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| CONTRIBUTION FROM THE REPUBLIC OF INDIAOpportunity to Establish ITU South Asian Area Office and Technology Innovation Centre in India |

I have the honour to transmit to the Member States of the Council a contribution submitted by the **Republic of India**.

 Houlin ZHAO
 Secretary-General

CONTRIBUTION FROM THE REPUBLIC OF INDIA

Opportunity to Establish ITU South Asian Area Office and Technology Innovation Centre in India

## 1 Introduction

1.1 India is one of the most populous countries in the world with a population of 1.2 billion plus and the concept of welfare state is the cornerstone of India’s endeavours. Inclusive and sustainable development is India’s goal both in action and spirit. Accordingly, the Indian vision of a modern society is the one where the fruits of the technological advancements are reaped by every citizen and India is committed to realize this vision not only for the people living in every nook and corner of the country but also for the people across the vast and varied geographical stretch of Asia-Pacific region and beyond.

1.2 Holistic development involves much more than merely serving the basic needs. Political, social, financial, and digital empowerment of common man, providing access to equal opportunity in all these domains, and enabling participation of every citizen in development at various levels is critical from the perspective of the Government. Information and Communication Technologies (ICTs) form the backbone of today's digital economy and have enormous potential to fast forward progress on the SDGs and improve people's lives in fundamental ways. India has identified that integrated and comprehensive solutions are the goals for digital transformation and accordingly ‘Digital India programme’ is carved out to transform India into a knowledge economy. The holistic approach to provide digital solutions under Digital India programme have resulted in a great success transforming the rural landscape of huge masses across vast geographical stretches of the country.

1.3 For building smart societies across the globe, the collaboration for access, usage and sharing of knowledge at various levels is essential. Government to Government collaboration as well as Industry to Industry collaboration is prerequisite. Inclusive development and integrated holistic solutions are India’s motto and India would like to share its success stories and experiences among the global fraternity for overall socio- economic development and to bridge the digital-divide in all forms. India offers to share her vision and experiences, as well as its willingness to learn from global best practices and policy initiatives. With this collaborative approach, the goal of global smart society may be achieved soon. Indian e-governance solutions could support empowering the common man in developing countries as well.

1.4 Global Partnership for development of mankind has always been part of India’s cultural ethos and India is not only addressing the needs of its own people through ICTs but also leveraging its scarce resources to extend a helping hand to neighbouring counties and developing countries across the globe as well.

1.5 In the Asia-Pacific region, the South Asia is brimming with new tech-hubs[[1]](#footnote-1) and over 330 tech-hubs are active in the region and amongst them, over 250 are active in India. Innovative solutions, large scale deployment of e-governance services including digital identity, cloud services, mobile applications are the order of digital transformation in the region. Digital initiatives and integrated actions to drive digital economy are proactively pursued in both government and private sectors. Mobile and mobile broadband penetration is on significant growth path as an enabler for delivering e-services especially in education, health and governance sectors providing equal access to opportunities and bridging digital divide. However, the regional disparities are considerable; for example, only 38 percent of the population in South Asia subscribes to mobile internet services, lagging behind the global average of 51 percent[[2]](#footnote-2).

1.6 The above regional disparities are visible in terms of IDI too. As per the Measuring the Information Society Report 2017[[3]](#footnote-3), the average IDI values of Asia-Pacific Region (4.83) is close to the global average (5.11). However, if we look distinctly in the South Asia sub region and CLMV countries, we observe a disparity in terms of IDI values. The average value of IDI for the countries lying in the South Asia sub region and the CLMV countries is 3.27 whereas the average value of IDI for rest of the countries in the Asia-Pacific Region is around 5.68. This clearly indicates that more collaborative initiatives are required to be taken for development of ICTs in the countries lying under South Asia sub region and the CLMV countries.

1.7 Thus, there is an opportunity for collaboration and assimilation of ICT initiatives through ITU Objectives and Regional Initiatives for Asia-Pacific in particular the need to focus on assistance in South Asia sub region and CLMV countries, with relevance for several other developing countries as well. The South Asia region is envisaged to bring in a large portion of new mobile and internet connections and is already a home of over 1.5 billion mobile connections forming a large part of ICT ecosystem in the world.

1.8 The digital solutions, innovation and initiatives from the region have significant relevance for the developing countries with their appeal to address issues and socio-economic challenges to facilitate accomplishing SDGs. India, a hub of ICT and software applications and innovative solutions, provides a potential opportunity for collaboration with ITU to partner in developing solutions relevant for developing countries.

1.9 In this backdrop and context, **India proposes to establish ITU Area Office in India that would serve as a collaborative platform to exchange ideas, success stories, innovative solutions and global endeavours to bring in inclusive sustainable growth with a holistic approach**.

## 2 Opportunity for ITU’s enhanced engagement with Indian innovation

**2.1 Indian ICT industry[[4]](#footnote-4)**

The pillars of Digital India programme viz. Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access programme are envisaged to provide the much needed impetus and transformational opportunity for entrepreneurship in driving the agenda on ‘ICTs4Development’ and ‘Digital Inclusion’. Impact of broadband is felt and demonstrated in every aspect of socioeconomic life and development. It is estimated that internet apps contributed at minimum $20.4 billion to India’s GDP in 2015-16 and there is a potential to enhance its value to $271 billion by 2020.

DIGITAL INDIA

Each user of Applications in India is estimated to receive on average $249 of consumer surplus annually and when applied to the total population, this number stands at $74 per capita[[5]](#footnote-5).

The other positive factors in the Telecom growth story are the drastic declining price of smart phones, especially entry level 4G smart phones, an exponential growth of data consumption from 561 million GB in Q1 of FY 2016-17 to 3574 million GB in Q4 of the same year, rising mobile banking transactions both in terms of volume and transaction value, rising teledensity and subscriber growth.

**2.2 India and Large scale ICT programmes**

Considering the critical role of ICTs as a facilitator in driving the development and knowledge economy objectives, the Government of India has taken up integrating ICTs in national programmes in big way with the objective to cover the entire country in spite of its diverse geographies, languages, access challenges.

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| National Programmes | Coverage |
| National Optical Fibre Network (BharatNet)**[[6]](#footnote-6)** | Fibre connectivity for 250,000 village clusters (Nearly 600,000 villages) |
| Digital Identity Enrolment (Aadhaar)**[[7]](#footnote-7)** |  |
| Total Aadhaar Generated | 1,204,566,153 |
| Total Aadhaar transactions | 17,888,841,942 |
| Digital Financial inclusion (Jandhan)**[[8]](#footnote-8)** |  |
| No. of bank accounts created | 313 million |
| No. of Rupay debit cards issued | 236 million |
| No. of Rural-Urban female beneficiaries | 165 million |
| Higher education |  |
| Number of universities**[[9]](#footnote-9)** | 677 |
| Number of colleges | 37,204 |
| No. of institutes offering engineering and technology programmes[[10]](#footnote-10) | 6472 |
| Total intake | 3 million per annum |

**2.3 People Engagement with ICTs and E-governance programmes**

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| Indicator | Global ranking |
| Knowledge and Technology outputs[[11]](#footnote-11) | 38 |
| Innovation linkages | 37 |
| Government online services | 33 |
| E-Participation  | 27 |
| No of Social Media users | 250 million + |

**2.4 India Stack**

[[12]](#footnote-12)In India, the government via India Stack and the JAM (short for Jan Dhan-Aadhaar-Mobile) Trinity, is supporting digitization and the Fintech industry. India Stack is a set of APIs that allows governments, businesses, start-ups and developers to utilize a unique digital Infrastructure to solve India’s hard problems towards presence-less, paperless, and cashless service delivery. JAM Trinity refers to the government of India initiative to link Jan Dhan accounts, Mobile numbers and Aadhaar cards of Indians to plug the leakages of government subsidies.

**2.5 Software backed Innovation**

Convergence of ICT services, applications and devices is leading to multiplication of opportunities and opportunity networks independent of platform. Software and software solutions are driving innovation in ICT products and services in big way than ever before. India with its strong IT and ITeS base continue to contribute to the global software industry[[13]](#footnote-13).

**2.6 Bringing SMEs online – a massive initiative in making**

There are over 51 million SMEs in India, of which only 10 million are technology ready. Large scale private sector programmes are being initiated to bring SMEs online. It is apt to mention that online presence helps SMEs garner 51 percent higher revenue and 49 percent higher profit than those without it[[14]](#footnote-14). In India, SMEs employ about 106 million, 40% of India’s workforce, next only to the agricultural sector[[15]](#footnote-15). MSME banking is likely to be the fourth-largest sector to be “disrupted” by Fintech in the next five years after consumer banking, payments, and investment/ wealth management (PwC 2016 Global Fintech Survey report).

## 3 India’s contributions towards global ICT ecosystem development in the recent past

3.1 India has been involved in carrying out various capacity building programmes and other developmental activities in ASEAN region, especially in CLMV countries. Currently, India is in a process of implementing digital villages in CLMV countries as a pilot project which is also being funded by India. Further, more capacity building programmes through different CoEs are also on anvil. India intends to carry out similar activities in South-Asia region and beyond as per ITU requirements. Further, India intends to establish Centres of excellence for software training and development in other developing countries, LDCs, LLDCs and SIDSs.

3.2 **ITU Asia Pacific Centre of Excellence at Advanced Level Telecom Training Centre (ALTTC) India**: Advanced Level Telecom Training Centre, Ghaziabad (India) was setup as a joint initiative of ITU, UNDP and Government of India. ALTTC is an ISO 9001-2008 accredited apex training institute. The training centre has been rendering yeoman service in empowerment of not only Indian Telecom Sector, but Asia Pacific region as a whole. ALTTC is designated as a centre of Excellence in Broadband by ITU. The Institute currently caters to the training needs of member countries of ASEAN, ESCAP, APT, ITU besides Telecom Equipment manufacturers, Telecom Operators and Private Organizations as well as in assisting in capacity building initiatives of Government of India.

3.3 **Centre of Excellence for IoT (CoE IoT) India:** India is having a Centre of Excellence for IoT in Bengaluru which was started in 2016 as part of Digital India Initiative to jump start the IoT ecosystem taking advantage of India’s IT strengths and help the country attain a leadership role in the convergent area of hardware and software. CoE connects various entities such as start-ups, enterprises, venture capitalists, government and academia. The main objective of the centre is to create innovative applications in areas of IoT, Big Data, AR/VR, AI and Robotics to reach their maximum potential and domain capability by harnessing the innovative nature of start-up community and leveraging the experience of corporate players.

3.4 Recently, India extended its support to Bhutan by deputing an expert as per the communication received from ITU regional office for the development of EMF regulatory framework. The Standard Operating Procedures (SOP) for the compliance testing of Mobile Base Stations/Broadcast station for Bhutan was also developed along-with delivery of capacity building on EMF monitoring and compliances, sharing of best practices through classroom programmes as well as on site testing based on ITU recommendations so as to build the skillset in Bhutan. ITU acknowledged these contributions with great appreciation. India intend to extend its support for the development of required ICT framework and regulations in different countries in South Asia sub region.

3.5 **SASEC Information Highway Project:** India has the NOC of SASEC Information Highway Project at Siliguri, West Bengal state which is interconnecting each Research and Training Centres (RTC) in India, Nepal, Bhutan and Bangladesh through Regional Network (RNs) of 1 Gbps OFC links which will further be enhanced to 10 Gbps in due course. These RTCs in each country are responsible for developing various applications, running different online courses etc. through 25 rural Community e-Center (CeCs) connected to RTCs for digital empowerment and enhancing opportunities of livelihoods for rural people with a scope for further expansion.

3.6 Another major regional initiative is the launch of a South Asia Geostationary Communication Satellite, fully developed and funded by India, to provide various ICT services and applications to South Asian nations. This initiative need to be taken forward through further engagements through collaborative efforts.

3.7 **First International Symposium on “Financial Inclusion Global Initiatives (FIGI)”:** India has created an ecosystem that provides start-ups an opportunity to exponentially grow into big businesses. In the areas of Digital Financial Services, presently, India has over 600 start-ups in Fintech and growing in various segments, as a result of various initiatives such as a focused accelerator program by governments, suitable facilitations by regulators and banks. Fintech start-ups are delivering innovative products and services in last few years such as e-wallets, lending and insurance through technological innovation. The Indian Fintech software market[[16]](#footnote-16) is poised to touch USD 2.4 billion by 2020 from the current USD 1.2 billion in the Financial Year (FY) 2016.

ITU recognized these developments in India and proposed India to host the first international symposium on “Financial Inclusion Global Initiatives” which was successfully held in Bengaluru in November 2017 and has been duly appreciated by ITU and other global audience. There is a need for continual engagements in this regard for further spread of financial inclusion initiatives in the region through collaborative efforts.

3.8 India had carried out a Pan-Africa Tele-Medicine and Tele-Education program by extending these facilities from Indian universities and Premier Indian hospitals between India and 48 countries of Africa. In the next phase, these programs are proposed to be carried out through cloud based solutions so that the benefits from the project may be delivered to those audiences which are geographically distributed or are remotely located. India intend to replicate this model in future with a focus on South-Asia region as well and India would be very happy to be associated with ITU for such endeavours. India has a large pool of Telecommunication and IT experts who may be deployed for the development of ICT policy, regulatory expertise, infrastructure, national ICT programmes, and capacity building programmes across the region and beyond.

3.9 India’s stand has been re-confirmed by the ‘Addis Ababa Action Agenda of the third international conference on financing for development (2015)’. It emphasizes that “The creation, development and diffusion of new innovations and technologies and associated know-how, including the transfer of technology on mutually agreed terms, are powerful drivers of economic growth and sustainable development.’ India is willing to do Technology Transfer of low cost technologies developed in India that are highly suitable for rural areas, through UN Technology Bank with the help of ITU and its various International and Regional organizations, with a firm view for making the other developing countries self-reliant and ensure affordability of various ICT services.

3.10 India has already taken advanced steps in the development of ecosystem of IoT/ oneM2M/ Disaster Management and other low cost technology solutions which can work very well in non-AC environment/ rural areas. India is keen to extend its full support for use of these technologies in development of South Asia region.

3.11 All the above projects, resources, and visions regarding India’s support to developing nations in the region and beyond, to realize our common vision of building knowledge societies, may be effectively and efficiently pursued from the platform that would be provided by the envisaged **ITU South Asian Area Office in India**. **All these initiatives and many more global/ regional collaborative efforts may be streamlined and pursued with a focused approach, in close association and collaboration with ITU, through the proposed Area Office in India**.

## 4 Potential Opportunities under the Proposal

4.1 There are significant synergies and potential opportunities for an enhanced engagement between Indian ICT sector and ITU programmes to benefit ICTs in the South Asian sub region and in developing countries considering the relevance of innovative solutions from Indian technology sector. Comprehensive list of innovations under Digital India is accessible at <http://digitalindia.gov.in/di-initiatives> in the areas of rural development, development programmes, transport, health, education, project management, women & child development, safety, skill development, governance etc. These solutions and engagement would be relevant in bridging the digital divide and providing technical assistance to developing countries through the development of successful frameworks in infrastructure, e-governance and cross sectoral application of ICTs to serve people’s needs on a massive scale.

4.2 It would be a win-win opportunity to have a **South Asian Area Office and Technology Innovation Centre in India** to serve the regional needs with focus on South Asia.

4.3 The engagement provides an excellent platform for ITU to bring out ICT solutions as part of technical cooperation enhancing its programme objectives in APAC region and globally in partnership with India.

4.4 The United Nations system in India includes 26 organisations serving regional needs. ICTs being the inherent enabler of efforts to achieve SDGs, the ITU office in India could forward cross-sectoral efforts in application and use of ICTs.

## 5 Proposal & Offer from Indian administration

* Host the ITU South Asian Area Office and Technology Innovation Centre in New Delhi or Bengaluru with necessary logistics including space, infrastructure and other amenities;
* Second staff necessary to support the operations in professional and general category for a period of initial 4 years extendable further as per requirement. Participation from other countries is encouraged and will be as per ITU SOPs;
* Offer necessary immunities and privileges as may be necessary; and
* additional details could be further worked out in consultation with the Secretariat and other countries in the region.

In view of the significant opportunities as elaborated above, Indian Administration seeks the support of Council Members for establishing the **ITU** **South Asian Area Office and Technology Innovation Centre in India**, which would go a long way in enriching the programmes and relevant solutions from ITU with focus on South Asia and also relevant to other developing countries including LDCs, LLDCs and SIDSs in bridging the digital divide and enabling application of ICTs for development to achieve the objectives envisaged in WSIS.

1. https://www.gsma.com/mobilefordevelopment/programme/ecosystem-accelerator/asia-pacific-a-look-at-the-565-active-tech-hubs-of-the-regions-emerging-economies/ [↑](#footnote-ref-1)
2. GSMA - https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/11/GSMA-Triggering-Mobile-Internet-Use\_Web.pdf [↑](#footnote-ref-2)
3. https://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2017.aspx [↑](#footnote-ref-3)
4. According to the European IT observatory EITO, ICT sales growth in 2017 will witness a 5.2% increase in India. In comparison to international ICT markets, India continues to lead in terms of growth rates. By 2020, India’s ICT sector´s total revenue is projected to reach USD 200-225 billion and USD 350-400 billion in 2025. [↑](#footnote-ref-4)
5. https://www.trai.gov.in/sites/default/files/BIF\_CC\_DP.pdf [↑](#footnote-ref-5)
6. http://www.bbnl.nic.in/index.aspx [↑](#footnote-ref-6)
7. As on 01.04.2018 - https://uidai.gov.in/ [↑](#footnote-ref-7)
8. https://www.pmjdy.gov.in/account [↑](#footnote-ref-8)
9. http://mhrd.gov.in/university-and-higher-education [↑](#footnote-ref-9)
10. http://www.facilities.aicte-india.org/dashboard/pages/dashboardaicte.php [↑](#footnote-ref-10)
11. The Global Innovation Index 2017 [↑](#footnote-ref-11)
12. http://blogs.worldbank.org/psd/india-digital-finance-models-lending-small-businesses [↑](#footnote-ref-12)
13. The global sourcing market in India continues to grow at a higher pace compared to the IT-BPM industry. The global IT & ITeS market (excluding hardware) reached US$ 1.2 trillion in 2016-17, while the global sourcing market increased by 1.7 times to reach US$ 173-178 billion. India remained the world’s top sourcing destination in 2016-17 with a share of 55 per cent. Indian IT & ITeS companies have set up over 1,000 global delivery centres in over 200 cities around the world.

 India has come out on top with the highest proportion of digital talent in the country at 76 per cent compared to the global average of 56 per cent! The internet industry in India is likely to double to reach US$ 250 billion by 2020, growing to 7.5 per cent of gross domestic product (GDP). The number of internet users in India is expected to reach 730 million by 2020, supported by fast adoption of digital technology, according to a report by National Association of Software and Services Companies (NASSCOM). Indian technology companies expect India's digital economy to have the potential to reach US$ 4 trillion by 2022 [↑](#footnote-ref-13)
14. <http://www.forbesindia.com/article/special/google-india-aims-to-bring-20-million-smes-online-by-2017/40347/1> [↑](#footnote-ref-14)
15. <https://evoma.com/business-centre/sme-sector-in-india-statistics-trends-reports/> GDP Contribution: Currently around 6.11% of the manufacturing GDP and 24.63% of Service sector GDP; SME Output: 45% of the total Indian manufacturing output; SME Exports: 40% of the total exports. [↑](#footnote-ref-15)
16. http://www.makeinindia.com/article/-/v/growth-of-fintech-in-india [↑](#footnote-ref-16)