

How ICTs can help countries & companies to adapt to the effects of climate change



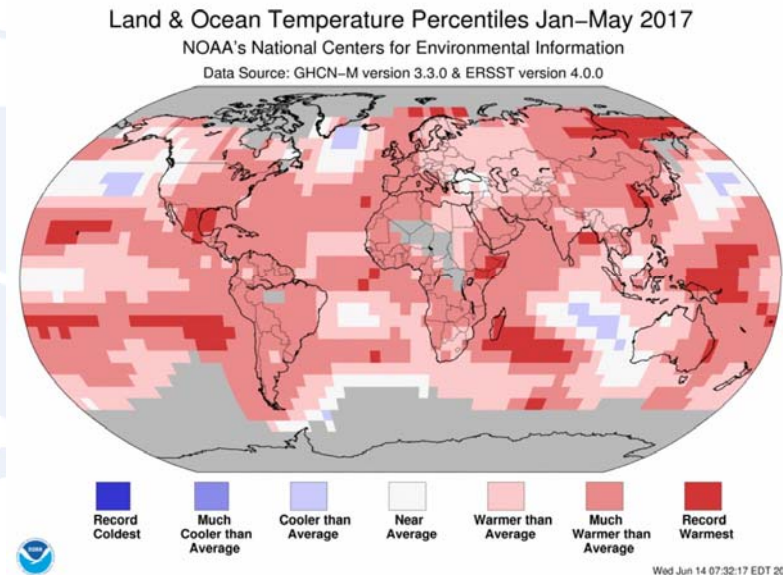
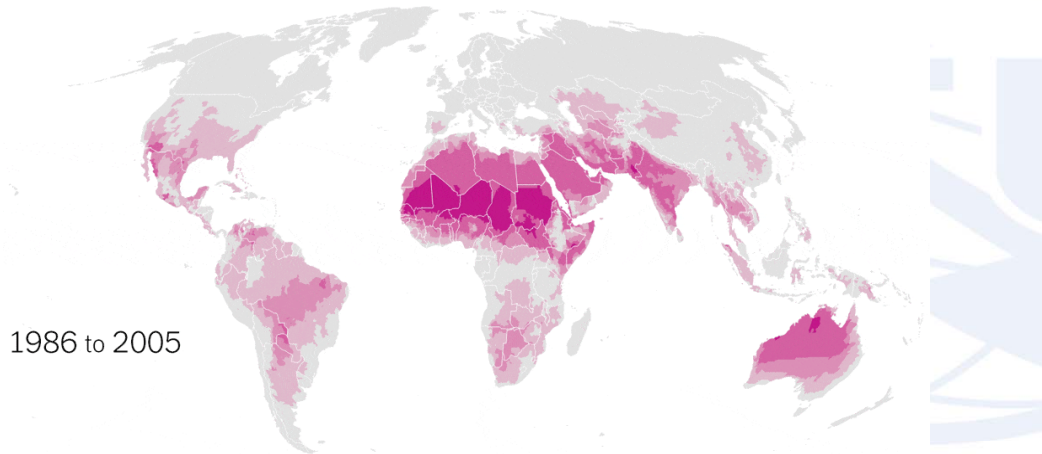
Nevine M. Tewfik
ITU-T SG5 Vice-chairman

The world is warming up...

Extreme heat expected to spread across world

Jan-May 2017 was 2nd hottest such period on record, after 2016

1986 to 2005



The Arctic is now expected to be ice-free by 2040



What can be done?

Information and Communication Technologies (ICTs), such as satellites, mobile phones or the Internet, are capable of playing a key role in **addressing environmental global challenges and sustainable development**.

By raising awareness of ICT's role in tackling environmental challenges including climate change, ITU-T is promoting innovative ICT solutions to environmental questions and is developing green ICT standards to support a sustainable future, in areas such as:



Assessment
of
environmental
impact of
ICTs



Climate
change
adaptation
and
mitigation



Energy
efficiency



E-waste

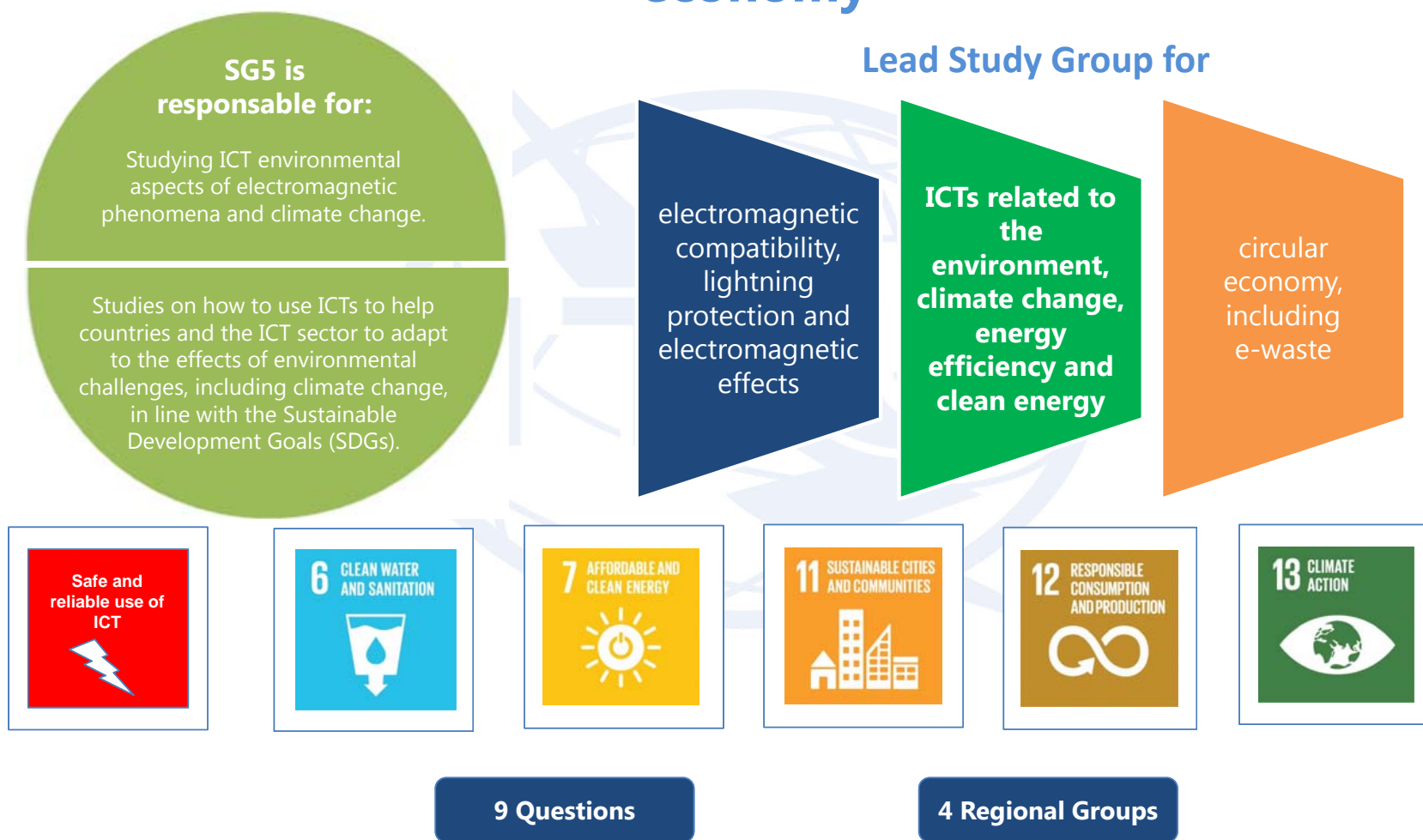


Smart
Sustainable
Cities



Smart Water
Management

ITU-T Study Group 5: Environment, climate change and circular economy



WP2/5 - Environment, Energy Efficiency and the Circular Economy



Q6/5 - Achieving energy efficiency and smart energy

Q7/5 - Circular economy including e-waste

Q9/5 - Climate change and assessment of information and communication technology (ICT) in the framework of the Sustainable Development Goals (SDGs)



Q9/5 - Climate change and assessment of information and communication technology (ICT) in the framework of the Sustainable Development Goals (SDGs)

Aims to develop assessment methodologies that allow objective, transparent and practical assessments of the sustainability impacts of information and communication technologies (ICTs).

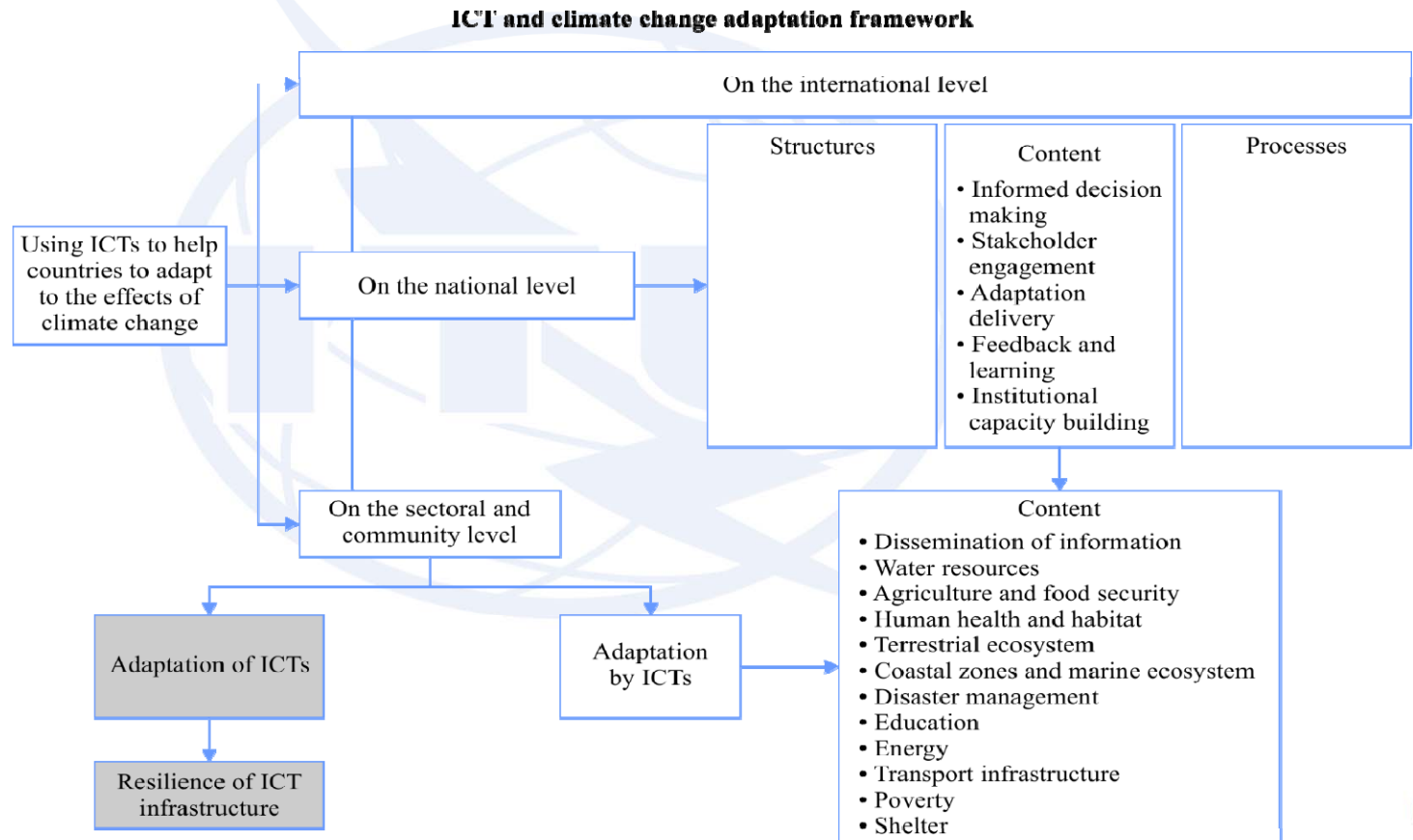
Q9/5 main study areas are:

- Analyse how ICTs could support the fulfilment of the SDGs, Connect 2020, Paris Agreement, etc.;
- Examine how the impacts of using ICTs could be assessed for the different verticals in relation to the effects of climate change (e.g. energy, agriculture, housing, fisheries, health, water, etc.);
- Explore how ICTs can be used in the adaptation of the different verticals to the effects of climate change (e.g. energy, agriculture, housing, fisheries, health, water, etc.);
- Identify best practices related to climate change adaption including but not limited to urban and rural areas (e.g. energy, agriculture, housing, fisheries, health, water, etc.)



Recommendation ITU-T L.1500 - Framework for ICTs and adaptation to the effects of climate

This framework identifies and defines the basis for the development of other Recommendations



Approved Recommendations and work in process

ITU-T L.1501 - Best practices on how countries can utilize ICTs to adapt to the effects of climate change

This Recommendation provides guidance on how information and communication technologies (ICTs) can help countries to adapt to the effect of climate change. It also provides a framework and a checklist for countries to integrate ICTs in their national climate change adaptation strategies.

ITU-T L.1502 - Adapting information and communication technology infrastructure to the effects of climate change

This Recommendation identifies direct and indirect threats of climate change on ICT services and provides options for adaptation and mitigation. These threats include extreme rainfall, flooding, landslides, extreme wind, lightning, extreme humidity, drought, ice storms and heavy snowfall.

ITU-T L.1503 - Use of information and communication technology for climate change adaptation in cities

This Recommendation identifies the impacts of climate change in cities and explains why cities need to adapt to its harmful effects.

Approved Recommendations and work in process

ITU-T L.1504 –ICT and adaptation of agriculture to the effects of climate change

This Recommendation provides a description of how the use of ICT can help sustain the agricultural sector in the event of poor yields or disasters triggered by climate change. It also describes the possible impacts of climate change on agriculture and farming communities. It contains an outline of what measures are needed to adapt the sector and how ICT can play a role in this.

Supplement 24 - ITU-T L.1500 - Overview of climate change effects and possible impacts

This Supplement aims at offering a better understanding of climate change effects that could assist in the development of national reports and recommendations related to adaptation, as well as be used as a reference to relevant decision makers and other recommendations.

Supplement 25 - ITU-T L.1502 - Best practices for infrastructure adaptation to climate change

This Supplement provides general principles and illustrates best practices on how ICT infrastructure can be adapted to cope with the effects of climate change.

L.CCRisk - Framework of climate change risk assessment for telecommunication and electrical facilities

This Recommendation will aim to describe specification for assessing the climate change risks of telecommunication and electrical facilities (as they are fundamental for the delivery of communication services) including overview, requirements and climate change risk assessment models.

Technical report on “Information & Communications Technology for Climate Change Adaptation in Cities”

First document of its kind : Cover Cities & includes practical examples of ICTs for climate change adaptation

- It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change

Adaptation



- Is the degree to which geophysical, biological and socio-economic systems are susceptible to, and unable to cope with, adverse impacts of climate change

Vulnerability

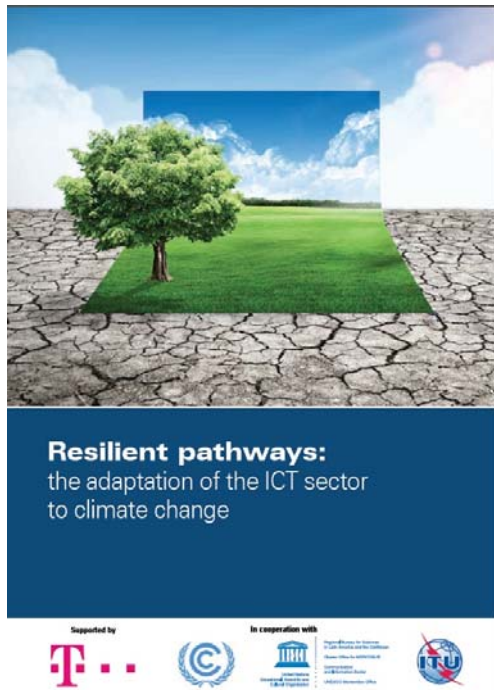


- The ability of a system to adjust to climate change, to moderate potential damages, to take advantage of opportunities, or to cope with the consequences

Adaptive
Capacity



Report on Resilient pathways: the adaptation of the ICT sector to climate change



The main objective of this report is to explore the impacts of climate change on the ICT sector and the potential for adaptation, while emphasizing the need for resilient pathways of action, enabling environments and new standards to foster the sector's approach to adaptation.





Thank you

**ITU-T, Environment
Climate Change and
Circular Economy**

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