



## **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)*

## Table of Contents

I.	WSIS Action Lines -SDGs Matrix (at a glance).....	3
II.	SDGs (with sub-goals) and WSIS Action Lines Matrix .....	4
III.	WSIS Action Lines and SDGs Matrix .....	5
	ANNEX I: WSIS Action Lines and SDGs Matrix with Rationale .....	6
	ANNEX II: Sustainable Development Goals .....	63
	ANNEX III: Joint proposal of ICT indicators for the Sustainable Development Goals (SDG) indicator framework.....	79

## I. WSIS Action Lines -SDGs Matrix (at a glance)

	C1	C2	C3	C4	C5	C6	e- gov	e- bus	e- lea	e- hea	e- emp	e- env	e- agr	e- sci	C8	C9	C10	C11
SDG 1																		
SDG 2																		
SDG 3																		
SDG 4																		
SDG 5																		
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SDG 16																		
SDG 17																		


## II. SDGs (with sub-goals) and WSIS Action Lines Matrix

<b>Sustainable Development Goal</b> (Please press ctrl+click to see SGDs)	<b>Relevant WSIS Action Line</b> (Please press ctrl+click to see rationale)
<b>Goal 1. End poverty in all its forms everywhere (1.4, 1.5, 1.b)</b>	C1, C2, C3, C4, C5, C7 e-business, C7 e-health, C7 e-agriculture, C7 e-science, C10
<b>Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture (2.3, 2.4, 2.5, 2.a)</b>	C3, C4, C6, C7 e-business, C7 e-health, C7 e-agriculture, C8, C10
<b>Goal 3. Ensure healthy lives and promote well-being for all at all ages (3.3, 3.7, 3.8, 3.b, 3.d)</b>	C1, C3, C4, C7 e-health, C7 e-agriculture, C10
<b>Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (4.1, 4.3, 4.4, 4.5, 4.7)</b>	C3, C4, C5, C6, C7 e-learning, C7 e-employment, C7 e-agriculture, C7 e-science, C8, C10
<b>Goal 5. Achieve gender equality and empower all women and girls (5.5, 5.6, 5.b)</b>	C1, C3, C4, C5, C6, C7 e-business, C7 e-health, C7 e-agriculture, C9, C10
<b>Goal 6. Ensure availability and sustainable management of water and sanitation for all (6.a, 6.b)</b>	C3, C4, C7 e-science, C8
<b>Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all (7.1, 7.a, 7.b)</b>	C3, C5, C7 e-science
<b>Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (8.1, 8.2, 8.3, 8.5, 8.9, 8.10)</b>	C2, C3, C5, C6, C7 e-business, C7 e-employment, C7 e-agriculture, C8, C10
<b>Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (9.1, 9.3, 9.4, 9.a, 9.c)</b>	C2, C3, C5, C6, C7 e-government, C7 e-business, C7 e-environment, C7 e-agriculture, C9, C10
<b>Goal 10. Reduce inequality within and among countries (10.2, 10.3, 10.c)</b>	C1, C3, C6, C7 e-employment, C10
<b>Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable (11.3, 11.4, 11.5, 11.6, 11.b)</b>	C2, C3, C5, C6, C7 e-environment, C8, C10
<b>Goal 12. Ensure sustainable consumption and production patterns (12.6, 12.7, 12.8, 12.a, 12.b)</b>	C3, C4, C7 e-employment, C7 e-agriculture, C8, C9, C10
<b>Goal 13. Take urgent action to combat climate change and its impacts (13.1, 13.2, 13.3, 13.b)</b>	C3, C4, C7 e-environment, C7 e-agriculture, C7 e-science, C10
<b>Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development (14.a)</b>	C3, C4, C7 e-environment, C7 e-science
<b>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</b>	C3, C7 e-environment, C7 e-science
<b>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 (16.2, 16.3, 16.5, 16.6, 16.7, 16.10, 16.a, 16.b)</b>	C1, C3, C4, C5, C6, C7 e-government, C9, C10
<b>Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development (17.6, 17.8, 17.9, 17.11, 17.14, 17.16, 17.17, 17.18, 17.19)</b>	C1, C3, C4, C5, C6, C7 e-government, C7 e-business, C7 e-health, C7 e-employment, C7 e-agriculture, C7 e-science, C10, C11

### III. WSIS Action Lines and SDGs Matrix


WSIS Action Lines		SDGs
 ACTION LINE C1	<a href="#"><u>C1: The role of governments and all stakeholders in the promotion of ICTs for development</u></a>	Goal 1, 3.8, 3.d, Goal 5, 10.c, 16.5, 16.6, 16.10, 17.18
 ACTION LINE C2	<a href="#"><u>C2: Information and communication infrastructure: an essential foundation for the Information Society</u></a>	1.4, 8.2, 9.1, 9.a, 9.c, 11.5, 11.b
 ACTION LINE C3	<a href="#"><u>C3: Access to information knowledge</u></a>	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	<a href="#"><u>C4: Capacity building</u></a>	1.b, 2., 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	<a href="#"><u>C5: Building confidence and security in the use of ICTs</u></a>	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	<a href="#"><u>C6: Enabling environment</u></a>	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	<a href="#"><u>C7 ICT Applications: i. e-government</u></a>	9.c, 16.6, 16.7, 16.10, 17.8
 ACTION LINE C7	<a href="#"><u>C7 ICT Applications: ii. e-business</u></a>	1.4, 2.3, 5.b, 8.3, 8.9, 8.10, 9.3, 17.11
 ACTION LINE C7	<a href="#"><u>C7 ICT Applications: iii. e-learning</u></a>	Goal 4
 ACTION LINE C7	<a href="#"><u>C7 ICT Applications: iv. e-health</u></a>	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 C7	<a href="#"><u>C7 ICT Applications: v. e-employment</u></a>	4.5, 8.5, 10.2, 12.6, 17.9
 ACTION LINE C7	<a href="#"><u>C7 ICT Applications: vi. e-environment</u></a>	9.4, 11.6, 11.b, 13.1, 13.3, 13.b, Goal 14, Goal 15
 ACTION LINE C7	<a href="#"><u>C7 ICT Applications: vii. e-agriculture</u></a>	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	<a href="#"><u>C7 ICT Applications: viii. e-science</u></a>	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 C8	<a href="#"><u>C8: Cultural diversity and identity, linguistic diversity and local content</u></a>	2., 4.7, 6.b, 8.3, 8.9, 11.4, 12.b
 ACTION LINE C9	<a href="#"><u>C9: Media</u></a>	5.b, 9.c, 12.8, 16.10
 ACTION LINE C10	<a href="#"><u>C10: Ethical dimensions of the Information Society</u></a>	1.5, 2.3, 3.8, 4.7, 5.1, 8.36, 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	<a href="#"><u>C11: International and regional cooperation</u></a>	17.9, 17.16, 17.17

**ANNEX I: WSIS Action Lines and SDGs Matrix with Rationale**

WSIS Action Lines	Sustainable Development Goals	Rationale/Clarification
 ACTION LINE C1	<b>1: End poverty in all its forms everywhere</b>	Increased Internet use can reduce poverty and create jobs through increased efficiency and transparency in government, the growing number of broadband connections and household Internet penetration. ICTs allow the private sector to create jobs that contribute to the poverty reduction.
	<b>3.8:</b> 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.	ICT can be used for creation of various data banks on diseases and can also assist decision makers in health planning, human resources needs' assessment, medicines' procurement and infrastructure construction
	<b>3.d:</b> Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.	ICT can be used to bring together people in danger and specialists as well as monitor the spread of a disease. Databases and storage of good practices can be maintained too.
	<b>5: Achieve gender equality and empower all women and girls.</b>	ICT can be used for online training programmes, to include women in policy-making through e-voting, e-learning and enhance their ability to take surveys, to anonymously, to make complaints and to participate in discussion forums
	<b>10.c:</b> 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	ICT can give people access to formal banking, e-banking and m-banking since reports show that there is a very high level of informal remittances flow.
	<b>16.5:</b> Substantially reduce corruption and bribery in all their forms	Development of the justice system that can provide: practical information for use by citizens, online forms, and the news about law and justice, information required to promote the national reconciliation.

		<b>16.6:</b> Develop effective, accountable and transparent institutions at all levels	Notary and other transactions can be performed online. Judicial record management systems introduce both diligence and transparency
		<b>16.10:</b> Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	ICT can help ensure a fully participatory approach by creating structures for communication and collaboration to enable coordination, to strengthen actions among governments, key stakeholders, international organizations, NGOs, the private sector and civil society
		<b>17.18:</b> 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	Central to the development of reliable and open datasets should be the issues of trustworthiness and privacy. Transformation of public service to the electronic service is an important step to deliver more convenient, customer oriented and cost effective public services to the citizens in a timely manner without bureaucracy. Numerous websites where citizens can find all the procedures, information and communication from government effectively contribute to global partnership.
	<b><u>C2: Information and communication infrastructure: an essential foundation for the Information Society</u></b>	<b>1.4:</b> 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	Nowadays, access to the Internet is a new basic service necessary for all people. However, statistics show that there is a huge gap between the developed and developing world, which need to be addressed.

	and financial services, including microfinance	
	<b>8.2:</b> Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value-added and labour-intensive sectors	The ICT industry is known for its high-valued-added products. Moreover, high productivity cannot be achieved without ICT, especially without access to the Internet, in all industries. Development of affordable telecommunication equipment are the key elements, as mentioned in the WSIS+10 Vision for WSIS Beyond 2015 document endorsed at the WSIS+10 High-Level Event,
	<b>9.1:</b> 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 <b>9.a:</b> 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 <b>9.c:</b> Significantly increase access to information and communications technology and strive to provide universal and affordable access to the	As mentioned in the WSIS+10 Vision for WSIS Beyond 2015 document endorsed at the WSIS+10 High-Level Event, connection to the Internet through Broadband has been identified as the ICT infrastructure for the next decade.

		Internet in least developed countries by 2020.	
		<p><b>11.5:</b> By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease 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</p> <p><b>11.b</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</p>	As mentioned in the WSIS+10 Vision for WSIS Beyond 2015 document endorsed at the WSIS+10 High-Level Event, resilient and robust ICT infrastructure is essential to ensure communications in cases of disruptive events. Emergency telecommunication is an effective tool to minimize losses and accelerate recovery from disasters.
	<b>C3: Access to information knowledge</b>	<b>1: End poverty in all its forms everywhere</b>	<p>Citizens: active agents of their own development.</p> <p>Key limitation:</p> <ul style="list-style-type: none"> <li>- Lack of knowledge due to a <i>lack of access</i> to information on vital issues such as their health, education, employment and safety and social protection, among others.</li> </ul> <p>‘Access’ to information is only one focus of increasing transparency. With regard to people living in extreme poverty, where exists the highest illiteracy rates and poorest infrastructure, the more important factor is</p>

			<p>not direct access to vast amounts of data itself which citizens cannot conceive and make productive use of, rather it is the level of interoperability of this data and information.</p> <p>Intermediaries and NGOs are central to the delivery of data in summarized, translated formats, easily understood by locals.</p> <p>The focus of projects that aim to increase access to knowledge and information in underdeveloped countries should focus on removing accessibility barriers to local governments and extension workers, who can then transfer this knowledge to local communities they work with directly through informal discussions, lay summaries as well as formally organized workshops and local information centers.</p> <p>With regard to the sub-goals, this type of secondary communication among authorities and citizens will gradually build communities of well-informed and educated women &amp; children, give rise to improved health conditions &amp; increased agricultural revenue. This will boost the economies of LDCs and SIDs, reduce maternal mortality rates and increase overall life expectancies, among other SDG targets, therefore being a big step towards poverty alleviation through increased access to information.</p>
		<b>2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture</b>	<p>Agriculture is the main source of economic growth for developing countries. Empowering farmers through access to information (via intermediaries) on new seed varieties, better farming methods, market prices, and trade statistics will gradually build communities of well-educated farmers who can participate in the policy-making processes related to agricultural issues and also enables them to have profitable sales.</p> <p>With regard to agricultural research, the application of genetic engineering techniques to develop GMOs is now one of the hottest topics in Biotechnology; but also one where the related research thrives only in the developed world. Access to these published works can empower researchers from the developing world to pave way for locally suited sustainable agricultural systems shaped within the context of local ecological systems in least developed countries, rather than a focus on industry-oriented products and chemicals per se which threaten the longevity of revenue from agriculture and thereby the nation's economy.</p>

		<p>The amount of agricultural data being generated and the means of sharing it are increasing, leading to a global refocus on agriculture, enabling NGOs and extension workers who work directly with farmers to share this information with them.</p> <p><u>FAO Data</u>: an openly accessible one stop portal that combines statistics, maps and other data visualizations from 198 countries on nutrition, food and agriculture in a downloadable format.</p> <p><u>Godan initiative</u>: (Global Open Data for Agriculture and Nutrition): seeks to support global efforts to make agricultural and nutritional data available, accessible and usable for unrestricted use worldwide.</p> <p><u>Cassavabase; Cornell University</u>: Cassava is a major staple crop in Africa which is indispensable for the continent's food security. This database is a free and openly accessible browser which provides valuable information for breeders, researchers, farmers.</p>
	<b>3: Ensure healthy lives and promote well-being for all at all ages</b>	<p>Patient care: self-education for patients on new treatments for their medical conditions; patient-to-patient translation of medical information as intermediaries through informal discussions and lay summaries, reliable medical information from sources other than Wikipedia or Google, which is often contradictory to what an accessible research paper would state; easily accessible self-diagnostic tools; empower disabled people as consumers of public health services to make informed decisions about their service providers.</p> <p>Example: Sickle Cell Disease has an estimated global burden of 15,500 DALYs and a high mortality rate in developing countries (95% before 5 years of age in rural areas, 50% in urban Africa) as compared to 95% survival at 20 years of age in developed countries. Most of the affected babies are born in Sub-Saharan Africa (DRC 12%, Nigeria 32%) and India (11%). These numbers are expected to rise in the next 10 years. There is ~100,000 SCD patients in USA; 50,000 in Europe. But hundreds of thousands in Sub-Saharan Africa and India. While at present only one drug exists to treat SCD (Hydroxycarbamide), Biotechnology research is rapidly advancing in this area to:</p> <ul style="list-style-type: none"> <li>- Develop a low-cost bed-side diagnostic device</li> </ul>

			<ul style="list-style-type: none"> <li>- carry out drug screening to identify new drugs and genetic screening to identify potential gene targets</li> <li>- Establish Clinical and genetic databanks to develop a global approach to research, especially for gene-environment interactions.</li> <li>- Manipulate Stem Cells for innovative interventions via genome editing for gene therapy</li> <li>- produce, <i>in vitro</i>, rare blood group RBCs for transfusion.</li> </ul> <p>Taxes for such medical researches carried out by federal organizations are paid by the public. However, developing countries cannot afford to subscribe to European/American journals where most research is published on SCD and other illnesses which are most prevalent in such communities. Therefore, Open data about government funded health services will reduce global health burden by, for example, keeping SCD patients informed about simple bed-side diagnostic tools or keeping mothers informed about subsidized immunization programs that can lead to a significant reduction in infant mortality.</p> <p>Furthermore, Up-to-date health professionals and medical students in developing countries will also enhance discoverability by medical researchers and prevents research duplication.</p> <p>Current efforts to improve access to information on health related issues:  <u>Open Health Initiative</u>: a transparent effort to track all health budget and expenditure data, the progress of targets for improving outcomes of women's and children's health, leading to the publication of a routine report.  <u>UNAIDS Data</u>: A complete database that provides access to country progress reports, epidemiology publications Global AIDS response progress reports, among many other valuable tools.  <u>The World Bank Health Stats Database</u>: health, nutrition and population (HNP) statistics  <u>WHO OA policy (1 July 2014)</u>, <u>WHO IRIS</u>, <u>WHO Data</u>: provides free access to all WHO publications and statistics covering the organization's activities in all areas of health.  <u>WHO Ebola Response Roadmap</u>: provides free and downloadable regular updates of current burden of Ebola across the world.</p>
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		<p><b>4: Ensure inclusive and equitable quality education and promote life-long learning opportunities for all</b></p>	<p>Impact of Openness on higher education: Open service providers and big industry players and organizations that provide open educational platforms allow large numbers of quality online learning materials to supplement and assist the classroom. Openness through the investments made in initiatives like MOOCs helps students better choose their universities and universities to better choose their students. Openness in education allows a higher educational institute to remain relevant to students' needs instead of risking closure and financial constraints. Openness will therefore foster a more democratic higher education system suited to local contexts.</p> <p>Impact of openness on research: In developing countries, small university budgets allow access to only a limited set of journals, where students settle for <i>available</i> research instead of <i>relevant</i> research, putting them at a disadvantage. However, to promote scholarship among budding researchers from LDCs, timely access to relevant information is central for their recognition and impact in their research field through increased visibility of their work and to promote their profiles.</p> <p>Impact of openness on teaching and learning: At more primary levels of education, local teachers in village schools should not have to disseminate outdated course information to young children. In an era where hardbound textbook knowledge is quickly evolving and changing, these teachers should be well-informed about the latest developments in the subjects they teach and this can only be achieved by providing them access to digital knowledge repositories and affordable e-journal subscriptions/ OERs via internet access. Such e-learning materials give extraordinary spread of access and potential to reach thousands of learners who would otherwise not have access to a complete education.</p>

		<p>Using content with open licenses allows educators themselves to modify content and draw ideas from others and to adapt curricula that suit local contexts.</p> <p><u>MOOCs</u>: allows the views of experts in a study field to be accessed more easily. It allows students to complete lessons ahead of time and engage in debates, active discussions with teachers in the classroom, thereby facilitating learning through interaction.</p> <p>Teachers and students should also be made aware of the value of Open Access in itself to instill a habit of knowledge sharing to gradually build inclusive knowledge societies.</p> <p><u>UNESCO OA curricula</u></p> <p><u>UNESCO OER platform</u>: provides Member States the opportunity to increase access to education through knowledge sharing and dialogue; promotes the sharing of curricula of schools from developing countries in OER format on the OER platform;</p> <p><u>UNESCO Institute for Statistics (UNESCO UIS) Data Centre</u>: Compiles and disseminates education statistics from official surveys &amp; reports from education authorities in each country.</p> <p><u>ROAD database</u>: A joint service offered by UNESCO and ISSN to provide free access to bibliographic records (journals, conference proceedings, academic repositories) covering all areas of study.</p> <p><u>Directory of Open Access Journals (DOAJ)</u>: an online directory that provides free access to peer-reviewed journals within a wide range of subjects.</p> <p><u>The World Bank EdStats portal</u>: help users visualize and analyze education data.</p>
	<b>5: Achieve gender equality and empower all women and girls</b>	<p><b>Impact:</b></p> <p><b>Education:</b> A knowledgeable woman transfers that state to her offspring, gradually promoting an increasingly educated community and greater investments in children's health and education.</p> <p><b>Economy:</b> lift the gender disparity in local economies by enabling female entrepreneurs to integrate their small businesses into local/global markets and make the gradual shift from the informal to the formal sector through access to information on business networking.</p>

			<p>Safety: expose violations against women through access to state-held information to raise awareness; increased visibility of government's actions related to advancing women's rights encourages more social scrutiny and reinforces women's rights advocacy by international organizations.</p> <p>Health: self-education for women on important health issues related to pregnancy, child care, HIV/AIDS and other STDs can alleviate maternal mortality rates.</p> <p>Researchers: gender-wise open data supports the implementation and planning of gender-related development projects.</p> <p><u>The World Bank</u>: Gender Stats Database; Gender Data Portal &amp; Gender Statistics Database</p> <p>2013: UN Statistics Division launched the "Guidelines for Producing Statistics on Violence Against Women" to provide national statistical agencies guidance to collect, process, disseminate and analyze data.</p> <p>2013: WRI and Landesa launched the community platform <a href="http://www.focusland.com/">www.focusland.com/</a> to promote equitable access to land for women.</p> <p>May 2014: Elsevier launched OA journal Case Reports in Women's Health covering all aspects of women's health</p> <p>UN: <a href="http://www.saynotoviolence.org">www.saynotoviolence.org</a></p>
		<p><b>6: Ensure availability and sustainable management of water and sanitation for all</b></p>	<p>Impact:</p> <p>Water governance: connect national governments with individual water users to increase transparency and raise awareness about water challenges.</p> <p>Citizens: access to indigenous &amp; traditional water knowledge of senior citizens in rural communities can support water decisions that are often made outside the water sector; encourages people to make safe water choices by locating safe water sources and identify unsafe ones.</p> <p>Research: water-related challenges that affect people/ecosystems can be tracked &amp; understood to help in project design; open data allows survey information to be used by community health workers to inspect sanitary conditions of a water source.</p> <p>Education: well-informed water professionals in developing countries can communicate directly with rural communities in local languages to address personal water issues.</p>

		Currently, in developing countries, more people have access to ICT and mobile phones than a safe water source. Projects such as USAID mWater (mobile-based water monitoring system) leverages the concept of Open Data through such ICTs to enable people to test and analyze water quality and share this information on global, open source water-monitoring databases.
	<b>7: Ensure access to affordable, reliable, sustainable, and modern energy for all</b>	<p>Impact:  Developing countries rely on small-scale energy projects. Open access to project data increases their acceptance and encourages project replication by local governments, welcomes more donor funds from local authorities and funding institutions.</p> <p>Global energy equity: establishment of regional networks; encourages South-South cooperation by combining small projects with international/regional organizations, beneficiaries.</p> <p>Citizen awareness: Informal spread of knowledge within communities about sustainable green energy options encourages a reduced energy footprint by people.</p> <p>Research: methods for developing new energy technologies (from biomass/ biological systems) when openly shared, encourage further research contributions; limited data availability hinders research progress in this area.</p> <p>2013: Launch of the Open Access Renewable Energy Atlas by the International Renewable Energy Agency (Irena)  <u>Enerdata</u>: provides freely accessible and downloadable energy data, forecasts, market reports, research, news, consulting and training on the global energy industry.</p>
	<b>8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</b>	<p>Impact:  Trade: transparency can improve access to markets and provides a predictable trading system for countries; integrates developing countries into the world economy; helps to expose developing nations to external economics, expand their local market, make investments and increase trade opportunities. This increases the global competition in enterprise. Helps private sectors link to large regional/global markets.</p>

		<p>Strengthened financial system: access to information about national banking systems can lower transaction costs and therefore boost economic growth.</p> <p>Governments: public access to government data encourages informed citizenry who can choose their representatives and be involved in the decisions/policies made relevant to employment.</p> <p>Education and Economic growth: formal employment first requires youth and women to be well read and informed about opportunities relevant to their skills. Open data platforms attract skilled labor and promote service delivery in the sectors of transportation, energy, water &amp; sanitation, education, health and agriculture.</p> <p><u>The World Bank: Transparency in Trade Initiative</u></p> <p><u>The World Integrated Trade Solution (WITS) tool</u></p> <p><u>ASPIRE</u>: an ongoing project to compile and disseminate data on Social Protection and Labor (SPL)</p> <p><u>LABORSTA ILO</u>: Provides country-wise statistics about employment rates, occupational injuries, Labor costs, household income and expenditure etc.</p> <p><u>International Financial Statistics (IMF)</u></p>
	<b>9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</b>	<p>Impact:</p> <p>Enhance scientific research, upgrade the technological capabilities: In addition to the standard defined OERs such as course materials, textbooks, multimedia applications etc, providing developing countries with other OERs such as high-tech (virtual) laboratories under an open license can increase a country's potential to contributing to global scientific research output, thereby fostering innovation.</p>
	<b>10: Reduce inequality within and among countries</b>	<p>Unequal distribution of income harms growth and poverty reduction as well as the quality of public and political relations. Inequality of income can be addressed through the provision of equal opportunities for all disadvantaged groups in terms of education, employment and other public services. Open Data makes officials' work and decisions more visible, which increases their accountability for poor or corrupt choices that can lead to unfair employment practices, mishandling of money etc.</p>


		<b>11: Make cities and human settlements inclusive, safe, resilient and sustainable</b>	<p>Impact:</p> <p>Communities: informed citizenry who are able to judge public safety levels; real time sharing of crime data and updates fueled by ICT helps to keep people updated on important public safety issues; enable people to report crimes in real time.</p> <p>Government: transparency into how local police power is being exercised; increases government receptiveness and response to crimes.</p> <p>Examples:</p> <p>UNHCR Statistical Database <a href="#">Ushahidi</a></p> <p><a href="#">Red Cross Hurricane and Earthquake apps</a>: puts lifesaving information in the hands of people who live in or are visiting hurricane- and earthquake-prone areas, giving instant access to local information on what to do before, during, and after hurricanes or earthquakes.</p>
		<b>12: Ensure sustainable consumption and production patterns</b>	<p>Impact:</p> <p>Policy makers: open data on economic growth enables policy makers to understand national economic situations and be a guide to future implementation programs.</p> <p>Business: increased transparency into the markets which entrepreneurs plan to expand into or are already serving.</p> <p><a href="#">Global Consumption database</a>: consumer spending patterns in health, education, ICT, water, transport, energy etc for developing countries.</p>
		<b>13: Take urgent action to combat climate change and its impacts</b>	<p>Impact:</p> <p>Government: Open access to climate information allows cross-border communication and quick adaptation of prevention measures.</p> <p>Crowdsourcing: Information sharing and mapping platforms play a critical role at times of natural disasters.</p> <p>Research: design of projects to tackle climate impact depends on access to climate data and tools both at government and individual user level.</p> <p>Examples:</p> <p>UNDP <a href="#">climate information platform</a></p> <p>United Nation Statistics Division (UNSD) <a href="#">Environment Statistics Database</a>: provides free access to environmental statistics in relation to human activities, therefore promoting the realization among</p>

		<p>communities of the link between social/ economic activities and environmental concerns; a tool for professional environmentalists to statistically describe and analyze environmental problems.</p> <p><u>Greenhouse Gas Inventory Data</u> (United Nations Framework on Climate Change UNFCC):</p> <p>The World Bank: <u>The Climate Change Knowledge portal</u> is a one stop shop for climate-related information</p> <p>Intergovernmental Panel on Climate Change: <u>Data Distribution Centre</u></p>
	<p><b>14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development</b></p>	<p>Impact:</p> <p>Research: generation of marine pollution maps and the design of ocean-cleaning projects.</p> <p>Public: well-informed fishers and fishing communities in developing countries about marine equipment and marine weather available in real time boosts economic growth in coastal regions.</p> <p>Examples:</p> <p><u>UNESCO</u>: International Oceanographic Data and Information Exchange/Ocean Biogeographic Information System (IODE/OBIS) collaborate to improve information availability on marine biodiversity for policy makers for conservation and sustainable use of ocean's biological resources.</p> <p><u>NETMAR</u>: Open Service for Marine Environmental Data developed a European Marine Information System (EUMIS) for searching, downloading and integrating satellite, in situ and model data from ocean and coastal areas. EUMIS also enables further processing of such data to generate composite products and statistics suitable for decision-making in diverse marine application domains.</p> <p><u>DOE's Water Power Program</u> is standing up a Marine and Hydrokinetics (MHK) Data Repository to manage the receipt, protection, and dissemination of scientific and technical data generated by DOE funded awards.</p> <p><u>www.OpenMarine.org/</u></p>
	<p><b>15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests,</b></p>	<p>Impact:</p> <p>Developing countries: governments that have insufficient investments to establish their own data sharing centers at local/ regional level can be provided access to international data platforms through local</p>

		<p><b>combat desertification, and halt and reverse land degradation and halt biodiversity loss</b></p>	<p>intermediaries to share their data and further encourage governments to establish their own data sharing centers.</p> <p>Researchers: open platforms allow countries to update species information, generation of interactive global maps that enable countries to plan necessary conservation projects.</p> <p>Public: delivery of timely and accurate information about the planet's health gives rise to informed and concerned citizens, further encourages the green turn.</p> <p>Examples:  <a href="#">UNEP LIVE</a>: a transparent online platform for countries to publish and share research about the local environment; allow African and SIDS to assess their own environmental data and environmental hazards in their region; few live features such as: live data flows on air quality and sea level from national sources and interactive maps of the environment in regions and countries.  <a href="#">United Nations Statistics Database (UNSD) Environment Statistics Database</a>  <a href="#">AfriGEOSS program</a>: help African agencies respond to natural disasters such as floods and forest fires by supporting the direct download of satellite data  Earth System Science Data</p>
		<p><b>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</b></p>	<p>Impact:</p> <p>Public: Real-time accessibility to crime data feeds should enable citizens to download the information in a readable machine format, use it, map it and share it; keeps citizens better informed on current public safety issues that governments are already closely tracking; helps citizens understand which information must be kept private and cannot be disclosed. Transparency of court cases means transparency of the true performance of courts, which enable citizens to give feedback on judicial information, hold courts accountable and participate in decision-making processes, changes the flawed public perceptions of processing of court cases.</p> <p>Government: enabled to share and analyze crime data that spans multiple jurisdictions or departments; permanently accessible crime databases help governments study policy impact on cities over time. The</p>

		<p>judiciary is a key player that helps to improve the use of public resources and the quality of public policies; open data therefore influences the way citizens perceive their governments and institutions.</p> <p>Media: enables reporters to study and accurately report specific crimes and violations.</p> <p>Developing countries: judges intervene with increasing frequency to repair the failures of the state, to improve access to health, education, public services and housing rights for poor people. Therefore, more transparency and increased accessibility to information makes the judiciary better positioned to intervene in these matters.</p> <p>Examples:  <a href="#">UNODC Homicide Statistics</a>  <a href="#">FBI Uniform Crime Reports Publications and UCR Data Tool</a>: enables people to research crime statistics by nation, by state and by individual law enforcement agencies.  2007: <a href="#">Spot-Crime</a> is an openly accessible crime mapping and alert website which enables citizens to easily find crime related data from cities across the USA.</p>
	<b>17: Strengthen the means of implementation and revitalize the global partnership for sustainable development</b>	<p>Impact:</p> <p>(1) Resource Allocation:  The mobilization of domestic and financial resources plays a key role in the sustainable development of developing countries. Transparency in the delivery of foreign aid benefits many:  Governments &amp; NGOs: better planning, management and coordination of received aid; ability to track aid flows and ensure aid is spent wisely  Citizens of developing countries: better understanding of what aid their country is receiving, enabled to hold governments accountable.  Citizens of donor countries: better understanding of how their taxes are being used to alleviate poverty.</p> <p>(2) The trade sector is critical for forming regional and global partnerships. Benefits of increased access to trade information:  Government: increased awareness of the barriers to trade that prevail in export markets, informed about restrictive trade policies that can guide</p>

			<p>the negotiations between countries; regular monitoring and assessment of the effects of trade policies on the world trade system.</p> <p>Markets: accurate timely information enables public and private sectors to make economic decisions based on potential costs, risks and market opportunities; reduced risk of investment leading to more trade flows; enable traders to be well informed about the conditions of trade; transparency in legislation and policies reduce friction with trading partners; reduced transaction costs in terms of time and expense of obtaining information (search cost), reduced burden of 'information asymmetry'; reduced uncertainty on the conditions of access to materials supplies.</p> <p>(3) Tourism: a resource and opportunity for developing countries to boost their economy and create partnerships with other governments and get in contact with communities through heritage and culture. Open Data helps potential foreign investors and tourists evaluate their options through better understanding of the country.</p> <p>Examples:</p> <p>Oct 2012: <u>The International Aid Transparency Initiative (IATI)</u> developed an international standard to make information about aid more accessible to governments. The published data contains information about ongoing aid projects as well as department-level information.</p> <p>2010: <u>AidData released a searchable data portal</u> that gives access to past and present development finance projects of over 90 funding agencies. This open platform, which supports the IATI, allows citizens, researchers and policymakers to download data for a better understanding of how aid funds are being spent.</p> <p>Foreign Aid in Nepal Website: an Aid Management Platform (AMP) that provides Governments and development partners with access to data on development indicators and case studies that can be used to manage aid in Nepal and planning of Medium Term Expenditure Framework.</p> <p><u>USAID</u></p> <p><u>WTO</u>: International Trade and Market Access Data, Integrated trade Intelligence Portal (I-TIP): a single access point for information compiled by WTO on trade policies, services and markets.</p>
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 ACTION LINE C4			<p>UNSD Commodity Trade Statistics Database OECD Data (Organization for Economic Co-operation and Development)</p>
	<b><u>C4: Capacity building</u></b>	<b>1.b:</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	<p>Focus of the action line C4 includes equipping people with the right skills and competencies needed to develop domestic policies to ensure that ICTs are fully integrated in education and training at all levels, including in curriculum development, teacher training, institutional administration and management, in support of the concept of lifelong learning. Creation of policy frameworks requires stakeholder engagement, analysis and interpretation of data for targeted policy interventions which can be achieved through skills development programmes.</p>
		<b>2.3:</b> 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.	<p>With the emergence of e-agriculture and the growing need for the knowledge in the use of ICT's, capacity building interventions focusing on the development and promotion of programmes to eradicate illiteracy, acquiring new knowledge and skills to improve food productivity and crop yields using ICTs, access to markets. Such capacity programs need to be developed at local, national, regional and international levels, to contribute to knowledge growth and inclusion.</p>
		<b>3.7:</b> 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 <b>3.b:</b> Support the research and development of vaccines and medicines for the	<p>To support research and strengthen capacity of developing countries for early warning, risk reduction and management of national global health risks, activities include design of specific training programmes in the use of ICTs in order to meet the educational needs of information professionals, such as archivists, librarians, museum professionals, scientists, teachers, journalists, postal workers and other relevant professional groups which focuses not only on new methods and techniques for the development and provision of information and communication services, but also on relevant management skills to ensure the best use of technologies.</p>

	<p>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</p> <p><b>3.d:</b> Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks</p>	
	<p><b>4.4:</b> 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</p> <p><b>4.7:</b> By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others,</p>	<p>Action line C4 focuses on development and promotion of programmes to eradicate illiteracy using ICTs at national, regional and international levels, with the aim of increasing the number of people with relevant ICT skills and to facilitate employment and entrepreneurship in the ICT sector.</p>

	through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	
	<p><b>5.5:</b> Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life</p> <p><b>5.b:</b> Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women</p>	Work on removing the gender barriers to ICT education and training and promoting equal training opportunities in ICT-related fields for women and girls, is part of the action line, with early intervention programmes in science and technology targeting young girls with the aim of increasing the number of women in ICT careers as well as promotion the exchange of best practices on the integration of gender perspectives in ICT education.
	<b>6.a:</b> 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	Development of distance learning, training and other forms of education and training as part of capacity building programmes, is part of the capacity building initiatives that supports countries interventions giving special attention to developing countries and especially LDCs in different levels of human resources development.
	<b>12.7:</b> Promote public procurement practices that are	Raising awareness on sustainable consumption and production in today's era requires the use of technology. The action line therefore impacts on this SDG by enhancing technological capacity of countries

	<p>sustainable, in accordance with national policies and priorities</p> <p><b>12.8:</b> By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature</p> <p><b>12.a:</b> Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production</p> <p><b>12.b:</b> Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products</p>	<p>through training and development initiatives that target ICT's and related areas, as well as building a more inclusive information society.</p>
	<p><b>13.2:</b> Integrate climate change measures into national policies, strategies and planning</p> <p><b>13.3:</b> Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p> <p><b>13.b:</b> Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and</p>	<p>Action line C4 promotes creation by governments, in cooperation with other stakeholders, of programmes for capacity building with an emphasis on building a critical mass of qualified and skilled ICT professionals and experts.</p>

	local and marginalized communities	
	<b>14.a:</b> 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	Empowering communities in ICT use and promoting the production of useful and socially meaningful content is a capacity building intervention that can increase scientific knowledge and promote innovation and research.
	<b>16.a:</b> 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	Human Capacity building goes hand in hand with Institutional capacity building. The C4 action line focuses on promotion of international and regional cooperation in the field of capacity building, including country programmes developed by the United Nations and its Specialized Agencies.
	<b>17.9:</b> 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-	Capacity building initiatives contribute to the SDG through the design and implementation of regional and international cooperation activities to enhance the capacity, notably, of leaders and operational staff in developing countries and LDCs, to apply ICTs effectively in the whole range of educational activities. Also through the launch of pilot projects to design new forms of ICT-based networking, linking education, training and research institutions between and among developed and developing countries and countries with economies in transition.




ACTION LINE  
C5

	<p>South and triangular cooperation</p> <p><b>17.18:</b> 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</p>	
<p><b><u>C5: Building confidence and security in the use of ICTs</u></b></p>	<p><b>1.4:</b> 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</p>	<p>Increasing access to ICTs, especially in unconnected areas of the developing world bears the risk of experiencing online threats. Raising awareness on the measures to be undertaken for a secure and trustworthy use of ICTs is crucial for the economic development of a country/community.</p> <p>Furthermore the development of secure and reliable applications to facilitate online transactions is essential for building trust in online banking services.</p>
	<p><b>4.1:</b> By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes</p>	<p>As education nowadays is significantly complemented by the use of online resources, an effective user education and awareness about the risks posed online, should be ensured.</p> <p>Here, ensure special emphasis for protection and empowerment of children online.</p>

	<p><b>4.3:</b> By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university</p> <p><b>4.5:</b> 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</p>	
	<p><b>5.b:</b> Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women</p>	Ensure that women become aware not only of the benefits of ICTs, but also of the involved risks and receive the necessary education and knowledge of how to protect themselves online
	<p><b>7.1:</b> By 2030, ensure universal access to affordable, reliable and modern energy services</p> <p><b>7.a:</b> 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</p>	As energy infrastructure (usually considered critical infrastructure) is increasingly relying 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 taken already at the initial design and roll-out stages.

	<p><b>7.b:</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</p>	
	<p><b>8.1:</b> 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</p>	<p>It is generally agreed that ICTs can significantly increase a country's GDP. Setting up a secure ICT foundation is thus essential for the sustainable growth of a country's economy</p>
	<p><b>9.1:</b> 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.</p>	<p>As infrastructure is increasingly relying 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 taken already at the initial roll-out stages.</p>
	<p><b>9.c:</b> Significantly increase access to information and communications technology and strive to provide universal and affordable access to the</p>	<p>In order to build a sustainable and resilient ICT ecosystem access should go hand-in-hand with trust and security.</p>

	Internet in least developed countries by 2020	
	<p><b>11.3:</b> By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries</p> <p><b>11.b:</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</p>	Concerning the broad adoption of ICTs and the gradual transition to the establishment of Smart Cities, a security component should be taken into account.
	<b>16.2:</b> End abuse, exploitation, trafficking and all forms of violence against and torture of children	Online child sexual abuse content should be treated within the same framework.
	<b>17.8:</b> 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,	Increasing access to ICTs, especially in unconnected areas of the developing world bears the risk of experiencing online threats. Raising awareness on the measures to be undertaken for a secure and fruitful use of ICTs is crucial for the economic development of a country/community.

		in particular information and communications technology	
	<b>C6: Enabling environment<sup>1</sup></b>	<b>2.a:</b> 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	Both holistic and targeted ICT policies and regulations can contribute to reducing barriers to broadband deployment, actively facilitating build-out of national fibre-optic networks and international connectivity links, including across sectors. It is also essential to ensure the deployment of services in unserved and underserved areas, including emergency and accessibility-enhanced services. <i>(GSR2012)</i>
		<b>4.4:</b> 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	ICT policies and legislation can actively contribute to the development of a new generation of educated and technology-savvy workforce by ensuring the timely and effective introduction and spread of new and improved products and processes in the economy, reinforcing the ability of individuals and businesses to continuously create wealth, and putting a premium on all forms of learning, with close attention to both indigenous knowledge and the transfer of knowledge. <i>(GSR2012)</i>
		<b>5.b:</b> Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women	The growing demand for a range of ICT skills around the globe present a unique window of opportunity to properly position girls and women in the industry and provide them with the tools necessary to succeed. To do so, governments should prioritize the implementation of policies that develop human talent and the right skill sets for the building of a vibrant and diversified ICT sector, engaging women and girls at all levels in order to fully utilize and promote the full spectrum of talent in all countries. <i>(ITU, A bright future in ICTs: Opportunities for a new generation of women, 2012)</i>
		<b>8.2:</b> Achieve higher levels of economic productivity through diversification, technological	Predictable and stable regulations are key to maintaining effective competition and driving the development of innovative ICT services as well as ICT-enabled innovation. <i>(GSR2014)</i>


<sup>1</sup> The rationale for the mapping of WSIS AL C6 is based on the Regulatory Best Practice Guidelines adopted by the ITU Global Symposia for Regulators (2000-2014), [www.itu.int/bestpractices](http://www.itu.int/bestpractices)

	upgrading and innovation, including through a focus on high-value-added and labour-intensive sectors	
	<b>8.3:</b> 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	ICT regulatory policies are directed at improving the long term interests of citizens given that broadband can contribute to this by improving and enabling education, information, and increased efficiency. It can reduce costs, overcome distance, open up markets, enhance understanding and create employment. <i>(GSR2004)</i>
	<b>9.1:</b> Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	Both holistic and targeted ICT policies and regulations can contribute to reducing barriers to broadband deployment, actively facilitating build-out of national fibre-optic networks and international connectivity links, including across sectors. It is also essential to ensure the deployment of services in unserved and underserved areas, including emergency and accessibility-enhanced services. <i>(GSR2012)</i>
	<b>9.c:</b> 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	A wide array of ICT regulatory policies and other instruments can be put in place to stimulate the deployment of broadband networks, particularly in developing countries. Given the challenges in attracting investment for large scale deployments, these strategies could consider the role of the state in funding the national broadband infrastructure, inter alia through PPPs and promoting the involvement of municipalities or cities. <i>(GSR2010)</i>
	<b>10.3:</b> Ensure equal opportunity and reduce inequalities of outcome [...within and among countries...], including by eliminating discriminatory laws,	Enabling ICT regulatory policies pave the way for the establishment of cross-sectoral institutional and legal frameworks that are transparent, are conducive to investment and growth, foster fair and greater competition as well as innovation, stimulate the deployment of

	<p>policies and practices and promoting appropriate legislation, policies and action in this regard</p> <p><b>11.3:</b> By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries</p> <p><b>11.b:</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</p> <p><b>16.3:</b> Promote the rule of law at the national and international levels and ensure equal access to justice for all</p>	<p>infrastructure, promote the development of new services, are security conscious, and protect and benefit consumers. <i>(GSR2009)</i></p> <p>A wide array of ICT regulatory policies and other instruments can be put in place towards the creation of preconditions for the organizational, legal and technical, standardization and interoperability aspects of human settlement planning and management, so that public authorities can offer their services electronically and that such online services and applications be user-friendly and accessible to all. More broadly, governments and ICT regulators have a key role to play in stimulating demand for ICT services and applications, in the framework of broader strategic goals, such as connecting public institutions (especially public administrations, schools, libraries and hospitals), businesses and residential users with broadband, promoting economic development, digital inclusion, social cohesion and equality of opportunity. <i>(GSR2009 &amp; GSR2010)</i></p> <p>Self-regulation as well as various regulatory incentives are appropriate and can prove effective in framing some ICT activities relating to climate change and handling e-waste in particular. <i>(GSR2011)</i></p> <p>Enabling ICT regulatory policies ensure that market forces work without constraints and towards innovation within the prescribed national legal environment. In particular, ICT regulators ensure regulatory predictability, relevance, consistency and transparency of regulation, non-discriminatory policies and regulatory practices, equal treatment of</p>
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		market players, and proportionality and accountability of regulatory decisions. <i>(GSR2009 &amp; GSR2010)</i>
	<b>16.6:</b> Develop effective, accountable and transparent institutions at all levels	Granting ICT regulator sufficient flexibility and autonomy in decision making and enforcing legal and regulatory instruments, enables them to effectively encourage innovation, future growth and sustainable development. <i>(GSR2013)</i>
	<b>16.7:</b> Ensure responsive, inclusive, participatory and representative decision-making at all levels	It is best practice to use inclusive and wide-ranging public consultations when drafting national plans, policies and strategies for the development of the ICT sector in general or the deployment and take up of broadband. Various platforms for developing a common understanding, vision and strategy can be set up with this regard and multiple collaboration mechanisms can be put in place to further the dialogue with industry, consumers and other stakeholders, employing self-regulatory measures to the widest extent feasible. <i>(GSR2009 &amp; GSR2010)</i>
	<b>16.10:</b> Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	Broadband, and mobile broadband in particular, enable citizens to access any content, anytime, anywhere in the global information society. Enabling ICT regulatory policies promote innovative services and technologies enhancing such access and driving social and economic progress. <i>(GSR2005)</i>
	<b>16.b:</b> Promote and enforce non-discriminatory laws and policies for sustainable development	ICT regulators and policy makers can act as a partner for ICT development and social inclusion, by facilitating and sometimes creating partnerships, such as private-public-partnerships (PPP), with aid-donors, governments, ministries and NGOs, in particular to meet universal access goals for rural, remote and unserved areas and for people with special needs. <i>(GSR2013)</i>
	<b>17.6:</b> Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance	Enabling ICT regulatory policies provide the framework for international cooperation towards building a harmonized and coordinated approach to oversee the evolution of the information society. <i>(GSR2009)</i>

 ACTION LINE C7		<p>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</p> <p>[...Strengthen the means of implementation and revitalize the global partnership for sustainable development...]</p>	
	<b>17.14:</b> Enhance policy coherence for sustainable development		<p>ICT regulatory policies can go a long way towards enhancing policy coherence, notably by building harmonized regulatory framework within and across regions and by establishing a broader dialogue between all stakeholders. <i>(GSR2010)</i></p>
	<b>17.16:</b> Enhance the global partnership for sustainable development, complemented by multistakeholder 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		<p>Governments, through their policy making and development of institutional frameworks for the ICT sector as a foundation of modern economies, strive to ensure the highest level of transparency and openness, and to carry out multi-stakeholder consultation on policy and regulatory matters affecting the development of the digital society in order to move to a more consensual regulatory decision making process whereby ensuring greater compliance from industry players. <i>(GSR2013)</i></p>
	<b>C7 ICT</b> <b><u>Applications: i. e-government</u></b>	<b>9.c:</b> Significantly increase access to information and communications technology and strive to provide universal and affordable access to the	<p>Expansion of e-government services can be a driver of demand for ICT, and provider of affordable access, directly, for example in the form of shared public kiosks, or indirectly through intermediary service providers</p>


 ACTION LINE C7		Internet in least developed countries by 2020 (connection)	
		<b>16.6:</b> Develop effective, accountable and transparent institutions at all levels (direct link)	ICT is a key driver and enabler of enhanced efficiency, effectiveness and transparency in public service delivery.
		<b>16.7:</b> Ensure responsive, inclusive, participatory and representative decision-making at all levels (connection)	Various forms of ICT-enabled information sharing and consultation provide opportunities to expand participation in decision-making, provided digital divides have been addressed.
		<b>16.10:</b> Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements (direct link)	
		<b>17.8:</b> Fully operationalize the technology bank and science, technology and innovative capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology (direct link)	
	<b>C7 ICT</b> <u><b>Applications: ii. e-business</b></u>	<b>1.4:</b> 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	E-business provides the possibility for men and especially women to have equal rights to economic resources by selling local goods and services online. It helps bring natural resources to markets and use remittances for payment of e-business services. Finally digital currencies and mobile payments are poverty reduction solutions.

	new technology and financial services, including microfinance	
	<b>2.3:</b> by 2030 double the agricultural productivity and the incomes of small-scale food producers, particularly 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	Enhanced use of ICTs in rural enterprises can play an important role in increasing the productivity of small-scale food producers. Promote the use of ICT's in building local and international market places for the sale and distribution of food. Encourage the use of innovative payment solutions, such as remittances for e-commerce, mobile payments and digital currencies.
	<b>5.b:</b> enhance the use of enabling technologies, in particular ICT, to promote women's empowerment	Empowering women's entrepreneurship through ICTs
	<b>8.3:</b> Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage formalization and growth of micro-, small- and medium-sized enterprises including through access to financial services	Facilitating the growth of the ICT production sector can offer opportunities for decent job creation, entrepreneurship, creativity and innovation, and encourage formalization and growth of micro-, small- and medium-sized enterprises.
	<b>8.9:</b> By 2030 devise and implement policies to promote sustainable tourism which creates jobs, promotes local culture and products	Enhance the use of ICTs among enterprises in the tourism sector to enable e-commerce/e-tourism. Improve access to e commerce markets for products and services and address challenges facing SMEs in developing countries

 ACTION LINE C7		<b>8.10:</b> Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all	Use of mobile and related ICT platforms can help to bring financial services to all
		<b>9.3:</b> increase the access of small-scale industrial and other enterprises, particularly in developing countries, to financial services including affordable credit and their integration into value chains and markets	Enhance the use of ICTs in the business sector to facilitate access to financial services, market and other information. Open international procurement mechanisms to SMEs from DC/LDC.
		<b>17.11:</b> increase significantly the exports of developing countries, in particular with a view to doubling the LDC share of global exports by 2020	An important way to facilitate exports from developing countries is to strengthen the ability and readiness of firms to engage in B2C and B2B e-commerce
	<b>C7 ICT</b> <b><u>Applications: iii. e-learning</u></b>	<b>4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</b>	Enhanced use of e-learning for education will be an important means to support the achievement of this goal, by offering affordable and flexible means to access education, and supporting more effective pedagogical innovations to improve the quality of education offered. Each of the elements under this goal is relevant for this action line.
	 ACTION LINE C7	<b>1.3:</b> Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	Social protection systems include health: the goal of universal health coverage is to ensure that all people obtain the health services they need without suffering financial hardship when paying for them. This requires that ICTs be used to support: a strong, efficient, well-run health system; a system for financing health services; access to essential medicines and technologies; and a sufficient capacity of well-trained, motivated health workers.
		<b>1.4:</b> 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 for all include health, in the form of universal health coverage: this requires ICTs in the health sector first to measure and monitor health status and coverage of the population and then to support the delivery and financing of services in the sector.

	basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	
	<b>1.5:</b> 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	The use of ICTs for health helps stakeholders prepare for, share information on, and respond to disease outbreaks, disasters and other emergencies. ICT supports the provision of medical and humanitarian assistance in disasters and emergencies and as those actions requiring inter-sectoral collaboration and rapid and reliable exchange of information, whether global in nature or for communication with remote areas. The use of ICT is critical to assure the post-disaster recovery of health services and systems to respond to the needs of all persons.
	<b>2.1:</b> 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 And <b>2.2:</b> 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	ICTs are indispensable for monitoring the health and nutritional status of populations, including vulnerable groups --such as the elderly, children, people living with HIV/AIDS, refugees and migrants --and for assuring their access to safe, nutritious food. Actions taken to improve nutrition include providing food and nutrient supplements to pregnant women and children, monitoring child growth and access to Vitamin A (essential for vision development), ICT supports the information gathering, analysis, planning and supply systems necessary for nutrition information and interventions to be delivered, as well as the operational research to evaluate their impact.


		<b>3. Ensure healthy lives and promote well-being for all at all ages</b>	E-health is directly linked to all targets under goal 3.
		<b>3.3:</b> By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	The use of ICT in the health sector is a priority for health systems development and reform. National e-health strategies are a means to engage partners and support health goals and priorities in every country. ICTs facilitate access to the world's medical knowledge and locally-relevant knowledge resources. This strengthens health education and promotion, public health research, policy and prevention programmes such as for sexual and reproductive health and sexually-transmitted infections, and for diseases that attract the full attention of the world including HIV/AIDS, malaria and tuberculosis.
		<b>3.8:</b> 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	The use of ICTs strengthens those sectors linked to human health and health systems – public health and health care services, sanitation, food and water; veterinary medicine and social services – with special efforts to reach people in remote and under-served areas, particularly in developing countries. ICTs enable the efficient and accountable delivery of essential supplies such as drugs, vaccines, diagnostics and equipment through the management of procurement, supply and global distribution chains. The adoption of policies, regulations and other measures that address the concerns of the health sector improve public trust and confidence in e-Health; always in the aim of creating accessible, reliable, timely, high quality, safe and affordable health services and systems. ICT is critical to identify disease and risk factor trends, analyse demographic, social and health data, and model diseases in populations.
		<b>5.6:</b> 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	The adoption of ICTs improves and extends health services and health information systems to remote and underserved areas and vulnerable populations; the role of women as health providers in their families and communities is supported through ICTs by improving communication and access to information and knowledge. ICT tools such as social media and other channels support advocacy, outreach and global awareness raising towards realizing a human-rights based approach to ensuring women's and children's health in every country.

		documents of their review conferences	
		<b>5.b:</b> Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women	ICTs empower women with the knowledge and communications capabilities they need to make a difference in the health of their families and communities. This can be through increasing accountability (reporting abuse or corruption in health services) or through access to knowledge, information and the ability to connect with others for health intervention, prevention and resources.
		<b>17.8:</b> 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.	Access to innovation and e-health applications is required to support health institutions, health researchers and professionals, improve local access to information and knowledge and enable the flow of information in health services and systems. ICTs provide the foundation for the delivery of tele-health, tele-medicine, electronic medical records, personal health records, and health information systems. Research and development of ICT products and services can target health sector needs and offer new opportunities for capacity building and partnerships.
		<b>17.19:</b> 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	International standards for the exchange of individual and public health data should be adopted by all countries, with appropriate privacy, security and confidentiality measures. Health data and information systems are needed for alerting, monitoring and controlling the spread of communicable diseases. Data on ICT uptake in the health sector provides the evidence for the uptake and trends in e-health as well as its impact on health and other related socio-economic outcomes. .
	<b>C7 ICT</b> <u><b>Applications: v. e-employment</b></u>	<b>4.5:</b> 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,	Early intervention programs in science and technology targeting young girls should increase the number of women in ICT careers.

	*pending input from ILO	indigenous peoples and children in vulnerable situations	
		<b>8.5:</b> 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	Teleworking could allow citizens, particularly in the developing countries, to live in their societies and work anywhere, and to increase employment opportunities.
		<b>10.2:</b> 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	Teleworking could increase employment opportunities for women, and for those with disabilities.
		<b>12.6:</b> Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	New ways of organizing work and business could raise productivity, growth and well-being. In particular, investments in ICTs and human resources represent a sustainable-friendly approach.
		<b>17.9:</b> 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	Best practices development for e-workers and e-employers should be implemented at a national level, within the support of relevant international norms. They should be built on principles of fairness and gender equality.




<b>C7 ICT</b> <u><b>Applications: vi. e-environment</b></u>	<b>9.4:</b> By 2030, upgrade infrastructure and retro-t 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	a. Foster cooperation between the ICT community, the environmental community, the meteorological community, and other relevant communities working on reducing energy consumption and greenhouse gas emissions, environment protection, towards safety of population and assets against increasing threat caused by climate change related impacts.
	<b>11.6:</b> 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 <b>11.b:</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	b. Minimize e-waste by establishing appropriate measures such as environmentally sound life cycle management processes of ICT equipment by all involved parties, including manufacturers. d. Promote the use of ICT equipment in weather forecasting electronic dissemination and early warning systems to increase preparedness against natural hydrometeorological related disasters.
	<b>13.1:</b> Strengthen resilience and adaptive capacity to climate-	e. Raise awareness on the need for international cooperation to assist nations in particular developing and least developed nations, and Small Island Developing states to benefit from a full range of ICT –

		<p>related hazards and natural disasters in all countries</p> <p><b>13.3:</b> Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p> <p><b>13.b:</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</p>	<p>weather/climate related monitoring and warning services including access to satellite data , high speed internet and smart ICT weather and climate applications.</p>
		<p><b>14:</b> Conserve and sustainably use the oceans, seas and marine resources for sustainable development</p> <p><b>15:</b> Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p>	<p>f. Encourage establishing and maintaining networks 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.</p>
	<p><b>C7 ICT</b></p> <p><b><u>Applications: vii. e-agriculture</u></b></p>	<p><b>2.3:</b> 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,</p>	<p>Rural poverty and hunger have persisted where policies paid insufficient attention to improving agricultural productivity and rural infrastructure and failed to provide rural populations with access to social services and social protection or facilitate the development of rural producer and consumer organizations.</p> <p>Appropriate and trusted content in local languages disseminated through the use of ICTs will benefit small-scale farmers to increase their agricultural productivity and incomes. ICTs can also play a role in</p>

	other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	increased access to financial services and access to market and market information.
	<b>2.a:</b> 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 productivity capacity in developing countries, in particular in least developed countries	Failing to improve access for disadvantaged groups, and particularly women, to productive resources and social services further perpetuates rural poverty and food insecurity. The majority of the rural poor are smallholder farmers, who are responsible for most global food production. Helping them to improve farm productivity through better access to resources, technologies, markets and organizations will be critical for both poverty eradication and food security. Electronic communities of practice, such as the e-Agriculture Community have a great potential in contributing to ensuring the availability of information to all, increase networking and partnerships and raise awareness on sustainable development.
	<b>4:</b> Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all <b>5.5:</b> Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life <b>12.8:</b> By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	Early investments in education in rural areas are essential. Many youth face bleak economic prospects whether they stay in the countryside or migrate to cities. Increasing gainful opportunities by enhancing the skills of rural youth, and upgrading and diversifying local economic activities is therefore essential for improving youth prospects. ICTs can play an important role in motivating people to learn to read and write to be able to use the new tools, as well as in providing useful information, training courses as well as literacy trainings on mobile devices. E-learning can play an important role in making education accessible at any time and from any location, which will be particularly important for groups with little time and little flexibility to attend remote trainings.


	<p><b>8.2:</b> Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value-added and labour-intensive sectors</p>	<p>Compared to general growth in low-income developing countries, agricultural growth's impact on poverty reduction could be as much as five times greater.</p>
	<p><b>9.1:</b> Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all</p>	<p>Reliable and affordable connections and the integration of ICTs in agricultural and rural development will increase farmer's access, including women and marginalized groups, to information, knowledge, education, mobile finance, insurance and market information.</p>
	<p><b>9.c:</b> 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.</p>	<p>While the need for e-Agriculture strategies is acknowledged by many stakeholders, most countries have not adopted holistic or sub-sectoral e-strategies on agriculture. E-agriculture strategies will help to rationalize resources (financial and human) and address holistically ICT opportunities and challenges for the agricultural sector. The existence of e-Agriculture strategy can prevent e-Agriculture projects from being implemented in isolation without connection and integration.</p>
	<p><b>17.16:</b> 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</p>	<p>Coordinated actions and partnerships underpin all efforts to eradicate poverty, hunger and malnutrition while using and managing natural resources in a sustainable way. Only true collaboration, exchanges, up-scaling of good practices the use of ICTs in agriculture will be to the profit of all and optimized.</p>

	<p><b>17.17:</b> Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships</p>	
	<p><b>1.5:</b> 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</p> <p><b>2.4:</b> 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</p> <p><b>3.d:</b> Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks</p> <p><b>13.1:</b> Strengthen resilience and adaptive capacity to climate-</p>	<p>Resilience must be embedded in the institutional, social, economic and environmental dimensions of sustainable development, in efforts at all levels to fight hunger and malnutrition. The promotion of resilience of livelihoods calls for synergies among technical good practices for disaster risk reduction and climate change adaptation, food chain crises prevention, social protection, financial risk transfer and tenure of natural resources for the most vulnerable. Over the last decades ICTs have been playing an ever increasing role in early warning systems for animal or plant diseases, pest control, climate related alerts and other threats. New technologies make real time information largely available to enable better and quicker decision making to avert and/or avoid catastrophes. Mobile finance increases the possibilities for people in remote and rural areas to access banking services, credits and insurances or benefit from cash transfers, which will all contribute to increased resilience.</p>


		<p>related hazards and natural disasters in all countries.</p> <p><b>13.3:</b> Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.</p>	
 <p>ACTION LINE C7</p>	<p><b><u>C7 ICT Applications: viii. e-science</u></b></p>	<p><b>1.5:</b> 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</p> <p><b>4.7:</b> 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 nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development</p> <p><b>6.1:</b> By 2030, achieve universal and equitable access to safe and affordable drinking water for all</p>	<p>E-science can be considered as both an endeavor as well as an output. Science is conducted, inter alia and increasingly so, by relying on e-techniques. Examples are 'reverse' vaccinology and synthetic biology. Data and other scientific information available to all, on an open-access basis, can assist greatly with the achievement of the post-2015 development agenda and, more specifically, with the attainment of the Sustainable Development Goals (SDGs). As science, technology and innovation (STI) cut across several of the 17 SDGs, e-science would be relevant to several of them. Moreover, e-science can also assist at a more operational level of the post-2015 agenda, namely that of the envisaged targets under specific SDGs) (as presented in the left column).</p> <p>E-science can therefore be seen as a means of implementation, and a means to also monitor and evaluate progress towards the achievement of the post-2015 development agenda.</p> <p>By promoting the application of e-science, the WSIS process would synergies with the process related to the further definition of the post-2015 development agenda, which is expected to be finalized in July 2015 and which will lead to a draft resolution for consideration by the UN General Assembly in the fall of 2015.</p>

	<p><b>6.a:</b> 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 e-science, wastewater treatment, recycling and reuse technologies</p> <p><b>7.a:</b> By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy e-science and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology</p> <p><b>13.1:</b> Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p> <p><b>13.2:</b> Integrate climate change measures into national policies, strategies and planning</p> <p><b>13.3:</b> Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p> <p><b>14.a:</b> Increase scientific knowledge, develop research</p>	
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	<p>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</p> <p><b>15.9:</b> By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts</p> <p><b>17.6:</b> 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</p>	
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	<p><b><u>C8: Cultural diversity and identity, linguistic diversity and local content</u></b></p>	<p><b>Int. 9:</b> The natural and cultural diversity of the world was acknowledged, and it was recognized that all cultures and civilizations can contribute to sustainable development</p>	<p>Culture is both a driver and an enabler of human and sustainable development. It empowers people to take ownership of their own development, and stimulates the innovation and creativity which can drive inclusive and sustainable growth. ICTs are a platform to promote, share and expand cultural diversity.</p>
		<p><b>2.5:</b> (...) ensure access to and fair and equitable sharing of benefits arising from (...) associated traditional knowledge, as internationally agreed.</p>	<p>Traditional food ways and local farming and fishing systems, which constitute a valuable intangible cultural heritage, can greatly contribute to food and nutrition security and sustainable agriculture. ICTs can be a powerful tool to ensure the transmission and the fair and equitable sharing of local and traditional knowledge and practices, which are founded on the communities' comprehensive approach to specific rural life and environment.</p>
		<p><b>4.7:</b> (...) promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.</p>	<p>Good governance entails initiatives that promote the role of culture in sustainable development and respect for cultural and linguistic diversity. National and local policies and strategies, including through ministries of culture and education, promote cultural and creative sectors, expression, education, dialogue and access to information. ICTs are important tools of learning, creation and communication for capacity building, dialogue and cultural expression that contribute to sustainable development. On-line platforms are used to build active links between people from different communities and a knowledge bank improves access to information promoting inclusive knowledge societies aiming for a pluralistic approach and sustainable development. Platforms for communication, dialogue and diversity include community media and strengthening skills of local populations on reporting</p>

		community issues, as well as exchange of experiences related to everyday life, cultural identity and practices.
	<b>6.b:</b> Support and strengthen the participation of local communities in improving water and sanitation management	Local populations and indigenous peoples have a unique understanding of the environment and context in which they live, and traditional knowledge and practice are important factors to sustainable development. ICTs support the development of local content and practice.
	<b>8.3:</b> (...) support (...) creativity and innovation and encourage the formalization and growth of micro-, small-, and medium-sized enterprises.	The culture and creative sectors are growing rapidly. As specified in the recently published UNESCO-UNDP Creative Economy Report 2013, cultural and creative industries at the local level are using ICTs and are generating economic and social development. The creative economy is powerful in the local context and with small and medium-sized enterprises. It is an economic engine, providing jobs and boosting trade and the economy. At the same time it plays a crucial social role, as a platform for identity, dialogue, social integration and an improved quality of life, thus achieving inclusive and sustainable development. Development policies should aim to invest in sustainable creative enterprise development across cultural value chain, including production and distribution infrastructure for creators and communities, and in building up local markets. Investment is also needed in local capacity-building to empower creators and cultural entrepreneurs.
	<b>8.9:</b> (...) promotes local culture and products.	Local communities are engaged in capacity-building and the development of networks to share knowledge and expand public outreach. ICTs preserve, make accessible and distribute local cultural content, help prevent knowledge loss, and help expand cultural exchange, innovation and creativity. This translates into economic opportunities in the culture sector (e.g. heritage and creative industries). Cultural goods and services are produced and disseminated through local, national and international markets.
	<b>11.4:</b> Strengthen efforts to protect and safeguard the world's cultural and natural heritage.	Cultural heritage is a living part of today's societies and ICTs help to preserve it. Policies promoting the exchange of culture and knowledge between societies are essential. ICTs help ensure continued access to cultural and natural heritage via archived digital information and multimedia content in digital repositories, and support archives, cultural collections and libraries as the memory of humankind.

			<p>For example, e-Heritage projects among cities bring heritage into the digital space, with the objectives to build capacity of municipalities to document their heritage, build their own websites, and train local communities in the preservation of heritage sites both physically and virtually.</p> <p>The UNESCO Creative Cities Network enhances international cooperation with and between cities that have identified creativity as a strategic factor of sustainable development. They drive partnerships involving private and public actors, professional organizations, civil society, and cultural institutions in order to unlock their creative potential and contribute to more diverse and vivid economies and societies.</p>
		<p><b>12.b:</b> (...) sustainable tourism that creates jobs and promotes local culture and products.</p>	<p>The promotion of local cultural content, goods and services, as well as heritage, leads to knowledge sharing, innovation and growth in cultural and creative sectors as well as sustainable tourism. Social and economic development is based on engaging communities as essential stakeholders. ICTs help preserve, affirm, and promote the diversity of cultural expressions and indigenous knowledge and traditions through the creation of varied information content and the use of different methods, including the digitization of the educational, scientific and cultural heritage.</p>
	<p><b>C9: Media</b></p>	<p><b>5.b:</b> Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women</p> <p><b>9.c:</b> 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</p> <p><b>12.8:</b> By 2030, ensure that people everywhere have the</p>	<ul style="list-style-type: none"> <li>- Empirically free, plural and independent media contribute to sustainable development in terms of supporting national development monitoring and priority-setting.</li> <li>- Converged Media across all traditional and digital platforms have a potential to provide universal and inclusive access to information including by women and girls.</li> <li>- Expanded media landscape built on ICTs and Internet are central to inclusive politics and governance and support realization and improvement of all human rights.</li> </ul>



ACTION LINE  
C10

	relevant information and awareness for sustainable development and lifestyles in harmony with nature <b>16.10:</b> Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.	
<b><u>C10: Ethical dimensions of the Information Society</u></b>	<b>1.5:</b> 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	Digital platforms, whether global or local are key to accessing services and participation in all aspects of social life – political, cultural, economic. Providing means and capabilities to assure meaningful participation becomes an ethical imperative and contributes to overcoming poverty and ensuring the common good.
	<b>2.3:</b> 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	Enhancing participation, providing access to information and sharing of knowledge critical to ensuring the balance between meeting current and future needs is central to the ethical values of non-discrimination, respect for nature and promotion of the common good.

	<p><b>3.8:</b> 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</p>	<p>While offering the broadest possible access to medical services adequate safeguards to ensure informed choice and the protection of privacy and personal data are essential.</p>
	<p><b>4.7:</b> 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</p>	<p>Digital platforms, whether global or local are key to participation in all aspects of social life – political, cultural, economic. Providing the means and capabilities throughout life to assure meaningful participation becomes an ethical imperative and contributes to overcoming poverty and ensuring the common good.</p>
	<p><b>5.1:</b> End all forms of discrimination against all women and girls everywhere</p>	<p>Digital platforms are key to social participation, all physical, technical, social and cognitive barriers to women's participation in the virtual spaces must be addressed to ensure their ability to benefit from the opportunities of the knowledge societies. All users must be empowered to report and combat all forms of gender-based intolerance, bullying, profiling discrimination and other on-line threats..</p>
	<p><b>8.6:</b> Substantially reduce the proportion of youth not in employment, education or training</p>	<p>These factors can undermine social cohesion as they militate 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. Promoting the common good provides an ethical basis for addressing this challenge.</p>

	<b>9.1:</b> 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	Ensuring the participation of all persons in the digital spaces is key to fostering equality, solidarity, shared responsibility, the common good and inclusive knowledge societies.
	<b>10.2:</b> 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	Ensuring the participation of all persons in the digital spaces is key to fostering equality, solidarity, shared responsibility, the common good and inclusive knowledge societies.
	<b>10.3:</b> 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	
	<b>11.3:</b> Enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	The creation of conditions for equitable participation in all aspects of social life – political, cultural and economic - are central to realizing peace and the values of freedom, equality, solidarity and shared responsibility.
	<b>12.8:</b> Ensure that people everywhere have the relevant information and awareness for sustainable development and	Ensuring the balance between meeting current and future needs is central to the ethical values of sustainability, respect for nature, shared responsibility and the promotion of the common good.

	lifestyles in harmony with nature	
	<b>13.3:</b> Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Developing the capabilities to ensure the balance between meeting current and future needs is central to the ethical values of sustainability, respect for nature, shared responsibility and the promotion of the common good.
	<b>16.7:</b> Ensure responsive, inclusive, participatory and representative decision-making at all levels	These goals are intrinsically tied to the ethical values of equality, solidarity, shared responsibility and the promotion of the common good
	<b>16.10:</b> Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	The protection of fundamental freedoms is a core aspect of the ethical dimensions of the information society and central to the realization of the overarching goal of peace.
	<b>17.6:</b> 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	The development of the capacities and competencies of all peoples to effectively participate on the digital platforms access the opportunities of the knowledge societies contributes to equality, solidarity, tolerance, shared responsibilities and to peace.
	<b>17.7:</b> Promote the development, transfer, dissemination and diffusion of	Respect for nature ensures balance between meeting current and future needs. The development of the capacities and competencies of all peoples to effectively participate on the digital platforms access the

	environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed	opportunities of the knowledge societies contributes to equality, solidarity, tolerance, shared responsibilities and to peace.
	<b>17.8:</b> 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	The development of the capacities and competencies of all peoples to effectively participate on the digital platforms access the opportunities of the knowledge societies contributes to equality, solidarity, tolerance, shared responsibilities and to peace.
	<b>17.18:</b> 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	The development of the capacities and competencies of all peoples to effectively participate on the digital platforms access the opportunities of the knowledge societies contributes to equality, solidarity, tolerance, shared responsibilities and to peace.
	<b>17.19:</b> Build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical	Respect for nature ensures balance between meeting current and future needs. The development of the capacities and competencies of all peoples to effectively participate on the digital platforms access the opportunities of the knowledge societies contributes to equality, solidarity, tolerance, shared responsibilities and to peace.



	capacity-building in developing countries	
<b><u>C11: International and regional cooperation</u></b>	<b>17.9:</b> 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.	<ul style="list-style-type: none"> <li>- The success of national plans in implementation of sustainable development goals is hinged on the ability of national and local level ownership of the Post-2015 Development Agenda which means each country must translate the international development agenda into a nationally owned one tailored to local needs and development. In this, ICTs have huge potential to assist with dissemination of successful governance practices to be adapted and transferred to other developing countries saving them time and resources.</li> <li>- ICT can help facilitate capacity building through online learning platforms, reaching a broader audience. Both the public and private sector can use online learning tools in their capacity building efforts, especially targeting human resources as well as leadership capacity.</li> <li>- ICT can also facilitate South-South cooperation as nations can more easily share solutions and best practices across borders through the means of technology. eGovernment solutions as well as data tools used in government operations can more easily be transmitted.</li> </ul>
	<b>17.16:</b> Enhance the global partnership for sustainable development, complemented by multistakeholder 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	<ul style="list-style-type: none"> <li>- ICT can enable knowledge sharing through educational efforts and online discussion platforms where stakeholders from different regions can engage.</li> <li>- ICT can also allow developing countries to capitalize on innovation in ICT and knowledge sharing from that of developed nations, as technology brings those resources within close proximity to local governments.</li> </ul>
	<b>17.17:</b> Encourage and promote effective public, public-private and civil society partnership, building on the experience and	<ul style="list-style-type: none"> <li>- In order to achieve sustainable development, governments must develop and engage partnerships (private sector, civil society, private sector) and ICTs are very instrumental in building such partnerships at national, regional, and international and global levels.</li> </ul>

		resourcing strategies of partnerships.	
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## **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, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

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 a substantial proportion 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 nonviolence, 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, substantially expand 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, substantially increase 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 substantially increasing recycling and safe reuse 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 eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

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 substantially increasing the number of research and development workers per 1 million people 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 substantially decrease 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, per-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 and small island developing States, 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

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 Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want

## **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 substantially increase afforestation and reforestation 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 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed

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 the commitment by many developed countries to achieve the target of 0.7 per cent of ODA/GNI to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI 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

## **Systematic 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 multistakeholder 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

## **ANNEX III: Joint proposal of ICT indicators for the Sustainable Development Goals (SDG) indicator framework**



Expert Group Meeting on **the Indicator Framework for the Post-2015 Development Agenda**

New York, 25-26 February 2015

Background note prepared by the Partnership on Measuring ICT for Development: Joint proposal of ICT indicators for the Sustainable Development Goal (SDG) indicator framework

## **Partnership on Measuring ICT for Development**

### **Joint proposal of ICT indicators for the Sustainable Development Goals (SDG) indicator framework**

#### **About the Partnership**

The Partnership on Measuring ICT for Development is an international, multi-stakeholder initiative that was launched in 2004 to improve the availability and quality of ICT data and indicators, particularly in developing countries. The Partnership has guided policy makers in producing ICT statistics that are crucial to informed decision-making, including through the identification of a core list of ICT indicators and methodologies to collect these indicators, by helping developing countries collect ICT statistics, particularly through capacity-building and hands-on training for national statistical offices, and by collecting and disseminating information society statistics. The following 14 organisations are members of the Partnership: ITU, UNCTAD, OECD, EUROSTAT, ILO, UIS, UN ECA, UN ECLAC, UN ESCAP, UN ESCWA, UNDESA, UNEP/SBS, UNU-IAS, and the World Bank.

#### **About this joint proposal of ICT indicators for the SDG indicator framework**

The Partnership, through a consultations process with its members and in coordination with the various Technical Support Team (TST) clusters, has prepared the attached joint proposal of ICT indicators to help track the Sustainable Development Goals and targets. It represents a concerted effort to include ICTs in the post 2015 development agenda and to harmonize their inclusion in the framework. It also recognizes the cross-cutting nature of ICTs.

The joint proposal reflects the recognition of ICTs as a key development enabler. The important role that ICTs will play in achieving the future development agenda has also been stressed by the ICT community, including the World Summit on the Information Society (WSIS), the UN Group on the Information Society (UNGIS) and the Commission on Science and Technology for Development (CSTD). Falling prices, advances in technologies and their widespread uptake are making ICTs an increasingly indispensable tool for the delivery of services. Their role will be particularly critical within the context of a long-term development agenda (until 2030), when ICTs will become an essential platform for the delivery of sustainable development. Failure to acknowledge the transformative power of ICTs would not only lead to the widening of the digital divide, but, indeed, aggravate inequalities in all development domains.

Most of the indicators proposed here are from the Partnership's core list of ICT indicators and other indicators developed by the Partnership, and are based on sound methodologies and definitions. The large majority have been endorsed by the UNSC<sup>2</sup>, which also recognized the important role of ICTs for the post 2015 development framework. A number of indicators are proposed for the tracking of several targets, reflecting the cross-cutting nature of ICTs. This proposal is a first draft that could be further amended, based on comments, suggestions and the conclusions of the **Expert Group Meeting on the indicator framework for the post-2015 development agenda**.

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<sup>2</sup> See E/2014/24-E/CN.3/2014/35 (under 45/107): Report of the 45<sup>th</sup> UNSC, available at: <http://unstats.un.org/unsd/statcom/doc14/2014-Report-E.pdf>

## Partnership on Measuring ICT for Development joint proposal of ICT indicators for Sustainable Development Goals (SDG) indicator framework

Sustainable Development Goals and targets	Proposed ICT indicator	Available datasets (existing/developing)
<b>Goal 1. End poverty in all its forms everywhere</b>		
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, particularly 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) Individuals using the Internet 2) Individuals owning a mobile phone 3) Population covered by a mobile broadband network, broken down by technology 4) Households with broadband Internet access	1) Existing, collected by ITU 2) Existing but new at the international level, data to be collected by ITU from 2015 3) Existing, collected by ITU 4) Existing, collected by ITU
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 to provide adequate and predictable means for developing countries, in particular LDCs, to implement programmes and policies to end poverty in all its dimensions		
1.b create sound policy frameworks, at national, regional and international levels, based on pro-poor and gender-sensitive development strategies to support accelerated investments 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 five 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 the incomes of small-scale food producers, particularly 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	1)Rural population covered by a mobile broadband network, broken down by technology	1)Existing, collected by ITU
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 genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at 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 to enhance agricultural productive capacity in developing countries, in particular in least developed countries	1)Countries having adopted policies on financing mechanisms for the provision of universal service/access to ICTs	1)Existing, collected by ITU
2.b. correct and prevent trade restrictions and distortions in world agricultural markets including by 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	1)Rural population covered by a mobile broadband network, broken down by technology 2)Individual in rural areas using the Internet 3)Individuals owning a mobile phone	1)Existing, collected by ITU 2)Existing, collected by ITU 3)Existing but new at the international level, data to be collected by ITU from 2015

<b>Goal 3. Ensure healthy lives and promote well-being for all at all ages</b>		
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 under-five children		
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 pre-mature mortality from non-communicable diseases (NCDs) through prevention and treatment, and promote mental health and wellbeing		
3.5 strengthen prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol		
3.6 by 2020 halve 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 (UHC), 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 implementation of the Framework Convention on Tobacco Control in all countries as appropriate		
3.b support 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 which affirms the right of developing countries to use to the full the provisions in the TRIPS agreement regarding flexibilities to protect public health and, in particular, provide access to medicines for all		
3.c increase substantially health financing and the recruitment, development and training and retention of the health workforce in developing countries, especially in LDCs and SIDS		
3.d strengthen the capacity of all countries, particularly developing countries, for early warning, risk reduction, and management of national and global health risks		

<b>Goal 4. Ensure inclusive and equitable quality education and promote life-long learning opportunities for all</b>		
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	1) Enrolment in primary and secondary education programmes with computers for pedagogical purposes, by sex (ISCED 1-3)	1)Existing, collected by UIS
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 quality technical, vocational and tertiary education, including university	1)Individuals with ICT skills, by type of skill, by sex	1)Existing, collected by ITU
4.4 by 2030, increase by x% the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	1) Enrolment in basic computer skills and/ or computing courses in secondary education, by sex (ISCED 2-3). 2) Proportion of graduates in ICT-related fields at post-secondary levels (ISCED 5-8) (sex disaggregated) 3)Individuals with ICT skills, by type of skill, by age	1)Existing, collected by UIS 2)Existing, collected by UIS 3)Existing, collected by ITU
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% of adults, both men and women, achieve literacy and numeracy		
4.7 by 2030 ensure all learners acquire 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	1) Pupil (learner) to computer ratio, by educational level (ISCED 1-3) 2) Proportion of educational institutions with computers for pedagogical purposes (ISCED 1-3) 3) Proportion of educational institutions with Internet for pedagogical purposes (ISCED 1-3)	1)Existing, collected by UIS 2)Existing, collected by UIS 3)Existing, collected by UIS
4.b by 2020 expand by x% globally the number of scholarships for developing countries in particular LDCs, SIDS and African countries to enrol in higher education, including vocational training, ICT, technical, engineering and scientific programmes in developed countries and other developing countries		
4.c by 2030 increase by x% the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially LDCs and SIDS	1)Proportion of primary and secondary-school teachers trained to teach subject(s) using ICT facilities (for ISCED levels 1-3)	1)Existing, collected by UIS

<b>Goal 5. Achieve gender equality and empower all women and girls</b>		
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 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 mutilations		
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 ICPD 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 technologies, in particular ICT, to promote women's empowerment	1)Individuals who own a mobile phone, by sex 2)Individuals with ICT skills, by type of skill, by sex 3)Learners enrolled at post-secondary level in ICT-related fields (for ISCED levels 5-8) 4)Persons employed routinely using the Internet, by sex 5)Individuals using the Internet, by sex 6)Employment in ICT occupations as a share of total employment, by sex 7)Countries having financed projects for digital inclusion for women through a Universal Service Fund for ICTs	1)Existing but new at the international level, data to be collected by ITU from 2015 2)Existing, collected by ITU 3)Existing, collected by UIS 4)Developing, by UNCTAD 5)Existing, collected by ITU 6)Developing 7) Existing, collected by ITU
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		

<b>Goal 6. Ensure availability and sustainable management of water and sanitation for all</b>		
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% 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 for improving water and sanitation management		
<b>Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all</b>		
7.1 by 2030 ensure universal access to affordable, reliable, and modern energy services		
7.2 increase substantially the share of renewable energy in the global energy mix by 2030		
7.3 double the global rate of improvement in energy efficiency by 2030		
7.a by 2030 enhance international cooperation to facilitate access to clean energy research and technologies, including renewable energy, energy efficiency, and advanced and cleaner fossil fuel technologies, and promote investment in energy infrastructure and clean energy technologies		
7.b by 2030 expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, particularly LDCs and SIDS		

<b>Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</b>		
8.1 sustain per capita economic growth in accordance with national circumstances, and in particular at least 7% per annum GDP growth in the least-developed countries		
8.2 achieve higher levels of productivity of economies through diversification, technological upgrading and innovation, including through a focus on high value added and labour-intensive sectors	1)Fixed broadband subscriptions, broken down by speed 2)Value added in the ICT sector (as a percentage of total business sector value added) 3)Individuals with ICT skills 4)Employment in the ICT sector as a share of total employment 5)Employment in ICT occupations as a share of total employment	1)Existing, collected by ITU 2)Existing, collected by UNCTAD 3)Existing, collected by ITU 4)Developing 5)Developing
8.3 promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage formalization and growth of micro-, small- and medium-sized enterprises including through access to financial services	1)Employment in the ICT sector as a share of total employment 2)Employment in ICT occupations as a share of total employment 3)Businesses using the Internet for Internet banking; for accessing other financial services	1)Developing 2)Developing 3)Existing, collected by UNCTAD
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	1)E-waste collection rate	1)Existing, collected by UNU
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 recruitment and use of child soldiers		
8.8 protect labour rights and promote safe and secure working environments of all workers, including migrant workers, particularly women migrants, and those in precarious employment		
8.9 by 2030 devise and implement policies to promote sustainable tourism which creates jobs, promotes local culture and products		
8.10 strengthen the capacity of domestic financial institutions to encourage and to expand access to banking, insurance and financial services for all	1)Businesses using the Internet by type of activity (incl. Internet banking; accessing other financial services)	1)Existing, collected by UNCTAD
8.a increase Aid for Trade support for developing countries, particularly LDCs, including through the Enhanced Integrated Framework for LDCs		
8.b by 2020 develop and operationalize a global strategy for youth employment and implement the ILO Global Jobs Pact		

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 trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	1)Households with broadband Internet access, by urban/rural 2)Rural population covered by a mobile broadband network, broken down by technology 3)Fixed broadband Internet prices 4)Population within reach of telecommunication backbone networks 5)E-waste collection rate 6)Educational institutions (schools) with electricity (ISCED 1-3) 7)Educational institutions (schools) with Internet (ISCED 1-3)	1)Existing, collected by ITU 2)Existing, collected by ITU 3)Existing, collected by ITU 4)Existing, collected by ITU&ESCAP 5)Existing, collected by UNU 6)Existing collected by UIS 7)Existing collected by UIS
9.2 promote inclusive and sustainable industrialization, and by 2030 raise significantly industry's share of employment and GDP in line with national circumstances, and double its share in LDCs	1)E-waste collection rate	1)Existing, collected by UNU
9.3 increase the access of small-scale industrial and other enterprises, particularly 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, 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, particularly developing countries, including by 2030 encouraging innovation and increasing the number of R&D workers per one million people by x% and public and private R&D spending		
9.a facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, LDCs, LLDCs and SIDS	1)International Internet bandwidth per inhabitant	1)Existing, collected by ITU
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	1)Fixed broadband subscriptions, broken down by broadband speed	1)Existing, collected by ITU
9.c significantly increase access to ICT and strive to provide universal and affordable access to internet in LDCs by 2020	1)Fixed broadband Internet prices 2)Population covered by a mobile broadband network, broken down by technology 3)Fixed broadband subscriptions broken down by speed 4)Households with Internet access 5)Individuals using the Internet 6)Businesses using the Internet by type of access 7)Countries having adopted policies on financing mechanisms for the provision of universal service/access to ICTs	1)Existing, collected by ITU 2)Existing, collected by ITU 3)Existing, collected by ITU 4)Existing, collected by ITU 5)Existing, collected by ITU 6)Existing, collected by UNCTAD 7)Existing, collected by ITU

Goal 10. Reduce inequality within and among countries		
10.1 by 2030 progressively achieve and sustain income growth of the bottom 40% 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 through eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and actions in this regard	1) Individuals using the Internet, broken down by income level, age, sex, and rural/urban	1) Existing, collected by ITU
10.4 adopt policies especially fiscal, wage, and social protection policies and progressively achieve greater equality		
10.5 improve regulation and monitoring of global financial markets and institutions and strengthen implementation of such regulations		
10.6 ensure enhanced representation and voice of 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 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 WTO agreements		
10.b encourage ODA and financial flows, including foreign direct investment, to states where the need is greatest, in particular LDCs, African countries, SIDS, and LLDCs, in accordance with their national plans and programmes		
10.c by 2030, reduce to less than 3% the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5%		

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	1)Urban households with Internet access	1)Existing, collected by ITU
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 capacities 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 affected people and decrease by y% the economic losses relative to GDP caused by disasters, including water-related disasters, with the 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, municipal and other waste management	1)E-waste collection rate	1)Existing, collected by UNU
11.7 by 2030, provide universal access to safe, inclusive and accessible, green and public spaces, particularly 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, increase by x% 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, develop and implement in line with the forthcoming Hyogo Framework holistic disaster risk management at all levels	1)Urban population covered by a mobile broadband network, broken down by technology 2)Individuals owning a mobile phone 3)E-waste collection rate	1)Existing, collected by ITU 2)Existing but new at the international level, data to be collected by ITU from 2015 3)Existing, collected by UNU
11.c support least developed countries, including through financial and technical assistance, for 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 (10YFP), 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 sustainable management and efficient use of natural resources	1)E-waste collection rate	1)Existing, collected by UNU
12.3 by 2030 halve per capita global food waste at the retail and consumer level, and reduce food losses along production and supply chains including post-harvest losses		
12.4 by 2020 achieve 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 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	1)E-waste collection rate	1)Existing, collected by UNU
12.6 encourage companies, especially large and trans-national 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	1)Individuals using the Internet 2)Individuals owning a mobile phone	1)Existing, collected by ITU 2)Existing but new at the international level, data to be collected by ITU from 2015
12.a support developing countries to strengthen their scientific and technological capacities to move towards more sustainable patterns of consumption and production		
12.b develop and implement tools to monitor sustainable development impacts for sustainable tourism which creates jobs, 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		

<b>Goal 13. Take urgent action to combat climate change and its impacts *</b>		
*Acknowledging that the UNFCCC is the primary international, intergovernmental forum for negotiating the global response to climate change .		
13.1 strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries	1)Population covered by a mobile broadband network, broken down by technology 2)Individuals owning a mobile phone	1)Existing, collected by ITU 2)Existing but new at the international level, data to be collected by ITU from 2015
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 UNFCCC to a goal of mobilizing jointly USD100 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 capacities for effective climate change related planning and management, in LDCs, including focusing on women, youth, local and marginalized communities		
<b>Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development</b>		
14.1 by 2025, prevent and significantly reduce marine pollution of all kinds, particularly 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, 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 (IUU) fishing and destructive fishing practices and implement science-based management plans, 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 best available scientific information		
14.6 by 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, and eliminate subsidies that contribute to IUU 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 WTO fisheries subsidies negotiation *		
14.7 by 2030 increase the economic benefits to SIDS and LDCs from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism		
14.a increase scientific knowledge, develop research capacities 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 SIDS and LDCs		
14.b provide access of small-scale artisanal fishers to marine resources and markets		
14.c ensure the full implementation of international law, as reflected in UNCLOS for states parties to it, including, where applicable, existing regional and international regimes for the conservation and sustainable use of oceans and their resources by their parties		

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 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% globally		
15.3 by 2020, combat desertification, and 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, to enhance their capacity to provide benefits which are essential for sustainable development		
15.5 take urgent and significant action to reduce degradation of natural habitat, 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 genetic 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 ecosystems and biodiversity values into national and local planning, development processes and poverty reduction strategies, and accounts		
15.a mobilize and significantly increase from all sources financial resources to conserve and sustainably use biodiversity and ecosystems		
15.b mobilize significantly resources from all sources and at all levels to finance sustainable forest management, and provide adequate incentives to developing countries to advance sustainable forest management, including for conservation and reforestation		
15.c enhance global support to efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities		

<b>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</b>		
16.1 significantly reduce all forms of violence and related death rates everywhere		
16.2 end abuse, exploitation, trafficking and all forms of violence and torture against 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 recovery and return of stolen assets, and combat all forms of organized crime		
16.5 substantially reduce corruption and bribery in all its forms		
16.6 develop effective, accountable and transparent institutions at all levels	1) Individuals using the Internet for getting information from general government institutions 2) Individuals using the Internet for interacting with general government institutions 3) Selected Internet-based e-government services available to citizens, by level of sophistication of service	1) Existing, collected by ITU 2) Existing, collected by ITU 3) Existing, collected by UNDESA
16.7 ensure responsive, inclusive, participatory and representative decision-making at all levels	1) Individuals using the Internet 2) Selected Internet-based e-government services available to citizens, by level of sophistication of service	1) Existing, collected by ITU 2) Existing, collected by UNDESA
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	1) Individuals using the Internet 2) Individuals owning a mobile phone	1) Existing, collected by ITU 2) Existing but new at the international level, data to be collected by ITU from 2015
16.a strengthen relevant national institutions, including through international cooperation, for building capacities at all levels, in particular in developing countries, for preventing violence and combating terrorism and crime		
16.b promote and enforce non-discriminatory laws and policies for sustainable development		

<b>Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development</b>		
<b>Finance</b>		
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 ODA commitments, including to provide 0.7% of GNI in ODA to developing countries of which 0.15-0.20% 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 (HIPC) to reduce debt distress		
17.5 adopt and implement investment promotion regimes for LDCs		
<b>Technology</b>		
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, particularly at UN level, and through a global technology facilitation mechanism when agreed	1)Fixed broadband subscriptions, broken down by broadband speed 2)Individuals using the Internet	1)Existing, collected by ITU 2)Existing, collected by ITU
17.7 promote 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 STI (Science, Technology and Innovation) capacity building mechanism for LDCs by 2017, and enhance the use of enabling technologies in particular ICT	1)Proportion of businesses using the Internet 2)Proportion of businesses receiving orders over the Internet 3)Proportion of businesses placing orders over the Internet 4)Individuals using the Internet 5)Individuals owning a mobile phone	1)Existing, collected by UNCTAD 2)Existing, collected by UNCTAD 3)Existing, collected by UNCTAD 4)Existing, collected by ITU 5)Existing but new at the international level, data to be collected by ITU from 2015
<b>Capacity building</b>		
17.9 enhance international support for implementing effective and targeted capacity building in developing countries to support national plans to implement all sustainable development goals, including through North-South, South-South, and triangular cooperation		

<b>Trade</b>		
17.10 promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the WTO including through the conclusion of negotiations within its Doha Development Agenda		
17.11 increase significantly the exports of developing countries, in particular with a view to doubling the LDC share of global exports by 2020		
17.12 realize timely implementation of duty-free, quota-free market access on a lasting basis for all least developed countries consistent with WTO decisions, including through ensuring that preferential rules of origin applicable to imports from LDCs are transparent and simple, and contribute to facilitating market access		
<b>Systemic issues</b>		
<b>Policy and institutional coherence</b>		
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		
<b>Multi-stakeholder partnerships</b>		
17.16 enhance the global partnership for sustainable development complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technologies and financial resources to support the achievement of sustainable development goals in all countries, particularly developing countries		
17.17 encourage and promote effective public, public-private, and civil society partnerships, building on the experience and resourcing strategies of partnerships		
<b>Data, monitoring and accountability</b>		
17.18 by 2020, enhance capacity building support to developing countries, including for LDCs and SIDS, 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 GDP, and support statistical capacity building in developing countries		