
| - Population in millions | 2.443 | 1.250 |
| - No. of manufacturing plants | 1982 | 1763 |
| - No. of workers in the manufacturing sector. | 112400 | 41962 |
| - Per capita income. | 18248 | 3800 |
| - No. of employee of its NSB. | 8 | 50 |

Information for UAE from ESCWA/TCD/ 1998/25 and Gulf Organization for Industrial Consulting, Gulf Statistical Profiles (1998). Information for Trinidad and Tobago from UNIDO, International Teambook of Industrial Statistics 1999, and ISO Upgrading (1997).

Trinidad and Tobago Bureau of Standards

A- The Bureau was created in 1974 and has a staff consisting of about 50 persons, seventeen of whom were degreed professionals and six were technicians.

B- The Bureau has now the following:

- Standardization Division.
- Testing and Certification Division.
- Metrology and Calibration Service.
- Agricultural Laboratory.
- Electrical Laboratory.
- Chemical Laboratory.
- Fibre Products Laboratory.
- Materials Laboratory.

**cont. Obstacles Facing MSTQ
Activities**

- b- The centre was entrusted with the same old big tasks but with a substantially reduced staff of two or three professionals. The tasks are:
- Formulation of regional standards.
 - Preparation or translation of guides and manuals.
 - Organize training countries, provide technical assistance, etc...

**Cont. Obstacles Facing MSTQ
Activities**

- c- This terribly understuffed and under financed centre is supposed to be the Arab regions counterpart of related international Organizations:
- 1- ISO (Geneva).
 - 2- Codex Alimentarius Commission (Rome),
 - 3- International Electrotechnical Commission (Geneva),
 - 4- International Organization for Legal Metrology (Paris).

**Cont. Obstacles Facing MSTQ
Activities**

- g- The capacity of the regional organization to promote MSTQ activities is very low.

**Gulf Standardization and
Metrology Organization**

- a- It was created by the Gulf Cooperation Council in 1982, to perform the tasks of a regional body in MSTQ activities.
- b- It is located in Riyadh.
- c- During 1984-1995, 58 standards were formulated and approved, per year on average compared to 40 standards for the Arab Centre.

**Cont. Obstacles Facing MSTQ
Activities**

- b- The scope of MSTQ activities is widening, the need is increasing faster, government support in many cases is lagging behind, yet there seems to be a total lack of support from the private sector.
- c- Privatization of National Standard Bodies does not seem to be a serious question for many reasons (authority, responsibility, assured income, etc...).

**Cont. Obstacles Facing MSTQ
Activities**

- d- The case of the Syrian Association of Gold Traders.
- e- Strong government commitment and strong participation of the private sector is needed to:
 - have a well funded body;
 - with clear administrative, financial and technical independence.
 - stability and continuity to formulate and implement long-term plans.

**Improving the Effectiveness
of MSTQ activities**

1. Stress the relationship between MSTQ activities and economic Development.
2. Upgrade the MSTQ infrastructures in the region.
3. Streamline activities.
4. Attract private initiative and investment.
5. Strengthen regional cooperation.

Cont. Gulf Standardization and Metrology Organization

- d- The need for strong country based standardization bodies.
- e- The superiority of the regional approach compared to country based standards formulation.
- f- Institutional and administrative problems.

Obstacles Facing MSTQ Activities

- 4. Lack of private sector initiative and Finance:
 - a- In developed countries 70% of national standard bodies are either private or mixed institutions. In developing countries this percentage is only 14%, while in ESCWA countries the percentage is simply ZERO.

**Cont. ObstaclesFacing MSTQ
Activities**

d- During three decades of work this regional organization has formulated 1204 standards, or 40 standard per year.

The required number is 500 standards per year.

**Cont. ObstaclesFacing MSTQ
Activities**

e- The Regional Standards Organization used to have 34 Technical Committees for preparation of regional standard meetings of Technical Committees came to an end since 1989.

f- Work is now done by correspondence, and standards prepared in such a way have to be adopted by AIDMOs Ministerial Council which meets once every two years.

**.cont. Trinidad and Tobago Bureau
of Standards**

- It is also engaged in setting up a National Accreditation System.
- It is promoting the development of Autonomous Quality System Certification Units, and has among its staff seven registered Auditors including two lead Auditors.

Obstacles Facing MSTO Activities

3. Lack of sufficient regional cooperation:
 - a- In 1968, the Arab Standards and Metrology Organization was established. Two decades later it was amalgamated with the Arab Industrial and Minerals Organization and was reduced to a small unit called Centre for Standardization and Metrology.

**Cont. - Obstacles Facing MSTQ
Activities**

2. Lack of awareness of the importance of MSTQ:
 - a- Lack of qualified personnel, deficiency of financial resources and special circumstances may be enough to explain the existence of weak NSBs in countries like Yemen and Lebanon.
 - b- It is conviction that even in these cases much more could have been achieved had enough attention been given to MSTQ activities.

The National Standards Body in UAE

- 1- On the basis of the Federal Law No. 14, of 1976, the Directorate of Standardization and Metrology was created inside the Federal Ministry of Finance and Industry, to undertake MSTQ activities in an integrated way.
- 2- Total number of its personnel in 1988 was 8, few of them were qualified university graduates. It has no laboratories, not even a standards library.

Slide 7

Legal Status and Progress Achieved

1. All ESCWA Member Countries have established National Standard Bodies as Government Agencies.
2. An ESCWA survey of national standard institutes in 1998, claimed that in comparison to another survey by ASMO in 1980 improvement was noticed in many fields
3. The same ESCWA survey indicates that MSTQ activities in the region leaves much to be desired.

Slide 8

Obstacles Facing MSTQ Activities

1. The Socio-economic environment:
 - a- Although modernization in some countries of the region started more than 50 years ago, but the present level of the scientific, technological and industrial development of countries of the region is still not sufficiently strong enough to enable them to engage actively and independently in the development of standards, which is the core element in MSTQ activities.

MSTO ACTIVITIES

- Prepare and Implement Standards.
- Collect and Disseminate Information.
- Protect Consumers and the Environment.
- Promote Conformity of Products to Standards through Certification/ Registration Systems.
- Promote Metrology - Legal and Industrial.
- Establish an Accreditation System.
- Offer technical advise and training.
- Harmonize National Standards with those of others.

MSTO Institutions

Several Institutions or One Integrated Institution encompassing the following Bodies:

- National Standards.
- National Metrology.
- Accreditation Body.
- Testing Laboratories.
- Certification Bodies.
- Quality Management Bodies.
- Environmental Management Bodies.
- Information Services and Libraries.
- Training Institutes.

system using methodology suggested by international agencies especially ISO. There may be need to regroup different agencies in one in some cases, reallocate scarce resources from the futile national standard formulation to adaptation of foreign standards especially international ones and to strengthening of information services or awareness activities.

- D. Attract private investment and initiative: The role of private sector has been neglected for a long time in most ESCWA member countries. A first practical step could be lifting all legal and administrative obstacle which prevent or discourage the private sector to invest in related activities.
- E. Strengthen regional cooperation: The need for regional and sub-regional cooperation is recognized. Legislation concerning MSTQ in ESCWA member countries recognize the importance of regional cooperation and coordination of work in the related fields. But the necessary amounts of financial resources needed have not been made available. Concerned international, regional and sub-regional agencies should prepare a joint statement on this question to be widely circulated in all countries of the region by all possible available means.

REFERENCES

- ESCWA: Survey of National Institutes of Standards in the ESCWA Region. E/ESCWA/ID/1997/10, 12 Jan. 1998, New York.
- ESCWA: Proposals for Industrial Strategies and Policies in the Context of Preparation of A Strategic Development Plan for Abu Dhabi Emirate 2000-2020, ESWA/TCD/1998/25, 10 July 1998, Beirut, Lebanon.
- ISO: Upgrading Standardization Infrastructure in Developing Countries. Proceedings of a DEVCO workshop 21-22 Sept. 1997, Geneva, Switzerland.
- GOIC: Gulf Statistical Profile, 1998, Doha, Qatar.
- UNIDO: International Yearbook of Industrial Statistics, 1999, Vienna, Austria.
- AIDMO: Arab Regional Standardization, Situation and Expectations (1998).

implemented except through country based standardization agencies. Other activities connected with standardization such as quality assurance, metrology, etc., require the same conditions for success, i.e., strong country based agencies, besides strong regional organizations. Given the profound weakness of both countries based MSTQ agencies in most countries as well as regional agencies, cooperation and coordination of activities in the fields of MSTQ leaves much to be desired.

D. LACK OF PRIVATE SECTOR INITIATIVE AND FINANCE

All standards bodies in ESCWA countries were established by governments of the region and are still financed and are operating as government agencies. Some of them are small departments attached to a sectoral ministry, mostly Ministries of Trade and Industry. Others were given the status of autonomous agencies and are supposed to be legally and financially independent bodies. Some times, they have governing bodies as boards of directors. But in most, if not all, cases, this legal and administrative autonomy does not mean much. They are affiliated to sectoral ministries, most of the members of their governing bodies are government officials nominated by their ministries. Their major administrative and financial questions have to be approved by the concerned minister, and last but not least their activities are financed from the government budget.

Government agencies are known, even in developed countries, for their bureaucratic procedures, for not being sensitive enough to market demand, for their usually slow reaction to change, for being adversely affected by governmental crises and political interference. This perhaps explains why 70% of standard bodies in Developed Countries are either private or mixed institutions, whereas in developing countries this percentage is only 14% (ISO, 1997, p35), while for the ESCWA region the percentage is simply zero.

As we have pointed out, standard bodies were created to protect consumers and the national economy in general from health and safety hazards of locally produced or imported goods and processes. Such a social service renders itself for being carried out by a government agency. But gradually the aims of standards bodies shifted towards other functions such as protection of national industry within tailor-made national standards, helping local industry to increase their competitiveness and facilitating regional and international trade. This continuous expansion in the role and scope of work of national standards bodies calls for, among other things, substantial increases in the amount of human and financial resources needed by standards bodies. In most cases, governments of the region were reluctant to make the necessary financial and institutional arrangements to increase the required resources financed by the government budget and to allow the application of more flexible financial and administrative procedures to run the standards bodies more efficiently.

At the same time there was, it seems, a total lack of support from the private industry and from the private sector in general. But it is interesting to note that in few cases where privatization of certain elements of the MSTQ infrastructure was proposed by Chambers of Commerce and Industry, the idea was rejected for many reasons such as: the high authority which a government agency has compared to a private institution; the stable income which can be made available from the national budget compared to the instable income of a private body which depends on its activity and; the higher degree of responsibility which can be expected from a government body compared to a private one.

According to its Director, the Trinidad and Tobago Bureau of Standards (TTBS) is a small organization, created in 1974 and has a staff consisting of about 50 persons since 1982, seventeen of whom were degreed professionals, six were technicians, and the others providing administrative and support services. The TTBS has now the following:

- Standardization Division.
- Testing and Certification Division.
- Metrology and Calibration Service.
- Agricultural Laboratory.
- Electrical Laboratory.
- Chemical Laboratory.
- Fibre Products Laboratory.
- Materials Laboratory.
- It is engaged in setting up a National Accreditation System.
- It is promoting the development of Autonomous Quality System Certification Units, and has among its staff seven registered Auditors including two Lead Auditors.

It is obvious that budgetary difficulties and lack of qualified personnel can not explain the deplorable weakness of the MSTQ activities in most of the ESCWA member countries. Lack of awareness of the vital role of MSTQ activities in the process of economic development is one main factor.

C. LACK OF SUFFICIENT REGIONAL COOPERATION

In 1968, the Arab Standards and Metrology Organization (ASMO) was established in order to formulate regional standards, translate into Arabic international standards to be adopted as unified Arab Standards, prepare or translate guides and manuals in standardization related subjects, organize training courses and provide technical assistance to the member standardization bodies. Two decades later, ASMO was amalgamated with the Arab Industrial and Minerals Organization and was reduced to a small unit named Centre for Standardization and Metrology. The Centre was entrusted with the same big old tasks but with substantially reduced staff (two or three) and other resources.

During its 3 decades of work this regional organization has formulated 1204 standards or 40 standards per year. It has issued a number of quality control guides and other useful publications in the fields of MSTQ.

In a recent publication (Arab Regional Standardization, Situation and Expectations (1998) the Centre claims that in order to facilitate the flow of trade between Arab countries and with foreign countries, it has to formulate 500 standards per year. To perform such a formidable task it has to depend completely on the standard bodies of member countries. Prior to 1989, the Regional Standards body had 34 Technical Committees for preparation and review of regional standards. The organization was covering costs of meeting of these committees. But when it decided to ask member countries to cover costs of participation of their representatives in the technical committees, no member standards body accepted that. Consequently, meetings of the technical committees came to an end. Regional standards are now formulated by correspondence and has to be adopted by the AIDMOs Ministerial Council, which meets once every two years. All this is a clear indication of the extremely low priority given by AIDMO member countries to regional

Egypt) the standardization related activities in the region leaves much to be desired. Nevertheless, the survey points out that in comparison to another survey which was made by Arab Standardization and Metrology Organization (1980), the following evolution was as noticed:

- Improvement in Standards Adoption.
- Strengthening of certification and quality works.
- Good evolution in labs accreditation and metrology.
- Modernization of the information and documentation.
- Adoption of ISO 9000 and efforts made to their diffusion.
- Organization of seminars for training in ISO 9000. (ESCWA, 1998. P.15).

II. MAIN OBSTACLES FACING MSTQ ACTIVITIES IN THE ESCWA REGION

A. THE SOCIO-ECONOMIC ENVIRONMENT

Although the process of modernization started a long time ago (more than 50 years in countries like Egypt, Syria and Iraq) and (no less than 30 years ago in other countries), it is not an exaggeration to say that the present level of scientific, technological and industrial development of countries of the region (or at least most of them) is still not sufficiently strong enough to enable these countries to engaged actively and independently in the development of standards which is the core element in the MSTQ activities.

- Until recently, ESCWA Countries were exporters of primary commodities and raw materials such as agricultural and mineral products. But during the last two or three decades vigorous efforts have been made to expand and diversify their exportable product ranges to allow them to meet increasing demand for the foreign exchange needed to support their national development effects. In all cases, these efforts have resulted in the introduction of manufacturing processes.
- In comparison to primary commodities manufactured goods require more complex process and machinery, more highly skilled labour, and better management and control systems. Nevertheless, it seems that in the ESCWA region the standardization was instituted to ensure that weights and measures used in commerce are fair and accurate. This applies primarily to scales, thermometers, fuel pumps, watt-hour meters, taxi meters and other measuring devices commonly used in daily commerce, business and government activities. A second related reason for introducing standardization was to ensure health and safety.
- Other objectives of standardization were introduced gradually to use standardization as a powerful mean for technology transfer, upgrading quality of products and enhancing competitiveness of local producers to enter foreign markets. But unfortunately, this is the case in only few ESCWA countries.

B. LACK OF AWARENESS OF THE IMPORTANCE OF MSTQ

It is tempting to say that lack of qualified human resources and the deficiency of financial resources devoted in the budgets of national governments of the region due to severe budgetary