



# ADVANCING SUSTAINABLE DEVELOPMENT THROUGH INFORMATION AND COMMUNICATION TECHNOLOGIES: WSIS ACTION LINES ENABLING SDGs

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# FOREWORD

It is my pleasure to present this ITU publication: Advancing Sustainable Development through Information and Communication Technologies: WSIS Action Lines Enabling SDGs, which is a unique global repository of best practices showcasing ICTs as enablers of sustainable development.

Ten years ago, at the World Summit on the Information Society (WSIS), which took place in two phases (Geneva, 2003 and Tunis, 2005), world leaders adopted a common vision towards achieving a people-centred, inclusive and development-oriented Information Society. The fundamental aim of the WSIS process was to foster the use of technology to improve peoples' lives and to bridge the digital divide.

The WSIS Stocktaking Process was introduced to monitor implementation of the WSIS Action Lines and to showcase how ICTs can foster development. The WSIS Stocktaking portal is a unique global platform that provides an international register of ICT projects and activities carried out by governments, international organizations, the business sector, civil society and other entities.

Information and communication technologies (ICT) have clearly demonstrated their value as cross-cutting facilitators and enablers of economic growth and development. However, major challenges still lie ahead in counteracting the wide disparities in development while enabling all groups and countries to benefit from universal access to information and knowledge. At the same time, it is of critical importance now to link the WSIS process to the post-2015 sustainable development framework.

During WSIS Forum 2015, we had an opportunity to draw direct linkages between the WSIS Action Lines and the proposed post-2015 UN Sustainable Development Goals (SDGs) and to leverage the impact of ICTs in achieving sustainable development. The WSIS Action Lines – SDGs Matrix, which received widespread acclaim at the Forum, indicates the potential of ICTs as enablers for sustainable development along with reporting success stories related to the implementation of WSIS Action Lines.

The many stakeholders who have implemented innovative projects and contributed to the success of the WSIS Stocktaking Process deserve our sincere gratitude. I urge them, along with Member States, international organizations, the private sector, civil society, and aca-

demia to continue submitting such contributions in the future, with an emphasis on strengthening the synergies between the WSIS Action Lines and the newly proposed Sustainable Development Goals. ITU remains dedicated to furthering this process, certain that other stakeholders will find it insightful and stimulating to participate in the construction of a broader and more inclusive information society for all.

The International Telecommunication Union is deeply committed to advancing the WSIS process, and to the implementation of the WSIS goals beyond 2015. ITU recognizes and highly appreciates the extremely valuable contributions that have enabled the ongoing monitoring and reporting of WSIS-related projects.

I invite you to explore how WSIS Action Lines are capable of advancing particular Sustainable Development Goals. As part of a growing WSIS stakeholder community, with close to 140,000 stakeholders worldwide, you will benefit from sharing interesting case studies, experiences and models for the implementation of ICT projects leading towards sustainable development. You will also find some of the most recent success stories listed in this booklet, which clearly demonstrate the power of ICTs in making sustainable development a reality. I also encourage you to explore the WSIS Stocktaking portal ([www.wsis.org/stocktaking](http://www.wsis.org/stocktaking)), in order to search for many more exciting projects among the 7,000 WSIS-related entries, and to share your own success stories with us.



**Houlin Zhao**  
*ITU Secretary-General*



# WSIS-SDG MATRIX

## LINKING WSIS ACTION LINES WITH SUSTAINABLE DEVELOPMENT GOALS

This mapping exercise draws direct linkages of the WSIS Action Lines with the proposed SDGs to continue strengthening the impact of Information and Communication Technologies (ICTs) for sustainable development.

Each UN Action Line Facilitator has analyzed the connections and relations of their respective Action Line with the proposed SDGs and their targets. The goal is to create a clear and direct link and an explicit connection between the key aim of the WSIS, that of

harnessing the potential of ICTs to promote and realize the development goals, and the post 2015 development agenda, so as to contribute to the realisation of the latter.

*Methodology: UN Action Line facilitators have created a direct link and have derived all possible linkages between the Action Lines and the SDGs. The matrix presented maps the linkages with a rationale for each. Please read the complete document at [www.wsis.org/sdg](http://www.wsis.org/sdg)*

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ACTION LINE  
C1



THE ROLE OF GOVERNMENTS AND ALL STAKEHOLDERS IN THE  
PROMOTION OF ICTS FOR DEVELOPMENT



GOAL 1, 3.8, 3.D, GOAL 5, 10.C, 16.5, 16.6, 16.10, 17.18



ACTION LINE  
C2



INFORMATION AND COMMUNICATION INFRASTRUCTURE:  
AN ESSENTIAL FOUNDATION FOR THE INFORMATION SOCIETY



1.4, 8.2, 9.1, 9.A, 9.C, 11.5, 11.B



ACTION LINE  
C3



ACCESS TO INFORMATION KNOWLEDGE



GOAL 1, GOAL 2, GOAL 3, GOAL 4, GOAL 5, GOAL 6, GOAL 7, GOAL  
8, GOAL 9, GOAL 10, GOAL 11, GOAL 12, GOAL 13,  
GOAL 14, GOAL 15, GOAL 16, GOAL 17



ACTION LINE  
C4



CAPACITY BUILDING



1.B, 2.3, 3.7, 3.B, 3.D, 4.4, 4.7, 5.5, 5.B, 6.A, 12.7, 12.8,  
12.A, 12.B, 13.2, 13.3, 13.B, 14.A, 16.A, 17.9, 17.18



ACTION LINE  
C5



BUILDING CONFIDENCE AND SECURITY IN THE USE OF ICTS



1.4, 4.1, 4.3, 4.5, 5.B, 7.1, 7.A, 7.B, 8.1, 9.1,  
9.C, 11.3, 11.B, 16.2, 17.8



ACTION LINE  
C6



ENABLING ENVIRONMENT



2.A, 4.4, 5.B, 8.2, 8.3, 9.1, 9.C, 10.3, 11.3, 11.B, 16.3, 16.6,  
16.7, 16.10, 16.B, 17.6, 17.14, 17.16



ACTION LINE  
C7



ICT APPLICATIONS: E-GOVERNMENT



9.C, 16.6, 16.7, 16.10, 17.8



ACTION LINE  
C7



ICT APPLICATIONS: E-EMPLOYMENT



4.5, 8.5, 10.2, 12.6, 17.9



ACTION LINE  
C7



ICT APPLICATIONS: E-ENVIRONMENT



9.4, 11.6, 11.B, 13.1, 13.3, 13.B, GOAL 14, GOAL 15



ACTION LINE  
C7



ICT APPLICATIONS: E-AGRICULTURE



1.5, 2.3, 2.4, 2.A, 3.D, GOAL 4, 5.5, 8.2, 9.1, 9.C,  
12.8, 13.1, 13.3, 17.16, 17.17



ACTION LINE  
C7



ICT APPLICATIONS: E-SCIENCE



1.5, 4.7, 6.1, 6.A, 7.A, 13.1, 13.2, 13.3, 14.A, 15.9, 17.6, 17.7



ACTION LINE  
C7



ICT APPLICATIONS: E-BUSINESS



1.4, 2.3, 5.B, 8.3, 8.9, 8.10, 9.3, 17.11



ACTION LINE  
C7



ICT APPLICATIONS: E-LEARNING



GOAL 4



ACTION LINE  
C7



ICT APPLICATIONS: E-HEALTH



1.3, 1.4, 1.5, 2.1, 2.2, GOAL 3, 3.3, 3.8, 5.6, 5.B, 17.8, 17.19



ACTION LINE  
C8



CULTURAL DIVERSITY AND IDENTITY,  
LINGUISTIC DIVERSITY AND LOCAL CONTENT



2.5, 4.7, 6.B, 8.3, 8.9, 11.4, 12.B



ACTION LINE  
C9



MEDIA



5.B, 9.C, 12.8, 16.10



ACTION LINE  
C10



ETHICAL DIMENSIONS OF THE INFORMATION SOCIETY



1.5, 2.3, 3.8, 4.7, 5.1, 8.6, 9.1, 10.2, 10.3, 11.3, 12.8, 13.3,  
16.7, 16.10, 17.6, 17.7, 17.8, 17.18, 17.19



ACTION LINE  
C11



INTERNATIONAL AND REGIONAL COOPERATION



17.9, 17.16, 17.17

# **GOAL 1**

## **END POVERTY IN ALL ITS FORMS EVERYWHERE**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

- 1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance
- 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters
  - 1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions

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### **RELATED WSIS ACTION LINES:**

- C1: The role of governments and all stakeholders in the promotion of ICTs for development
- C2: Information and communication infrastructure: an essential foundation for the Information Society
  - C3: Access to information knowledge
  - C4: Capacity building
- C5: Building confidence and security in the use of ICTs
  - C7 ICT Applications: e-business
  - C7 ICT Applications: e-health
  - C7 ICT Applications: e-agriculture
  - C7 ICT Applications: e-science
- C10: Ethical dimensions of the Information Society

## SUCCESS STORIES FROM THE FIELD ADVANCING SUSTAINABLE DEVELOPMENT

The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 1, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).

ICTs are one of the key enablers to achieve target 1.4, aiming at ensuring equal rights to economic resources, especially for the poor and the vulnerable, as well as ownership and control over different forms of property. ICT-related initiatives provide timely and accurate information services for increased income, as in the project **Market information for African producers (NKALO)**, developed by RONGEAD, targeting particularly small producers, vulnerable to price volatility and its negative consequences.



The Nkalo market intelligence service provides information to producers for fair trade throughout the value chain; it integrates trainings, information access and advice adapted to the needs of all actors along the chain (from farm to fork), aiming at reducing poverty for African farmers by enhancing their sale strategy. In partnership with Orange, mobile network operator, and CTA (Technical Centre for Agricultural and Rural Cooperation), a short code registration and a call-centre are used to reach more than 100 000 clients in **Ivory Coast** and **Mali**.



In order to allow people to access the available economic resources, they need to be equipped with skills and competencies. Therefore, *Capacity Building* plays a central role, ensuring that ICTs are integrated in education and training at all levels. Furthermore, e-business services – such as digital currency and mobile payments – could be poverty reduction solutions, empowering SMEs, youth and women entrepreneurs to have equal rights to economic resources.

While striving to reach sustainable development, it is fundamental to build the resilience of the poor and to reduce their exposure and vulnerability to climate-related extreme events, as stated by target 1.5. *Food and Agriculture Organization of the United Nations (FAO)* has developed a project to allow early warning and preventive control to reduce the frequency and duration of devastating Desert Locust plagues that threaten food security and livelihoods in **Africa** and **Asia**.

Another example of how ICTs can bridge SDG 1 is **eLocust3** - a special tablet used by national survey and control teams in 30 countries, to record and transmit field data in real time from some of the remotest areas on Earth to decision-makers and forecasters so that action can be taken and alerts and warnings can be issued. It represents a success story that has adopted the latest technologies in developing a useful tool used on a daily basis in developing countries, enabling better decision making to avert catastrophes.

Comprehensive policy frameworks at all levels, based on pro-poor and gender-sensitive development strategies, could make a difference through supporting accelerated investment in poverty eradication actions, as proposed by target 1.b; a good example from the field, is the **Vive Digital Plan**, a country-wide public policy plan launched in 2010, by the *Ministry of Information and Communication Technology* in **Colombia**. The project aims at reducing poverty and creating jobs through increased Internet use across all segments of the Colombian population, with a special focus on lower-income residents.



This ICT initiative is also an example of good practice with the key role of government and other stakeholders in the promotion of ICTs for development; such projects and initiatives may contribute to narrow existing and emerging socio-economic inequalities by providing affordable public e-services to all people. For the period 2014 - 2018, Vive Digital has been focusing on becoming a world leader in the development of applications with social impact for lower-income segments, while increasing efficiency and transparency in government through the use of ICTs. Multiplying by three the number of broadband connections, from 8.8 million in 2014 to 26 million by 2018, and increasing household Internet penetration, from 50 per cent in 2014 to 63 per cent by 2018, furthermore, increasing the Internet penetration of small to medium-sized businesses (SMBs), from 60 per cent to 70 per cent by 2018, and finally, reaching every municipality in Colombia with 4G technology and free public Wi-Fi, are just some of the key objectives of this initiative.

## **GOAL 2**

# **END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries

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### **RELATED WSIS ACTION LINES:**

C3: Access to information knowledge

C4: Capacity building

C6: Enabling environment

C7 ICT Applications: e-business

C7 ICT Applications: e-health

C7 ICT Applications: e-agriculture

C8: Cultural diversity and identity, linguistic diversity and local content

C10: Ethical dimensions of the Information Society



The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 2, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).



Agriculture extension services in **Bangladesh** are highly dependent on extension agents and entail many challenges, such as access to poor farmers. Cellular telephony is a rapidly expanding means of communication in Bangladesh that already accounts for over 120 million subscribers. **Krishi Call Centre** (Agriculture Call Centre) is a public-private initiative that goes in the direction of SDG 2, by aiming at ending hunger and achieving food security through the promotion of sustainable agriculture. It is based on the toll-free short number 16123; for the provision of easy, rapid, real-time and low-cost extension services to all farmers, particularly smallholders and the marginalized. By December 2014, it had received 64 000 calls at the rate of 3000 calls per month: it is clear – from the rapidly increasing uptake – that farmers are satisfied with the services provided.

E-agriculture has a great potential to ensure the availability of information to all, to increase networking and partnership, and to raise awareness on sustainable development; is also supports information gathering, analysis, planning and supply systems necessary for nutrition information and interventions to be delivered.

To increase agricultural productivity and incomes of small-scale food producers (target 2.3), in **Trinidad and Tobago**, the **Agri-NeTT** project is geared toward research and development on Intelligent Decision Support for Enhancing Crop Management. By the St. Augustine campus of the *University of the West Indies*, the project aims at increasing food production through collaborative ICT research and development. The AgriNeTT team is currently building mobile apps and Web-based applications that can assist farmers and policy makers. With a view to address the data gap, an Open Data Repository has been developed to house agriculture data on a national level. The

repository will house different data sets from institutions and associations, including farm level production data, commodity prices and volumes, farm land spatial data, soils, weather, and pest and diseases tracking data. This initiative started in 2014, and is set to run until 2018.



Another project in line with SDG 2, and in particular with target 2.a, aiming to increase investments in rural infrastructure and agricultural research, is the **Techno-links for Improved Access and Income**. The project aims at helping local businesses develop financial and technology-related products and services so that they can better respond to the needs of smallholder farmers and enterprises in **Zambia, Nicaragua and Peru**. The expected outcomes for this project include: rural households, enterprises and farmers, including women, demonstrating increased usage of new technologies and financial services to increase their productivity, build assets and/or mitigate risk; enhanced capacity of local partners (private-sector providers of financial or agriculture support services) to provide appropriate and more diversified products and services to rural households, enterprises and farmers, including women; and technology-based products and services being integrated into competitive agricultural value chains, with results, methodologies and lessons learned being shared with a range of audiences.



Certainly, to allow ICTs playing such a central role, policies and regulations must contribute to reducing barriers to broadband development, facilitate build-out of national fibre-optic networks and international connectivity links.

# **GOAL 3**

## **ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

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### **RELATED WSIS ACTION LINES:**

C1: The role of governments and all stakeholders in the promotion of ICTs for development

C3: Access to information knowledge

C4: Capacity building

C7 ICT Applications: e-health

C7 ICT Applications: e-agriculture

C10: Ethical dimensions of the Information Society



The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 3, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).

ICTs can be crucial in fulfilling the aim of SDG 3, which deals with the promotion of healthy lives and well-being for all the ages; the **Online Toxicology Analysis Requests & Results System (OTARR)** implements a fully integrated Online Toxicology Analysis that automates all services provided by the Poison Control and Forensic Chemistry Centers across the **Kingdom of Saudi Arabia**. This includes installing, configuring and integrating with the Laboratories information management system (LIMS); as well as implementing and integrating with call center and IVR systems and providing medical libraries related to toxicology to PCC staff.



OH demonstrates how ICTs may contribute to achieving higher level in patient's management, above all in places where it is difficult to manage personal data, or recognize the patient in a second department hospitalization, follow his medical history, or to help doctors save and find therapies. However, while offering the broadest possible access to medical services, adequate safeguards to ensure informed choice and the protection of privacy and personal data become an ethical imperative.

Facilitating access to medical knowledge and content resources may strengthen public health research and prevention programmes, strengthening the development of health workforce in developing countries, as proposed by target 3.c. **Infomed** is the name of the first electronic health information network in **Cuba**, which emerged as part of a project to facilitate the electronic exchange of information between a set of libraries, information centres and other entities that make up the *National Information System of Medical Sciences* in the Ministry of Health. An important aim of the project is to design a national strategy to improve Cuba's health information services and consolidate an information and knowledge system supported by a network of institutions and individuals involved in its construction. Part of that aim involves enhancing the quality of the sources, information products and services, ensuring universal access, developing lifelong learning and health research, as well as continuously improving the technical, logistical and organizational infrastructure and ensuring its efficient and safe use, while at the same time strengthening interaction between the system and other national and international networks.



Developed by the *Ministry of Health*, the project highlights how e-health strategies may assist decision makers in health planning; indeed, multiple governmental agencies are sending requests and checking results through this integrated system (e.g. Ministry of Interior, Ministry of Finance, Ministry of Civil Services, Ministry of Justice, General Prosecution and investigation Department, Industrial Safety Sector, Saudi Airlines, etc.). The enablement of these e-Services results in Improvement of Patient Care by supplying essential guidelines regarding diagnosis and management of poisoned patient, overcoming shortage of poisoned patient's clinical data, speeding TAT of Toxicology Analysis and swift delivery of PCC analytical work result with prioritization of cases.

As reported in target 3.8, it is fundamental to provide access to quality essential health care services and to essential medicines and vaccines for all; the project **Open Hospital** really goes in that direction. It is an open source, free software by *Informatici Senza Frontiere* for hospitals daily management in developing countries, currently installed and used in several hospitals in **Africa** and **Middle East**. A collaboration agreement between ISF and some big NGOs will promote the diffusion of the software in many other African hospitals. It is also used in **Italy**, for the management of particular realities, providing medical services for immigrants without residence permit and health card.



## GOAL 4

# ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

## RELEVANT TARGETS:

- 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
- 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
- 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
- 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
- 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

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## RELATED WSIS ACTION LINES:

- C3: Access to information knowledge
- C4: Capacity building
- C5: Building confidence and security in the use of ICTs
- C6: Enabling environment
- C7 ICT Applications: e-learning
- C7 ICT Applications: e-employment
- C7 ICT Applications: e-agriculture
- C7 ICT Applications: e-science
- C8: Cultural diversity and identity, linguistic diversity and local content
- C10: Ethical dimensions of the Information Society



The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 4, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).



According to target 4.4, under SDG 4, youth should have relevant skills, for employment, decent job and entrepreneurship. In this spirit, the *Center for Agricultural and Rural Cooperation (CTA)* has developed the **Agriculture, Rural Development and Youth in the Information Society (ARDYIS)** programme. The project has been supporting youth from **African, Caribbean and Pacific** countries, aiming to strengthen youth engagement and opportunities in agriculture using ICTs. Launched in 2010, it targets youth under 35 years, ensuring inclusive and equitable education through training, agricultural blog competitions



(YoBloCo Awards), ICT for agriculture application development followed by incubation (AgriHack), networking, etc. The project is enhancing youth engagement in various agricultural activities; and increasing online content on local agricultural issues and innovations via more than 200 blogs created. The program's network comprises about 4000 people, of which 300 young developers who were increased their capacity in ICT4Ag entrepreneurship. The development of a new generation of educated and technology-savvy workforce should

be facilitated by ICT policies and legislation which conceive a policy environment enabling innovation, entrepreneurship, investment and growth.

The focus on the development of general and specialized programs to eradicate illiteracy using ICTs should increase the number of people with relevant skills, therefore facilitating employment and entrepreneurship. Another good example from the field is **Digital Literacy for Social Inclusion (DLSI)**. By *Informatici Senza Frontiere (ISF)*, the project aims to reduce the digital divide and IT illiteracy among the most vulnerable members of society, including the elderly, drug addicts under the care of health communities, people with severe diseases, quadriplegics, ALS sufferers, children at risk of criminality, blind people, persons with disabilities, such as those affected by Down's Syndrome, and young people in other countries such as **Albania, the Congo, Italy, Mozambique, Nigeria, Sierra Leone**, and others. It features the free-of-charge setting up of computer laboratories by ISF and local or remote training by ISF operators, leading ultimately, where possible, to the European e-Citizen exam, providing inclusive and equitable education. By doing so, the project is particularly in line with target 4.5, aiming at ensuring equal access to levels of education and vocational training for the vulnerable, including persons with disabilities.



**GO\_PRO!**, in **Poland**, is a best practice highlighting the fundamental role ICTs can have towards sustainable development. The project has created a network of 20 libraries with Regional Programming Centers; preparing librarians to lead workshops and non-formal groups (Coders Clubs) dedicated to develop programming skills for youth. Libraries are equipped with interactive projectors, computers, tablets, logarithm applications, and Lego Mindstorms to attract youth. Training material was also developed, together with a Coder Club Animators toolkits. In cooperation with several IT companies and local public entities, GO\_PRO! has been developed as a permanent program to stimulate IT development, by attracting youth, especially in underdeveloped regions, bringing a more inclusive and equitable education through the use of ICTs.

# **GOAL 5**

## **ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

- 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life
- 5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences
- 5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

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### **RELATED WSIS ACTION LINES:**

- C1: The role of governments and all stakeholders in the promotion of ICTs for development
- C3: Access to information knowledge
- C4: Capacity building
- C5: Building confidence and security in the use of ICTs
- C6: Enabling environment
- C7 ICT Applications: e-business
- C7 ICT Applications: e-health
- C7 ICT Applications: e-agriculture
- C9: Media
- C10: Ethical dimensions of the Information Society

The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 5, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).



In **Nepal**, achieving gender equality and empowering all women and girls is a major goal of an interesting private-sector initiative: **Fight Violence Against Women (FightVAW)**. This ICT-based initiative provides the victims of violence against women (VAW) with an alternative means of reporting their case by telephone, SMS or online. It uses an integrated case management system to assist victims of VAW and organizations engaged in reducing its impact in Nepalese society. FightVAW brings together government stakeholders, donor agencies, development partners and social organizations, using ICT to address the VAW that continues to threaten the attainment of SDG 5; all of the aforementioned are engaged in a collaborative effort to mainstream the project to government in the interests of ensuring a sustainable approach to addressing VAW. This initiative seems to be particularly related to target 5.2, aiming at eliminating all forms of violence against all women and girls in the public and private spheres.

Aiming at ending all forms of discrimination against women everywhere, SDG 5 finds relevancy also in WSIS Action Line C10, Ethics; digital platforms are key to social participation, all barriers to women participation in virtual spaces must be addressed to ensure their ability to benefit from the opportunity of the knowledge society.



Empowering Women intends to promote literacy and financial self-efficiency, leads to the empowerment of society as a whole. As reported in target 5.b, empowerment of women should also be endorsed through the enhancement of the use of enabling technology, in particular ICTs; **Project Sammam**, developed by the *Network for Information and Computer Technology*, in endeavor of empowering women through ICT training in the modern information society, has trained women at grass root level, providing hand holding support and making them sustainable through social enterprise. These women are catalyzing socio-economic growth as ICT social activist and change agents at grass root level. In Madhya Pradesh and Chhattisgarh, NICT have around 1600 Customer Service Points/ Common Service Centers working under Government of **India**, Department of Electronics. These CSPs/CSCs are in rural areas and are under the network of NeGP implemented through Public Private Partnership.



Out of 1600 CSP's, 172 are been managed by woman entrepreneurs trained on ICT and woman entrepreneurship. These social IT entrepreneurs are catalysing socio-economic growth at grass roots providing various services , such as Financial Inclusion, Micro banking and Micro Insurance, Government Services, Utility Bill Payment and Revenue Services, Woman Maternity Grand Distribution.

To allow ICT applications empowering women's entrepreneurship, Capacity Building is necessary; indeed, work needs to be done to remove gender barriers to ICT education and training, promoting equal training opportunities in ICT-related fields for women and girls.

Also the **Campaign**, a global initiative by *Telecentre Women Digital Literacy*, in the **Philippines**, seeks to help and empower disadvantaged and underserved women community, through the knowledge of ICT for personal growth in order to expanded opportunities for better lives. The initiative represents a vivid example of how ICTs can be fully exploited to implement Sustainable Development Goals in the area of gender equality and women empowerment, via ICT capacity building. Overall, this initiative aims to reach out to one million women (unreached and untouched by ICT and its promise) and help them to acquire digital literacy via tele-centers and networks throughout the world. As of December 2011, over 100,000 grassroots women had already been trained on ICT; the Campaign has reached its goal in March 2015, with a total of 1,014,096 women trained in basic computer skills.



## **GOAL 6**

# **ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.b Support and strengthen the participation of local communities in improving water and sanitation management

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### **RELATED WSIS ACTION LINES:**

C3: Access to information knowledge

C4: Capacity building

C7 ICT Applications: e-science

C8: Cultural diversity and identity, linguistic diversity and local content



The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 6, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).



It is evidenced in Target 6.a, under SDG 6, that it is important to expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities; a good example of how to achieve this goal through ICT-related projects is **SWIM Sustain Water Med**, aiming to improve the sustainable management of wastewater treatment and reuse in 4 countries across the **Southern-Mediterranean region**. A major focus lies hereby on the demonstration and dissemination of innovative and cost-effective approaches; the project website plays a major role in this endeavor offering an interactive information-exchange platform for project teams across the region but also to policy-makers and the wider public. The website serves as a catalyst between lessons learned on the field and water users and policy-makers across the Arab world. In order to guarantee the sustainability of this knowledge-sharing tool, the website 'swim\_sustain\_med.eu' will be linked to the GIZ global learning platform 'Global Campus'.



ICTs may contribute to achieve target 6.a, referring to capacity building support to developing countries, in water and

sanitation related activities and programmes. In particular, ICTs are enabler of long distance learning, training and other forms of education, even in remote and isolated areas. A second good example of a project related to building capacity in water management comes from **FAO: The Somalia Water and Land Information Management (SWALIM)** is a long term programme which aims at enabling Somali institutions to provide crucial information in support of decision making in natural resources management, early warning, preparedness and resilience building by relevant institutions and other users in Somalia. The project has built a comprehensive set of Somali water and land resources information knowledge bases through field surveys and assessments, desk studies and the recovery of information lost in 1991. The key datasets have been organized into a number of structured information systems. Furthermore, SWALIM has established a capacity development programme for Somali government institutions that includes six ministry data centres, a ministry staff support scheme, a training of trainers programme and a support facility for ministry field monitoring.

Besides the international cooperation, the participation of local communities in improving water and sanitation management is also fundamental, as pointed out in target 6.b; indeed,



traditional knowledge and practice are important factors to sustainable development. A good example to showcase their importance is the project **IT for Environmental Sustainable Development**, in the desert area of Ban Limthong – **Thailand**. Capable of using IT for surveying, data collecting and analyzing, the community can accurately plan the rehabilitation and protection of local water resources. With 10 years of hard work, sustainable water resource management delivered better living standard to the community. Income was 2.5 times higher and debt was released by abundant agricultural products. Local people returned home after long migration; people today have enough water to use and earn all year. This initiative from Thailand represent a clear example on how ICTs can impact deeply the achievement of Sustainable Development Goals, in this case by ensuring availability and sustainable management of water and sanitation for all.

## **GOAL 7**

# **ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

- 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
  - 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
  - 7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support

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### **RELATED WSIS ACTION LINES:**

- C3: Access to information knowledge
- C5: Building confidence and security in the use of ICTs
- C7 ICT Applications: e-science

The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 7, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).



Target 7.2 of SDG 7 aims at increasing the share of renewable energy in the global energy mix; indeed, one of the main issues today is sustainable energy mix. It is the case for all countries and nations, one of the factors is energy data lacked on government and public. **Dala2** Project has been established in **Indonesia** as a sample managing the nation through the data, by the *Food and Agriculture Organization of the InTech Indonesia*. The project collects, manages and displays energy sustainability data across the nation, as public information to citizens. The goal is to enhance the awareness of energy sustainability, owned the data, and better managing the nation.

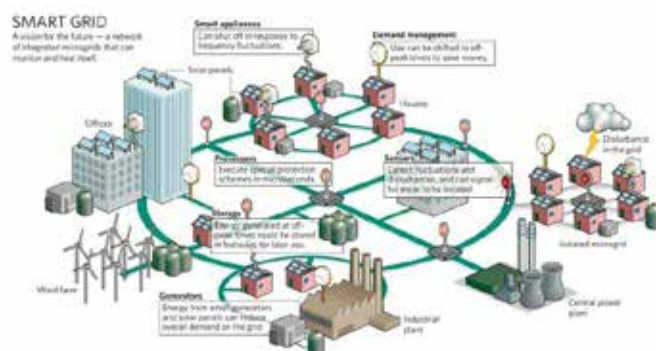
It is a good example to underline how ICTs may facilitate evidenced-based policy making and greater involvement of citizens in scientific and policy processes; e-science aims to promote the enhancement of the interface between policy, science and society.

The aim of **OSIRIS** (Optimal Strategy to Innovate and Reduce Energy Consumption In urban rail Systems) is to introduce a holistic approach for the reduction of energy consumption



for urban rail systems embracing vehicles, infrastructure and operation; this project is in line with target 7.b in particular, expanding infrastructure and upgrading technology to supply modern and sustainable energy services for all in developing countries.

The project – developed and implemented in **Istanbul**, by the *Ulasim SAN. ve TIC. AS* – starts from the definition of Key Performance Indicators and Standard Duty Cycles to measure energy consumption in urban rail systems. It addresses the issue from the system-level, ensuring that progresses on energy reduction are substantial. The effectiveness of solutions and their full potential has been proved by simulations and pilot tests.



**OSIRIS** transforms the entire discovered knowledge into a Decision Support Tool, to aid strategic decision-making for operators and public authorities. It promotes the enhancement of the interface between policy, science and society, facilitating a better harmonized policy-making.

A good example of how to achieve target 7.a, tackling the enhancement of international cooperation to facilitate access to clean energy research and technology, is **Security of Energy Systems** (SOEs); it is a two years research project developed with the financial support of the Prevention, Preparedness and Consequence Management of Terrorism and other Security-related Risks Programme by the European Commission. Designed to answer to the pressing demand of knowledge and best practices on the cyber security of smart energy grids, the project has been conceived to raise the know-how of government bodies and operators by providing a comprehensive analysis of ICT architectures, vulnerabilities, interdependencies, standards and best practices related to the smart grids. The consortium partners have brought into the project their interdisciplinary expertise in energy, security, control and ICT as required for developing secure smart energy systems.

As energy infrastructure increasingly relies on ICTs for the management and control of the relevant systems, cyber-threats are becoming a valid risk that should be addressed with proper security measures.



# **GOAL 8**

## **PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

- 8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries
- 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
- 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
- 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- 8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products
- 8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

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### **RELATED WSIS ACTION LINES:**

- C2: Information and communication infrastructure: an essential foundation for the Information Society
- C3: Access to information knowledge
- C5: Building confidence and security in the use of ICTs
- C6: Enabling environment
- C7 ICT Applications: e-business
- C7 ICT Applications: e-employment
- C7 ICT Applications: e-agriculture
- C8: Cultural diversity and identity, linguistic diversity and local content
- C10: Ethical dimensions of the Information Society



The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 8, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).



In **Argentina**, a brilliant initiative points out clearly the role ICT regulatory policies can have in achieving the Sustainable Development Goals; and in particular SDG 8, focusing on inclusive and sustainable economic growth, full and productive employment and decent work for all. The **PROPET** is a Program to promote Employment with Telecommuting, created by the *Department of Telecommuting of the Argentine Labor Employment and Social Security Ministry*. It promotes the inclusion of unemployed in the form of telework, by implementing financial incentives to companies that decide to increase its staff under this modality. It generates a legal certainty and stability framework that allows companies to implement telecommuting in their organizations, with work safety, health standards and human resources management. The PROPET ensures the active social inclusion for all by promoting participation in the labor market; the participants of the program can balance work and family, generating an improvement in labor quality or saving money for commuting.



It is a good example to understand the essentiality of predictable and stable regulations. ICT regulatory policies support

productive activities, decent job creation, entrepreneurship, creativity and innovation; improving the long term interest of citizens, given that broadband can contribute to this by improving and enabling education, information and increased efficiency.

Target 8.3 proposes to promote development-oriented policies to support productive activities, decent job creation and entrepreneurship. Another interesting initiative focusing on the role of ICTs for inclusive and sustainable economic growth and productive employment should be pointed out: following a needs assessment conducted by *Ministry of Communications and Information Technology* in **Egypt**, a project entitled **Training and Qualifying for Employment (TQE)** and focusing on the needs of persons with disabilities, has been launched. The main objective of the programme is to help persons with disabilities to find better job opportunities by building their ICT capacities. TQE, which is a public-private partnership programme, offers two grants with the aim of eradicating IT illiteracy, opening new communications and knowledge acquisition channels, and providing job-specific training as well as job opportunities in the ICT private sector, thereby supporting independence and empowerment.

To particularly tackle youth unemployment, as specified in target 8.5, the *Ministry of Sport and Youth Affairs* of **Georgia** has designed a special webpage, **myprofession.ge**, which is a roadmap for youngsters in Georgia enabling them to receive information on insights and best practices for various professions in the country. It is a mean of improving career advice assistance for pupils and students, designed as part of the Ministry's continuous support for the development of state youth policy. Once more, this example highlights the fundamental role of predictable and stable ICT regulations.



E-employment is indeed an ethical imperative: the proportion of youth not in employment may undermine social cohesion, as it militates against the individual's sense of equality and may impair their ability to assume their social responsibilities and increase their vulnerability to participate in illicit activities due to lack of skills and competencies.

# **GOAL 9**

## **BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States

9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

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### **RELATED WSIS ACTION LINES:**

C2: Information and communication infrastructure: an essential foundation for the Information Society

C3: Access to information knowledge

C5: Building confidence and security in the use of ICTs

C6: Enabling environment

C7 ICT Applications: e-government

C7 ICT Applications: e-business

C7 ICT Applications: e-environment

C7 ICT Applications: e-agriculture

C9: Media

C10: Ethical dimensions of the Information Society

The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 9, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).

In **Azerbaijan**, the **Trans-Eurasian Information Superhighway (TASIM)** project is a major regional transnational fibre-optic initiative targeting primarily the countries of Eurasia, from Western Europe to East Asia. The TASIM is clearly in the path of SDG 9 as it builds resilient infrastructure, promotes inclusive and sustainable industrialization and fosters innovation. The project is also recognized by the international community as an important ICT project, as reflected in United Nations General Assembly resolutions adopted in 2009 and 2012. TASIM will build its own active, centrally managed network on top of existing fibre-optic networks provided by participating operators (TASIM Consortium), and will leverage the transit infrastructure to provide affordable connectivity to landlocked countries of Eurasia and beyond.



Enabling environment is a key element: governments need to continue creating an environment which enables innovation, entrepreneurship, investment and growth, in order to leverage the transformational power of ICTs. To develop quality, reliable, sustainable and resilient infrastructure (target 9.1) it is essential to ensure the deployment of services in unserved and underserved areas, putting in place a wide array on ICT regulatory policies.

Towards sustainable development, as stated in target 9.a, the International community must also facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries. The **African Internet Exchange System (AXIS)** project – in **Ethiopia** – is particularly obedient to this target; it aims to promote keeping intra-African Internet traffic local by providing capacity-building and technical assistance to facilitate the establishment of Internet exchange points at the country level, regional Internet exchange points



and regional Internet carriers in Africa. The project, which forms part of the Programme on Infrastructure Development in Africa, is an important example on how information and communication infrastructure are essential foundation for SDG 9, which calls for the creation of resilient infrastructure and the promotion of inclusive and sustainable industrialization.



Target 9.c refers directly to Information and Communication Technologies, and the importance for the global community to strive to provide universal and affordable access to the Internet. A good reference comes from **Georgia**, where the project **Introduction of e-Governance in Local Governments** seeks, through the introduction of e-governance and development of necessary infrastructure, to support local governments in strengthening their capacity and improving the service they provide to the local population. The project encompasses two major components; namely development of community centres, serving as a new type of infrastructure enabling improved service delivery at the village level, coupled with measures designed to foster local citizen engagement. It also introduces e governance in local governments, which envisages development of the municipal management system in local governments with a view to improving the quality of management and streamlining service delivery on the ground.

Connection to the internet through Broadband has been identified as the ICT infrastructure for the next decade. It belongs to those infrastructures supporting economic development and well-being – as stated in target 9.c – aiming at increasing access to information and communication technologies, providing universal and affordable access to the internet.

## **GOAL 10**

# **REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent

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### **RELATED WSIS ACTION LINES:**

C1: The role of governments and all stakeholders in the promotion of ICTs for development

C3: Access to information knowledge

C6: Enabling environment

C7 ICT Applications: e-employment

C10: Ethical dimensions of the Information Society



The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 10, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).



Target 10.2 – under SDG 10 – states that the global community should empower and promote the social, economic and political inclusion of all; in **Colombia**, the **Convertic** project is a brilliant example of how ICTs can help people to reduce inequality among countries. This initiative enables visually impaired people to have autonomous access to information and knowledge, education, job opportunities and entertainment through the use of ICTs. By means of this project, blind and visually impaired people are provided, free of charge, with the best screen reader and magnification software available on the market, enabling them to have independent access to computers, commonly used Office applications, music and video players and the Internet. Convertic provides an economy-of-scale model that enables the State to offer this vital tool to every single one of the country's 1.2 million visually impaired citizens.



It underlines the fundamental role of governments and all stakeholders in the promotion of ICTs for development: policy strategies and programmes for expanding and enhancing universal access to information and knowledge need to be strengthened, as well as transparent cross-sectoral institutional and legal frameworks, enabling innovation, entrepreneurship, investment and growth.

Another deserving initiative aiming to reduce inequality and achieve SDG 10 comes from **India**. It is said that one empowered woman empowers entire family and eventually community: the **Swavlamban** project, which means “self-sustainable”, empowers rural, slum and sub-urban women as one of major ICT based Micro Banking Kiosk Operator inculcating habit of micro savings, bringing financial sustainability to their families and communities. Thanks to ICTs, a techno-socio-economic-phenomenon which enabled reach of banking right up to grass root level, now small and micro saving at grass root provides financial sustainability to poor where they can do small savings which in future help themselves at the time of crisis, health and medical needs, education of children and extreme poverty.



A project which highlights the role of ICTs in sustainable development also comes from **Turkey**; indeed while Turkey has impressive Internet penetration & growth figures, a gap still exists, as a significant percentage of the population has not yet met online life due to economic, social and physical barriers. **Life's Simpler with Internet** offers a solution, through trainings for disconnected citizens especially women, who are in need of basic information, and helps them to overcome their reluctance in taking the first step to the digital world.

# **GOAL 11**

## **MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

- 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries
- 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and decrease by [x] per cent the economic losses relative to gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
- 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
- 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

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### **RELATED WSIS ACTION LINES:**

- C2: Information and communication infrastructure: an essential foundation for the Information Society
- C3: Access to information knowledge
- C5: Building confidence and security in the use of ICTs
- C6: Enabling environment
- C7 ICT Applications: e-environment
- C8: Cultural diversity and identity, linguistic diversity and local content
- C10: Ethical dimensions of the Information Society

The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 11, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).



One example of e-government good practice working to make cities and human settlements inclusive, safe, resilient and sustainable, as indicated by SDG 11 is the **Dubai Smart City Strategies**. This strategy aims at increasing customer satisfaction, and, among others, has started implementing new payment means in Dubai taxis along with existing cash payment. POS machines that support NFC, contactless and Swipe payments are installed and connected to existing taximeters to create an automated payment scheme. Customers can choose to pay taxi or other transport fares in the scheme (bus, metro, tram, water bus, parking) using “Nol” cards or with debit/credit cards, reducing cash payments and cash management processes. The project is particularly related to target 11.2, promoting safe, affordable and accessible transport system for all.

efficiaries and greater citizen response; it also helps creating partnerships and synergies between local and municipal government and other key actors (e.g. universities, private sector, civil society), to foster their active and ongoing participation in solving local challenges through ICT solutions. It focuses on the transport sector and comprises four operational phases: (i) co-designing mobile applications with local and municipal government participants to provide solutions to daily technical challenges in the transport sector; (ii) working jointly with local and municipal governments, citizens, the private sector and civil society to prepare a vision of the future and a roadmap for mobility in Gran Concepción; (iii) developing solutions for urban transport challenges through co-creation competitions and citizen engagement; (iv) co-designing an urban ICT innovation centre to help solve local challenges and inspire citizen participation.



ICT regulatory policies need to be put in place to create the preconditions for the organizational, legal and technical standardization and interoperability aspects of all human settlement planning and management; the creation of conditions for equitable participation in all aspects of social life is central to realizing peace and the values of freedom, equality, solidarity and shared responsibility.



Aiming at inclusive and sustainable cities, just as indicated by target 11.3, the *World Bank* has conceived the **Smart City Gran Concepción**, a pilot activity in **Chile** carried out in partnership with the Chilean Ministry of Transport and Telecommunications. The project introduces bottom-up smart-city methodologies that help local and municipal governments to learn how to use smart-city tools with better real-time interaction with ben-

Another clear example of how ICTs can implement SDG 11, and in particular target 11.5, dealing with the protection of the poor and the people in vulnerable situations, is **Shiojiri City**, in **Japan**. The city has constructed its own communication infrastructure using optical fibre and ad-hoc wireless networks in addition to the fixed and mobile networks provided by incumbent operators such as NTT, NTT DoCoMo, KDDI and Soft-bank. The platform on these networks can provide ICT services within the city, such as healthcare, social welfare, disaster mitigation, tracking of children and elderly people using wireless tags, weather observation, etc. The data collected through the municipal info-communication networks are saved at the centre for analysis and displayed by location, time and event. Shiojiri Incubation Plaza (SIP), accommodated in an independent building, is the centre for IT ventures and entrepreneurs in the city. Shiojiri continues to make strides towards the smart city by promoting capacity building for data analysts and data scientists to ensure that the big data collected through the networks are fully utilized.

## **GOAL 12**

# **ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

- 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
- 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities
- 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature
- 12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production
- 12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

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### **RELATED WSIS ACTION LINES:**

- C3: Access to information knowledge
- C4: Capacity building
- C7 ICT Applications: e-employment
- C7 ICT Applications: e-agriculture
- C7 ICT Applications: e-science
- C8: Cultural diversity and identity, linguistic diversity and local content
- C9: Media
- C10: Ethical dimensions of the Information Society



The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 12, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).

In relation to SDG 12, and in particular aiming at developing tools to monitor sustainable production patterns – according to target 12.b – the *National Institute of Statistics of Rwanda* (NISR), the country's primary data producer, is fostering a deserving initiative. The Institute produces mandatory statistics such as the gross domestic product, consumer price index, producers price index, external trade figures, population statistics and other special-purpose statistics from surveys including the demographic and health survey, household living conditions survey and census. It also conducts specific joint surveys, namely the agriculture survey and service provision assessment survey, in partnership with the relevant institutions. The information, published in the **National Statistics Portal**, is available to the public; accessibility to the internet becomes important to enable ICTs raising awareness on sustainable consumption.



As a second example of ICTs implementing SDGs in the field of sustainable consumption and production patterns, and more in particular targets 12.8, which seeks to ensure that people everywhere have the relevant information and awareness for sustainable development, the **Farmer Query System (FQS)** may be taken into account. It is a platform which designs and implements an agricultural advisory service to farmers in **Bangladesh** remotely, through an android based mobile application where there is scarcity of agriculture extension services. The project assessment has identified that ICT infomediary backed by expert agriculturist's advisory services can be a gateway for an effective and authentic solution for farmers. It has proved that smart phone application can solve farmer's cultivation challenges and, at the same time bring him closer to agriculture experts for necessary real-time information in an inadequate

agriculture extension service system. This system aims to reduce the gap between an expert agriculturist and farmers, through ICT channels. E-agriculture should indeed motivate rural population to learn reading and writing to be able to use new tools, perhaps strengthening diffusion and awareness for sustainable development and lifestyles in harmony with nature.



Another deserving initiative, dealing with e-applications for SDG 12 comes from **Thailand**. In order to ensure sustainable consumption and production patterns, and in particular to strengthen scientific and technological capacity to move towards sustainable patterns of consumption and production (target 12.a), '**APP FONUANG**' has been developed. The application is designed for government authority, farmers and general public users interested in cloud seeding (atmospheric modification) or general updating on weather conditions and rainfall area throughout the country. Clearly, the application helps farmer in planning their cultivation and harvest by accessing to information provided e.g. rainfall, royal rainmaking areas, and rainmaking period of operations; farmers are also able to request for the operation in their own area. For government authority, it is a crucial tool for monitoring the situation nationwide and data collected will be strategically analyzed for solving water shortage.



## **GOAL 13**

# **TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

- 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- 13.2 Integrate climate change measures into national policies, strategies and planning
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
- 13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities

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### **RELATED WSIS ACTION LINES:**

- C3: Access to information knowledge
- C4: Capacity building
- C7 ICT Applications: e-environment
- C7 ICT Applications: e-agriculture
- C7 ICT Applications: e-science
- C10: Ethical dimensions of the Information Society

The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 13, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsisis/stocktaking](http://www.itu.int/wsisis/stocktaking).



Towards SDG 13, dealing with climate change and its impact, and target 13.3 in particular, which focuses on improving education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning, an interesting activity has been launched by the *Utokapat Foundation*. The initiative seeks to encourage and promote the community water resource management to protect the environment, foster economic growth and sustainable agricultural development with the communities in the rural areas of **Thailand**. **Agro Informatics for Community-Based Climate Change Adaptation** promotes indeed ICTs application as significant tools to empower people and upgrade their capacity in learning, sharing, and create knowledge to achieve self-reliance, ownership, and sustainable development in community water resource management. As the climate change adaptation has become the urgent agenda of all environment matters, especially Thailand – a country with a great agricultural production – focuses and identifies the water issue as the key context in the agriculture field; water is the main resource for the farmers' livelihood.

Another promising example to obtain SDG 13 is the **Leveraging web and mobile platforms to broadcast disaster alerts**, developed by the the *National Digital Strategy of Mexico* partnered with National Weather Agency to redesign public alert processes for extreme hydrological events in **Mexico**, which accounts for more than 20 annually. The project streamlines the meteorologist's workflow in order to generate and publish bulletins "automatically" in open formats following the Common Alerting Protocol, to enable third parties to broadcast alerts to a larger audience. It focuses particularly on targets 13.2 and 13.3, which deal with climate change national policies, strategies and planning, and institutional capacity. The project

highlights the crucial role of data accessibility: open access to climate information allows cross-border communication and quick adaptation of preventive measures, favoring effective climate change-related planning and management, and playing a critical role at times of natural disasters.



The aim of SDG 13, in particular target 13.3, is to improve climate change education, to combat climate change and its impacts. To allow this scenario to take place, a project has been established as an active national reference research point in the field of e-Science, in **Iran**. Looking for future scientific cooperation, the participating researchers, university professors, and students in the network can exchange the ideas and scientific information through a web-based platform. **E-Science-Net** conducts expert surveys on e-Science and the role of science and technology, and sustainable development of the information and knowledge societies in different scientific subjects. The project aims to create an information network of researchers located in the universities in Iran and abroad, to exchange new and innovative ideas in scientific subject such as agriculture, climate change, and disaster risk reduction. Through this process, the results of experts' surveys are published to be used in decision making in selected subjects for the project in national level; overall, e-science may improve access to scientific assessments of climate change, biodiversity and ecosystem services, health, agriculture, food security and disaster risk reduction.



## **GOAL 14**

# **CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT**

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### **RELEVANT TARGETS:**

14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

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### **RELATED WSIS ACTION LINES:**

C3: Access to information knowledge

C4: Capacity building

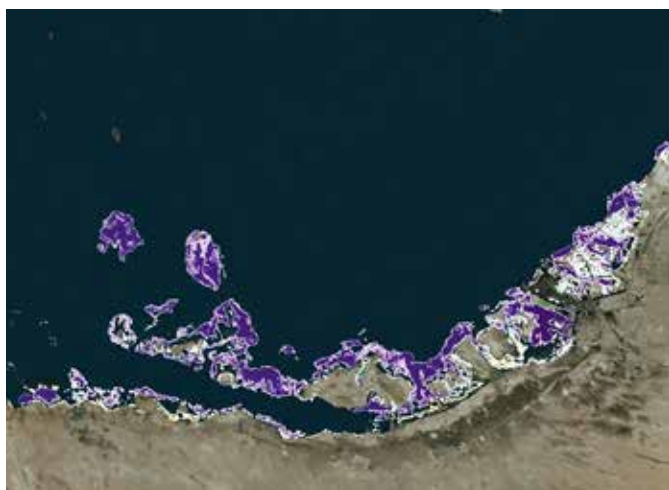
C7 ICT Applications: e-environment

C7 ICT Applications: e-science



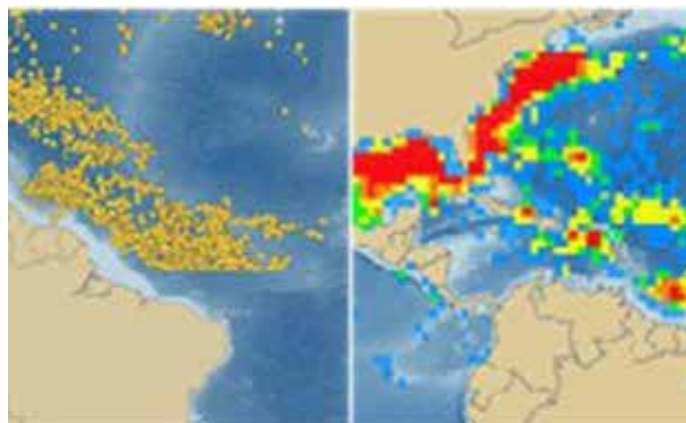
The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 14, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).

A good example of how ICTs may contribute achieving SDG 14 – to conserve and sustainably use the oceans, seas and marine resources for sustainable development – is **the Abu Dhabi Blue Carbon Portal**. It contains all outcome materials from the Abu Dhabi Blue Carbon Demonstration Project, which has delivered local data-sharing, supported regional adaptation and contributed to international knowledge on Blue Carbon. In the portal, there are publications, images, videos and other multimedia elements including the Blue Carbon Mapping Tool, which allows users to learn about the significant role of coastal marine ecosystems and their ability to absorb and store atmospheric carbon dioxide. Simple to use, it provides an approximate overview of the carbon stock value for a selected area, and users can also explore the contribution of each ecosystem to the total carbon stock within that area.



Another deserving initiative underlining how WSIS Action Line projects can implement SDGs, and in particular SDG 14, is the **UNESCO/IOC Oceanographic Data Exchange Policy**. The timely-free and unrestricted international exchange of oceanographic data is essential for the efficient acquisition, integration and use of ocean observations gathered by the countries of the world for a wide variety of purposes; including the prediction of weather and climate, the operational forecasting of the marine environment, the preservation of life, the mitigation of human-induced changes in the marine and coastal environment, as well as for the advancement of scientific understanding that makes this possible. During its

twenty-second session (24 June - 4 July 2003) the IOC Assembly adopted Resolution IOC-XXII-6 entitled 'IOC Oceanographic Data Exchange Policy'.



As Pacific island countries rely heavily on the natural environment, and are susceptible to climate-induced natural disasters, the achievement of SDG 14 is crucial for these countries. *Australian Agency for International Development (AusAID)* is funding sea level, climate and geodetic monitoring networks that acquire, transmit, quality assure/validate, process, analyze, archive and distribute data (**Sea Level Monitoring Project**,



**Phase III**). This data assists **Pacific countries** and the international scientific community to understand the long-term potential scale and implications of changing sea levels and climate variability induced by global warming.

These examples show how e-environment could contribute to marine resources preservation by encouraging the establishment of automated observing systems for the collection and dissemination of essential weather and climate parameters, to be made available to the global community in support of environmental monitoring.

## **GOAL 15**

**PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF  
TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS,  
COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND  
DEGRADATION AND HALT BIODIVERSITY LOSS**

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### **RELATED WSIS ACTION LINES:**

C3: Access to information knowledge

C7 ICT Applications: e-environment

C7 ICT Applications: e-science

The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 15, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).

In order to restore and promote sustainable use of terrestrial ecosystems and forest, combat land desertification and degradation, halt biodiversity (as stated in SDG 15), the Central Agency for Information Technology of Kuwait has been running a project in the domain of access to knowledge and information. Environmental Monitoring Information System of Kuwait (eMISK), an ambitious system initiated by the Environment Public Authority, aims to establish, build and maintain a comprehensive geo-environmental database for Kuwait, together with an enterprise-level GIS system for accessing, updating and analysing the environmental data. This database is made available through eMISK to the decision-makers and stakeholders within EPA, outside agencies and the public at large. The main goals of eMISK include making all levels of society more aware of environmental issues, and placing authoritative scientific information at the centre of decision-making; it underlines the key role of ICTs in creating networks of automated observing systems and improving access to scientific assessment of global change issues, to make available to the global community in support of environmental monitoring.



In Kuwait, a second brilliant initiative may effectively demonstrate how ICTs can impact the achievement of SDGs in the field of sustainable use of terrestrial ecosystems. The Environment Public Authority (EPA) has established Kuwait Official Environmental Portal “Beatona.net”; it is a GIS-based web portal that aims at sharing authentic environmental information with

the public over the internet. Beatona.net (“our environment” in Arabic) is a network that offers information about Kuwait’s environment from various national, regional and international organizations on one single platform. It also allows the public to participate and interact in the preservation and protection of the environment by reporting environmental phenomena and problems. This is expected to play a leading role in raising awareness about the value of the environment.



To increase green spaces in suburban areas across Abu Dhabi, and spread awareness in the community about the importance of sustainability in daily lives, the annual competition “My Garden My City” has been developed; enabling SDG 15, which stresses the importance of sustainable use of terrestrial ecosystems. The competition has proved that the participants had a well-established sustainability knowledgebase through the management of natural resources (such as irrigation water), the utilization of solar power, selection of plants and non-plant elements in gardening. This verifies that “My Garden My City” competition has been able to achieve its goals in augmenting the field of agricultural development. An application has been developed to allow users tracking the number of plants, their growth and other factors in their own garden; it also shows the other users’ progress while having a platform that allows users to share ideas and realize the environmental benefit.



## GOAL 16

# PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

## RELEVANT TARGETS:

- 16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children
- 16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all
- 16.5 Substantially reduce corruption and bribery in all their forms
- 16.6 Develop effective, accountable and transparent institutions at all levels
  - 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels
- 16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements
- 16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime
  - 16.b Promote and enforce non-discriminatory laws and policies for sustainable development

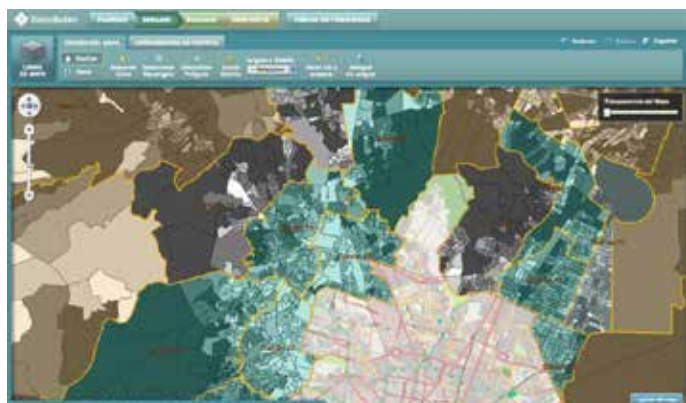
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## RELATED WSIS ACTION LINES:

- C1: The role of governments and all stakeholders in the promotion of ICTs for development
  - C3: Access to information knowledge
    - C4: Capacity building
  - C5: Building confidence and security in the use of ICTs
    - C6: Enabling environment
  - C7 ICT Applications: e-government
    - C9: Media
  - C10: Ethical dimensions of the Information Society



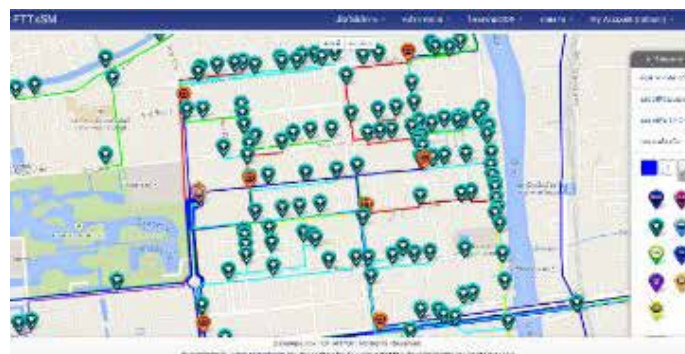
The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 16, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).



**Open Data** is one of the five main enablers of the National Digital Strategy of **Mexico**. Its objective – releasing open data to create an ecosystem of co-creation of public services, triggering economic growth, driving transparency and reducing corruption in the country – clearly exemplifies SDG 16, which aims at promoting peaceful and inclusive societies for sustainable development. In particular, it seems to be related to targets 16.6 and 16.a, dealing with developing effective and accountable institutions and strengthening relevant national institutions (16.a). To leverage this enabler, the Government of Mexico is implementing an Open Data Policy, which mandates all federal agencies to follow an ‘open by default’ standard for all their public data. Furthermore, CEDN is working on projects to drive the use of open data across all sectors of society; for example, OD100MX ([opendata500.com/mx](http://opendata500.com/mx)) is the first study to map companies that use open government data to generate new business, develop new products and services and generate economic and social value.

A second example of a project going towards SDG 16 comes from **Thailand**; **Fable** is a promising software application that manages the national broadband development project to support the Digital Economy Initiative, comprising five areas of focus: hard infrastructure, soft infrastructure, service infrastructure, digital economy promotion and digital society. The **Thai Government** can exploit information provided by Fable to plan investments for developing and promoting the digital economy, especially in the area of hard infrastructure. In order to identify return on investment and ensure quality of service and maintenance for sustainable growth; aiming in particular at targets 16.3 (promoting rule of law at the national and international levels) and 16.6 (develop effective, accountable and transparent institutions at all levels); Fable does enhance the transparency, accountability and efficiency of the Thai government by broadening network access, reducing costs and avoiding duplication of investment.

Another deserving initiative showing the powerful impact of ICTs in the promotion of peaceful and inclusive societies has been developed in **Trinidad and Tobago**. In particular, the **Ministry of Science and Technology's SmartTT project**, under the National ICT Plan for 2014-2018, approved in 2013, encompasses five thematic areas which are fundamental towards sustainable development: (i) innovation and human capital development (ii) access and digital inclusion (iii) e-business and ICT sector development (iv) infrastructure development (v) e-government. Under these thematic areas, 56 programmes and 156 development projects have been identified, of which 116 projects are being tracked across government.



The **National Broadband Plan**, established as a component of SmartTT (Theme 4), recognizes the importance of broadband as a critical success factor in promoting economic development and establishing a knowledge and sustainable economy. The **World Bank Group** has been engaged to elaborate a Broadband Strategy and Action Plan to accelerate access to broadband services within the country. This initiative particularly focuses on target 16.7, targeting to ensure responsive, inclusive, participatory and representative decision-making at all levels.



These examples reaffirm the key role of government and other stakeholders to create structures for communication and collaboration to enable coordination, strengthening actions among governments, international organizations, NGOs, the private sector and civil society. Furthermore, ICTs may be a key driver and enabler of enhanced efficiency, effectiveness and transparency in public service delivery. In this sense, e-government contributes expanding participation in decision-making and addressing digital divides, thanks to various forms of ICT-enabled information sharing and consultation.

# GOAL 17

## STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

The following targets have been identified by WSIS Action Line Facilitators as those being mostly supported by WSIS Action Lines

### RELEVANT TARGETS:

17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism

17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation

17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020

17.14 Enhance policy coherence for sustainable development

17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts

17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries

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### RELATED WSIS ACTION LINES:

C1: The role of governments and all stakeholders in the promotion of ICTs for development

C3: Access to information knowledge

C4: Capacity building

C5: Building confidence and security in the use of ICTs

C6: Enabling environment

C7 ICT Applications: e-government

C7 ICT Applications: e-business

C7 ICT Applications: e-health

C7 ICT Applications: e-employment

C7 ICT Applications: e-agriculture

C7 ICT Applications: e-science

C10: Ethical dimensions of the Information Society

C11: International and regional cooperation

The following success stories, derived from the WSIS Stocktaking Platform, bring into evidence the linkage between particular WSIS Action Lines and Sustainable Development Goal 17, as depicted in the Matrix. The reader should note that the following list of examples is not exhaustive, and that more stories are available online at WSIS Stocktaking platform: [www.itu.int/wsis/stocktaking](http://www.itu.int/wsis/stocktaking).

Regional and international cooperation activities, as the launch of pilot projects to design new forms of ICT-based institutions, should develop capacity building worldwide, contributing to the achievement of SDG 17. Furthermore, enabling ICT regulatory policies should provide the framework for international cooperation towards a harmonized and coordinated approach to oversee the evolution of the information society.



In Switzerland, the **Geneva Internet Platform (GIP)** is a digital policy platform, observatory and capacity-building centre which purpose is to assist governments, civil society, academia, technical communities, and other information-society stakeholders, with a special focus on small and developing countries - in finding resources related to digital policy and governance, formulating digital strategies and engaging with other stakeholders' policy debates. The GIP, an initiative of the Swiss authorities operated by *DiploFoundation*, is particularly in line with target 17.14, dealing with enhancing policy coherence for sustainable development, and target 17.16, focusing on enhancing the global partnership for sustainable development, complemented by multistakeholder partnership that mobilize and share knowledge, expertise, technology and financial resources.

Another deserving activity favoring the implementation of SDG 17, on the means of implementation and revitalization of the global partnership for sustainable development, is the *eCLAC2015* initiative from **Chile**. It is a long-term vision plan based on the philosophy of Sustainable Development Goals, according to which ICTs are tools for economic development and social inclusion. The initiative tackles in particular target

17.9, dealing with capacity building, and 17.16 and 17.17, dealing with multistakeholder partnership. The project has been approved in November 2010 at the third Ministerial Conference on the Information Society in Latin America and the Caribbean, in Lima, Peru. During the fourth Ministerial Conference on the Information Society, held in April 2013 in Montevideo, Uruguay, governments of the region have adopted the Montevideo Declaration and the 2013 2015 Work Plan for the eCLAC2015 implementation of a **Plan of Action for the Information Society in Latin America and the Caribbean**.



Aiming to strengthen economic development through the improvement of competitiveness of SMEs, a project was developed in the cross-border area of North **Greece** and South **Bulgaria: Cross Border Implementation of Innovative Cost Cutting Technologies (CROSS-INNO-CUT)** can clearly serve as example to implement SDG 17. Indeed, it points out how to strengthen the means of implementation and revitalize the global partnership for sustainable development; tackling in particular targets 17.6 and 17.7, which deal with technological innovation and knowledge sharing. In the framework of the project 100 SMEs in the cross-border area have been granted access to expert consulting services and "know-how" to boost their competitiveness by applying innovative cost-cutting technologies. The innovative cost cutting methodology developed under the CROSS-INNO-CUT project is promoted as "best practice" of the European Territorial Cooperation Programme "Greece-Bulgaria 2007-2013".



## AFTERWORD

Access to information and communication technologies is a prerequisite to achieve the Sustainable Development Goals, having the capacity to improve living standards for millions of people around the world. In addition, better communication between people helps resolve conflicts and attain world peace. The interaction between the ongoing dialogue on the Post-2015 Development Agenda and the WSIS implementation process, needs to be reinforced - ensuring that efforts across the UN System are coherent and coordinated to achieve tangible results, as shown in the examples presented in the previous pages.

ITU has been maintaining the WSIS Stocktaking Platform as a publicly accessible system providing information on ICT-related initiatives and projects with reference to the 11 WSIS Action Lines (Geneva Plan of Action) and the Millennium Development Goals. Web 2.0 Platform serves as a mechanism for sharing experiences on WSIS related activities among its growing community with 140,000 and counting WSIS stakeholders. As a result, it has become a unique ICT for development online platform, now also addressing sustainable development.

The principal role of the WSIS Stocktaking exercise is to leverage the activities of stakeholders working on the implementation of WSIS outcomes and share knowledge and experience of projects by replicating successful models. As of April 2015, over 7,000 updated entries have been registered in the WSIS Stocktaking database reflecting innovative activities including projects, programs, WSIS thematic meetings, conferences, publications, training initiatives, guidelines and tool-kits.

Another significant platform, an integral part of WSIS Stocktaking process, is the WSIS Prizes contest. A unique recognition for the excellence in the implementation of WSIS outcomes, WSIS Prizes contest is an immediate response to the requests expressed by WSIS stakeholders during the WSIS Forum 2011: to create a mechanism to evaluate and reward stakeholders for their efforts in the implementation of WSIS outcomes.

The WSIS Prizes contest provides the platform to identify and showcase the success stories and models that are empowering community at the local level, and to give chance to everyone to participate in the contest and thus recognize the efforts of stakeholders for their added value to society and commitment towards achieving WSIS goals. It is open to all stakeholders: governments, private sector, civil society, international organizations, academia and others. Please explore WSIS Prizes 2015 and previous years at [wsis.org/prizes](http://wsis.org/prizes).



















Still, more success stories need to be put forward to the WSIS Stocktaking Platform, since knowledge sharing is essential to continue strengthening the key role of ICTs towards Sustainable Development. The ICT for development community is encouraged to follow and contribute to all of the aforementioned WSIS Process different platforms in 2015-2016 (WSIS Stocktaking, WSIS Prizes, and WSIS Forum), and therefore, we invite all stakeholders to submit their projects' descriptions using the WSIS Stocktaking online platform [wsis.org/stocktaking](http://wsis.org/stocktaking).





# ANNEX I

## WSIS ACTION LINES

 ACTION LINE C1	▶ THE ROLE OF GOVERNMENTS AND ALL STAKEHOLDERS IN THE PROMOTION OF ICTS FOR DEVELOPMENT
 ACTION LINE C2	▶ INFORMATION AND COMMUNICATION INFRASTRUCTURE: AN ESSENTIAL FOUNDATION FOR THE INFORMATION SOCIETY
 ACTION LINE C3	▶ ACCESS TO INFORMATION KNOWLEDGE
 ACTION LINE C4	▶ CAPACITY BUILDING
 ACTION LINE C5	▶ BUILDING CONFIDENCE AND SECURITY IN THE USE OF ICTs
 ACTION LINE C6	▶ ENABLING ENVIRONMENT
 ACTION LINE C7	▶ ICT APPLICATIONS: E-GOVERNMENT
 ACTION LINE C7	▶ ICT APPLICATIONS: E-BUSINESS
 ACTION LINE C7	▶ ICT APPLICATIONS: E-LEARNING
 ACTION LINE C7	▶ ICT APPLICATIONS: E-HEALTH
 ACTION LINE C7	▶ ICT APPLICATIONS: E-EMPLOYMENT
 ACTION LINE C7	▶ ICT APPLICATIONS: E-ENVIRONMENT
 ACTION LINE C7	▶ ICT APPLICATIONS: E-AGRICULTURE
 ACTION LINE C7	▶ ICT APPLICATIONS: E-SCIENCE
 ACTION LINE C8	▶ CULTURAL DIVERSITY AND IDENTITY, LINGUISTIC DIVERSITY AND LOCAL CONTENT
 ACTION LINE C9	▶ MEDIA
 ACTION LINE C10	▶ ETHICAL DIMENSIONS OF THE INFORMATION SOCIETY
 ACTION LINE C11	▶ INTERNATIONAL AND REGIONAL COOPERATION

# ANNEX II

## SUSTAINABLE DEVELOPMENT GOALS\*

### Goal 1. End poverty in all its forms everywhere

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day

1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions

1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions

### Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries

2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility

### Goal 3. Ensure healthy lives and promote well-being for all at all ages

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

3.2 By 2030, end preventable deaths of newborns and children under 5 years of age

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate

3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all

3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

#### **Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.6 By 2030, ensure that all youth and at least [x] per cent of adults, both men and women, achieve literacy and numeracy

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all

4.b By 2020, expand by [x] per cent globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

4.c By 2030, increase by [x] per cent the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

#### **Goal 5. Achieve gender equality and empower all women and girls**

5.1 End all forms of discrimination against all women and girls everywhere

5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation

5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate

5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels

#### **Goal 6. Ensure availability and sustainable management of water and sanitation for all**

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and increasing recycling and safe reuse by [x] per cent globally

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.b Support and strengthen the participation of local communities in improving water and sanitation management

### **Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all**

7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

7.3 By 2030, double the global rate of improvement in energy efficiency

7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support

### **Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**

8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries

8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead

8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and

equal pay for work of equal value

8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training

8.7 Take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labour, eradicate forced labour and, by 2025, end child labour in all its forms, including the recruitment and use of child soldiers

8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products

8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries

8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization

### **Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and increasing the number of research and development workers per 1 million people by [x] per cent and public and private research and development spending

9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States



9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

#### **Goal 10. Reduce inequality within and among countries**

10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality

10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations

10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions

10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies

10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements

10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes

10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent

#### **Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable**

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage

11.5 By 2030, significantly reduce the number of deaths and the number of people affected and decrease by [x] per cent the economic losses relative to gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning

11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

#### **Goal 12. Ensure sustainable consumption and production patterns**

12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

12.2 By 2030, achieve the sustainable management and efficient use of natural resources

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

### **Goal 13. Take urgent action to combat climate change and its impacts\***

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

13.2 Integrate climate change measures into national policies, strategies and planning

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible

13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities

### **Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development**

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation<sup>2</sup>

14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

14.b Provide access for small-scale artisanal fishers to marine resources and markets

14.c Ensure the full implementation of international law, as reflected in the United Nations Convention on the Law of the Sea for States parties thereto, including, where applicable, existing regional and international regimes for the conservation and sustainable use of oceans and their resources by their parties to those regimes

**Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss**

15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and increase afforestation and reforestation by [x] per cent globally

15.3 By 2020, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.6 Ensure fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources

15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products

15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species

15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems

15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation

15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

**Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels**

16.1 Significantly reduce all forms of violence and related death rates everywhere

16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children

16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all

16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime

16.5 Substantially reduce corruption and bribery in all their forms

16.6 Develop effective, accountable and transparent institutions at all levels

16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels

16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance

16.9 By 2030, provide legal identity for all, including birth registration

16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements

16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime

16.b Promote and enforce non-discriminatory laws and policies for sustainable development

**Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development**

**Finance**

17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection

17.2 Developed countries to implement fully their official development assistance commitments, including to provide 0.7 per cent of gross national income in official development assistance to developing countries, of which 0.15 to 0.20 per cent should be provided to least developed countries

17.3 Mobilize additional financial resources for developing countries from multiple sources

17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress

17.5 Adopt and implement investment promotion regimes for least developed countries

## Technology

17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism

17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

## Capacity-building

17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation

## Trade

17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda

17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020

17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access

## Systemic issues

### *Policy and institutional coherence*

17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence

17.14 Enhance policy coherence for sustainable development

17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development

### *Multi-stakeholder partnerships*

17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

### *Data, monitoring and accountability*

17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts

17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries

*\* Source: Zero draft of the outcome document for the UN Summit to adopt the Post-2015 Development Agenda*



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