



**DRAFT REPORT of the**

**ITU REGIONAL TRAINING WORKSHOP ON ICT AND CLIMATE CHANGE MITIGATION AND ADAPTATION IN  
ARAB REGION**

**TUNIS, TUNISIA 12-13 JULY 2017**

**MAIN OUTCOMES**

**1. Introduction**

The ITU Regional Training Workshop on ICT for Climate Change Mitigation and Adaptation in Arab Region was organized in collaboration with the Tunis-International Center for Environmental Technologies (CITET) in Tunis- Tunisia during 12-13 July 2017.

The overall objective of this training workshop was to build skills on the required actions for Climate Change mitigation and adaptation and the role that ICT plays in tackling it. In addition, the event was aiming to explain the underlying concepts and the role that a wide range of stakeholders should play in developing the policies, technologies and standards that will improve energy efficiency, reduce greenhouse gas (GHG) emissions through a range of mitigating technologies, and enable countries and societies to better adapt to climate change.

**2. Participation**

The workshop was attended by more than 40 participants representing 4 different Arab countries, 3 UN agencies and two thirds of them were from sectors: specifically environmental, transport and energy sectors.



### 3. Documentation

The workshop was paperless. 28 presentations were delivered during the training workshop. Relevant documentation, including Agenda, Presentations, photos and final report are made available at the event [website](#).

### 4. Opening and welcome Remarks

- Dr Amel JRAD, General Manager, Tunis-International Center for Environmental Technologies (CITET) welcomed the workshop's participants in Tunisia and CITET. Mrs JRAD highlighted the objectives of the workshop, its expected results and the importance of its main theme "Climate Change". During her speech she emphasized the importance of the cooperation of CITET with UN agencies and international organizations such as ITU. Mrs JRAD showed CITET

- has willingness to collaborate with ITU in implementing its vision and working on issues related on Climate Change and environmental protection.
- Dr Bilel JAMOUCSI, Chief of ITU-T SGs and ITU-T Focal Point for the Arab Region, addressed the workshop and welcomed the ministers, participants and experts to the workshop. Dr. Jamoussi highlighted the activities of the ITU in the relevant fields of the workshop as well as its partnerships with regional and international organizations including UN agencies who are working and actively engaged in the field of climate change.
  - The Communication Technologies and Digital Economy minister's representative, Mr Habib Debbabi, the Secretary of State, welcomed the participants from Arab region; thanked ITU and CITET for this initiative to bring Environment and ICT together in one platform, to discuss one of the importance issues to people, which is climate change.
  - The workshop was officially opened by H E Mr Riadh Mouakher, Minister of Local Affairs and Environment-Tunisia. During his speech, Mr Mouakher welcomed the participants from the Arab region, thanked ITU and CITET for this joint initiative in a very important subject, which is Climate Change. Mr Mouakher emphasized ICTs role on environment protection and the cooperation between ICT and Environment sectors. The minister asked the participants to benefit from the ITU experts, who were present at this meeting, and to share their experiences specifically on the national concern of GHG emissions and efficiency energy. In his concluding words, Mr Mouakher called upon the participants to come up with a clear declaration, including recommendations and action plan, to be implemented by ITU, CITET and members of sectors.

## 5. Main issues discussed:

- 5.1 The workshop served as a platform for discussion between key players of the ICTs, transport and environmental sectors and discussed the emerging issues and best practices for the role for ICTs for Climate Change mitigation and Adaptation.
- 5.2 The workshop provided an opportunity for policy makers and other participants from ICTs, Environments, Transport and Energy sectors to discuss and debate on best approach to benefit from the upside of the ICTs in these sectors.
- 5.3 Below are the main outcomes of the training programme:

### 5.3.1 Session1: Overview of ICT and Climate Change:

- The necessity of Arab countries to cooperate and unify their vision on combating climate change and greenhouse gas emissions, adapting them and mitigating their effects using ICTs in accordance with the principle of joint responsibility of Arab countries.
- Technology and knowledge transfer for the benefit of the environment is needed and requested ITU and CITET to play their role on this domain.

### 5.3.2 Session2: Evidence for Climate change and link to ICTs

- Develop new legislation to allow new solutions to exist (e.g. changes in taxation to favour use of electric vehicles)
- Concern expressed about impacts of climate change on the next generation (mitigation measures may not be enough to ensure sustainable food supply)
- Further studies are needed on what adaptation measures are needed and how ICT can play a role in this

### **5.3.3 Session 3: Roles of Stakeholders**

- Promoted use of ITU Toolkits for Smart Sustainable Development.
- Disaster mitigation-early warning systems (e.g. for floods in North West Tunisia) were discussed
- Tunisia's Paris accord commitments need implementing (communication needed) and requested ITU to support this.
- Discussion about how to engage with the next generation on knowledge and technology transfer including future job opportunities (possible large scale workshop as a follow-up to this).
- Participants emphasized the importance of collaboration on Climate Change.

### **5.3.4 Session 4: Roles of Policymakers and Regulators in ICT&CC**

- Leadership in policy making at national level is essential to meet the commitments made under the Paris accord (What laws and regulations should be changed?)-examples given such as ubiquitous fast broadband
- Energy regulators: to switch away from fossil fuels for the power grid and encourage decarbonisation of the transport sector
- Call for CITET to join the regional group for the Arab region

### **5.3.5 Session 5 Telecom/ICT Service Provider Strategies**

- Discussion on Energy efficiency of Telecom networks and how to reduce energy consumption while the amount of data transmitted doubles every two years
- Discussion on how to provide mobile network coverage by means of implementing infrastructure sharing
- Stressed the importance of publishing sustainability reports each year with reference to carbon emissions and energy consumption

### **5.3.6 Session6: Green ICT strategies**

- As lower producer of GHGs, for Tunisia adaptation is more important than mitigation
- Survivability of electricity and telecoms networks are fundamental to maintaining services in all sectors during extreme weather events
- Need for a strategy which is tailored to the needs of Tunisia and to the benefit of other countries such as e-waste?
- Home grown diagnostic studies are needed to reveal short, medium and long term benefits so that the easy-win mitigation projects can go forward first
- Consider involving academic institutions such as ESPRIT
- Laws on renewable energy need to be updated

- A dashboard is needed to highlight parameters and projects which need to be implemented

### 5.3.7 **Session7: Measuring the Impact of ICT on Climate Change**

- A source of Carbon factors for GHG annual emissions with focus on Arab states, including electricity is needed
- Discussion on the GHG impacts in relation to where technology is sourced from (the producer country) and where the technology is used (the user country)
- Discussion on electricity consumption of technologies (use-phase) and whether or not the manufacturer specifies the power consumption (in Watts)
- Interest was shown in the energy consumption of different types of message (e.g. text versus email)
- Strategic motivations for companies to become energy efficient are needed

### 5.3.8 **Session 8: Best practices on sustainable energy/electricity generation in various countries**

- Focus was on increasing use of renewable energies
- A vast potential source of solar capacity was identified (280 GW), most of which could be exported
- Sustainability also includes consideration of EMF measurements and human wellbeing

## 6. Conclusions and Recommendations

- As conclusion to the training workshop, the last session of the workshop was held as panel discussion. The ITU representative and CITET general manager read this statement (Arabic version- [click here](#)) to the participants.
- The participants were very interested in the sessions and had come-up with many recommendations on issues around use of ICTs for climate change mitigation and adaption. These recommendations include:
  1. The necessity of the Arab countries to cooperate and unify their vision to confront climate change and greenhouse gas emissions, and to adapt and mitigate them, using ICTs in accordance with the principle of joint responsibility of the Arab countries,
  2. The need for close cooperation between ministries responsible for ICTs and ministries responsible for the environment and sustainable development.
  3. The need for cooperation between ITU, international and regional institutions, including United Nations organizations and civil society working in the fields of environmental protection and climate change.
  4. The need for the contribution of research and technological centers in ITU activities and studies.

5. The positive role of ICT studies in reducing greenhouse gas emissions, which is 10 times greater than the contribution of ICT equipment to greenhouse gas emissions,
6. The importance of human and institutional capacity-building programs and awareness programs in the role of ICTs in climate change, environmental protection and transfer of knowledge.
7. The importance of the role of the Tunis International Center for Environmental Technology (CITET) as one of the main actors in the fields of capacity building, exchange of expertise, technology innovation and transfer in the fields of environmental protection and sustainable development in general and climate change in particular, at the Arab and African levels.
8. The importance of the participation of the Tunis International Center for Environmental Technology in the work of ITU-T Study Group 5 and its regional groups for the Arab and African region.
9. Call the CITET to host the next Green Standards Week in cooperation with the ITU Standardization Sector and the Arab Regional Office.
12. The importance of the participation of the CITET in the implementation of the proposed Arab Regional Initiative of the International Telecommunication Union on the environment and electronic waste for the period 2018-2021 through the implementation of awareness-raising activities and the formulation of relevant policies and strategies.
13. Call for CITET to consider joining the Union for Smart and Sustainable Cities (U4SSC).
14. The need to formulate a regional strategy for the Arab region on the role of ICT to deal with climate change based on coordinated and ambitious action plans that balance adaptation and mitigation.
15. Attention should be given to assisting the least developed Arab countries in formulating their national plans and guidelines related to the use of ICTs to mitigate and adapt to climate change.
16. Invite the Arab Regional Office of the ITU, TSB and in cooperation with the CITET to develop a practical and time-bound plan for the implementation of the priorities mentioned in the workshop's statement.

## **7. Closing:**

Dr Amel JRAD, General Manager, Tunis-International Center for Environmental Technologies (CITET) officially closed the workshop and thanks the ITU, participating countries, CITET staff for their excellent work to the successful organization of the workshop.

ITU representative, Dr Bilel delivered the closing speech on behalf of the ITU.

All speakers and participants were thanked for their contributions to the workshop sessions and their active participation in the hot debate and discussions.

ITU representative, speakers and participants thanked CITET for its kind host of the workshop and for their warm hospitality during the 2-days event and their stay in Tunis.