

# Information and Communication Technology for People

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Regional | ICT

## Highlights

- The challenges of the 21st century are daunting: global economic growth per person led by emerging economies and a population that topped 7.3 billion in 2015 put great stress on Earth’s ecosystems, even as the agenda of the Millennium Development Goals remains unfinished. So, the Sustainable Development Goals aim for change at the level of the planet, a veritable seismic shift.
- The revolution in information and communication technology (ICT) provides the most powerful tool yet. Properly deployed, directed, and extended, ICT can be a tool for common good and accelerate action on the global goals.
- “All that is valuable in human society depends upon the opportunity for development accorded the individual,” said Albert Einstein, Nobel Laureate, Physics. ICT for people can help end poverty and hunger, ensure healthy lives and quality education, achieve gender equality, and provide water and sanitation for all.

## THE 5 Ps

On 25–27 September 2015, the 193-member United Nations General Assembly adopted the 2030 Agenda for Sustainable Development, which will guide national actions and development cooperation over the next 15 years.<sup>1</sup> The 17 Sustainable Development Goals (SDGs) (and 169 targets) will stimulate action in five areas—the 5 Ps.

## LIFE IN THE FAST LANE

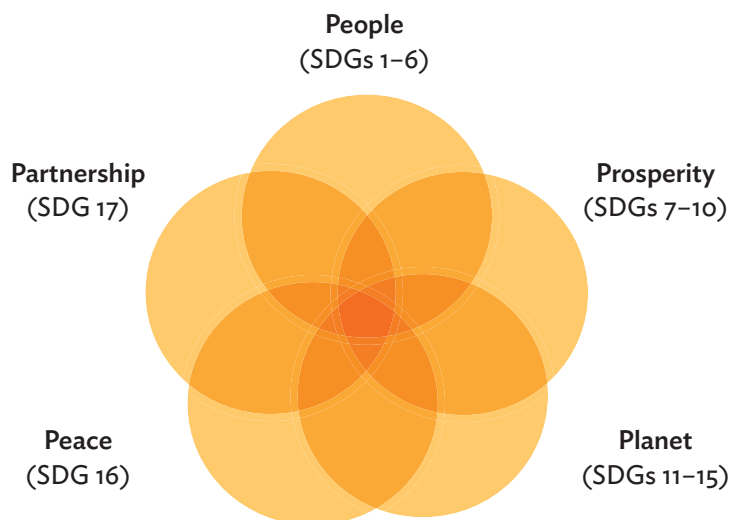
Information and communication technology (ICT) are technologies that facilitate by electronic means the processing, transmission, and display of information: ever faster and cheaper, they condense or elide temporal and spatial distances. ICT has transformed the financial services, media, retail, and telecommunications sectors; through the globalization it simultaneously feeds on and accelerates, it is now reshaping societies, economies, and governments worldwide.

Because ICT can help achieve the global goals’ aspirational, transformational, and universal objectives, four targets of the SDGs refer directly to it.<sup>2</sup> But, ICT can without doubt find direct and multiple applications across each SDG: it is an existing and already widely deployed set of technologies that can be mobilized to both boost and scale improvements; it ought to be a crucial enabler, particularly if it helps poorer countries leapfrog development milestones.

## ICT FOR PEOPLE

“All that is valuable in human society depends upon the opportunity for development accorded the individual,” said Albert Einstein. SDGs 1–6 see to people: they mean to end poverty and hunger, ensure healthy lives and quality education, achieve gender equality, and provide water and sanitation for all. Athwart all related actions, ICT can quicken upscaling; cut deployment costs; augment awareness, inclusiveness, and engagement; stimulate connectivity, productivity, efficiency, and innovation; and raise quality.

## The 5 Ps



SDGs = Sustainable Development Goals.  
Source: ADB.

## Related Links

- ADB. 2016. *Ramping Up ADB’s Role in Information and Communication Technology for Development—ICTD Team Work Plan, 2016–2017*. Manila.
- ADB. 2016. *Road to 2030: Information and Communication Technology in ADB’s Corporate Strategy and Operations*. Manila. [www.adb.org/projects/documents/helping-transform-asia-and-pacific-support-for-adb-new-corporate-strategy-jul-2016-dpta](http://www.adb.org/projects/documents/helping-transform-asia-and-pacific-support-for-adb-new-corporate-strategy-jul-2016-dpta)

<sup>1</sup> United Nations. 2015. *Transforming Our World: the 2030 Agenda for Sustainable Development*. New York. [sustainabledevelopment.un.org/post2015/transformingourworld](http://sustainabledevelopment.un.org/post2015/transformingourworld)

<sup>2</sup> The related goals are Goal 4: Quality Education; Goal 5: Gender Equality; Goal 9: Industry, Innovation, and Infrastructure; and Goal 17: Partnerships for the Goals. Implicitly, Goal 17 recognizes ICT as essential to the achievement of all SDGs and their associated targets.

## ICT for People (SDGs 1-6)

	<p><b>Goal 1: End poverty in all its forms everywhere</b></p> <p>More than lacking income, poverty also refers to disadvantages in access to land, credit, and services, e.g., education and health; vulnerability to economic shocks, natural disasters, and violence; powerlessness; and social exclusion. ICT that, one way or another, provides access to relevant information, gives a voice, and facilitates communication and network building can empower the poor to become actors in their cultural, economic, political, and social development. It also invites governments, the donor community, and nongovernment organizations, among others, singly or in partnerships, to integrate ICT in their policies, strategies, programs, and projects. There is a myriad of opportunities: some pertain to ICT infrastructure and associated policy and regulatory frameworks, applications, electronic commerce, electronic governance, human resource development, universal access to information, etc. Importantly, interventions should have explicit pro-poor objectives and promote equal opportunities for men and women.</p>
	<p><b>Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture</b></p> <p>Nutrition, food security, and hunger are linked to sustainable agriculture. ICT can connect farmers to knowledge, networks, and institutions to improve productivity and employment opportunities. It can, for instance, give access to information about extension services, availability of fertilizers, weather forecasts, markets, etc. To extension agents, ICT affords mobile access to business planning tools, digital information services, and online education; it allows them to record service delivery events and solicit farmer feedback using mobile devices; and, governments can remotely monitor extension services with an eye to improving them over time.</p>
	<p><b>Goal 3: Ensure healthy lives and promote well-being for all at all ages</b></p> <p>ICT can do much for higher care quality, greater efficiency, and better patient outcomes. The connectivity provided by data and telecommunication networks links health workers to information and diagnostic services and allows them to form support networks and communicate with doctors and nurses in clinics and hospitals. Mobile phones make it possible for community health workers to learn of and prepare for illnesses or diseases, identify patient symptoms, follow established treatment protocols, perform remote diagnostics, access expert support, refer patients to clinics, send patient reminders, and both record delivery of services and receive mobile payments for these. Analytics build the capabilities needed to produce snapshots; analyze trends; and make projections about disease outbreaks, health service usage, and patient knowledge, attitudes, and practices regarding their health—all within time frames critical to eradicating disease and reducing mortality rates.</p>
	<p><b>Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</b></p> <p>The power of ICT bestows great potential to improve education globally, but especially in developing countries. Mobile devices allow students to access learning assets anytime and anywhere. Teachers too can prepare for classes anytime and anywhere. Mobile phones can be used for literacy training, numeracy training, and interactive tutoring. Smartphones can serve as e-books or e-readers, and for “educative games,” thereby unlocking the most valuable asset of many young students—their curiosity. Connectivity provided by data and telecommunication networks brings to teachers and students alike a wealth of learning resources and online information. Digital services such as e-learning programs—self-paced and instructor-led, online certification programs, online competitions and labs, and student advisory services open up a world of learning assets to students, leading to livelihood opportunities. Smart systems can analyze patterns of student learning and help prescribe individual learning plans. Social media can bolster support networks for teachers, students, and women and girls wishing to further their education.</p>
	<p><b>Goal 5: Achieve gender equality and empower all women and girls</b></p> <p>ICT allows women and girls to access information of importance to their productive, reproductive, and community roles and to obtain additional resources. Access to ICT gives women a stronger voice in their communities, their government, and on the international scene. ICT also affords women much-needed flexibility in time and space and can be of great value to those facing social isolation. ICT can provide new opportunities for women’s economic empowerment by creating business and employment opportunities for women as owners and managers of ICT-accessed projects, as well as employees of new business ventures; creating an environment, including through training, where women feel comfortable participating in community development activities and advocating their needs and priorities; developing ICT-based tools that address women’s specific needs and are run by women, e.g., literacy programs, business planning courses, ICT training, and access to market and trading information services as well as e-commerce initiatives; and offering economic opportunities in salaried employment and entrepreneurship in the ICT sector itself and in ICT-enabled jobs. There is a growing body of evidence on the benefits of ICT for women’s empowerment, by increasing access to health, nutrition, education, and other human development opportunities such as political participation.</p>
	<p><b>Goal 6: Ensure availability and sustainable management of water and sanitation for all</b></p> <p>ICT drives smart water management: it facilitates measurement and monitoring of water supplies—using open-source mapping software such as Field Level Operations Watch—and underpins the extension of water, sanitation, and hygiene services at the local level. ICT can register the location and state of infrastructure as well as the use of services. It shortens response times; cuts travel distances and maintenance costs; optimizes operations, e.g.; production costs, energy efficiency, etc., and improves quality of service.</p>

ICT = information and communication technology, SDGs = Sustainable Development Goals.

Notes: ICT heightens efficiency, enlarges scale, reduces risks, and informs decision making. This table illustrates applications of “ICT for People” to promote further discussion and research.

Source: Adapted from 2016. International Telecommunication Union. [www.itu.int/](http://www.itu.int/)

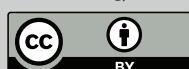


### KNOWLEDGE CONTRIBUTOR

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The Knowledge Showcases Series highlights good practices and innovative ideas from ADB technical assistance and other operations to promote further discussion and research.

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