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| |  | | --- | | Director, Radiocommunication Bureau | | MAPPING ITU-R ACTIVITIES and objectives INTO THE SUSTAINABLE DEVELOPMENT GOALS (SDGS) | | | | |

In 2015, the United Nations adopted a new global development agenda: “Transforming our World: The 2030 Agenda for Sustainable Development”. This Agenda includes 17 Goals and 169 associated Targets, known as the Sustainable Development Goals (SDGs).

In order to have a well-coordinated “One ITU” approach that would enable ITU to respond proactively and coherently to the needs of its constituents, the three bureaux and the General Secretariat are performing a stocktaking and cross-sectoral mapping of ITU activities and initiatives to the SDGs. A common framework with supporting software tools, serving as the basis for this mapping exercise, is currently under development.

The Table below is an attempt to map the way in which the activities carried out by the ITU-R support each of these 17 Goals and 169 Targets. For each of the 17 SDG goals, the relevant Targets to which ITU-R activities may be seen as contributing are listed, and the corresponding supporting ITU-R activities indicated below with a blue background. For simplicity and to avoid redundancy, the mapping is in relation to the ITU-R Objectives:

* **R.1** Meet, in a rational, equitable, efficient, economical and timely way, the ITU membership's requirements for radio-frequency spectrum and satellite orbit resources, while avoiding harmful interference
* **R.2** Provide for worldwide connectivity and interoperability, improved performance, quality, affordability and timeliness of service and overall system economy in radiocommunications, including through the development of international standards
* **R.3** Foster the acquisition and sharing of knowledge and know-how on radiocommunications

RAG is invited to comment and advise on the content of this document.

| **SDG Goals** | **SDG Targets** | | **ITU-R Objectives** | | |
| --- | --- | --- | --- | --- | --- |
| **R.1 Meet, in a rational, equitable, efficient, economical… spectrum... resources…** | **R.2 Provide for worldwide connectivity and interoperability, …including through the development of international standards** | **R.3 Foster the acquisition and sharing of knowledge…** |
| **SDG 1 - NO POVERTY**  **End poverty in all its forms everywhere** | **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 | | 🗸 | 🗸 | 🗸 |
| Radio frequency spectrum is a natural resource. ITU-R is ensuring that it is accessed everywhere and by all, equally and at the lowest possible price. | | | | |
| **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 | | 🗸 | 🗸 | 🗸 |
| By managing spectrum resources and developing standards and best practices on radiocommunications and disseminating the related information and know-how, ITU-R contributes to ensure more accurate weather predictions, climate change monitoring and mitigation, public protection and disaster relief, as well as search and rescue. | | | | |
| **SDG 2 - ZERO HUNGER**  **End hunger, achieve food security and improved nutrition and promote sustainable agriculture** | **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.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 | | 🗸 | 🗸 | 🗸 |
| By providing spectrum and standards and disseminating the related information and know-how for IoT, drones, radionavigation, meteorology and Earth-exploration satellite systems, ITU-R contributes to the development and sustainability of e-agriculture | | | | |
| **SDG 3 - GOOD HEALTH AND WELL-BEING**  **Ensure healthy lives and promote well-being for all at all ages** | **3.6**  By 2020, halve the number of global deaths and injuries from road traffic accidents | | 🗸 | 🗸 | 🗸 |
| By providing spectrum and standards and disseminating the related information and know-how for Intelligent Transport Systems (ITS), radionavigation-satellite systems and IoT, ITU-R contributes to a safer world. | | | | |
| **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.d**  Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks | | 🗸 | 🗸 | 🗸 |
| By providing globally harmonized spectrum and standards and disseminating the related information and know-how, ITU-R enables the development of mobile broadband and its wider penetration, thus permitting E-medicine to become available throughout the world. By providing spectrum and standards for weather forecasting, Earth Exploration satellites, sound and television broadcasting and mobile networks, ITU-R contributes to early detection of natural disasters and other health risks, timely information of populations and mitigation decisions. | | | | |
| **SDG 4 - Quality Education**  **Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all** | **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  **4.7**  By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development | | 🗸 | 🗸 | 🗸 |
| By providing globally harmonized spectrum and standards, ITU-R enables the development of mobile broadband and its wider penetration, thus permitting E-education to become available throughout the world. | | | | |
| **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 | |  |  | 🗸 |
| By disseminating its outputs through on-line publications, seminars and workshops, ITU-R contributes to capacity building on information and communication technologies throughout the World. | | | | |
| **SDG 5 - Gender Equality**  **Achieve gender equality and empower all women and girls** | **5.b**  Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women | | 🗸 | 🗸 | 🗸 |
| By providing globally harmonized spectrum and standards, ITU-R enables the development of mobile broadband and its wider penetration, thus permitting E-education to become available throughout the world. By disseminating its outputs through on-line publications, seminars and workshops, ITU-R contributes to capacity building on information and communication technologies throughout the World. | | | | |
| **SDG 6 - CLEAN WATER AND SANITATION**  **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  **6.6**  By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes | | 🗸 | 🗸 | 🗸 |
| Radiocommunication systems, as enabled by ITU-R activities, are fundamental to monitor the water cycle and groundwater and help to efficiently monitor, protect and restore water resources and associated ecosystems. | | | | |
| **SDG 7 - AFFORDABLE AND CLEAN ENERGY**  **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.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 | | 🗸 | 🗸 | 🗸 |
| Radio systems, as enabled by ITU-R activities, help to decrease energy consumption (Wireless avionics, smart grids). | | | | |
| **SDG 8 - DECENT WORK AND ECONOMIC GROWTH**  **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 | | 🗸 | 🗸 | 🗸 |
| The contribution of radiocommunication networks, notably broadband mobile, to overall growth is well demonstrated. Increased mobile broadband access, as impulse by ITU-R, fosters economic growth and increases efficiency of work. | | | | |
| **SDG 9 - Industry, Innovation and Infrastructure**  **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  **9.3**  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 | | 🗸 | 🗸 | 🗸 |
| By providing spectrum and radiocommunication standards, ITU-R enables the development of broadband infrastructure throughout the world. By providing globally harmonized spectrum and standards, ITU-R enables the development of high quality, reliable, sustainable and resilient infrastructures accessible to all under affordable and equitable conditions. | | | | |
| **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.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 | | 🗸 | 🗸 | 🗸 |
| Space, mobile, transport industries benefit from ITU-R activities, which encourage investments by maintaining a stable and predictable regulatory environment, and promoting an efficient and sustainable use of spectrum resources. | | | | |
| **SDG 10 - REDUCED INEQUALITIES**  **Reduce inequality within and among countries** | **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 | | 🗸 | 🗸 | 🗸 |
| By providing globally harmonized spectrum and standards, ITU-R enables the development of mobile broadband and its wider penetration, thus permitting social, economic and political inclusions of all. | | | | |
| **SDG 11 - SUSTAINABLES CITIES AND COMMUNITIES**  **Make cities and human settlements inclusive, safe, resilient and sustainable** | **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  **11.4**  Strengthen efforts to protect and safeguard the world’s cultural and natural heritage | | 🗸 | 🗸 | 🗸 |
| ITS- GNSS, radars, IoT for road, railway, aviation and maritime transport are all enabled by the activities of ITU-R on spectrum regulations and standards.  Sound and Television broadcasting and broadband mobile, as enabled by ITU-R, contribute to the protection of 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 direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations  **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 | | 🗸 | 🗸 | 🗸 |
| Radiocommunication systems, as enabled by ITU-R activities, are fundamental to efficiently monitor, protect and restore a number of natural resources, including By providing spectrum and standards for Intelligent Transport Systems (ITS), radionavigation-satellite systems and IoT, ITU-R contributes to a safer world.  By managing spectrum resources and developing standards and best practices on radiocommunications, ITU-R contributes to ensure more accurate weather predictions, climate change monitoring and mitigation, public protection and disaster relief, as well as search and rescue. | | | | |
| **SDG 12 - RESPONSIBLE CONSUMPTION AND PRODUCTION**  **Ensure sustainable consumption and production patterns** | **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  **12.5**  By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse | | 🗸 | 🗸 | 🗸 |
|  | Radiocommunication systems, as enabled by ITU-R activities, are fundamental to efficiently monitor, protect and restore a number of natural resources, including biomass, biosphere, mineral resources, water, oceans, and their associated ecosystems. | | | | |
| **SDG 13 - CLIMATE ACTION**  **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  \* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international,  intergovernmental forum for negotiating the global response to climate change. | | 🗸 | 🗸 | 🗸 |
| Spectrum and standards provided by ITU-R for Earth observation systems to ensure monitoring and timely warning of natural and environmental disasters, accurate climate prediction and a detailed understanding, are essential to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. Sound and television broadcasting, PPDR and commercial mobile broadband networks, IoT, search and rescue satellite systems, as enabled by ITU-R activities, are also key enablers to ensure timely awareness and rescue of populations in case of climate-related hazards and natural disasters. | | | | |
| **13.3**  Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning  **13.b**  Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities | |  |  | 🗸 |
|  | By disseminating Handbooks and reports and organizing seminars and workshops, ITU-R contributes to Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. | | | | |
| **SDG 14 - LIFE BELOW WATER**  **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 | | 🗸 | 🗸 | 🗸 |
| Spectrum and standards provided by ITU-R for Earth observation systems are a key enabler to monitor, conserve and use the oceans, seas and marine resources for sustainable development. In particular, understanding the forces behind changing weather patterns requires mapping variations in ocean surface conditions worldwide and using the collected data to develop and run powerful models of ocean behavior. | | | | |
| **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 | | 🗸 | 🗸 | 🗸 |
| Spectrum and standards provided by ITU-R for GNSS, sea drones and satellite oceanic observations, are an essential enabler to Increase scientific knowledge on the state of oceans and marine resources. | | | | |
| **SDG 15 - LIFE ON LAND**  **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 2030, 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 | | 🗸 | 🗸 | 🗸 |
| Spectrum and standards provided by ITU-R for Earth observation systems to ensure monitoring, conservation and efficient management of scarce resources such as biomass, biosphere, mineral and water resources. | | | | |
| **SDG 16 - PEACE, JUSTICE AND STRONG INSTITUTIONS**  **Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels** | **16.7**  Ensure responsive, inclusive, participatory and representative decision-making at all levels  **16.10**  Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements | | 🗸 | 🗸 | 🗸 |
| By providing globally harmonized spectrum and standards, ITU-R enables the development of mobile broadband, satellite and terrestrial sound and television broadcasting and their wider penetration, thus facilitating public access to information and protection of fundamental freedoms. | | | | |
| **SDG 17 - Partnerships for the Goals**  **Partnership for the goals: Strengthen the means of implementation and revitalize the global partnership for sustainable development** | **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  **17.9**  Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation  **17.16**  Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries  **17.19**  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 | 🗸 | | 🗸 | 🗸 |
| By developing and disseminating best practices on the use of radiocommunications and organizing seminars and workshops, ITU-R contributes to enhance the use of enabling technologies, in particular information and communications technologies. | | | | |

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