

# Role of ITU for Global Telecom Development

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ON May 17, 1865, a configuration of twenty nations met at Paris and founded the first inter-governmental organisation—International Telegraph Union—which was later renamed in the twentieth century as International Telecommunication Union.

The first electric telegraphy was used in 1837 and within twelve years telegraph was utilised for international purposes in 1849. Since then the pioneers who started sending telegrams across the geo-political boundaries realised that some kind of international agreement was necessary to regulate smooth working of telegraph. Thus ITU was set up which adopted the first Telegraph Convention and Regulations in 1865.

Before long, in 1876, the telephone was invented and then at the close of the 19th century, radio came into vogue. Both these revolutionary inventions soon got international acknowledgement and were recognised as vital communication media on a global scale. The need was felt for standardisation of telegraph traffic between countries. So the International Telegraph Union was formed. It has since then developed and shouldered the responsibility for the planning of telecommunications, coordination amongst the Member countries and has played the role of a regulatory authority for implementing its resolutions and conventions. It set the criteria for standardisation from tariff to traffic and paved the path of world-wide telecommunications growth.

All these were started in the days of the League of Nations. With the ushering in of United Nations, ITU augmented its scope and in 1954 signed an agreement to participate in the United Nations Technical Cooperation programme, in order to assist the development efforts of new member-states through the expansion of an International Telecommunication network. Today International Telecommunication Union has 163 members and functions as a specialised agency of the United Nations, devoted to the cause of world-wide telecom development.

Going back to its history, the first Conference of International Telegraph Union was held in Paris in 1865 which was the first Plenipotentiary or Diplomatic Conference and subsequently it was held in Vienna in 1868. At the Vienna Conference the major achievement was that Persia and India were admitted as members of the Union. India was represented by Great Britain although not herself yet a member of the Union as Great Britain did not have a nationalised telegraph service. However in 1871 at the Rome Conference of ITU, Great Britain could become a qualified member after having nationalised her telegraph service. Furthermore at the Vienna Plenipotentiary Conference, ITU had decided to set up a permanent Bureau, charged with the routine administrative work of the Union. The Bureau was headquartered in Berne in Switzerland from 1868 to 1948.

It then moved to Geneva and became the present general secretariat of the International Telecommunication Union.

The Plenipotentiary or Diplomatic Conferences of ITU have since its inception remained the supreme body of the Union which drafts the Conventions of the Union, its basic charter and lays down its guiding policies until the next conference. Furthermore it reviews the Union's work since the last conference. It also controls the budget and expenditure of the Union. This supreme body meets about every five years.

With the ushering in of United Nations, ITU enlarged its scope and functionary organs were enhanced. At the Atlantic City Conference of 1947 an Administrative Council was created which would meet every year and monitor the work of the Union. This council has 36 Members elected by the Plenipotentiary Conference and takes care of the progress of the Union and in course reports it to the next Plenipotentiary Conference.

Since 1868 ITU had a permanent Director at the head of its affairs. At the 1947 Conference, the post of Secretary General and his deputy were created along the lines of United Nations, who are to supervise the overall working of the Union.

Initially, International Telephone Consultative Committee (CCIT) was created and later the International Telegraph Consultative Committee. Later on, these two were merged into a giant body called International Telegraph and Telephone Committee (CCITT). It considered the study of telegraph distortion, standardisation of voice frequency in regard to Telegraphs and Telephones, it further established the telegraph alphabet which was to be internationally utilised.

In 1927, ITU established a permanent body, the International Radio Consultative Committee (CCIR) to study and issue recommendations on the technical operating questions relating to radio communications. Today CCIR's recommendations cover nearly every domain of the use of radio technology, including radio relay system in telecom networks, satellite systems for communications, radio and television broadcasting and mobile services such as maritime, aeronautical and land vehicle mobile communication.

India has all along been actively associated with the work of three bodies. India on the one hand contributes to the global scientific development and on the other hand identifies the area of complexities which are being faced by the developing countries considering its limited resources. Thus India has given the much-needed leadership to the developing world especially to the countries of the Asia-Pacific region.

In 1928, the International Frequency Registration Board was established whose main task is to decide

*May 17 was the World Communication Day.*

what Frequency is assigned to which country and its time of operation from a particular radio stations. Thus with the coming up IFRB every country sends their need for frequency allocation and IFRB considers the case. If the Board finds the frequency power and time operations is not interfering with any other countries' existing operation then IFRB issues the notification and the frequency is registered in the Master International Frequency Register against the country.

With the ushering in of space age telecommunication through satellite became very important. Vertically high above the equator at a height of approximately 36,000 Kms the imaginary Geo-Stationary Satellite Orbit (GSO) is locable. From this strategic GSO one third of earth's surface is visible. Thus by positioning any satellite in this orbit, one can encourage point-to-point telecommunications, Meteorological Services, Maritime Mobile Services and Television Broadcasting. A satellite missioned to remain in GSO is a rare non-renewable resource, which has to be explored by collective calculable measures considering the wider nature of implications and complication.

Thus the developed countries who pondered over the GSO placement of satellite started grabbing the slots in GSO. Soon most of the vital slots which are relevant and vital for some country or other became the prerogative of the developed countries. And slots were allotted to those countries on the 'first come first serve basis'. Thus its developing countries became the sufferers as they were lacking technologically. But when these countries developed their technology they found there was no place to position their own satellite. Thus the developed countries started ruling the GSO. India started fighting especially for the Indian Ocean zone which is relevant to us and all the countries around the ocean. After prolonged confrontation India could ultimately have its say and today any developing country can get allocated the slot even twenty years in advance. Thus its developed countries could no longer control all the slots of the GSO. And today developing countries do not have to wait till their updating of space technology as they can book the slot in advance through its registration in International Frequency Registration Board.

Thus the continuous effort of International Telecommunication Union has yielded many a positive result and it has brought the global scientific community of the world to the same platform of telecommunication development. In the ITU history, a lot of scientific revolution had taken place and today messages can reach thousands of kilometers within seconds thus telecommunication had made the world shorter. However as the developed countries advanced to the computerised space age communication system of many countries still hold on to the obsolete telecom facilities for ever. Thus a gap was created and the developed countries had left the developing countries behind by a hundred years. To bridge the gap an Independent Commission was created under the Chairmanship of Dr. Maitland wherein Dr. S. Chakroborty, former Economic Advisor of the late Prime Minister Indira Gandhi played the

vital role in the study. The result was the *Missing Link* — a publication which is a pointer where the developed countries should help the developing countries! The report of Dr. Donald Maitland said that "practical field training ... ensures the full benefit it gained from investments already made ... We consider the development aid for telecommunications in the developing countries should aim first and foremost to train manpower".

Moreover, R.E. Butler the Secretary General has thrown some light on the obstacles of telecom development in the developing countries: "The main obstacle to the development of Telecommunications network in many countries is the lack of qualified staff. For small countries with modest resources, it is often difficult to finance the type of specialised training required for by telecommunications".

ITU for the last two decades has been giving a special thrust to the need for training. Today within the network of ITU there are forty main training centres. This list includes India's Advanced Level Telecom Training Centre of Ghaziabad. All these international training centres have mostly national staff capable of providing fixed training in the basic techniques. In the last decade these centres had organised 300 courses in 70 countries which has trained 1000 course designers who will in course open up indigenous training programmes for their respective countries. In 1984 the Technical Cooperation Development of ITU implemented projects for a value of \$ 23.6 millions. It sent 477 experts into the field which included many Indian personnel. ITU awarded 629 fellowships and spent \$ 4,004,819 for the purchase of equipment, and was given 170 projects to implement. The Independent Commission of ITU urged at the Arusha session that "in the name of common humanity and on grounds of common interest" the correction of the imbalance in the distribution of telecommunications and so that the objective could be attained that "by the early part of the next century all mankind should be within easy reach of a telephone".

In India 540,000 villages are still without direct access to a telephone network, while millions are on the waiting list for getting a telephone connection. Thus with the recommendations of the ITU Prime Minister Rajiv Gandhi said at a recent ITU conference in New Delhi: "We have geared our objectives to our needs. Our overall target is to put the entire population of 800,000,000 to within five minutes walking distance of the telecom." Although this sounds an ambitious target, India can fulfill the target to provide one public paid phone in each of its 570,000 villages.

India today has organised resources and ample trained personnel and is out to achieve the target as the Centre for Developments of Telematics (C-Dof) headed by Sam Pitroda is in the final stages of developing the indigenous Telephone Exchange RAX which will work with solar power and need not require an aircondition plant to cool the indigenous exchange. Thus India will soon become self reliant in many telecom equipment and telephone exchanges which are destined to being about the realisation of the objective Rajiv Gandhi mentioned. □