ASIA-PACIFIC TELECOMMUNITY

International Telecommunication Union

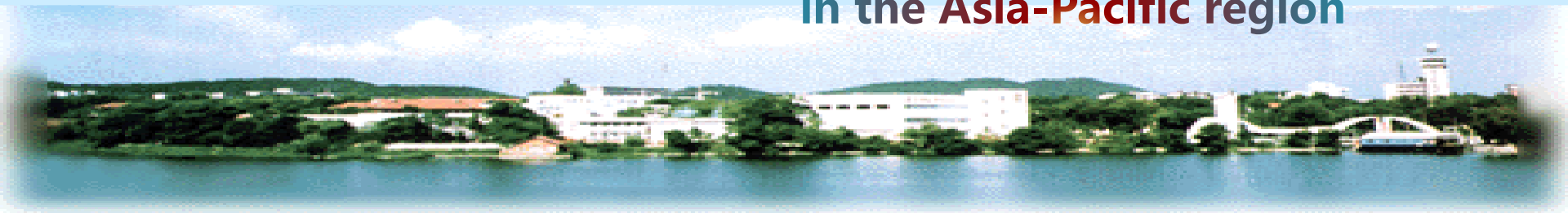
Committed to connecting the world

THE IMPLICATIONS OF COVID19 ON THE CAPACITY AND DIGITAL SKILLS DEVELOPMENT

-An Overview of Skills Gaps and Requirements

Geneva, GCBI , ITU-D, 2020

By TAO ZHIYONG, Abd Aziz Awang
in the Asia-Pacific region



ASIA-PACIFIC TELECOMMUNITY

International Telecommunication Union

Committed to connecting the world

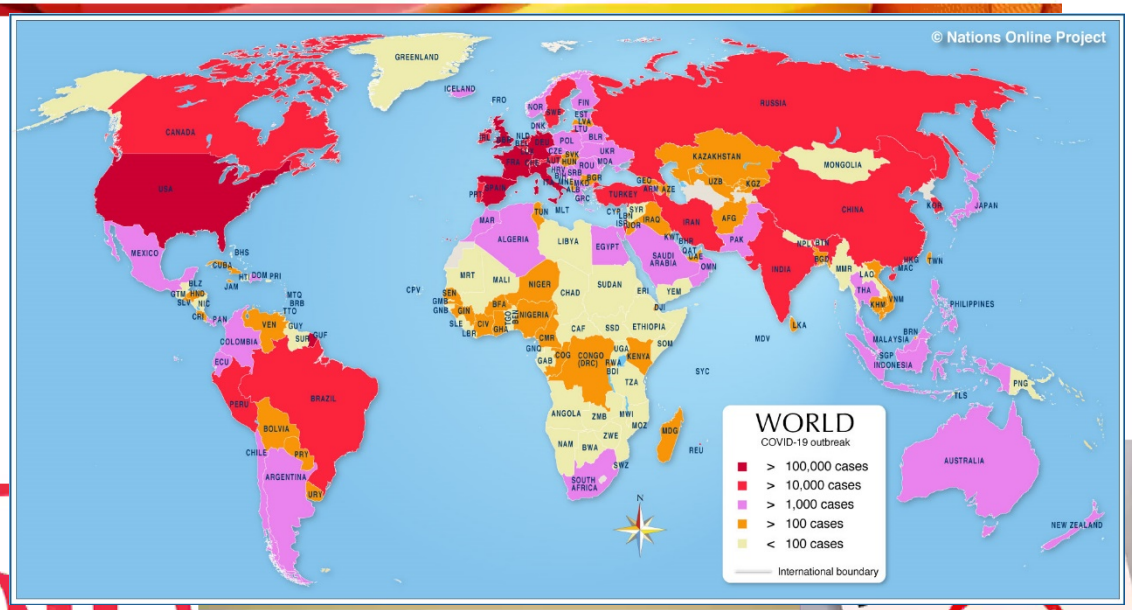
Agenda

Implications of Covid-19 for capacity and digital skills development, challenges and opportunities

ITU priorities in Asia-Pacific and Centres of Excellence

More CoE,More partners,More programmes

COVID-19: An unexpected test for humankind



- It's an examination for our healthcare system, society, humanity, and telecommunication systems.
- The decisions we make in this period of time will contribute to the reshapin

ASIA-PACIFIC TELECOMMUNITY

International Telecommunication Union

Committed to connecting the world

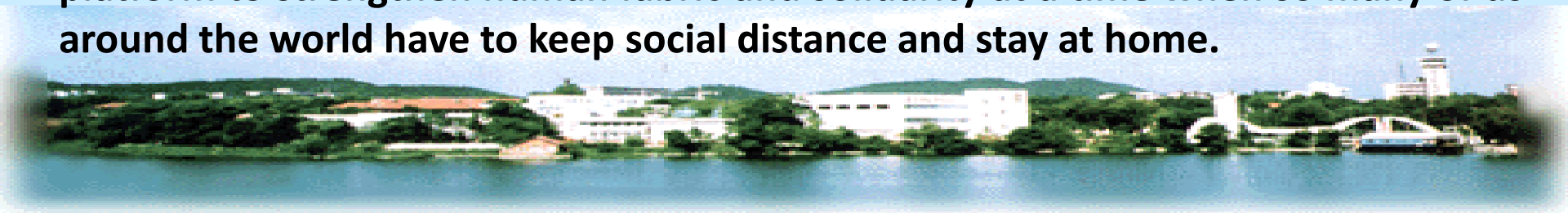
THE IMPLICATIONS OF COVID19 ON THE CAPACITY AND DIGITAL SKILLS DEVELOPMENT

The C19 outbreak is a global public health crisis. It resonates deeply at the heart of all CoEs and it tells us that telecommunications and training are key when dealing with a global pandemic especially in the ASP Region.

Continued education and training development must be continued to ensure that the employees and all members of the ITU or learners in all the regions will not be deprived of the knowledge and information with regard to telecommunications

C19 is a timely reminder that the government or the administrations and the communities must continue to invest on the telecommunications infrastructure and training development in order to have a good quality and reliability of the telecommunications services and particularly during the training session

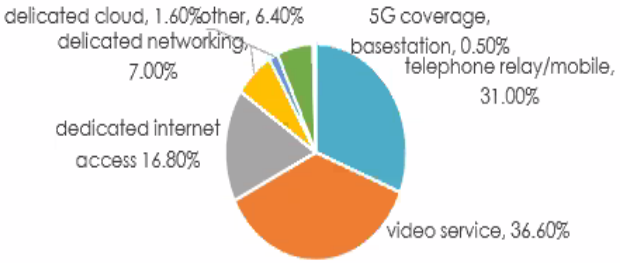
C19 again tells us that the power of telecommunications i.e broadband can be a platform to strengthen human fabric and solidarity at a time when so many of us around the world have to keep social distance and stay at home.



Increasing demand for remote applications

- Top to business service: remote video applications
- Top emergency applications: healthcare and education, i.e., hospital information system, online schooling
- Cloud conferencing: Within one month after launching, 700k+ new users, average cloud conferences held per day: 90, 22.5 times growth
- 5G+ applications: cloud overseer, 5G+ telemedicine, etc
- Top to customer service (mobile app): online education, telecommuting

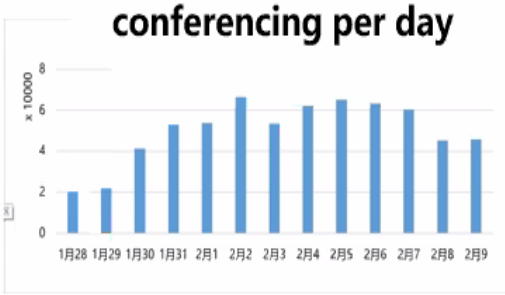
emergency service distribution



new projects using cloud resources

healthcare	education
16	13

new subscriber to cloud conferencing per day



ASIA-PACIFIC TELECOMMUNITY

International Telecommunication Union

Committed to connecting the world

How is the situation around the world?

By 2050, it is expected that 66% of the population in the world will be living in urban areas

Cities contribute to up to 70% of the total greenhouse gas emissions.

Half the world's population will be online in 2018 and by the end 2018, 51.1% of the population (3.82 billion people) will be using the internet

Of today's 28 mega-cities, 16 are located in Asia, 4 in Latin America, 3 each in Africa and Europe, and 2 in Northern America.

By 2030, the world is projected to have 41 mega-cities with more than 10 million inhabitants

Tokyo
Population 2030:
37 million

Delhi
Population 2030:
36 million

Mexico City
Population 2025:
24.6 million

Source: United Nations, Department of Economic and Social Affairs Statistics, Frost & Sullivan and other regional and country level statistics bureau

ASIA-PACIFIC TELECOMMUNITY

International Telecommunication Union

Committed to connecting the world

THE IMPLICATIONS OF COVID19 ON THE CAPACITY AND DIGITAL SKILLS DEVELOPMENT

Challenges and Opportunities

Most of the Centre of Excellence particularly in the ASP are not prepared to face the C19 and hence, a lot of preparation and adjustment need to be done to face the challenges in term of providing the training to the learners.

The crisis provides an opportunity to offer more flexible learning method and solutions that make better use of distance learning and digital tools.

The shift to online or distance learning and skills development should be seen as an emergency response and not a rapid and permanent migration of programs. Short term solutions can be and have been found but CoEs must seize this opportunity to create long-term positive impacts and develop greater resilience.

Specific topics of interest requested by APT Members

A. Policy Development • Strategic aspects for broadband internet and innovations • Policy on Digital Government and e-Government platform • Block-chain and Cybersecurity policy • Strategic Planning and Policies for Spectrum Management • Challenges and issues of emerging technologies and policies for adoption • Policy on digital skill for all • Digital Strategies for public sector • Digital innovation development framework

B. 5G • Licensing, Infrastructure sharing, 5G • 5G ecosystem development • IoT and 5G • E-application for 5G • Deployment of 5G in Broadband Technology • Technical Business & Regulatory Aspects of 5G Networks

C. Artificial Intelligence (AI) • Artificial Intelligence for new and emerging ICTs • AI for Cybersecurity • Artificial Intelligence and Big Data Analysis • AI and 4th Industry Revolution • AI as a Service

Specific topics of interest requested by APT Members

D. IoT and Big Data • Internet of Things and its Platform and Applications • Internet of Thins and Big Data technologies • IoT for disaster management • IoT for Broadband and Communication • Data Analytics for Development of New Industry • Big Data (Data Analyst and Data Processing) • IoT Mainstream Application • Adopting Intelligence & IoT for new & emerging ICTs • Data Analytics for Small Businesses

E. Blockchain • Blockchain Technology as Economic Infrastructure • Block chain for New and emerging ICTs

F. E-application • Sharing best practices and applications on E-application • E-applications for Digital Engagements and Awareness • ICT Entrepreneurship, Small Business Innovation using E-application development • Mobile app development for e-Application

Specific topics of interest requested by APT Members

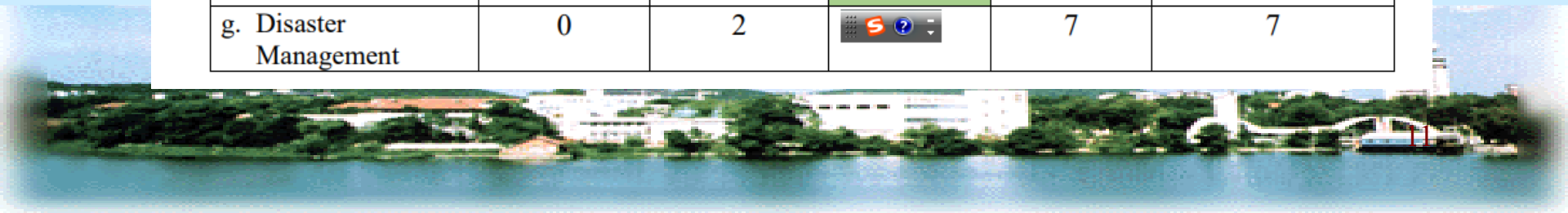
G. Disaster preparedness • E-applications for disaster management • Improvement of disaster telecommunication system enhancing emergency information management capabilities for and responding to natural disasters utilizing progressive ICTs' • Capacity Building to improve disaster preparedness, resilience, and response assuring continuous service delivery utilizing new and emerging ICTs • Enhance disaster communication system with advanced emergency information management capabilities for responding to natural disasters • Disaster communications technology management

H. Others • Best practices of ICT Regulation Organizations in foreign countries • Hands-on practical training on specific skills for emerging Telecommunication/ICT or Digital transformation • Developing Population Wide Digital skills • Digital economy measurement index • Satellite Communication • ICT Services to Achieve SDGs Goals and Address Digital Divide • Practical technology for rural telecommunications with wireless application • Radio Frequency Spectrum Management • Cyber Security techniques & ISO 2700 based Information Security Management System for Organization • Things to consider before putting cybercrime legislation in place • NGN Evolution Future Networks & Ultra Broadband Internet • Management of Personal Data • Basic-Intermediate Digital Skill (Digital Transformation) • Extended Reality (XR)

Each Member selected up to 10 Areas & Dimensions as showed in the matrix below. Cells requested from more than 8 countries are filled with color.

Many Members prefer trainings on policy making or emerging technologies rather than site visits.

	Increasing awareness of Policy and regulatory implication	Understanding new technologies and industry	Hands-on practical training on specific skills	Sharing best practices and applications	Observing actual implementation sites and collaborating with related organizations and others
a. Broadband communication	10	8	7	9	3
b. Spectrum management	9	7	6	9	3
c. New and emerging telecommunication /ICTs	10	13	8	6	4
d. E-application	3	5	8	6	3
e. Digital Skills	7	4	10	8	3
f. Cybersecurity	5	7	8	6	4
g. Disaster Management	0	2		7	7



Priorities in Asia-Pacific and Centres of Excellence

- The ICT technologies are standard round the world
- ICT is developing faster, is applied more and more widely; but the user penetration rate are different in regions
- the latest ICT have been applied in Asia-Pacific region, but digital gap is huge.

- Asia-Pacific region is a developed and developing area
- More people need to master ICT technologies such as 5G, broadband network, FTTH, smart city, cloud computer, network security etc
- More countries need to invest money in ICT training.

- The english capability is not good in Asia-Pacific region
- The people in Asia-Pacific region are not open

The suggestions for CoE Proposed process

Collect requirements	• Collect requirements from each country • Provide training courses to all countries
Assign tasks	• Assign tasks to each training center based on strength
Training preparation	• Prepare course materials • Upload training materials to APT website
Course pre-study	• Prepare course materials • Upload training materials to APT website • Student pre-study
Training	• Course and exercise • Project and discussion
Course post-study	• Provide feedback • Exam and post-study • Discussion board

The suggestions for CoE training course

- 1.The **ICTs are developing faster,** The **ICTs are applied more and more widely; the latest priority ICTs such as 5G, broadband network, FTTH, smart city, cloud computer, network security etc have been skills requirements in Asia-Pacific region.**
- 2.**CoE network is a good model for multi-stakeholder partnerships on capacity building, we need more CoE's in the delivery of the planned actions;**
- 3.**we need more public-private partnerships (industry, government, academia)to join forces Alignment of training to industry requirements**
- 4.**we need more flagship programs and engage potential partners for the delivery of these programs; The training program consists of lectures, practice and field trip by professional experts/companies to exchange experiences among participants.**
- 5.**we need provide platforms for dialogue and knowledge exchange in capacity building through ITU regional and global forums to share the training resource and infrastructure world wide with the ITU platform.**

ASIA-PACIFIC TELECOMMUNITY

International Telecommunication Union

Committed to connecting the world

THE IMPLICATIONS OF COVID19 ON THE CAPACITY AND DIGITAL SKILLS DEVELOPMENT

Suggestions for national and regional policy

1.It is recommended that a Framework or guidelines to be developed for Centre of Excellence (CoE) on how to deal with the training, support the CoEs and guide the implementation process as part of the respond to C19 and training planning process.

2.To assess on the short term impact on the CoEs in the region, a survey to be conducted to find out on how CoEs and the learners are coping with the pandemic. Based on the survey, the respective CoEs can assess how best the learning can be provided or supported to ensure the training programs that are delivered are effective and well received by the learners.

3.It is recommended that some kind of support or assistance from the ITU could be considered during the pandemic as a short term measure such as the content delivery or the support in term of the expertise to advice on the content development during the pandemic.

ASIA-PACIFIC TELECOMMUNITY

International Telecommunication Union

Committed to connecting the world

Dankon Terima kasih شكرا

Obrigado ขอบคุณ Danke Спасибо

Gracias **谢谢** Thanks

धन्यवाद Asante Sağol Merci

Cảm ơn bạn Salamat Mulțumesc

taozhiyong@fhxy.net.cn, azizawa@tm.com.my,