Istat
Istituto Nazionale di Statistica

2020 SDGs REPORT

STATISTICAL INFORMATION FOR 2030 AGENDA IN ITALY

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PREFACE

Thanks to its wide set of indicators, every year the Report on Sustainable Development Goals (SDGs) presents an up-to-date picture of the progress made by the International Community and, specifically, by our country, towards the achievement of the 17 environmental, social and economic Goals that we are committed to achieve by 2030.

This is a process coming from afar, and receiving its first innovative and substantial impetus during the first world conference promoted by the United Nations in Stockholm in 1972. On that occasion, the critical views towards an economic system centred on the unlimited growth of goods' production and consumption began to result in new types of institutional action, giving rise, in many countries, to environmental policy agencies and ministries. At the same time, a growing commitment emerged inside the scientific community with the aim to create and make available the necessary evidence to inform policy-makers.

In the 1970s supporters of economic growth and advocates of the preservation of our planet's load capacity often confronted in a conflictual and radical way, sometimes giving rise to apocalyptic scenarios, as was the case with the release of the well-known Report of the Club of Rome *The limits of development*: an approach, which predicted an imminent collapse of the Earth's resources, due to the joint effect of unlimited demographic growth and uncontrolled consumption patterns.

In the following decades, also thanks to the uninterrupted contribution of the international scientific community, new ways to deal with the environmental crisis have been explored, which, by departing from the previous dichotomous perspective, appear to better illustrate the indispensable transformations (e.g. energy consumption and raw materials, pollution, waste generation, etc.) to be carried out in the richest and technologically most advanced countries, also taking into account the legitimate aspiration of developing countries to achieve higher degrees of well-being (including the material well-being).

Combining the duty to meet the needs and well-being of the present generation, thereby resolving inequalities and injustices, with the opportunity for the future generations to meet their own needs and benefit of the global resources having care and custody of the planet. This is the call for action expressed, in the far 1987, by *Our Common future*, the Report coordinated by an extraordinary woman, the Norwegian Prime Minister Gro Harlem Brundtland. This is the notion of sustainable development that, at the time, was nearly an oxymoron. It was not an already achieved condition, but a goal to be reached together as an outcome of a shared commitment.

Sustainable development policies have always found in the instruments of survey, measurement and statistical analysis an essential support, which has allowed to effectively represent the state of things and the objectives of change to be achieved, the standards to be adopted, as well as the means to be used.

From the 1980s, statistical tools such as DPSIR (Drivers-Pressure-State-Impacts-Responses) indicators, also promoted by the OECD, have measured interactions between humans and nature, provided useful information for setting up policies and for the assessment of their effectiveness, and provided important feedback on the efficiency through the comparison with cost indicators.

With the 1992 Rio Conference and the construction of Agenda 21, the highly difficult, though not elusive, mission to lead the planet towards sustainable development took the articulated shape of a large global strategic plan, with objectives and actions, which are not only expressed as specific commitments for the stakeholders, but also as input, process, performance, output and outcome indicators.

In those years some fundamental experiments were carried out, such as those, developed within the framework of the United Nations, aiming to implement an environmental accounting system able to communicate and be integrated with the economic accounting system. The System of Economic and Environmental Accounting (SEEA) is an important output of this process.

Statistics is called to contribute to the progress towards sustainability by guaranteeing its output, thereby adapting and improving its own capacity, timeliness, relevance, and granularity of data. This was the case in the 1990s, with the development of what were called the Millennium Goals, and the same applies today for the Sustainable Development Goals of Agenda 2030.

Istat is part of this long and challenging process, with the major role that necessarily belongs to official statistics. The institutions of our country acknowledge the importance of informing policy choices through the availability of solid statistical information. As shown in this Report, statistical information does monitor our progress towards the Sustainable Development Goals, though not always following a linear and rapid path.

With this Report, we offer our readers a picture of Italy, on its way towards sustainable development but on the eve of the current pandemic's outbreak. We are aware that the impact of the virus in our country has been violent, intense, uneven on both demographics and the territory, traumatic for the economy and for the way of life of households and individuals, especially for the youngest and oldest people, and women at first. We are aware how social and economic gaps have widened. We are aware that our cities and our countries have long been deserted, and that, although the quality of air, rivers, and coasts improved, many sectors, such as tourism, trade and other productive sectors, many firms and workers have paid a high price because of the lockdown, which was necessary to mitigate the contagion.

The pandemic crisis has revived in a new and dramatic way the issue of the fragile balance between health, environment, well-being and prosperity. The pandemic crisis has raised at the global level the question of sustainability in an even more compelling way than before.

Many have looked at this planetary upheaval like an invitation not so much to go back to the past, but rather to change course, with greater courage, towards sustainability.

Will we do it?

Our statistical activity - which has never stopped, and, on the contrary, has doubled its commitment to monitor the emergency - is ready to accompany and support the country also in this new phase.

In this framework, the SDGs indicators will prove particularly useful in that they will allow us to measure the extent of the impact, and - I am absolutely confident - to show our resilience and capability to move towards a new development pattern.

Gian Carlo Blangiardo
President of the Italian National Statistical Institute

1. SUSTAINABLE DEVELOPMENT INDICATORS: AN OVERVIEW[1]

1.1 Introduction

The third edition of the Sustainable Development Goals (SDGs) Report takes place in presence of the COVID-19 pandemic, which has reinforced the importance of a unified vision for economic, social and environmental development.

Even if the Report mainly makes available information updated to year 2019 it provides a preliminary analysis of the impact of COVID-19 along two directions. On the one hand, this chapter presents a counterfactual exercise that, starting from the lockdown, estimates the reduction in emissions generated by the change in the behaviour of households and firms. On the other hand, chapter 2 analyses the impact of COVID-19 on the different Goals providing a description of the Goals' interconnections.

At the same time, this Report strengthens the system of indicators for monitoring SDGs. The statistical measures disseminated are 325 (of which 296 different)[2] for 130 UN-IAEG indicators. Compared to the dissemination of December 2019, 125 statistical measures have been updated[3].

This edition of the Report proposes a strengthening of the analytical approach used to measure the evolution of the sustainability. The last update for each indicator has been compared with the value of the previous year and, according to a medium-term perspective, with the value 10 years before. The Report recorded the growth rate and made available a summary of the number of indicators with a positive, negative or stable value.

1 The Report was compiled by Fabio Bacchini, Barbara Baldazzi, Carmen Federica Conte, Luigi Costanzo, Angela Ferruzza, Leopoldo Nascia, Paola Patteri, Giovanna Tagliacozzo, Paola Ungaro. The English version of the Report was edited by Leopoldo Nascia and Paola Ungaro. This chapter was edited by Fabio Bacchini, Barbara Baldazzi and Lorenzo Di Biagio with contributions from Aldo Femia and Federico Sallusti (par. 1.6).

2 The national statistical measures for SDGs are by: Domenico Adamo, Barbara Baldazzi, Ciro Baldi, Tiziana Baldoni, Alessandra Battisti, Eugenia Bellini, Donatella Berna, Elisa Berntsen, Emanuela Bologna, Silvia Bruzzone, Alessandra Burgio, Tania Cappadozzi, Raffaella Cascioli, Cinzia Castagnaro, Raffaella Chiocchini, Alfredo Cirianni, Carmen Federica Conte, Cinzia Conti, Luigi Costanzo, Stefania Cuicchio, Elisabetta Del Bufalo, Clodia Delle Fratte, Valeria De Martino, Claudia Di Priamo, Mascia Di Torrice, Aldo Femia, Doriana Frattarola, Luisa Frova, Lidia Gargiulo, Roberto Gismondi, Valentina Joffre, Antonino Laganà, Francesca Lariccia, Cecilia Manzi, Marzia Loghi, Silvia Lombardi, Sandra Maresca, Anna Emilia Martino, Valeria Mastrostefano, Maria Liviana Mattonetti, Maria Giuseppina Muratore, Leopoldo Nascia, Alessandra Nurra, Sante Orsini, Monica Pace, Fernanda Panizon, Paola Patteri, Federica Pintaldi, Federico Polidoro, Maria Elena Pontecorvo, Sabrina Prati, Gaetano Proto, Simona Ramberti, Chiara Rossi, Mariangela Sabato, Maria Teresa Santoro, Miria Savioli, Giovanni Seri, Giampiero Siesto, Silvia Simeoni, Sabrina Sini, Mattia Spaziani, Vincenzo Spinelli, Giovanna Tagliacozzo, Stefano Tersigni, Alessandra Tinto, Caterina Torelli, Francesco G. Truglia, Angelica Tudini, Franco Turetta, Paola Ungaro, Donatella Vignani, Laura Zannella.

3 The indicators were produced also thanks to synergistic action developed in the National Statistical System, and not only, with different institutions and stakeholders: ISPRA, ISS, Invalsi, ENEA, GSE, INGV, Ministry of the Environment, Land and Sea protection, Ministry of Foreign Affairs and International Cooperation, Ministry of Economy and Finance, Ministry of Justice, Ministry of Interior, Ministry of Education, University and Research, Ministry of agricolture, Food and Forestry Policies, Ministry of Health, ASviS, Consob, Cresme.

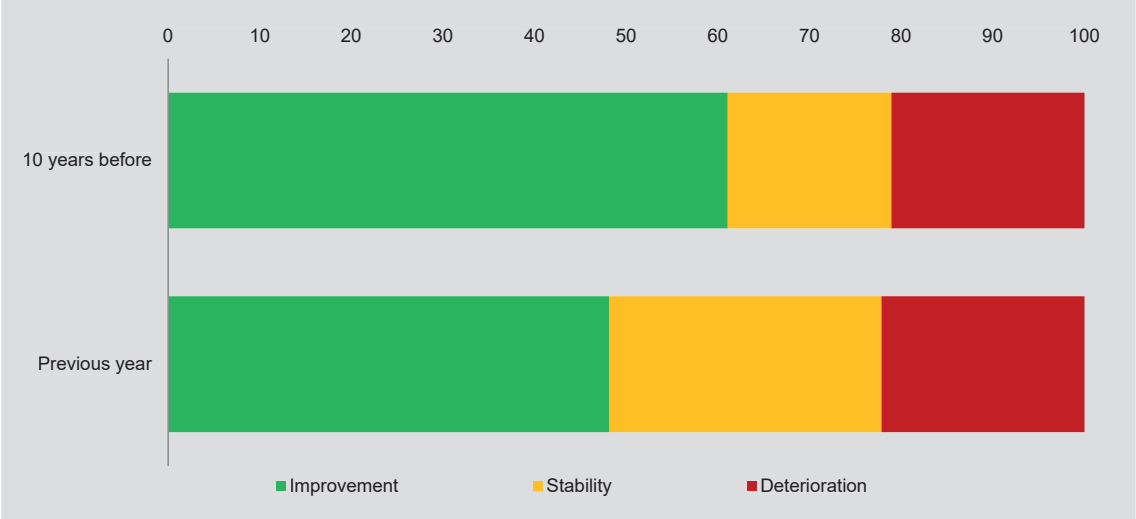
On an experimental basis, the 17 Goals have been rearranged along three dimensions, social, environmental and economic, and three composite indices have been elaborated for each year.

The second chapter presents the evolution of the international and national processes underlying the framework of the SDGs. Chapter 3 illustrates the analysis for each Goal. The regional indicators are entirely available online at www.istat.it.

1.2 Progress towards sustainable development

Italian sustainability is improving compared to previous year and 10 years before. Compared to the previous year, 48.1% of indicators has improved; 29.7% of indicators has remained stable and 22.2% has decreased (Figure 1.1)[4]. Respect 10 years before, data suggest an overall improvement. 61.1% of indicators shows a progress, 17.8% is stable and 21.1% deteriorated.

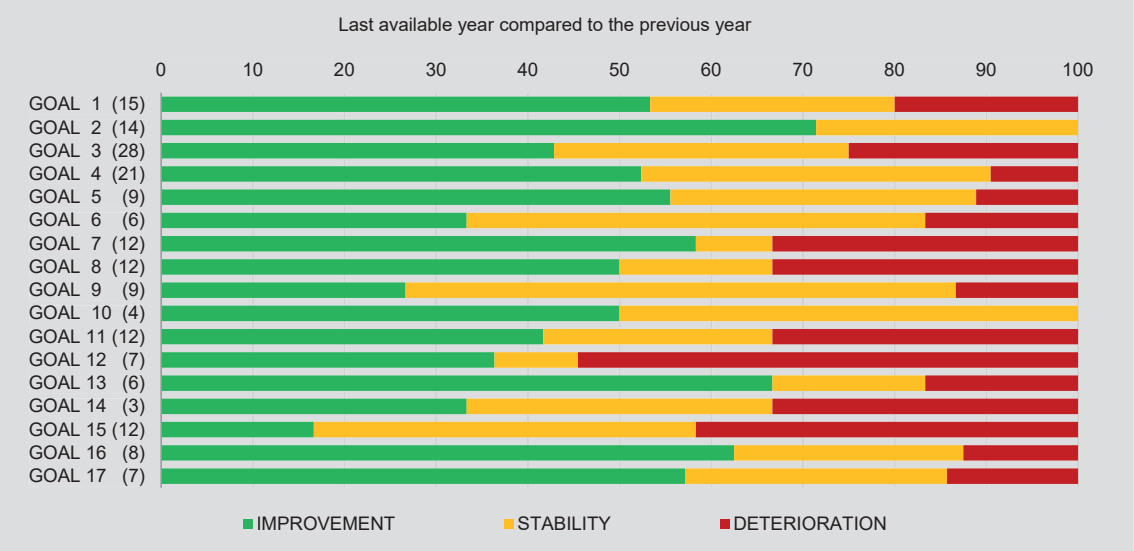
Figure 1.1 - Performance of SDGs indicators compared with 10 years before and the previous year



Compared to the previous year, Goal 2 (Zero Hunger) and Goal 13 (Climate Action) account for the highest percentage of indicators showing an improvement (respectively 71.3% and 66.7%), Goals 12 (Responsible Consumption and Production) and 15 (Life on Land) show the highest levels of deteriorated indicators (54.5% and 41.7% respectively; Figure 1.2).

4 The summary of the trends measured by the indicators is prepared by calculating their changes over two reference intervals, namely, short term (last year available from t-1, usually 2019 from 2018) and medium term (last year available from t-10, usually 2019 from 2010). Variations are classified according to the Compound Annual Growth Rate (CAGR), $CAGR = \left(\frac{y_t}{y_{t_0}}\right)^{\frac{1}{t-t_0}} - 1$, where t_0 is the base year, t is the most recent year and y the value of the indicator for those two years.

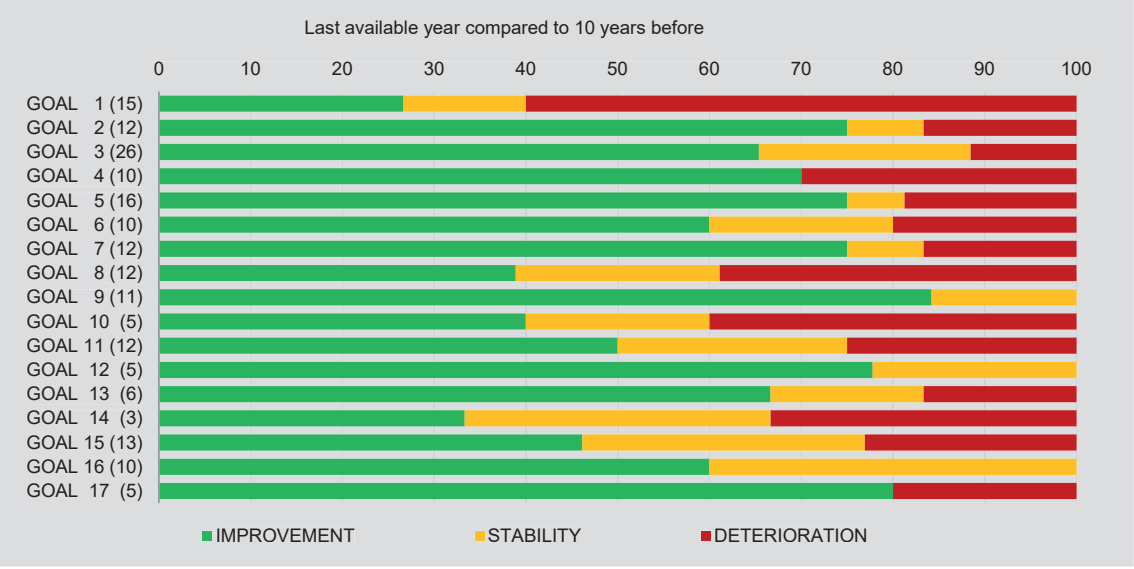
Figure 1.2 - Goals trend: last available year compared to the previous year by Goal



Compared to 10 years before, the picture for Goals shows a widespread number of positive signals. The percentage of indicators that improve is high (70% or more) for Goal 2 (Zero Hunger), 4 (Quality of Education), 7 (Affordable and Clean Energy), 9 (Industry, Innovation and Infrastructure), 12 (Responsible Consumption and Production) and 17 (Partnership for the Goals). Conversely, Goal 1 (Zero Poverty) shows the highest level of worsening indicators (60.0%; Figure 1.3).

Overall, the analysis by Goals reinforces the image of a generalised attenuation in the last year of improvements towards sustainable development.

Figure 1.3 - Goals trend: last available year compared to 10 years before by Goal



1.3 Synthesis by Goals

In Italy, in 2018, the share of population at risk of poverty or social exclusion was equal to 27.3% (about 16 million 400 thousand individuals), lower than the previous year (28.9%). The Italian share is above the EU28 average (21.7% in 2018; 22.4% in 2017). The evolution of the three indicators that compose the risk of poverty or social exclusion, exhibits a similar behaviour but the risk of poverty, which affects 20.3% of the population is stable. Severe material deprivation decreases (8.5% in 2018, from 10.1% in 2017) as well as the share of those living in households with a very low work intensity (11.3% from 11.8%).

In 2018, 1.5% of Italian households shows signals of food insecurity (as they report not having had enough money to buy food at certain times over the last 12 months, and not being able to afford a protein meal at least twice a week). The proportion, however, has been decreasing since 2013, when it was 4.6%.

Over 30% of children aged 3 to 5 years are overweight, a condition that is an important risk factor for health. Percentage falls down after the age of 10, and halves in the age group 14-17 (year 2017/18). These figures raise a great concern, even if showing some improvement compared to 2010/11.In 2018, organic crops cover 15.5% of the utilized agricultural land in Italy, more than double the EU28 average (7.5%), and reach 20% in Central and Southern regions. Organic crops increased by 2.6% compared to the previous year, and by more than 75% since 2010.

In agriculture, the distribution of plant protection products keeps lowering (12.8 kg per hectare in 2018, -21.5% from 2010), while the distribution of fertilizers remains stable (around 500 kg/ha). In 2018, ammonia emissions generated by the agricultural sector (mainly by livestock farms) fell by 3.1%, compared to the previous year.

In 2019, in Italy, the number of specialist and general physicians was about 4 per 1,000 inhabitants while the number of nurses and midwives was 5.9 per 1,000 inhabitants. Pharmacists, on the other hand, were 1.1 per 1,000 inhabitants.

In 2017 in Italy were available about 192,000 hospital beds, equal to 31.8 for 10,000 inhabitants, confirming a downward trend started in the mid-1990s.

In 2019, the standardised proportion of people aged 15 years and older with risk behaviours in alcohol consumption or smoking was further reduced compared to the previous year. In the adult population, overweight people are 44.9% of the total, with higher shares among males (53.9%) and older people (60.9% of 65 to 74 years old population).

The influenza vaccination in over65s increased again in the 2018-2019 winter season (53.1%) while paediatric vaccinations reached high coverage and, in the case of measles, exceed 95% for those born in 2015 (target threshold recommended by the World Health Organization).

In 2018, in Italy the percentage of students who do not reach the minimum level of scientific competence (low performer) reached 25.9%, sharp below the OECD average (22%). Concerning to reading and mathematics skills, the shares of low performers were close to the OECD average.

In 2019 the percentage of young people between 18 and 24 years old who have not completed their education was 13.5%, decreasing from 2017-2018. In 2019, only 27.6% of young people aged 30-34 had a tertiary degree (33.8% of women and 21.6% of men), stable compared to 2018. The level remains sharp below the European average (41.3%).

The last decade recorded a pronounced acceleration of the digitalization process. Digital tools have deeply affected the modalities of communicating, reading, exchanging information, bringing difficulties and concerns about their diffusion. In 2019, in Europe and Italy, respectively 87% and 76% of the population (16-74 age class) used the Internet in the last 3 months.

In Italy, the participation of adults in formal and non-formal training activities remains constant between 2018 and 2019: 8.1% of those aged between 25 and 64 have carried out at least one training activity in the last 4 weeks.

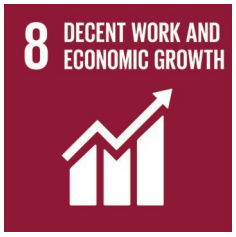
In 2018, in Italy were committed 133 murders of women, respect to 123 in 2017. Around 80% of these crimes have been committed at home by people like partners, former partners and family members of the victim.

In 2019, 55.2% of women aged 25-49 with pre-school children (0-5 years) and 74.3% of women aged 25-49 without children had an employment. In seven Italian regions, the share of women elected to Parliament is higher than 40%; in nearly all the other regions, the share of elected women is higher than 20%.In 2019, Italy is among the EU28 countries with the highest proportion of women on the boards of large listed companies (36.1%). The percentage of women in decision-making bodies is 18.6% (+1.8 percentage points compared to 2019).

Italy holds the European record in the freshwater withdrawal for public water supply in absolute terms, with values among the highest in per capita terms too. In 2018, the total volume of water abstracted for public water supply amounted to 9.2 billion cubic meters (419 litres per inhabitant per day), marking, for the first time since 1999, a decrease. In 2018, 237 litres per inhabitant have been daily supplied in the public water supply networks of the 109 provincial/metropolitan capitals, with a reduction of about three litres compared to 2016. The efficiency of the networks showed a slight improvement: the share of water supplied to end users was 62.7% of the volume input in public water network, about two percentage points more than 2016. In 2018, rationing measures in public water supply have been adopted in 12 provincial/metropolitan capitals.

Over the last ten years, the renewable energy share in the final energy consumption has increased by 5 percentage points, although in the last year it slightly decreased to17.8% (-0.5 percentage compared to previous year).Italy is among the few EU28 countries that have already reached the 2020 national target. The contribution from renewables varies at a sectoral level, with a more relevant share for electricity sector than for thermic and transport sectors. In 2018, electricity from renewable sources in the gross electricity consumption showed a marked increase, reaching 34.3%. The positive trend of Italian energy intensity has continued: the ratio between gross available energy and GDP decreased by 11% in the last ten years and by 2.1% in the last year, reaching 93 tonnes of oil equivalent per million euro.

The share of population not able to keep their home adequately warm decreased: in 2018 it was equal to 14.1%.



After the recovery in the 2015-2017, the last two years showed a slowdown in the growth of GDP per capita, more pronounced in 2019 (+ 0.4%). The value added per employed person decreased by 0.4% and highlighted a more sustained dynamic of the labour factor than production. The evolution of the economic situation is still characterised by significant levels of non-regular occupation.

In recent years, the continuation of the positive phase of the economic cycle has led to an improvement in employment and a reduction in unemployment both in EU28 countries and, to a lesser extent, in Italy. The fall in Italian unemployment rate is accompanied by signs of improvement also for the other context indicators, which, however, do not show a decisive reduction in the gap with the average of the European countries. In 2019, Italy showed the highest percentage of NEETs (22.2%) among the EU28 countries, even if decreased compared to 2018 (-1.2 percentage points). In 2018, the Italian government spending in employment programmes and social protection from unemployment amounted to 1.19% of GDP and 2.45% of national budgets. However, the last year increase has not compensated the contraction of 2017 and both indicators are lower than 2013.

The average R&D intensity of the European Union on GDP grew from 1.93 in 2009 to 2.12 in 2018, far below to the EU 2020 target. In the same period, researchers increased from 31 to 40.7 per 10,000 inhabitants. In Italy, R&D intensity on GDP is significantly lower compared to the major EU28 countries. However, it increased from 1.22% in 2009 to 1.39% in 2018. In the same period, researchers grew from 17.3 to 23.1 units per 10,000 inhabitants.

In 2017, the proportion of medium and high-tech industry value added in total value added remained substantially stable at 32.4%.

Railway network indicators showed a polarization in favour of Northern and Central regions compared to the Southern regions.

The decreasing trend in CO_2 emissions on the value added recorded in the last decade is confirmed in 2018, with a contraction of 2.4%.

In Italy, in the period 2004-2017, the income growth of the relatively low-income population deteriorated significantly. More in detail, in 2017 the income of the entire population increased more than the income of the poorest 40% of the population (+1.6% and +0.2% respectively). In Italy, the disposable income share for 40% of the poorest population (19.3%) was lower than the EU28 average (20.9%; 2017 data).

In 2018, were issued 242,009 new residence permits, 7.9% less than previous year. The reduction was largely due to the decrease in permits issued for asylum applications. The presence of refugees remained low (less than 1% of residence permits valid on 1st January 2019). Acquisitions of citizenship continued to decrease. In 2018 there were new 103,485 acquisitions, 23.8% less than in 2017.

Unsatisfactory housing conditions involve more than a quarter of the Italian population. In 2018, the share of households living in overcrowded dwellings increased to 27.8%. In 2019, one third of households is unsatisfied of public transportation. The share of persons who usually reach their place of work by private transport remains high (74.2%), and the share of students who use only public transport to reach their place of study remains low (28.5%).

The incidence of urban green areas on urbanized areas is stable, equal to 8.9 m2 per 100 m2 on average in the 109 provincial capitals.

In 2018, Italy recorded further progress in the field of waste management, despite the increase in the production of municipal waste per capita. National recycling rate increased to 51%, exceeding, for the first time, the EU 2020 target. The percentage of municipal waste object of separate collection on total municipal waste (58%) also increased, although it still falls below regulatory targets.

Domestic material consumption, per capita and per unit of GDP, returned to grow in 2018, interrupting the contraction that has characterized the last ten years.

In 2018, the amount of fossil fuel subsidies, equal to 1% of GDP, registered a new increase.

Total greenhouse gas emissions in Europe had continued to decrease, with an index of 78.3 in 2017 compared to the base year 1990. Conversely, the per capita value returned to 8.8 tonnes of CO_2 equivalent in the same year. The emissions of resident units are generated by production activities for three quarters and by households' consumption for one quarter.

The predominant element of greenhouse gases in terms of CO_2 equivalent is carbon dioxide (82%), methane is present at 10%.In Italy, extreme weather phenomena are also intensifying due to climate change, with multi-risk cascade events. In 2018, in Italy, favourable meteo-climatological factors compared to the previous year led to a reduction in forest fires, decreasing 41.0% compared to the previous year.

Marine sites included in the Natura 2000 network are the major policy tool of the European Union's biodiversity conservation policy. In 2019, this perimeter increased of 5,163 km^2 respect to the previous year.

In 2018, the bathing marine coasts reach the 66.5% of the Italian coastline.

Fishing activity is overfished in the Western Mediterranean. Fishing in the 90.7% of cases is not biologically sustainable.

More than 30% of the national territory is covered by forests, whose extension was constantly increasing (+0.6% per year from 2000 to 2015), as well as their biomass density (from 95 to 111 tonnes per hectare). In Italy, the forest management certification is still uncommon: in 2015, only 7.4% of forest areas got a certification, well below the EU28 average (47.1%).

The system of protected natural areas covers about 80% of the Key Biodiversity Areas (also in the mountain ecosystems). However, most EU countries are closer to the target of total coverage.

Land consumption continues to increase (about 48 km^2 of new paved or built-up surfaces realized during 2018). Artificially sealed surfaces are equal to 7.6% of the territory, but almost 40% has a high degree of fragmentation, which compromises its ecological functionality. The state of biodiversity raises concern: among the terrestrial species living in our country, over 30% of Vertebrates, and about 20% of Insect species, are classified as endangered in the Italian Red Lists of Threatened Species. Besides, the presence of invasive alien species continues to grow (on average, about 11 new species detected every year, from 2000 to 2017).

In 2018, in Italy 345 intentional homicides committed, corresponding to 0.6 per 100,000 inhabitants. The rate decreased over the years for male victims and remained stable for female victims. At 31 December 2019 there were 9,746 unsentenced detainees, equal to 16.0% of the prison population. The number of adult prisoners in detention institutions is higher than the regulatory capacity. In 2019, the prison density in adult prisons increased compared to the previous year, from 117.9 to 119.9 prisoners per 100 available places.

In 2019, the effective average duration of civil proceedings in ordinary courts remained high at 421 days, although fell of 20 days compared to the previous year.

In 2018, the ratio between Official Development Assistance (ODA) and gross national income lost 0.05 percentage points, reaching 0.25%. ODA to Least Developed Countries (LDCs) still grew in 2017. The 2030 targets are still far and Italy is below the average contribution of the Development Assistance Committee donors (DAC) countries.

2019 recorded a contraction in the foreign workers' remittances in Italy equal to 2% of the total amount.

ICT usage continued to widespread in the population and enterprises over the last year, albeit at a reduced pace. In 2019, the percentage of households which access to the Internet by broadband connection is 75% (95% in enterprises with at least ten employees), while the incidence of individuals using the Internet is 68%.

1.4 Sustainable development in Italian regions

The performance at regional level is observed by quintile distribution of each indicator across regions[5]. The region with the largest number of indicators in the fifth quintile is assessed as the best performer.

In the autonomous provinces of Bolzano and Trento 48% of the indicators fall into the fifth quintile, conversely, Liguria and Piemonte record the worst performance in the northern geographical areas.

In the central regions, the indicators are mainly allocated in the third quintile, with Toscana and Umbria as top performers opposite to the poor performance of Lazio.

In the southern regions indicators record the lowest values in the distribution. Sicilia, Calabria and Campania show a large share of indicators in the first quintile (58.3%, 52.2% and 48.5% respectively), in Abruzzo, Molise and Sardegna the distribution appears less unfavourable.

Figure 1.4 - SDGs statistical measurements by region, geographical area and quintile. Last available year (percentage distribution)

REGIONS AND GEOGRAPHICAL AREA	Quintiles					Total available measures
	I	II	III	IV	V	
	(0-20)	*(20-40)*	*(40-60)*	*(60-80)*	*(80-100)*	
Piemonte	10,5	19,5	30,8	27,8	11,3	133
Valle d'Aosta/Vallée d'Aoste	24,2	9,8	11,4	12,9	41,7	132
Liguria	17,2	20,9	27,6	20,1	14,2	134
Lombardia	19,5	6,8	22,6	27,8	23,3	133
Bolzano/Bozen	16,8	13,6	6,4	15,2	48,0	125
Trento	11,3	10,5	12,1	17,7	48,4	124
Veneto	16,4	17,2	23,1	20,9	22,4	134
Friuli-Venezia Giulia	12,7	14,9	15,7	29,1	27,6	134
Emilia-Romagna	20,1	12,7	17,2	24,6	25,4	134
Toscana	10,4	17,9	29,1	29,9	12,7	134
Umbria	12,0	17,3	36,1	18,0	16,5	133
Marche	8,2	21,6	27,6	29,9	12,7	134
Lazio	21,6	32,1	20,9	11,9	13,4	134
Abruzzo	17,9	35,8	18,7	19,4	8,2	134
Molise	24,6	26,9	19,4	11,2	17,9	134
Campania	48,5	21,6	11,9	8,2	9,7	134
Puglia	35,8	26,1	14,2	17,2	6,7	134
Basilicata	40,3	23,9	10,4	12,7	12,7	134
Calabria	52,2	10,4	11,2	11,2	14,9	134
Sicilia	58,3	12,1	8,3	8,3	12,9	132
Sardegna	31,3	31,3	12,2	12,2	13,0	131
North	8,4	14,3	19,3	47,1	10,9	119
Center	9,2	22,7	37,0	23,5	7,6	119
South and Islands	47,3	25,0	9,8	12,5	5,4	112

5 First step: a ranking of the regional distribution according to the values of each indicator is the method to set up 5 quintiles with the same number of regions. Method has included also the indicator's polarity in accordance with the positive or negative impact on sustainable development. Second step: for each region, we consider the percentage of indicators falling in different groups (from the lowest 20% up to the higher 20%).

1.5 Evolution of the social, economic and environmental dimension through the SDGs

Today, sustainable development and well-being have acquired relevance on the international and national political agenda, as well as the analyses for the development of new methodologies and data sources for their updating and extension.

At the same time, the attention of researchers has also focused on the design of composite indicators to measure the evolution of the three dimensions - economic, social and environmental - that characterise SDGs:

The current edition of the annual Report makes available a synthetic measurement of the three above mentioned dimensions in the period 2010-2018 throughout three composite indices. They are based on the aggregation of the 17 Goals according to the scheme illustrated in Figure 1.5[6].

Figure 1.5 - Distribution of Goals by dimension

The calculation included the indicators with an available time series. The indicators have been standardised to a common scale throughout a min-max normalization procedure and aggregated by geometric average[7]. Finally, the elaboration implemented an outlier detection procedure and those indicators for which the annual growth rate was outside the range (-80%, +80%) have been excluded from the aggregation.

In total, 41 indicators have been included for the social dimension, 32 for the economic dimension and 12 for the environmental dimension. Finally, in order to facilitate intertemporal comparison, the scores coming from the geometric average have been normalised at 100 in 2010.

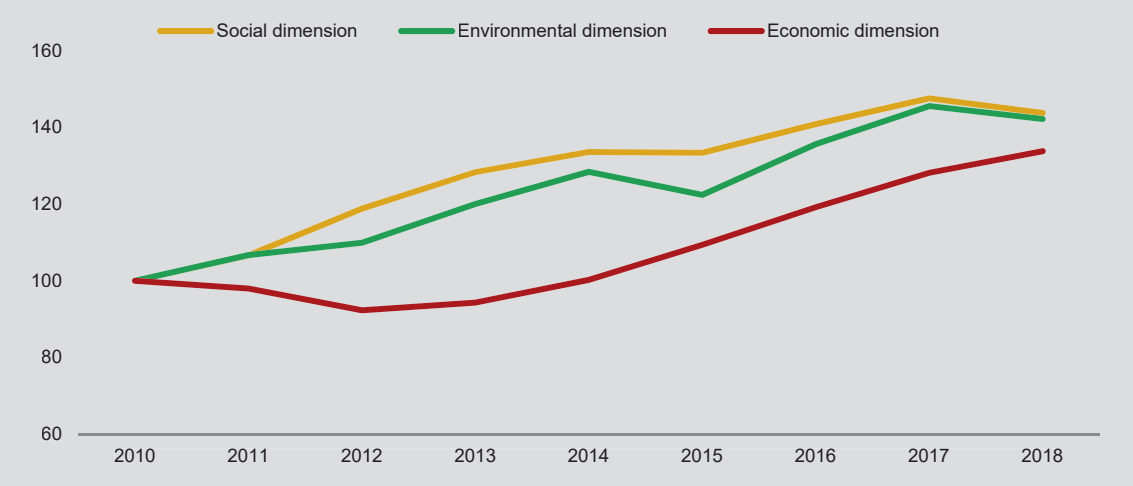
Between 2010 and 2018, the composite indices show a generalised trend towards a more marked improvement for the environmental and social dimension. Conversely the economic dimension showed a worsening until 2013, jointly with the fall in production and employment rates in the same period, and the recovery after 2013.

6 A similar approach is used for example in Alaimo, L.S., A. Ciacci and E. Ivaldi, "Measuring Sustainable Development by Non-aggregative Approach" (*Social Indicators Research*, 2020), and Delli Paoli, A. and F. Addeo, "Assessing SDGs: A Methodology to Measure Sustainability" (*Athens Journal of Social Sciences*, 2019, Volume 6, Issue 3, 229-250).

7 This approach complies with the recommendations of the OECD and the JRC. (see OECD and JRC, "Handbook on constructing composite indicators: methodology and user guide", 2008, https://www.oecd.org/sdd/42495745.pdf).

Progress in clean energy and responsible consumption and production lead the performance of the environmental composite index; indicators on health and education sustained the positive trend of the social dimension. However, in the last years the speed of improvements slowed down for both dimensions. The evidences made available by the composite indices are consistent with the framework provided by the comparison of all indicators (Figure 1.6).

Figure 1.6 - Composite indices for the social, economic and environmental dimensions. Years 2010-2018



1.6 The effects of lockdown on air emissions from productive activities and households

The policy measures to mitigate the COVID-19 pandemic outbreak (lockdown) have deeply affected firms' performance and households' behaviour. Lockdown measures closed, totally or partially, a large amount of productive activities and restricted social and consumption habits of households.

Between 25th March – 3rd May 2020, 2.2 million enterprises employing 7.4 million people, equal respectively to 49% and 44.3% of the total, had to shut down. Lockdown mobility restrictions and social distancing had a drastic impact on household expenditure for tourism and transport.

This scenario impacted dramatically on the economic performance although it provided positive effects on climate-change and pollution. Quantitative estimation of these phenomena has been carried out using the analytical scheme of the Atmospheric Emission Accounts together with the Input-Output Tables of Italian economy[8].

8 Analytical approach is consistent with the one already used by Istat to estimate direct and indirect effects of the lockdown on the economy (see Istat, "Monthly Note on the performance of Italian economy for methodological approach", no. 3/2020, https://www.istat.it/it/archivio/241033). This simulation considers both emissions directly generated by household activities (private transport) and those generated by production activities induced by household consumption. The simulation is based on evidence relating to the average emission intensity (per unit of product or consumption) of the various activities (provided by the Atmospheric Emissions Accounts, published annually by Istat) which link the emissions of production units and households with the Supply/use and input/output tables of the Italian economy. In particular, for the part of emissions directly generated by household final consumption, the estimation is based on the variations assumed for expenditure on oil products applied to historically observed emissions. As far as emissions from production activities are concerned, the impact analysis is carried out by extending to the physical output "emissions" the symmetrical tables by branch for Italy (internal component, with reference year 2017).

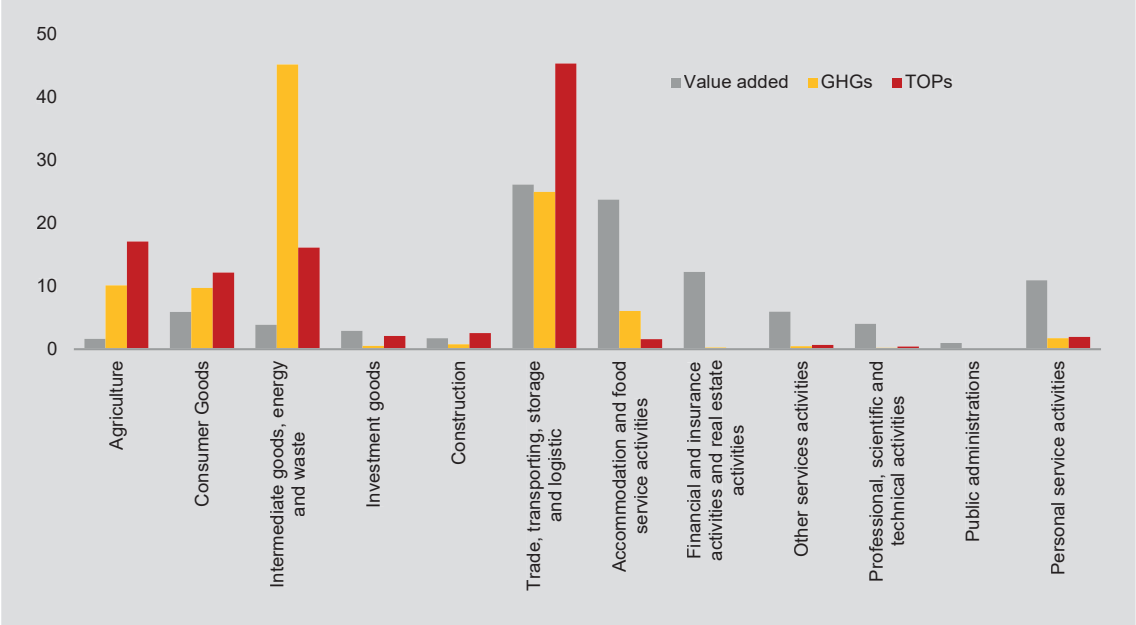
The estimated reduction of Greenhouse gases (GHGs) and Tropospheric ozone precursors (TOPs) due to the lockdown would amount to 11.7 million tonnes of CO_2 equivalent and 98.1 thousand tonnes of TOPs formation potential. According to the counterfactual simulation, the lockdown accounts for a reduction of GHG and TOP emissions by 2.6% and 4%, respectively.

The decrease in emissions would be associated with the deep reduction in the household transport: their contribution to the reduction would be 52% of total GHCs and 74% in terms of TOPs.

The emission reduction estimation attributable to enterprise activity is equal to 1.7% for GHCs and to 1.6% for TOPs. The intensity of the emission reduction is similar to that one estimated for the value added (-1.9%). When considering the economic structure according with the economic activity groups, the intensity of the reduction is heterogeneous and reflects both the characteristics of the lockdown and the characteristics of the specific production process. (Figure 1.7).

After the normalisation of the value added and of the emissions reduction to 100 for the total economy, about 25% of reduction of value added and GHCs emissions and 45% of the TOPs emission reduction would concentrate in the trade, transport and logistics sectors. GHCs emissions would reach the highest scores in intermediate goods, energy and waste (45%).

Figure 1.7 - Effects on value added and one-year emissions of the limitation of production activities by sector of economic activity (percentage distribution of the variation with respect to the baseline scenario)



2. INTERNATIONAL PROCESSES AND NATIONAL EVOLUTIONS IN STATISTICAL INFORMATION SYSTEMS SDGS[1]

2.1 The evolution of the global implementation process of the Agenda 2030

The 2030 Agenda for Sustainable Development[2] represents the United Nations (UN) global action plan for achieving a sustainable transformation of society, of the economy and of the environment by 2030.

The 17 Sustainable Development Goals (SDGs) and the relative 169 specific targets in which they are developed[3], balance the three dimensions of sustainable development, extending the 2030 Agenda from the social pillar alone, foreseen by the Millennium Goals, to the economic and environmental pillars, to which is added the institutional dimension. Their essential characteristic is that they are universal, interconnected and indivisible: they must take into account specific territorial realities and are potentially applicable everywhere, on a global, national and local (regional and/or urban) level. There are numerous references to the well-being of people and to an equitable distribution of the benefits of intragenerational and intergenerational development, "No one left behind" is one of the key principles.

Goals and targets must be considered in an integrated way, taking into account the processes that can accompany and favour them in a sustainable way, including international cooperation and partnerships to be activated in the institutional or even private context.

The SDGs are characterized by a high level of complexity, nevertheless they refer to concrete elements, which concern each of us. For example, tackling climate change requires the implementation of renewable energy usage, the reversal of the trend towards loss of forests and the modification of our production and consumption models. Similarly, promoting sustainable agriculture could improve health, decrease malnutrition, increase well-being in rural areas and develop sustainable tourism.

Globally High level Political Forum on Sustainable Development (HLPF), which includes all United Nations Member States, is in charge to monitor the adoption of the 2030 Agenda and the achievements of the actually developed policies. HLPF meets annually, under the aegis of the Economic and Social Committee (ECOSOC) of the UN to assess on progress, results and challenges for all countries. Every four years the meeting, which involves the participation of Heads of State and Government, takes place under the auspices of the General Assembly of the UN.

1 This chapter was edited by Angela Ferruzza with contributions from Paola Patteri, Giovanna Tagliacozzo and Paola Ungaro (par. 2.6).

2 The Agenda has been adopted by United Nations in September 2015: the guidelines for the activities for the coming years are outlined worldwide (UN Resolution A7RES/70/1, New York September 2015). In the 2015, coherently with Agenda 2030, also Paris Climate Agreement (UN decision 1/CP.21, adoption of the Paris Agreement) and Sendai Framework for Disaster Risk Reduction (adopted at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan) have been adopted.

3 See Istat," 2019 SDGs Report", Chapter 2, https://www.istat.it/en/archivio/232745.

The 2019 Report on Global Sustainable Development[4] presented and discussed in the latest HLPF summit, "Accelerating the implementation of the 2030 Agenda for sustainable development[5]", underlined the strong delay in pursuing certain Goals, pointing out the need for corrective actions, in terms of environmental protection and in relation to the contrast of economic and social inequalities between the different geographical areas, in the cities, and between the different social groups. Therefore the "Decade of action" has been launched by the UN and world leaders. It is a programme that provides accelerated solutions for all the major challenges faced by the SDGs, ranging from poverty to gender issues, from climate change to inequalities. The plan foresees different fields of realization: global solutions for the efficient exploitation of resources and actions of single Member States to stimulate sustainable policies, as well as individual commitment by civil society. The programme paid a special attention to the need to strengthen national efforts in the fight against climate change; the urgent need to increase the commitment to gender equality, biodiversity and sustainable transport; the need to constantly review the national sustainable development plans and financing frameworks, to guarantee the resources necessary for change.

In this context, the Voluntary National Reviews (VNR), which are part of the follow up and review mechanisms of the Agenda, take on particular importance. The VNRs are aimed at facilitating the sharing of experiences. Currently they have been submitted by 142 countries. The United Nations stressed the importance to submit to the HLPF and ECOSOC the second wave of VNRs, which should also be based on statistical monitoring, in order to illustrate the commitments in favour of the 2030 Agenda. Italy has submitted its first VNR in 2017, when the National Strategy for Sustainable Development (NSSD) was launched; the second one is foreseen in 2021.

The United Nations has also recently spoken out on the current COVID-19 crisis[6]. The pandemic can widen inequalities, but it could become an opportunity to turn the crisis into a further push to achieve the Goals, starting from Health and well-being (Goal 3). The new needs generated by the pandemic call to solve the problems that make everyone more vulnerable. The logic behind Decade of Actions for the SDGs[7] should be applied to overcome the current crisis to live in a healthier planet and to keep the promises of the 2030 Agenda. Systems should be strengthened, to support people in difficulty and those who live in conditions of extreme poverty, and at the same time the fight against the major environmental criticalities and climate change should be intensified.

In accordance with the Sendai Framework for Disaster Risk Reduction[8], fully integrated within the SDGs framework, "pandemics" are classified as one of the "hazards" for which the United Nation Disaster Risk Reduction (UNDRR) has activated various analysis paths focused on the impact of Hazards Events on the most vulnerable groups (elderly, children, migrants, refugees, people without work) and on the effects related to Climate change. The Sendai aims to reduce mortality, the number of affected people, economic losses.

4 *Global Sustainable Development Report – GSDR.*
5 NU, SDGs Summit, New York, 24 e 25 September 2019.
6 See Responding to the socio-economic impacts of COVID-19, the United Nations Secretary-General calls on everyone to act together to address this impact and lessen the blow to people, https://www.un.org/en/un-coronavirus-communications-team/un-working-fight-covid-19-and-achieve-global-goals.
7 Shared responsibility, global solidarity: responding to the socio-economic impacts of Covid-19", UN 31st march 2020, https://www.un.org/sites/un2.un.org/files/sg_report_socio-economic_impact_of_covid19.pdf.
8 Sendai Framework for Disaster Risk Reduction, adopted at Third UN World Conference on Disaster Risk Reduction in Sendai, Japan, 2015.

According to the UN, the origin of pandemics can include a combination of factors that cause the disruption of ecological balance and conditions that can conduct to the spread of pathogens in new habitats, including: environmental degradation and pollution, intensive farming, population in high urban areas density, invasion of natural habitats by man, alterations of biodiversity, all amplified by the exceptional speed of propagation caused by the high mobility of goods and people between countries and continents. All these elements are connected and interlinked with the theme of the ongoing climate crisis. Countries should therefore continue to ensure their commitment to sustainable development.

The urgency of making available timely and reliable statistics is increasingly relevant, especially for the indicators in Goal 13, Goal 11 and Goal 1, relating to deceased persons or persons somehow affected by the pandemic, as well as to the indicators interconnected to its different aspects.

2.2 The 2020 revision of the indicators defined by UN-IAEG-SDGs

In 2016, the United Nations Statistical Commission established the Inter Agency Expert Group on SDGs (IAEG-SDGs), to define a shared framework of statistical information as a tool for monitoring and evaluating progress towards the Agenda objectives.

The IAEG-SDGs has developed a set of indicators, some of which are used to monitor multiple targets, even in different Goals.

The implementation process has set two revisions, to 2020 and 2025, to ensure the updating of the indicators, the necessary progress in their classification in Tiers[9] (Tier I, II and III) and the set up of the necessary metadata[10]. In 2016-2019 , a long consultation process[11] took place, with also the participation of Istat. During the last meeting[12], thanks to the progress made by the UN-IAEG-SDGs group, together with the relevant agencies (the so-called “custodian agencies”: Unep, Fao, OECD, WHO, UNESCO, Undp, Ilo and others), prepared the 2020 Revision of indicators[13] and metadata, which was presented to and approved by 51 United Nations Statistical Commission[14].

9 Consolidated methodology and regularly disposable data for Tier I, methodology and standards for Tier II but less disposable data. No methodology and no data for Tier III.

10 UN-IAEG-SDGs metadata define indicators proposed for monitoring and describes the methodologies for their implementation.

11 L’IAEG-SDG has prepared proposals reviewed from 2018 and has developed criteria for the revision presented in the IAEG-SDG’s Report to the Statistical Commission and in the web-page developed for the 2020 Comprehensive Review process.

12 Addis Ababa 21-24th October 2019, https://unstats.un.org/sdgs/meetings/iaeg-sdgs-meeting-10/.

13 The last metadata version is available at https://unstats.un.org/sdgs/iaeg-sdgs/tier-classification. https://unstats.un.org/sdgs/metadata/.

14 New York 3-6th march 2020, https://unstats.un.org/unsd/statcom/51st-session/documents/2020-2-SDG-IAEG-E.pdf, https://unstats.un.org/unsd/statcom/51st-session/documents/2020-3-SDG-SG-E.pdf, https://unstats.un.org/unsd/statcom/51st-session/documents/2020-4-SDG-HLG-E.pdf.

The 2020 revision[15] of the UN-IAEG-SDGs indicators produced 248 indicators, of which 232[16], in the final phase on the basis of 14 proposals replaced existing measures[17]. It produced also 8 revision proposals[18], 8 proposals for additional indicators[19] and 6 proposals for elimination. Two new migration indicators have been included in Goal 10: 10.7.3 Number of migrants killed while attempting to cross maritime, land and air borders and 10.7.4

15 The Global indicator framework has been adopted by General Assembly in resolution 71/313 and proposed at 51st session of the Statistical Commission in 2020 and at 56th session in 2025.

16 https://unstats.un.org/sdgs/iaeg-sdgs/2020-comprev/UNSC-proposal/.

17
- 1.a.1 Total official development assistance (ODA) grants from all donors that focus on poverty reduction as a share of the recipient country's gross national income
- 1.b.1 Pro-poor public social spending
- 7.b.1 Installed renewable energy generating capacity in developing countries (in Watts per capita)
- 11.a.1 Number of countries that have national urban policies or regional development plans that (a) respond to population dynamics, (b) ensure balanced territorial development, (c) increase local fiscal space
- 12.a.1 Installed renewable energy generating capacity in developing countries (in Watts per capita) (repeat of proposed replacement for 7.b.1)
- 12.b.1 Implementation of standard accounting tools to monitor the economic and environmental aspects of tourism sustainability
- 13.2.1 Number of countries with NDCs, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications
- 13.3.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education), are mainstreamed at all levels in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment (repeat of 4.7.1/12.8.1)
- 13.a.1 Amounts provided and mobilized in United States dollars per year in relation to the continued existing collective mobilization goal of the $100 billion commitment through to 2025
- 13.b.1 Number of least developed countries and small island developing States with NDCs, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications (repeat of 13.2.1 replacement proposal with slight amendment)
- 15.a.1 (a) Official development assistance on conservation and sustainable use of biodiversity, and (b) revenue
- 15.b.1 generated and finance mobilized from biodiversity-relevant economic instruments
- 17.3.1 Foreign direct investment (FDI), official development assistance and South-South cooperation as a proportion of gross national income (GNI)
- 17.17.1 Amount of United States dollars committed to public-private partnerships for infrastructure
- 17.18.1 Statistical capacity indicator for SDG monitoring

18
- 2.4.1 Revision of metadata: Change in "use of biodiversity supporting practices" sub-indicator
- 2.5.2 Proportion of local breeds classified as being at risk of extinction
- 5.a.2 Revision of metadata: Proxies D and F may be considered conditional measures and therefore would not need to be reported if and when de facto gender equality in land ownership was already achieved
- 6.3.1 Proportion of domestic and industrial wastewater flow safely treated
- 8.3.1 Proportion of informal employment in total employment, by sector and sex
- 11.6.1 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities
- 15.9.1 (a) Number of countries that established national target in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020 in their National Biodiversity Strategy and Action Plans (NBSAP) and the progress reported towards these target; (b) Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting
- 17.5.1 Number of countries that adopt and implement investment promotion regimes for developing countries, including LDCs

19
- 2.2.3 Prevalence of anemia in women aged 15-49 years, by pregnancy status (percentage)
- 3.d.2 Reduce the percentage of bloodstream infections due to selected antimicrobial resistant organisms
- 4.1.2 Completion rate (primary education, lower secondary education, upper secondary education)
- 10.4.2 Redistributive Impact of Fiscal Policy3
- 10.7.3 Number of migrants killed while attempting to cross maritime, land and air borders
- 10.7.4 Proportion of the population who are refugees, by country of origin
- 13.2.2 Total greenhouse gas emissions per year
- 16.3.3 Proportion of the population who have experienced a dispute in the past two years and who accessed a formal or informal dispute resolution mechanism, by type of mechanism

Proportion of the population who are refugees, by country of origin. In Goal 13, relating to Climate Change, the following was added: 13.2.2 Total greenhouse gas emissions per year. The indicators are, as usual, classified according to three levels[20]: half, 115, are Tier I, 95 (40%) are second level, 19 (9%) are third level. The other indicators belong to more than one level, given the heterogeneity of their components.

The UN-IAEG-SDGs encourages countries to make available the necessary statistical information produced by the National Statistical Systems through dedicated platforms, in order to increase their usability. The development of methodological and scientific activities for the 2030 Agenda, the use of data complementary to official statistics, the use of innovative technologies and methods (Data Revolution) are key elements for the enhancement of the production of statistical information, which requires an effort also in terms of investments.

A report, the third, prepared from the data available to the United Nations Department of Economics and Social Affairs, was released in July 2019[21]. The Global SDG Indicators Database is also available, which presents statistical information for a substantial number of countries relating to 166 indicators.

The activities of the specific Working groups on Interlinkages, Statistical Data and Metadata Exchange (SDMX) and Geo-spatial information also continued.

The initiatives undertaken to progress in achieving a Goal can be strengthened or, on the contrary, opposed by those established for another Goal. For this reason, there is a special focus on the analysis of interlinkages. Objectives, targets, indicators, although organized into individual components, are interdependent[22]. The activities carried out in this area led to the preparation of two Reports in 2018 and 2020, which refer to the need to consider the interconnections between the statistical frameworks related to Climate Change, Extreme Events and Environmental Accounting Systems (System of Environmental Economic Account - SEEA), to the Framework Development Environment Statistics (FDES). Istat actively participated in the Working group on interlinkages and the Italian experience is included in both reports[23].

The guidelines on "Data Flows and Global Data Reporting for SDG" have been approved by UN-IAEG, to improve the coordination and harmonization of national and international systems and, therefore, to increase international comparability.

The UN High Level Group for Partnership, Coordination and Capacity-Building for statistics (HLG-PCCB) was also entrusted with the task of ensuring strategic leadership in monitoring and statistical reporting in the process of achieving the Goals. During the first UN *World Data Forum*[24], the HLG-PCCB presented the strategic document for the implementation of the 2030 Agenda (Cape Town Global Action Plan)[25]. The second UN *World Data Forum*[26] organized by the HLG–PCCB represented an important opportunity for dialogue between the different actors, with specific attention to the need to strengthen statistical capacity in

20 https://unstats.un.org/sdgs/iaeg-sdgs/tier-classification.
21 http://unstats.un.org/sdgs/report/2019/.
22 https://unstats.un.org/unsd/statcom/50th-session/documents/. The interlinkages for the Agenda 2030, UNSD, 5-8 march 2019.
23 https://unstats.un.org/unsd/statcom/51st-session/documents/BG-Item3a-Interlinkages-Workstream-E.pdf.
24 Cape Town, January 2017.
25 https://unstats.un.org/sdgs/hlg/Cape-Town-Global-Action-Plan/.
26 Dubai, October 2018.

the countries and use quality data. With the *Dubai Declaration*, the global action plan was reaffirmed as a common framework for global statistics to continue the work of improving data for the sustainable development and optimization of national statistical systems.

2.3 The European initiatives for Agenda 2030

The European Commission, since 2016, has ensured its involvement in the implementation of the 2030 Agenda. The Council initially adopted conclusions on "A sustainable European future: The EU response to the 2030 Agenda for Sustainable Development", urging the Commission to carry out a regular monitoring of SDGs at European level. Sustainable development is formally configured as one of the long-term objectives of the European Union (EU), which has played a decisive role in defining the Agenda.

In January 2019, a Reflection Document on the 2030 Agenda was presented, entitled "Towards a sustainable Europe in 2030", which confirmed the EU's commitment to achieving Sustainable Development Goals and paved the way for the EU's Global Strategy for the years 2019-2024.

Subsequently, the new EU Strategic Agenda for 2019-2024 indicated, among the EU's priorities for the next political framework, that of "Building a green, fair, social and zero-climate impact Europe".

Following the renewal of Parliament and the bodies of the European Union, the need to articulate European policies and decision-making processes by leveraging a development model increasingly oriented towards the principles of sustainable development emerged with even greater strength. This is clear in the Policy Guidelines for the European Commission's activity in the years 2019-2024. The aim is to set up a European process of coordination of strategies and policies with an integrated approach in the various sectoral areas. The need for a Green Deal[27] for Europe has been announced, as a real "European law" on the climate, which should meet the objective of turning Europe into the first climatically neutral continent within 2050.

It has been hypothesized by EU to envisage a strengthening of investments in the environmental sector, to be carried out through various possible actions[28] in order to guarantee a fair and controlled transition process towards a zero impact economy to lead Europe to be the world leader for the circular economy and clean technologies, through the decarbonisation of energy-intensive industrial sectors too. Moreover, a part of the Green

27 At the time of August 2020 the EU28 agreement on the Recovery Fund made in progress the amount and the scheduling of the Green Deal programme.

28 The launch of an investment plan for a sustainable Europe and the transformation of a part of the European Investment Bank into a European climate bank;the revision of the emissions trading system; the introduction of a Carbon Border Tax, in order to avoid carbon leakage and ensure that European companies can compete on equal terms; guaranteeing a transition towards a zero carbon impact economy for all, by creating an additional Just Transition Fund compared to the cohesion funds; a new Action Plan on the circular economy focused on the sustainable use of resources; a stringent policy on the fight against disposable plastic, with the aim that it will no longer end plastic in the oceans by 2050. However, while recognizing the importance of cohesion funds, which play a crucial role in supporting regions and rural areas, the new Commission would undertake to integrate them through a new Fund for a fair transition, which will benefit the populations and regions most exposed to the transition as they start from less advanced bases. Among the other areas in which the Commission should intervene, particular emphasis is placed on food security, through a new one for sustainable foods; the protection and investment in the future of rural areas, in which 50% of Europeans still live today.

Deal should make available a biodiversity strategy for 2030[29]. The aim to protect citizens' health from environmental degradation and pollution necessarily requires a transversal strategy, which must include air and water quality, dangerous chemicals, industrial emissions, pesticides and endocrine disruptors.

On 17 December 2019, the European Commission presented the autumn package, a set of documents with which it annually opens the European Semester, the cycle of coordination of economic and budgetary policies within the EU. In 2019 for the first time, the United Nations' Sustainable Development Goals have been integrated into the European Semester[30].

Within a scenario where climate and environmental problems, technological progress and demographic change appear destined to deeply transform our societies, the Commission has underlined how the European Union and its Member States must answer to these structural changes with a new model of growth that respects the limitations of natural resources.

The new economic strategy is aimed to transform EU into a sustainable economy, to help to achieve the United Nations Sustainable Development Goals for which EU and each Member State committed themselves, to guide a two-fold process, the digital and climatic transition, during the transformation of the social market economy, towards a new growth paradigm based on the lead principle of competitive sustainability and integration with people's well-being. The analysis of the interconnections of the related statistical measures, summarized in the figure below (Figure 2.1), also in this case can be helpful to guide the statistical monitoring.

The announced new sustainable growth strategy should rely on four pillars, closely interconnected and synergistic, environmental sustainability, productivity gains, equity and macroeconomic stability. These pillars should lead structural reforms, investments and budgetary policies of all Member States, within a new framework of the European semester that will put citizens and the planet at the centre of economic policy.

The areas of intervention cited by the EU documents relating to the Green Deal on which to base the transition towards sustainability are: the transition from a linear economy to a circular economy, in order to reuse resources, decrease the use of the planet's natural capital and at the same time the greenhouse gas emissions; the guarantee of sustainability from the producer to the consumer, for example, also by paying particular attention to the agro-food system; issues relating to the energy of the future, buildings and mobility.

Social investment should remain a top priority, including in the areas of education and training, working conditions, health care, social inclusion and minority rights, gender equality and rural development.

The Green Deal has been defined in the last February. In recent months the European Commission is necessarily re-reading the hypothesized cohesion and sustainability policies for the systemic crisis caused by the pandemic, reiterating its importance and proposing, for example, that the funds will be aimed to develop new health plans, to help firms and to integrate green and digital technologies.

29 This Strategy should substitute the 2011 Strategy.

30 The European Commission has also briefly shown how the SDGs will be integrated into the various timescales of the Semester, providing Member States with specific guidelines on the main needs in relation to structural reforms and investments, in view of the transition towards a sustainable economic model. Sustainable development objectives should therefore form the core of EU policy making and action and to this end the European Semester will provide a consolidated framework for the coordination of the economic and employment policies needed to guide the Union and its Member States.

Figure 2.1 - Interlinkages to consider among Green Deal e SDGs

Source: Istat

Over the years, Eurostat has developed an analysis of the demand for information associated with the SDGs and recognition of the existing statistical information and has disseminated subsequent analyses of the EU situation with respect to the objectives of Agenda 2030, through the selection of 100 indicators. The indicators are connected directly to the Goals, not necessarily to the list of indicators released by UN-IAEG-SDGs. The latest release of Sustainable development in the European Union - Monitoring report on progress towards the SDGs in an EU context[31] continues the analysis of the 100 selected indicators.

The Organization for economic cooperation and development (OECD) makes available useful tools to shed light on the necessary institutional mechanisms and tools for stakeholders in order to accelerate progress related to SDGs[32]. The OECD-UNDP Global Hub translates coherent political principles into concrete actions at different levels. Recently, OECD has also focused attention on the steps that governments could take to ensure that the emergency measures to deal with the COVID-19 crisis and the future policies necessary to overcome the related economic and social consequences are consistent with the efforts to address environmental challenges, climate change, loss of biodiversity and to ensure environmental health and society resilience to the pandemic[33] by promoting a green, inclusive and low-carbon recovery[34].

The road map within the United Nations Economic Commission for Europe (UNECE) and the Steering group set up by the Conference of European Statisticians (CES) has assigned a coordinating role to the National Statistical Institutes in order to ensure the development of the statistics necessary for the measurement of SDGs within the respective national statistical systems and in order to establish mechanisms for the validation of data together with custodian agencies.The "Towards achieving the Sustainable Development Goals in the UNECE region report. A statistical portrait of progress and challenges"[35], published in March 2020 on the occasion of the 2020 Regional Forum on Sustainable Development for the UNECE Region[36], made recommendations to ensure a cohesive, transparent and efficient response for the UNECE region with reference to the production of statistical information.

2.4 Evolutions of the national process of Agenda 2030

In Italy, the Presidency of the Council of Ministers, in conjunction with the Ministry of the Environment, Land and Sea protection, as regards the internal dimension, and with the Ministry of Foreign Affairs and International Cooperation, as regards the external dimension, is in charge for the coordination of actions and policies for the implementation of the strategy to which policies of several Ministries contribute. The Ministry of Economy and Finance is entrusted with the task of linking the implementation of the Strategy with the economic and financial planning documents, in particular the National Reform Plan (NRP), as well as that of presenting the assessments relating to the Equitable and Sustainable Well-

31 https://ec.europa.eu/eurostat/web/products-statistical-books/-/KS-02-20-202.
32 OECD Recommendation on Policy Coherence for Sustainable Development (PCSD), http://www.oecd.org/gov/pcsd/.
33 https://read.oecd-ilibrary.org/view/?ref=126_126460-1tg1r2aowf&title=From-containment-to-recovery_Environmental-responses-to-the-COVID-19-pandemic.
34 An Inclusive, Green Recovery is Possible: The Time to Act is Now http://www.oecd.org/coronavirus/en/?utm_source=Adestra&utm_medium=email&utm_content=Read%20the%20statement&utm_campaign=COVID-19%20ENV%20responses%20%28Policy%20Briefs%29%20-%2024%20April&utm_term=demo#statement.
35 https://www.unece.org/fileadmin/DAM/stats/publications/2020/SDG_report_for_web.pdf.
36 https://www.unece.org/fileadmin/DAM/stats/publications/2020/SDG_report_for_web.pdf.

being Indicators, which have taken on particular importance in relation to the achievement of the Agenda's Goals.

The available SDGs statistical measures constitute the necessary input for the measurement of the National Sustainable Development Strategy (NSDS)[37], which recognizes the central role of Sistan and Istat. A useful step to ensure the monitoring of Italy's performance in the areas that make up the NSDS is the definition of a subset of indicators, inferable from the Istat-Sistan information platform dedicated to statistical measures for SDGs, which can also be used for needs. related to the path of declination of the same at regional or municipal level. During 2018 Ministry of the Environment, Land and Sea protection set up a working table on the Indicators for the implementation of the National Sustainable Development Strategy with the aim of defining a narrow core and representative of indicators for monitoring the National Strategy[38]. The working table set up a first experimental subset of statistical measures (Figure 2.2) which could be revised in order to consider the current developments of the SDGs information made available by the platform.

Figure 2.2 - Interlinkages among NSDS and the SDGs statistical measures

Source: Istat

The Prime Minister recently[39] set up "Benessere Italia" an inter-institutional task force acting like a technical-scientific body with the aim of "ensuring specific technical support to the Prime Minister in exercising the coordination functions of the Government's policies on quality of life and sustainable development", as well as ensuring, within public

37 http://www.minambiente.it/sites/default/files/archivio_immagini/ Galletti/Comunicati/snsvs_ottobre2017.pdf.
38 See Relazione sullo stato di attuazione 2019 della Strategia Nazionale per lo Sviluppo Sostenibile, march 2020. www.minambiente.it.
39 DPCM , 11th June 2019.

administrations, the integration of the impact assessment on well-being into the development of public policies. The body is chaired by a representative appointed by the Prime Minister and made up of a member designated by each Minister. A committee of experts operates within Benessere Italia, composed by the Presidents of Istat, CNR, ISPRA and INPS, as well as the Spokesperson of the Italian National Alliance for Sustainable Development (ASVIS) and four experts appointed by the President of the Council.

In addition, the Standing Committee on the implementation of the 2030 Agenda and the Sustainable Development Goals has been set up in December 2018 for the implementation of the 2030 Agenda within the Chamber's Foreign Affairs Commission, to follow up the fact-finding investigation deliberated by the Commission on the profiles of Italy's international action for the implementation of the 2030 Agenda and to verify the effectiveness of the national regulatory framework and the Italian Cooperation system.

In the latest Report for Italy 2020, which accompanies the document for the European Semester, there are numerous references to the 2030 Agenda and related statistical measures[40].

2.5 The evolution of the production process of the national statistical measures for SDGs

Accessible and transparent statistical information is a key factor for the monitoring of the SDGs, also in relation to the next Voluntary National Review (VNR) and the National Reports for the European semester: National Statistical Institutes have a crucial role as referents for the production and dissemination of quality statistical data at national and subnational level. Istat coordinates the offer of official statistics relating to the SDGs indicators produced by the various institutional actors belonging to the national statistical system (Sistan), in accordance with the strategic indications outlined by the international community. To satisfy the global, European and national information request relating to sustainability, constitutes a challenge for statistics, but also an opportunity for the national statistical system.

The current production process of the statistical measures took into account the evolution of the metadata, due to the 2020 revision of the indicators suggested by the Inter Agency Expert Group on SDGs (UN-IAEG-SDG), following their developments and adopting the changes. At the same time, inter-institutional comparison work also continued with international agencies, thematic enrichment and methodological development[41], in order to make available the necessary statistical information framework, set up thanks to the synergistic activities established with the other institutions in Sistan and beyond: ISPRA, ENEA, ISS, GSE, Ministry of the Environment, Land and Sea protection, Ministry of Foreign Affairs and International Cooperation, Ministry of Justice, Ministry of Interior, Ministry of Education, University and Research, INVALSI, Asvis.

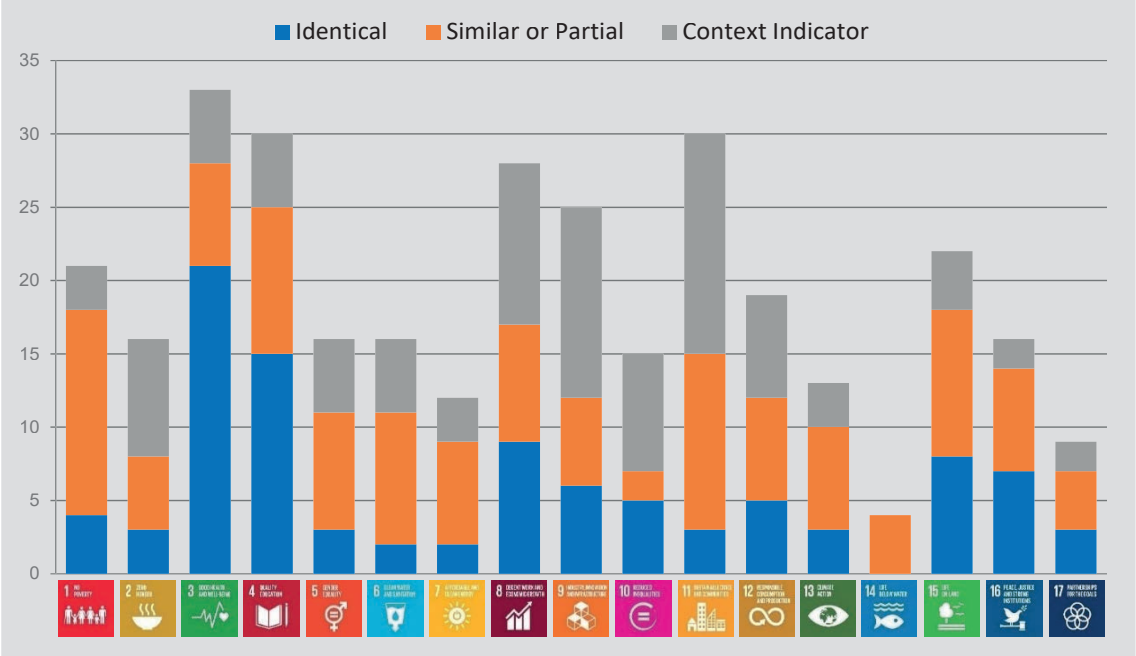
40 https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1584543810241&uri=CELEX%3A52020SC0511.

41 In order to ensure the quality of statistical information, the following eligibility requirements were considered in selecting and developing statistical measures in the evolutionary construction of the information platform dedicated to the Sustainable Development Goals: transparency of methodologies, frequency of dissemination, timeliness, coverage and geographical comparability, comparability over time and length of the historical series, ease of interpretation. Each Goal was examined considering the targets and indicators required and following an approach that took into account the type of indicator (statistical or not), United Nations metadata and data, the relevance for Italy, possible sources of data (Istat, Sistan or other), the existence of data in historical series and for territorial disaggregations, existing interrelations.

The national statistical measures for the monitoring of the SDGs have been made available progressively in the dedicated Istat information platform[42], as part of multiple releases starting from 2016, to provide continuous updates and enrichments: 95 national statistical measures for 66 UN-IAEG indicators in December 2016 , 173 measures for 100 indicators in May 2017, 201 measures for 109 SDGs indicators in December 2017, 235 measures for 117 indicators in July 2018, 244 measures for 117 indicators in December 2018, 303 measures for 123 indicators in April 2019, 319 measures for 123 indicators in December 2019 and, finally, in the current version: 325 statistical measures (of which 296 different) for 130 UN-IAEG indicators. 125 statistical measures have been updated and a trail is currently underway to make the statistical measures available also in Statistical Data and Metadata Exchange (SDMX) format, as suggested at international level.

The integrated reading of monitoring objectives and indicators and the analysis of their interrelationships was certainly helpful and required a taxonomy of the measures produced. Since the beginning of the process, in fact, national statistical measures were identified identical to the indicators required by the UN-IAEG in its 2020 revision; in other cases the measures produced are similar or partial; while specific statistical measures for the national context have been added to them. In the current release, 98 statistical measures are identical, 128 are proximal or partial and 99 are specific to the national context (Figure 2.3).

Figure 2.3 - Statistical measures for monitoring SDGs by typology: identical, proxy or partial, specific to the national context



Source: Istat

Also in the latter diffusion, in application of the “no one left behind” principle, to satisfy the global, national and territorial information demand together, Istat paid attention to regional breakdowns, to those by level of urbanization, as well as to those by gender, by citizenship, by disability (Figure 2.4): 47 disaggregation have been added to those already widespread.

42 https://www.istat.it/en/well-being-and-sustainability/sustainable-development-goals/istat-indicators-for-sustainable-development.

Figure 2.4 - Statistical Measures for monitoring SDGs by available breakdownscontext

Classification variable Statistical measures SDGs Istat	Statistical measures SDGs Istat	Goal
Degree of urbanization / Municipalities / Municipality type	61	
Regions	187	
Provinces	13	
Gender	114	
Age class	70	
Citizenship / Nationality	54	
Presence of disability	17	

Source: Istat

Figure 2.5 - BES indicators and SDGs Statistical measures by BES domain and SDGs Goal

BES		SDGs	
1. Health	3 indicators	*3 in goal 3*	
2. Education and training	7 indicators	*6 in goal 4* *1 in goal 8*	
3. Work and life balance	7 indicators	*1 in goal 5* *6 in goal 8*	
4. Economic well-being (*)	7 indicators	*4 in goal 1* *3 in goal 10*	
5. Social relationships			
6. Politics and institutions (*)	9 indicators	*4 in goal 5* *5 in goal 16*	
7. Safety	3 indicators	*1 in goal 5* *2 in goal 16*	
8. Subjective well-being			
9. Landscape and cultural heritage	2 indicators	*1 in goal 11* *1 in goal 13*	
10. Environment (**)	18 indicators	*1 in goal 1* *2 in goal 6* *1 in goal 7* *1 in goal 8* *5 in goal 11* *2 in goal 12* *3 in goal 13* *1 in goal 14* *2 in goal 15*	
11. Innovation, research and creativit	2 indicators	*2 in goal 9*	
12. Quality of services	1 indicator	*1 in goal 16*	

Source: Istat
(*) 1 indicator in more than one goal.
(**) 5 indicators in more than one goal.

The statistical measures of SDGs have a broad contact with the system of indicators of Equitable and Sustainable Well-Being (BES)[43]; moreover, in the most recent diffusion of the BES[44], indicators were added in some domains that were already included in the SDGs information system: there are therefore 59 SDGs statistical measures also present in the BES system (Figure 2.5).

The experience is also useful in international cooperation activities currently underway with the Statistical Institutes of Vietnam, Palestine, Tanzania and the countries of the Caribbean Community (CARICOM).

2.6 Interlinkages among SDGs and pandemics

The informative result of the updating and expansion of the statistical measures is enhanced by integrated analyses of the interlinkages as suggested also in the international context[45], in order to build the statistical information[46] necessary to ensure everyone a sustainable economy and the well-being of citizens in a habitable planet, to guarantee progress in the analyses regarding climate change and the decoupling of economic growth and environmental degradation. Considering synergies and trade-offs between economic, social, environmental and institutional objectives, analysing the interconnections[47] between the indicators constitutes in the Italian experience[48] a key factor in enhancing statistical analysis.

Reading the interconnections can also be useful in the current contingency: the pandemic has highlighted how social sustainability is closely interconnected with economic sustainability and cannot be separated from environmental sustainability. The dynamics involved are global and local at the same time. Human health is linked to natural systems and the crisis triggered by the pandemic is systemic andaffects all domains: in the current full of unknowns situation, integrated statistical measurements can be helpful, taking advantage of the systemic-complex thinking of sustainability. The framework of the SDGs indicators and the already known system of interconnections with Sendai[49] indicators can be helpful to develop an integrated reading of statistical measures in relation to the current pandemic (Figure 2.6).

43 The Equitable and Sustainable Well-Being are complementary indicators to the GDP that the accounting and public finance law has permanently included in the budget cycle, as economic-financial planning tools aimed at measuring the results of public policies in the light of parameters other than merely economic and which, in fact, have a close connection with some of the main objectives and targets of the 2030 Agenda. The indicators of fair and sustainable well-being were, in fact, introduced into the Italian legislative system as a programming tool economic by article 14 of law no. 163/2016, to reform the accounting law. This provision provided that a Committee for indicators of fair and sustainable well-being (BES) - established at the National Institute of Statistics (Istat) with D.P.C.M. 11 November 2016 - select the indicators useful for assessing well-being based on the experience gained at national and international level. The MEF decree of 16 October 2017 identified the twelve BES-DEF indicators.

44 https://www.istat.it/en/archivio/237012.

45 Working group UN-Iaeg-SDGs on interlinkages.

46 The political declaration adopted during HLPF 2019 pointed out the necessity to "equip domestic institutions to better address interlinkages, synergies and trade-offs between Goals and target through a whole-of-government approach and ensure policy coherence for sustainable development" as tools to accelerate the actions.

47 https://unstats.un.org/unsd/statcom/50th-session/documents/ The interlinkages for the Agenda 2030, UNSD, 5-8 march 2019.

48 See Istat, "2019 SDGs Report", Chapter 4, https://www.istat.it/en/archivio/232745.

49 The pandemic effects can be measured considering various SDGs indicators, some are Sendai indicators, others are related to thematic that are interlinked.

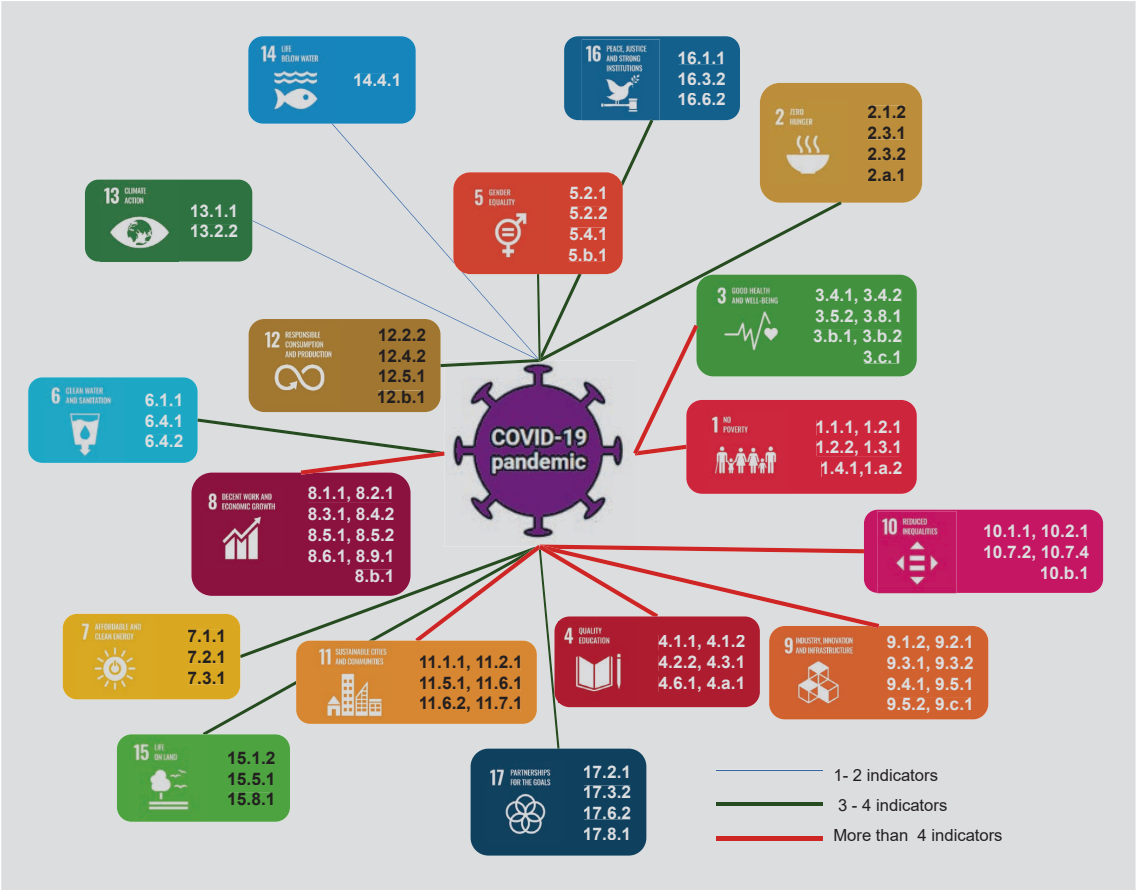
Figure 2.6 - Interlinkages to monitoring among SDGs and pandemic

Source: Istat

The interconnections obviously concern the objective relating to health and well-being (Goal 3), but also have effects on other objectives, such as the increase in poverty (Goal 1) and inequalities, together with the difficulties in the refugee camps, for migrants and for asylum seekers (Goal 10). The pandemic is accelerating the digital dimension, in the world of labour (Goal 8) and in the teaching process (Goal 4), finding an unevenly prepared population (Goal 17 and Goal 5), gender equality is a relevant issue because of the important role of women and the dangers they face in the current situation (Goal 5), together with the economic emergency with particular effects on tourism, transport, energy (Goal 9, Goal 7 and Goal 12). Water and sanitization, even simply because of the need to wash your hands often (Goal 6), the importance of keeping terrestrial and marine ecosystems intact and protecting biodiversity (Goal 15 and Goal 14), the role of urban systems (Goal 11), the impact on climate change and different forms of pollution and waste production (Goal 13, Goal 12) are all related to the pandemic.

The systemic crisis caused by the pandemic cannot be analysed, therefore, without neglecting the implications in terms of sustainability. The well-being of future generations depends on the stock of activities left by the current generation, including economic capital (physical, knowledge, financial), natural capital (energy and mineral resources, land and ecosystems, water, air quality and climate), human capital (job, education and health) and social capital (trust and institutions). The challenge is to balance the long-term and transformative nature of the SDGs and the short-term challenges that often have priority, if not downright urgent, such as the pandemic.

Figure 2.7 - Statistical measures for interlinkages among SDGs and pandemic



Source: Istat

For our country, the measurement of the size of the crisis, the questions related to economic and social stability, with reference to the suburbs, the less favoured territorial areas, the cities, the weaker social categories, can therefore be reread in an integrated and effective way through the statistical measurements available in the SDGs Statistical Platform (Figure 2.7).

It is necessary to clarify that Istat, at today's date, still has partial information, by topics and data reference period, to fully document the effects of the health emergency, precisely for the very short period of time that has elapsed since the onset of occurrence of the crisis.

The reading of the relative statistical measures will therefore be mandatory only with the help of the next updates and these may be useful in the future acceleration of policy initiatives to combine economic growth and environmental sustainability.

Climate change, water pollution and the drivers of biodiversity loss, such as deforestation and illegal wildlife trade, can increase the risk of further pandemics, such as vector-borne or water-borne infections. Air pollution, due to possible respiratory diseases, reduces the environmental health of communities. These environmental factors significantly undermine the health of large sections of society, in particular vulnerable groups. For the immediate health crisis, efforts to support economic recovery are essential, but actions to limit threats of climate change and environmental degradation, which could be destabilizing in the near future for societies and economies, should be considered, as was COVID-19.

Production processes and lifestyles must be compatible with the biosphere's ability to absorb the effects of human activities, and, at the same time, these must maintain rhythms compatible with the ecosystem, also in this changed perspective, in a strongly socio-economic context perturbed worldwide.

In the analysis and development of statistical measures, therefore, natural capital, economic capital, human capital and social capital must be considered in an integrated manner and the universality of the SDGs is concretized in this case in the application of the "No one left behind" principle: Sustainable equality, i.e. intragenerational and intergenerational equity and the well-being of all people, must be measured, considering and expanding the possible breakdowns and using the principle of systemic resilience and attention to environmental degradation as the basic principle.

GOAL 1

END POVERTY IN ALL ITS FORMS EVERYWHERE[1]

Goal 1 aims at ending poverty in all its forms everywhere through interconnected strategies.

The decline in extreme poverty has been continuous over time, although at a slower rate, and today the goal of ending poverty by 2030 seems difficult to achieve. Extreme poverty is now concentrated and predominantly affects rural populations. It is increasingly exacerbated by the persistence of violent national conflicts and impact of climate change on local ecosystems (e.g. soil erosion, hunger, floods, etc.) which undermine the quality of life in terms of nutrition, health and economic development.

Effective programmes and policies of social protection could contribute to a progressive reduction of poverty in order that all the people could reach a decent living standard and develop their full potential.

It is appropriate to refer to European lines on multidimensional poverty (risk of poverty, severe material deprivation, low work intensity), national lines on absolute poverty and access to basic needs (housing, medical care, transport, energy, water, etc.) in order to monitor Goal 1 in European and Italian context.

The statistical measures released by Istat for Goal 1 are twenty-one and refer to eight UN-IAEG-SDGs indicators (Table 1.1).

1 This section was edited by Barbara Baldazzi with contributions from Andrea Cutillo, Clodia Delle Fratte, Valeria De Martino, Francesca Lariccia and Federico Polidoro.

Table 1.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
1.1.1	Proportion of the population living below the international poverty line by sex, age, employment status and geographic location (urban/rural)				
In-work at-risk-of-poverty rate (Istat, 2018, %)		Context indicator	12.2		
1.2.1	Proportion of population living below the national poverty line, by sex and age				
Proportion of population living below the national (absolute) poverty line (Istat, 2019, %)		Identical	7.8		
1.2.2	Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions				
At risk of poverty or social exclusion - AROPE (Istat, 2018, %)		Identical	27.3		
Severe material deprivation rate (Istat, 2018, %)		Partial	8.5		
Low work intensity (Istat, 2018, %)		Partial	11.3		
People at risk of poverty (Istat, 2018, %)		Partial	20.3		
1.3.1	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable				
Population aged 16 and over reporting unmet needs for medical care due to being too expensive (Eurostat, 2018, %)		Context indicator	2.0		
1.4.1	Proportion of population living in households with access to basic services				
Households unsatisfied for the continuity of the water supply service (Istat, 2019, %)		Partial	8.6		
Households very or fairly satisfied with the continuity of the service of electricity supply (Istat, 2019, %)		Partial	93.5		
Inability to keep home adequately warm (Istat, 2018, %)		Partial	14.1		
Households per difficulties of links with public transport transport (Istat, 2019, %)		Partial	33.5		
Landfill of waste (Ispra, 2018, %)		Partial	21.5		
Housing cost overburden rate (Istat, 2018, %)		Context indicator	8.2		
Households with fixed and/or mobile broadband connection (Istat, 2019, %)		Partial	74.7		
People aged 6 and more 'who use their mobile phone at least a few times a year (Istat, 2019, %)		Partial	91.9		
1.5.1	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population				
Deaths and missing persons for landslides (Ispra, 2018, n)		Partial	12	--	--
Deaths and missing persons for floods (Ispra, 2018, n)		Partial	32	--	--
Injured persons for landslides (Ispra, 2018, n)		Partial	29	--	--
Injured persons for floods (Ispra, 2018, n)		Partial	12	--	--
1.a.1	Total official development assistance grants from all donors that focus on poverty reduction as a share of the recipient country's gross national incomebeneficiario				
Proportion of bilateral Official Development Assistance spending on essential services for developing countries (education, health and social protection) (MAECI, 2018, %)		Identical	61	--	--
1.a.2	Proportion of total government spending on essential services (education, health and social protection)				
Proportion of total government spending on essential services (education, health and social protection) (Istat, 2018, %)		Identical	65.2	--	--

Legend	Notes
IMPROVEMENT	
STABILITY	
DETERIORATION	
-- NOT AVAILABLE / NOT SIGNIFICANT	

In brief

In Italy in the last year most of the indicators recorded improvements, with the exception of limited cases of stationarity or worsening.

In 2018, in Italy, the share of population At Risk Of Poverty or social Exclusion (AROPE) i.e. the sum of persons who are: 1) at risk of poverty or 2) severely materially deprived or 3) living in households with very low work intensity, was equal to 27.3% (16,441,000 individuals), lower than the previous year (28.9%). Although the Italian share is above the EU28 average (21.7%), the reduction rate in Italy is higher (+1.6 percentage points).

The situation in 2018 (incomes 2017) is improving, according to the analysis of the three indicators that make up the risk of poverty or social exclusion, with the exception of the risk of poverty, which regards 20.3% of the population and is stable respect to 2017 (incomes 2016). People in severe material deprivation have decreased (8.5% in 2018; 10.1% in 2017), the share of those living in households with a very low work intensity decreased as well (11.3% compared to 11.8%).

Respect to 2009, the indicator of risk of poverty or social exclusion continues to regard nearly a quarter of the population. In fact, in 2009, 24.9% of individuals were in this condition respect to 27.3% in 2018.

In Europe, 9.5% of employed people live at risk of poverty. Although employed, they earn less than 60% of the median equivalised income. Italy ranks fourth last in EU28, with 12.2% of employed people at risk of poverty.

SDG 1.2.2 - Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

A multidimensional poverty indicator is the one related to the risk of poverty or social exclusion[2] calculated on the basis of EU-SILC survey.

In 2018, in Italy, the population at risk of poverty or social exclusion was equal to 27.3% (16,441,000 individuals), lower respect to the previous year (28.9%; 17,407,000 individuals).

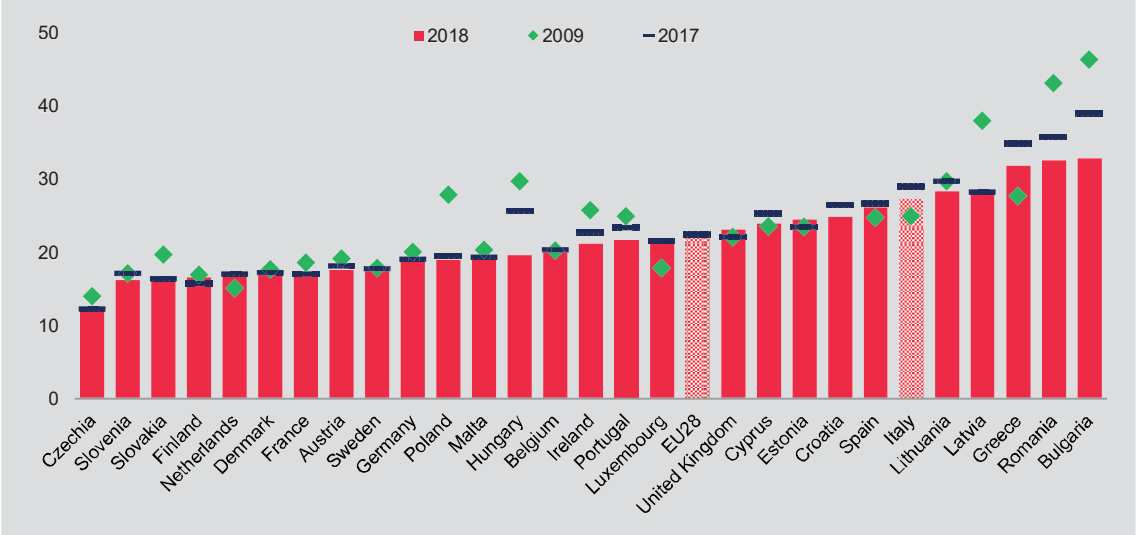
Between 2017 and 2018, the indicator of risk of poverty or social exclusion of the EU28 average decreased from 22.4% to 21.9% (Figure 1.1).

According to the Europe 2020 strategy, Italy should record a population at risk of poverty or social exclusion under 13 million people by 2020; this target still seems far and difficult to achieve according in 2018.

In Europe and Italy, the most widespread typology of poverty is related to income. In 2018, 86.2 million people (17.1% of the EU28 population) were living at risk of poverty after social transfers. In Italy, income poverty affected 20.3% of the population (about 12.2 million people).

2 In order to be coherent with Eurostat and Istat publications, the (AROPE) indicator is referred to the year of the survey. However the risk of poverty is calculated on the income of the previous year and the low work intensity is calculated on the total number of months worked by household members during the previous year.

Figure 1.1 - People at risk of poverty or social exclusion in EU28 countries. Years 2009, 2017, 2018 (%)



Source: Eurostat

In Italy, in 2018 the persistence of risk of poverty[3] affected 15.3% of the population, with a recent increase (in Europe it was equal to 10.9%). There are more women falling under this condition than men (respectively 16.7% and 13.8%).

Severe material deprivation[4] measures the inability to afford certain goods and/or services considered by most people as desirable and/or necessary for an adequate life. In 2018, severe material deprivation affected 29.7 million people in EU28 (5.9%). In Italy about 5.1 million people (8.5% of the total population, lower of 1.6 percentage points respect to 2017).

Living in households with very low work intensity[5] is the third kind of poverty. In 2018, 32.3 million people, equal to 8.8% of the EU28 under 60 years old population lived in households with very low work intensity. In Italy, very low work intensity affects 11.3% of people (about 4.8 million, lower than the about 5.1 million recorded in 2017).

According to the composite indicator on poverty or social exclusion, and according to the three basic indicators into which it is articulated, regional disparities are very wide. In the South poverty situations are more widespread for all four indicators. Almost half of the individuals in the South are at risk of poverty or social exclusion (45%), compared to one out of five individuals in the North (15.9%).

Disparity between the Centre-North and the South of the country have never reduced in terms of risk of poverty. The severe material deprivation gap between North and South is significant as well. In 2018, despite the improvements both in the North (3.4%;- 2.9 percentage points respect to 2017) and in the Centre (6.4% ;-1.5 p.p.), there has been a marginal increase in the South (16.7%; +0.2 p.p.) widening the geographical disparities (Figure 1.2).

3 The indicator shows the percentage of the population whose equivalent disposable income was below the at-risk-of-poverty threshold for the current year and at least in 2 of the previous 3 years.

4 Severely materially deprived persons have living conditions severely constrained by a lack of resources, they experience at least 4 out of 9 following deprivations items: cannot afford i) to pay rent or utility bills, ii) keep home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) a week holiday away from home, vi) a car, vii) a washing machine, viii) a colour TV, or ix) a telephone.

5 People living in households with very low work intensity are those aged 0-59 living in households where the adults (aged 18-59) work 20% or less of their total work potential during the past year.

Figure 1.2 - Indicators of poverty and social exclusion by geographical area, age class and degree of urbanisation. Year 2018 (%)

Source: Eurostat

Large, medium and small towns are characterized by different ways of living and by different possibilities and expectations that can create difficulties to access the working life and to generate income.

To be at risk of poverty does not show differences between large, medium and small towns and rural areas. Large towns record more households in severe material deprivation and unable to find a job. 10.7% of the population live in situations of severe material deprivation (7% in rural areas and 7.7% in towns and suburbs); the households living in a situation with very low work intensity are equal to 12.9% (10.6% in rural areas and 10.3% in towns and suburbs).

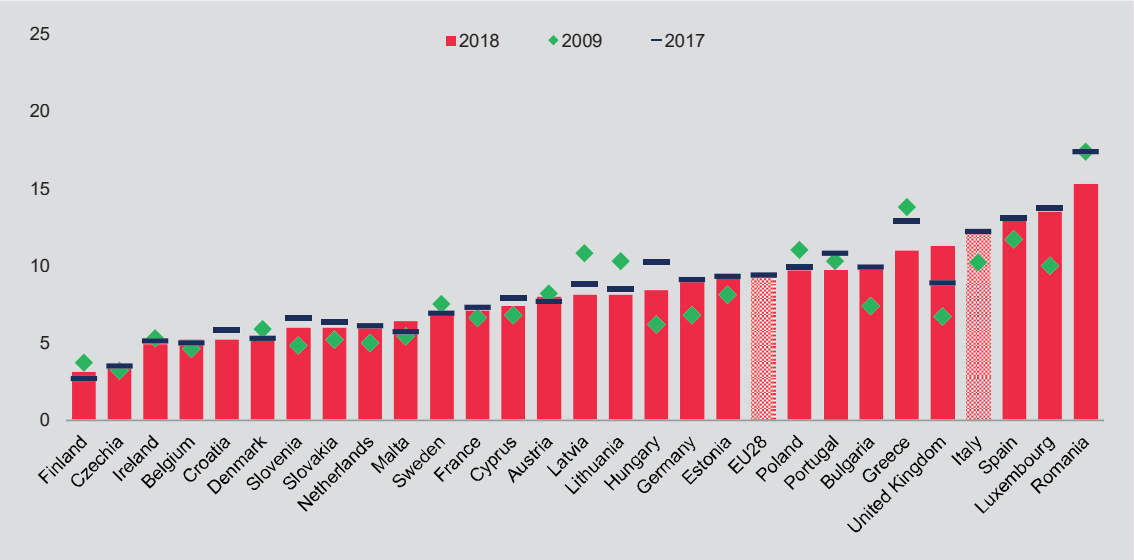
The population between 18 and 34 years of age is the most exposed to severe material deprivation and to live in families with low work intensity. The risk of poverty is higher for children and young people living in households with parents earning an inadequate income.

SDG 1.1.1 - Proportion of the population living below the international poverty line by sex, age, employment status and geographic location (urban/rural)

In 2018, in Europe, 9.5% of employed people live at risk of poverty. Although employed, they earn less than 60% of the median equivalised income. Italy places fourth last in the EU28 ranking, with 12.2% of employed people at risk of poverty, a stable value respect to 2017 (Figure 1.3).

Mainly workers dealing with joint difficulties are at risk of poverty. The working people with precarious contracts, part-time positions, low level of education and qualification and foreign citizenship are more exposed to risk of poverty. 22.8% of the workers with fixed-term contracts are at risk of poverty respect to 8.6% of workers with permanent contracts; 19.5% of part-time workers respect to 10.9% of workers with full-time contracts. 19.6% of workers employed holding a secondary school diploma, or a lower qualification respect 6% of workers holding a tertiary degree. 30.4% of foreign workers are at risk of poverty compared to 10% of the Italian workers.

Figure 1.3 - In work at risk of poverty in EU28 countries. Years 2009, 2017, 2018 (%)



Source: Eurostat

Goal 1 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
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[1]

Goal 2 aims to ensure access to healthy and nutritious food for everyone. Although the problems of hunger and food security concentrate in developing countries, all countries in the world are involved in the implementation of a strategy that aims to improve the quantitative and qualitative aspects of nutrition (including the fight against overweight in developed countries) and the promotion of sustainable agriculture.

A wide range of factors, deemed essential to ensure both food security for a fast-growing world population and environmental sustainability of food production, contribute to the implementation of this strategy: from the correct functioning of agricultural markets to the equitable access to land and technology; from policies supporting rural development to the conservation of vegetal and animal genetic diversity.

In the Italian context, progress towards this objective can be monitored mainly in the fields of food security, the fight against bad nutrition habits, the support for rural development and the promotion of farming practices with a low environmental impact.

The statistical measures released by Istat for Goal 2 are sixteen and refer to seven UN-IAEG-SDGs indicators (Table 2.1).

1 This section was edited by Luigi Costanzo with contributions from Emanuela Bologna, Alfredo Cirianni, Doriana Frattarola, Roberto Gismondi, Maria L. Mattonetti, Federico Polidoro, Gaetano Proto, Giovanni Seri, Mattia Spaziani, Francesco G. Truglia.

Table 2.1 -Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year.

Ref. SDG	INDICATOR	Compared to SDG Indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
2.1.2	Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)				
	Prevalence of moderate or severe food insecurity in the adult population (Fao, 2017, %)	Identical	7.1	--	
	Prevalence of severe food insecurity in the adult population (Fao, 2017, %)	Identical	1.0	--	
	Households with signals of food insecurity (Istat, 2018, %)	Context indicator	1.5	(a)	
2.2.2	Prevalence of malnutrition among children under 5 years of age, by type (Wasting and Overweight)				
	Overweight or obesity among children from 3 to 5 years of age (Istat, 2017/18, %)	Proxy	31.1	(b)	
	Overweight or obesity among minors from 3 to 17 years of age (Istat, 2017/18, %)	Context indicator	25.2	(b)	--
2.3.1	Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size				
	Production per labour unit of farms below 15,000 euros of turnover per year (Istat and CREA, 2017, euros)	Proxy	14.159	(c)	
2.3.2	Average income of small-scale food producers, by sex and indigenous status				
	Earnings before interest, taxes, depreciation and amortization (EBITDA) of farms below 15,000 euros of turnover per year (Istat and CREA, 2017, euros)	Proxy	1.636	(c)	
2.4.1	Proportion of agricultural area under productive and sustainable agriculture				
	Percentage of utilized agricultural area under organic farming (Ministry of Agricultural, Food and Forestry Policies - Sinab, 2018, %)	Proxy	15.5	(c)	
	Growth rate of organic crops (Ministry of Agricultural, Food and Forestry Policies - Sinab, 2018, %)	Context indicator	2.6	(c)	
	Ammonia emissions from agriculture (ISPRA, 2018, thousand tonnes)	Context indicator	345	(c)	
	Fertilizers distributed in agriculture (Istat, 2018, kgs per hectare)	Context indicator	509.8	(c)	
	Plant protection products distributed in agriculture (Istat, 2018, kgs per hectare)	Context indicator	12.8	(c)	
2.a.1	The agriculture orientation index for government expenditures				
	Agriculture orientation index for government expenditures (Istat, 2018, index)	Identical	0.19		
	Share of public expenditure on agriculture (Istat, 2018, %)	Context indicator	0.42		
	Proportion of the Value added of agriculture, forestry and fishing to the GDP (Istat, 2018, %)	Context indicator	2.16	--	--
2.a.2	Total official flows (Official development assistance plus other official flows) to the agriculture sector				
	Official Development Assistance (ODA) in agriculture (Ministry of Foreign Affairs and International Cooperation, 2018, million euros)	Identical	62.54	--	(d)

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2012
(b) Variation compared to 2010/11
(c) Variation compared to 2010
(d) Variation between avg. values of 2017/18 and 2016/17

In brief

In 2018, 1.5% of Italian households show signals of food insecurity, since they report: (a) not having had enough money to buy food at certain times over the last 12 months, and (b) not being able to afford a protein meal at least twice a week. The proportion, however, has been decreasing since 2013, when it was 4.6%.

Over 30% of children aged 3 to 5 are overweight. The proportion falls down after the age of 10, and halves in the age group 14-17 (2017/18). These figures raise a great concern, even if showing some improvement compared to 2010/11 (from 35.8% to 31.1% in the age group 3-5, and from 16.5% to 14.6% in the age group 14-17 respectively).

In 2018, organic crops cover 15.5% of the utilized agricultural land in Italy, more than double the EU28 average (7.5%), and reach 20% in Central and Southern regions. Organic crops increased by 2.6% compared to the previous year and by more than 75% since 2010.

In agriculture, the distribution of plant protection products keeps lowering (12.8 kg per hectare in 2018, -21.5% from 2010), while the distribution of fertilizers remains stable (around 500 kg/ha). In Northern regions, however, those indicators are far above the national average (19 kg/ha of pesticides and 1,362 kg/ha of fertilizers).

In 2018, ammonia emissions in Italy amount to 366 thousand tonnes, of which 345 generated by the agricultural sector (mainly by livestock farms). Emissions from agriculture fell by 3.1% compared to the previous year, and by 4.2% compared to 2010.

SDG 2.1.2 - Prevalence of moderate or severe food insecurity in the adult population, based on the Food Insecurity Experience Scale (Fies)

FAO has developed the Food insecurity experience scale (Fies), used to analyse individual data collected worldwide through a standard survey module, to measure the prevalence of food insecurity. According to the Fies-based estimates, in 2017 more than a quarter of the world population suffers from moderate or severe food insecurity, and 8.7% from severe food insecurity. Since 2015 (the first available year in the Fies time series) both indicators are rising globally and in all continents except Europe. Moreover, Europe shows the lowest proportions of food insecurity: 8.2% (moderate/severe) and 1.2% (severe). By far, Africa is in the worst position, with more than half of the population suffering from moderate/severe insecurity and more than 20% suffering from severe food insecurity.

In 2017, the FAO estimates for Italy (7.1% moderate/severe insecurity and 1.0% severe insecurity) are slightly below the European average, and slightly improving compared to 2015.

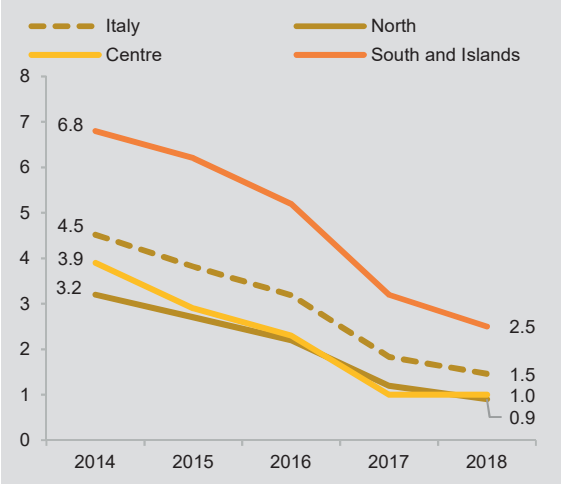
Istat has set up a national context indicator of a similar meaning but not based on Fies data, the proportion of households with signals of food insecurity, to deepen the analysis of the Italian situation. This indicator is based on a combination of two variables surveyed by the European Household Income and Living Conditions Survey (EU-SILC) and allows to measure relevant divides within the country, especially on a territorial basis. Similarly to the Fies-based indicators, also the proportion of households with signals of food insecurity in Italy shows a declining trend in recent years, falling from 4.5% in 2014 to 1.5% in 2018 (Figure 2.1).

SDG 2.2.2 - Prevalence of malnutrition among children under 5 years of age, by type (Wasting and Overweight)

In 2019, worldwide more than one out of ten children under 5 years of age are suffering from one of the two forms of malnutrition: wasting (6.9%) or overweight (5.6%), and the joint Unicef-Who-World Bank estimates show that the prevalence of overweight among children has grown steadily over the last 20 years. In Italy, in 2017/18, available estimates show that 31.1% of children of 3-5 years of age are overweight, which is still a large share despite an appreciable contraction from the 35.8% recorded in 2010/11 (Figure 2.2).

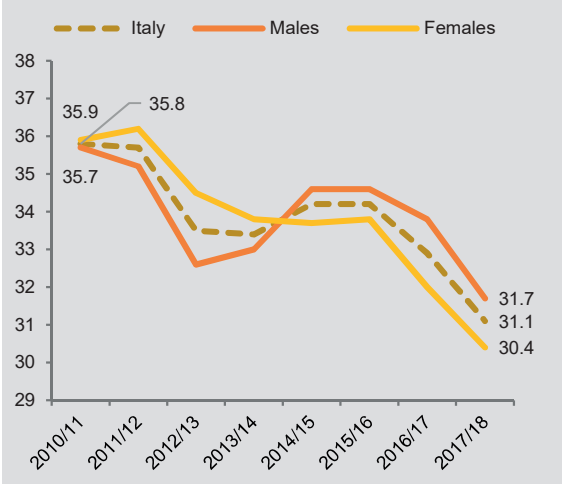
In the age group (3-17 years), significant divides can be observed, by gender and by age group: in particular, the prevalence of overweight is higher among males (27.8%, compared to 22.4% of females), and lower among the adolescents (14.6% among those aged from 14 to 17).

Figure 2.1 - Households with signals of food insecurity in Italy, by geographical area. Years 2014-2018 (per 100 households)



Source: Istat, EU-SILC

Figure 2.2 - Overweight or obesity among children from 3 to 5 years of age (a) **in Italy, by sex. Years 2010/11-2017/18** (b) (percentage values)

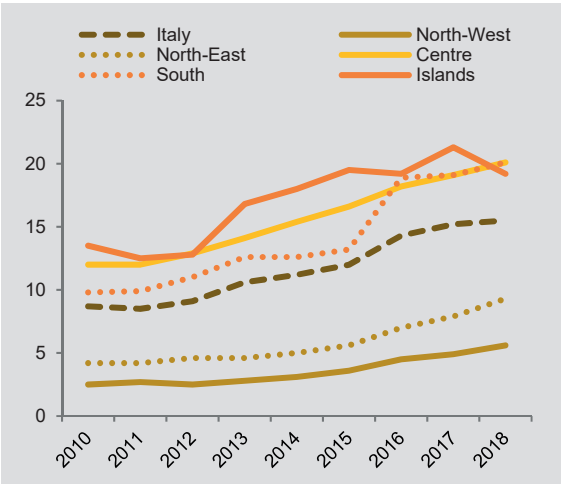


Source: Istat, Aspetti della vita quotidiana
(a) According to the criteria adopted by the International Obesity Task Force;
(b) Two-year moving averages.

SDG 2.4.1 - Proportion of agricultural area under productive and sustainable agriculture

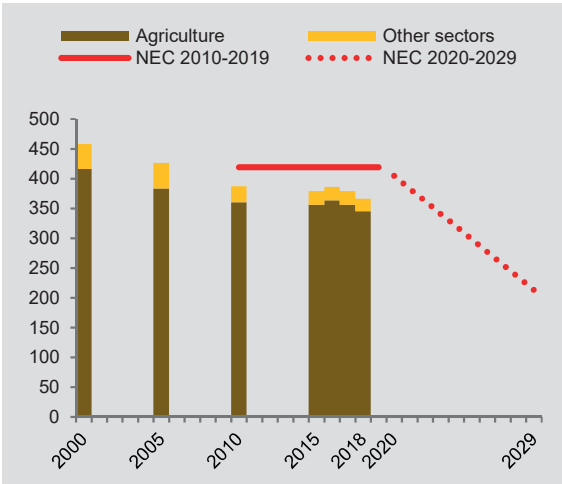
The promotion of sustainable and productive farming practices plays a central role in Goal 2 strategy (orienting agriculture towards "sustainable food production systems", which "help to protect ecosystems" and "progressively improve soil quality"). In Italy and EU28, organic farming largely meets these requirements and provides under a consolidated regulatory framework a significant share of agricultural production.

Figure 2.3 - Share of utilized agricultural land under organic farming in Italy, by geographical area. Years 2010-2018 (percentage values)



Source: Ministry of Agricolture, Food and Forestry Policies (Mipaaf), Sistema informativo nazionale sull'agricoltura biologica (Sinab).

Figure 2.4 - Ammonia emissions from agriculture and other sectors in Italy, and limits imposed by the NEC Directives. Years 2000-2029 (thousand tonnes)



Source: Istat, based on Ispra, Inventario nazionale delle emissioni in atmosfera.

In 2018, the organic crops registered in Italy amounted to almost 2 million hectares: about 28 hectares per farm, much more than the average size of Italian farms (11 hectares in

2016). Organic crops cover 15.5% of the whole utilised agricultural land, more than double the EU28 average (7.5%), and their surface has been growing continuously since 2010 (Figure 2.3).

The monitoring of pollutants released into soil, water and air is essential to assess the sustainability of agricultural production. On the input side, the usage of fertilizers and pesticides per unit area can be considered, while, on the output side, ammonia emissions can be considered, 95% of which are generated by the agricultural sector, especially by livestock farms.

In 2018, about 510 kg per hectare of fertilizers (mostly mineral fertilizers or soil improvers) and 12.8 kg per hectare of plant protection products (mainly fungicides or insecticides) were distributed in Italy. For both categories, the quantity per hectare is slightly lower than the previous year (-3.0% for fertilizers, -1.5% for plant protection products). For fertilizers, however, this amount has remained substantially stable since 2010, fluctuating within a range of ±10% around an average of about 500 kg/ha; for plant protection products the distributed amount has decreased by more than 20% over the same period.

In 2018, about 366 thousand tonnes of ammonia were released in atmosphere in Italy, 345 thousand of which were generated by the agricultural sector. Emissions of agricultural origin decreased by 3.1% compared to the previous year, and by 4.2% compared to 2010. The current level of total emissions is largely below the limit set by the 2001 Directive on National Emission Ceilings (NEC). The trend of recent years appears compatible with the new targets set by the 2016 NEC Directive that will be operational from 2020 (Figure 2.4).

Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context Indicator
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 promote 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[1]

Goal 3 aims to ensure health and promote well-being for all and at all ages.

To achieve this goal there are several areas of intervention: to reduce maternal and child mortality rates, pandemic eradication, to fight infectious, chronic diseases through the promotion of mental health and well-being. Better hygienic conditions and care for environmental factors are the prerequisites to achieve progress in all areas.

National health systems are called to preserve the health of citizens through adequate territorial coverage of essential health services, the presence of trained medical staff, substantial financing, resilient infrastructure ready to deal with emergencies, such as the COVID-19 pandemic in 2020. Moreover, the achievement of high standards of health conditions increasingly requires a widespread coordination of activities between countries, a necessary condition to fight the transmission of diseases through data, information and knowledge sharing, and the search for new diagnostic tools, drugs and vaccines accessible for all.

In Italy, some critical issues represent further challenges for the health system. They are an ageing population, the spread of chronic diseases, the access to prevention and the fight against unhealthy lifestyles (weight excess, alcohol and tobacco consumption) as well as deaths due to road traffic accidents.

The statistical measures released by Istat for Goal 3 are thirty-three and refer to seventeen UN-IAEG-SDGs indicators (Table 3.1).

1 This section was edited by Barbara Baldazzi with contributions from Alessandra Battisti, Alessandra Burgio, Roberta Crialesi, Luisa Frova, Marzia Loghi, Stefano Marchetti, Silvia Simeoni.

Table 3.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS		
				Compared to 10 years before		Compared to the previous year
3.2.1	Under-five mortality rate					
Under-five mortality rate (Istat, 2018, per 1,000)		Identical	3,5		(a)	
3.2.2	Neonatal mortality rate					
Neonatal mortality rate (Istat, 2017, per 1,000)		Identical	2,0			
3.3.1	Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations					
Number of new HIV infections per 100,000 (ISS, 2017, per 100,000)		Identical	5,7		(b)	
3.3.2	Tuberculosis incidence per 100,000 population					
Tuberculosis incidence per 100,000 population (Ministry of Health, 2016, per 100,000)		Identical	6,5		(a)	
3.3.4	Hepatitis B incidence per 100,000 population					
Hepatitis B incidence per 100,000 population (ECDC; Ministry of Health (year 2016), 2016, per 100,000)		Identical	0,6		(c)	
3.4.1	Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease					
Age standardised mortality rate between 30-69 years of age from major causes of death (Istat, 2017, per 100,000)		Proxy	220,1			
Healthy life expectancy at birth (Istat, 2018, average number of years)		Context indicator	58,5			
Overweight or obesity (Istat, 2019, %)		Proxy	44,9			
3.4.2	Suicide mortality rate					
Age standardised suicide mortality rate (Istat, 2017, per 100.000)		Identical	5,9			
3.5.2	Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol					
Liters of pure alcol per capita (WHO, 2016, Litres pro capite)		Identical	7,1			
Alcol (Istat, 2019, %)		Context indicator	15,8			
3.6.1	Death rate due to road traffic injuries					
Age standardised death rate due to road traffic injuries (Istat, 2018, per 100,000)		Identical	5,3			
Number of road traffic fatal injuries (Istat, 2018, absolute values)		Context indicator	3.334			
Road accidents serious harmfulness rate (Ministry of Health, 2018, per 100,000)		Context indicator	30,8		(b)	
3.7.1	Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods					
Demand for family planning satisfied with modern methods (Istat, 2013, %)		Proxy	67,2	--		--
3.7.2	Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group					
Age-specific fertility rates for 1000 women aged 10-14 (Istat, 2018, per 1,000)		Identical	0,029	--		--
Age-specific fertility rates for 1000 women aged 15-19 (Istat, 2018, per 1,000)		Identical	20,5		(a)	
3.8.1	Proportion of target population covered by essential health services					
Persons on antiretroviral therapy (ART) (ISS, 2014, %)		Partial	91,9	--		--
Proportion of deliveries with more than 4 check up visits during pregnancy (Ministry of Health - Cedap, 2016, %)		Partial	85,3	--		--
Hospital beds (Istat processing on Ministry of Health data, 2017, per 10,000 inhabitants)		Partial	31,8	--		
Day-hospital beds in public and private care institutions (Istat processing on Ministry of Health data, 2017, per 10,000 inhabitants)		Partial	3,5	--		
Beds in the residential social-healthcare and social-welfare facilities (Istat, 2017, per 10,000 inhabitants)		Partial	68,2		(e)	
3.9.3	Mortality rate attributed to unintentional poisoning					

Table 3.1 continued - **Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year**

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS		
				Compared to 10 years before		Compared to the previous year
	Unintentional poisoning standardized mortality rate (Istat, 2017, per 100,000)	Identical	0,4			
3.a.1	Age-standardized prevalence of current tobacco use among persons aged 15 years and older					
	Standardized proportion of people aged 15 and over who report current smoking (Istat, 2019, %)	Identical	19,0			
3.b.1	Proportion of the target population covered by all vaccines included in their national programme					
	Influenza vaccination coverage age 65+ (Ministry of Health, 2018/2019, per 100 inhabitants)	Identical	53,1			
	Pediatric vaccination coverage: polio (Ministry of Health, 2018, per 100 inhabitants)	Identical	95,1		(d)	
	Pediatric vaccination coverage: measles (Ministry of Health, 2018, per 100 inhabitants)	Identical	93,2		(d)	
	Pediatric vaccination coverage: rubella (Ministry of Health, 2018, per 100 inhabitants)	Identical	93,2		(d)	
3.b.2	Total net official development assistance to medical research and basic health sectors					
	Total net official development assistance to medical research and basic health sectors (MAECI, 2018, Millions of Euro)	Identical	33,91	--		--
3.c.1	Health worker density and distribution					
	Physicians (IQVIA ITALIA, 2019, per 1,000)	Identical	4,0		(b)	
	Nurses and midwives (Co.Ge.A.P.S., 2019, per 1,000)	Identical	5,9		(d)	
	Dentists (Co.Ge.A.P.S., 2019, per 1,000)	Identical	0,8		(d)	
	Pharmacists (Co.Ge.A.P.S., 2019, per 1,000)	Identical	1,1		(d)	

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2010
(b) Variation compared to 2012
(c) Variation compared to 2011
(d) Variation compared to 2013
(e) Variation compared to 2009

In brief

Everybody has the right to timely access to good preventive and therapeutic health care at an affordable cost. To guarantee this right, there is a need for a uniform distribution of structures and health workers on the territory and for effective policies for prevention, control and monitoring of diseases.

In 2017 in Italy were available about 192,000 hospital beds, equal to 31.8 for 10,000 inhabitants, confirming a downward trend started in the mid-1990s. In 2019, in Italy, the number of specialist and general physicians is about 241,000, equal to a ratio of 4 physicians for 1,000 inhabitants. The nursing and obstetrics staff reaches 368,000, equal to 5.9 for 1,000 inhabitants. Conversely, dentists are lower than 50.000 (0.8 per 1.000 inhabitants) and pharmacists slightly beyond 70.000 (1.1 per 1.000 inhabitants).

In the adult population, overweight people are 44.9% of the total, with higher shares among males (53.9%) and older people (60.9% of 65 to 74 years old population).

In Italy in 2017 there were 646,833 deaths (308,171 men and 338,662 women) with a standardised rate of 867.3 deaths per 100,000 inhabitants, (1,082 per 100,000 men and 717 per 100,000 women). From 2007 to 2017 the standardised death rate, which takes into account the different age structure, fell by 11.2%, compared to the 14.3% increase in deaths (+77,434). The majority of deaths are caused by cardiovascular diseases (35.8% of deaths), cancer (26.3%) and respiratory diseases (8.2%).

In 2017, there were 3,843 suicides, equal to 5.9 suicides per 100,000 inhabitants (among men 9.8 deaths per 100,000 inhabitants; among women 2.5 deaths per 100,000 inhabitants).

In 2019, the standardised proportion of people aged 15 years and over with risky alcohol consumption was decreased respect to 2018 (15.8% and 16.7% respectively). Between 2018 and 2019, the standardised proportion of smokers aged 15 years and over decreases too (19% in 2019 and 19.6% in 2018, respectively).

Influenza vaccination for over65 people increased again during the winter in 2018-2019 (53.1%), although below the levels recorded until the 2011-2012 winter (consistently above 60%). Pediatric vaccinations achieve larger coverage. The vaccination coverage at 36 months for measles reached 93.4% of those born in 2014 and 95.2% of those born in 2015 (thus beyond the 95% threshold which is the target recommended by the WHO).

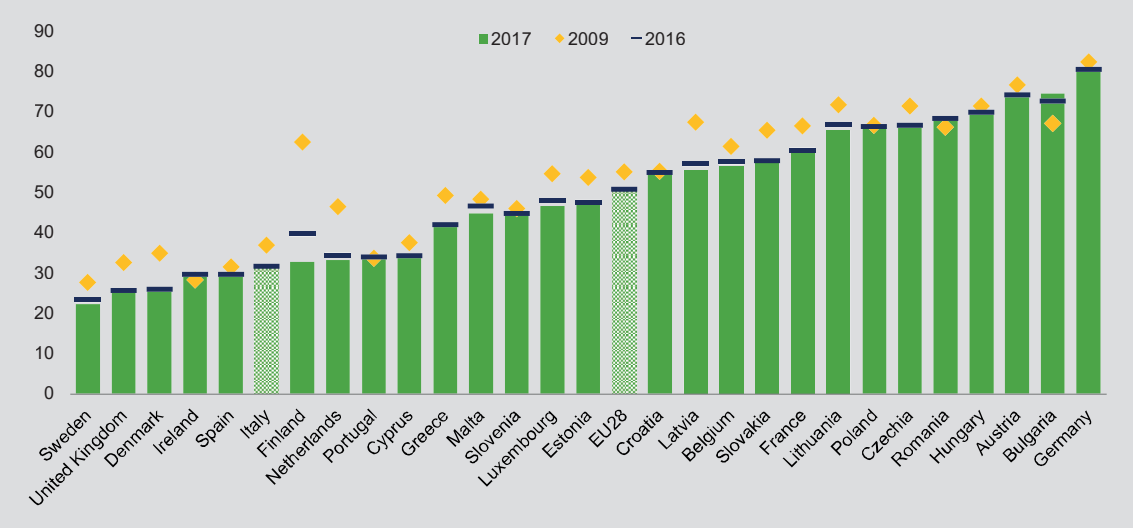
SDG 3.8.1 - Proportion of target population covered by essential health services

The health systems of the European Union countries represent one of the fundamental elements for a high level of protection and social cohesion. They are based on the principle that every person has the right to early access to good quality and affordable preventive and therapeutic health care. A balanced distribution of health facilities and staff is necessary to guarantee this right.

The coverage of essential health services is represented through the allocation on the territory of facilities and personnel that allow basic, medical, diagnostic, residential or semi-residential healthcare. Several subjects are involved: health care institutions, physicians, nursing staff, pharmacists and social-healthcare residential facilities.

In European countries the availability of beds (at least one night's stay) in hospitals is very different. There is a general reduction between countries respect to 2009 (5 beds for the European average; Figure 3.1).

Figure 3.1 - Available beds in hospitals in some EU28 countries. Years 2009, 2016, 2017 (per 10,000 inhabitants)



Source: Eurostat

In 2017 in Italy, there were available about 192,000 hospital beds, 31.8 for every 10,000 inhabitants, a density lower than the 37 beds per 10,000 inhabitants stated by national law. The availability has been progressively decreased since the mid-1990s, partly due to the intensification of residential social-healthcare solutions for diseases that do not need hospitalisation.

SDG 3.c.1 - Health worker density and distribution

Basic health care and the opportunity for all to access health services requires an adequate availability of human capital, with different health specialisations[2]. The presence of physicians in European countries has a small degree of variability and increased in recent years (Figure 3.2). In Italy there are available 4 physicians per 1,000 inhabitants.

In 2019, in Italy, the total number of physicians is about 241,000, of which there are about 54,000 general practitioners (3.1 specialist physicians and 0.9 general practitioners per 1,000 inhabitants).

2 Thirty are the health professions recognized in Italy and include specialist and general physicians, dentists, nurses, midwives and pharmacists.

Figure 3.2 - Physicians in some EU28 countries, Years 2009, 2016, 2017 (per 1,000 inhabitants)

Source: Eurostat

Nursing and midwifery staff reaches 368,000 in 2019, equal to 5.9 for every 1,000 inhabitants (midwives are about 17,000). Dentists, on the other hand, are slightly lower than 50,000 (0.8 per 1,000 inhabitants), pharmacists slightly above 70,000 (1.1 per 1,000 inhabitants). Among the specialist physicians cardiologists are more frequent (7% of specialist physicians), followed by anaesthetists (6.9%), surgeons (4.8%) and orthopaedists (4.9%).

SDG 3.4.1 - Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease

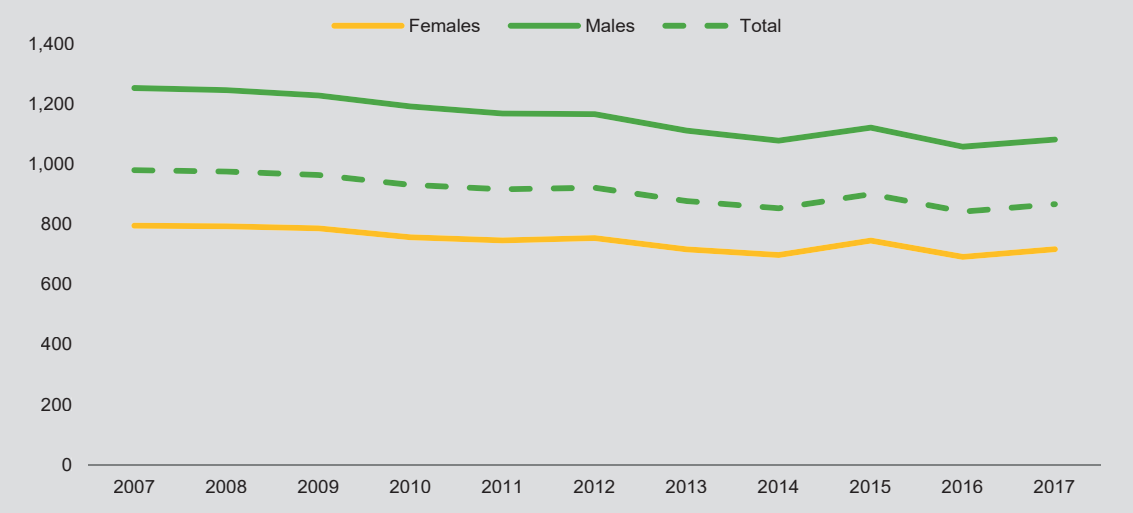
Most deaths are caused by non-communicable diseases, especially cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. In 2016, the latest available data, around 32 million of people worldwide died from these diseases, although the risk of death from these causes for the population between 30 and 69 years of age is steadily decreased.

The standardised mortality rate should be used, taking into account differences in the age structure of the populations under comparison[3], to monitor the target population and to assess the incidence of deaths due to non-communicable diseases, In Italy, in 2017, the population aged 30-69 years recorded 75,105 deaths due to cardiovascular disease, cancer, diabetes and chronic respiratory diseases. Density fell to 278 deaths per 100,000 residents among males (it was 352.2 in 2007), and 166.4 deaths per 100,000 among females (it was 192.7 in 2007). The target proposed for 2030 in Italy, i.e. the achievement of a standardised rate of 258 deaths per 100,000 inhabitants for males and 134 for females, appears closer for males, under the assumption that the current reduction trend is steady.

3 The standardised age-based mortality rate is a measure of the phenomenon net of the age structure of the population, used for comparisons in space and/or time. The value expresses the level of mortality as the number of deaths per 100,000 inhabitants. The age-standardised mortality rate is a weighted average of the age-specific mortality rates per 100,000 persons, where the weights are the proportions of persons in the corresponding age groups of the European standard population of 2013. (https://ec.europa.eu/eurostat/documents/3859598/5926869/KS-RA-13-028-EN.PDF/e713fa79-1add-44e8-b23d-5e8fa09b3f8f).

In 2017, 646,833 deaths have been recorded in Italy (308,171 men and 338,662 women), in reference to the whole population and to all causes of death, with a standardised rate of 867.3 deaths per 100,000 inhabitants, (1,082 per 100,000 men and 717 per 100,000 women). From 2007 to 2017, however, the mortality rate fell by 11.2%, against a 14.3% increase in deaths (+77,434) due to the ageing of the population[4]. The decline was faster for men (-171 deaths per 100,000) than for women (-78 deaths), reducing the gender gap in mortality and, correspondingly, in life expectancy at birth (Figure 3.3).

Figure 3.3 - Standardised age-based mortality rate in Italy by gender. Years 2007-2017 (per 100,000 inhabitants)



Source: Istat, Indagine sui decessi e cause di morte

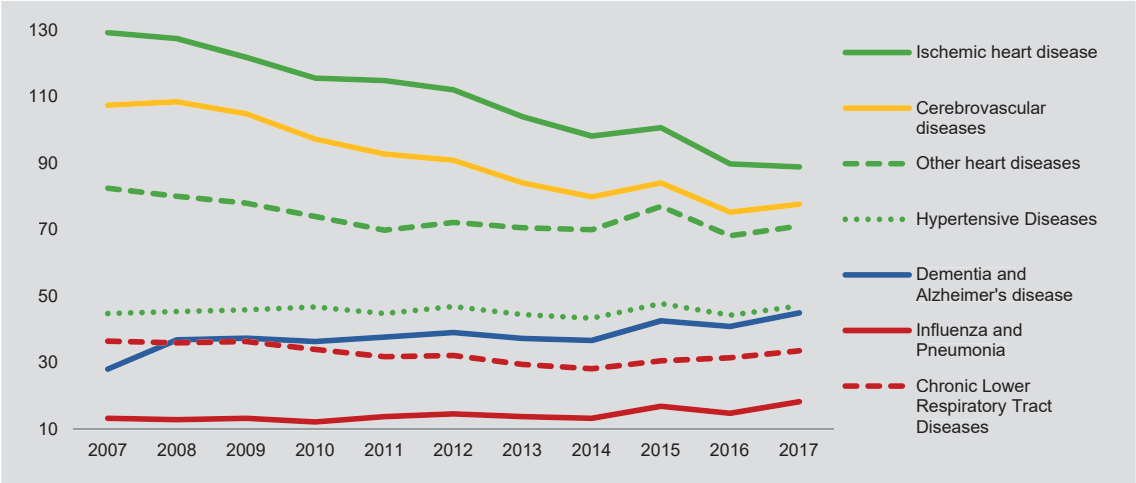
Most deaths are caused by cardiovascular diseases (35.8% of deaths), cancer (26.3%), respiratory diseases (8.2%). Hypertensive diseases (36,421 deaths, 5.6%) increase their weight on total deaths. The most frequent cancers, as cause of death, are those in the trachea, bronchi and lungs (33,759 deaths or 5.2% of the total), colon, rectum and anus (19,355 deaths or 3%) and breast (12,942 deaths or 2%). Male prostate cancer records a lower incidence (7,679 or 1.2%).

Deaths recorded an increase of weight of age-related diseases such as dementia and Alzheimer's disease that caused 35,330 deaths in 2017 (5.5% of deaths), more than double respect to 2007. Other major causes are chronic low respiratory tract diseases (25,823 or 4%), diabetes (22,354 or 3.5%), influenza and pneumonia (14,133 or 2.2%).

From 2007 to 2017, the trend of the major causes of death rate is falling for ischemic heart disease, cerebrovascular disease and other heart diseases, and cancer as well. Conversely, dementia and Alzheimer's disease are increasing; chronic respiratory tract diseases, hypertensive diseases and influenza and pneumonia are increasing from 2015 (Figure 3.4).

4 The contradiction between the increase in the absolute number of deaths over time and the decrease in mortality rates is explained by the progressive ageing of the population: as an increasing number of people survive to an advanced age, the number of death-events increases; but if the indicator is adjusted for the different age structure of the populations compared (the standardised rate), it can be seen that mortality is decreasing over time.

Figure 3.4 - Standardised age-based mortality rate in Italy by some death causes. Years 2007-2017 (per 100,000 inhabitants)



Source: Istat, Indagine sui decessi e cause di morte

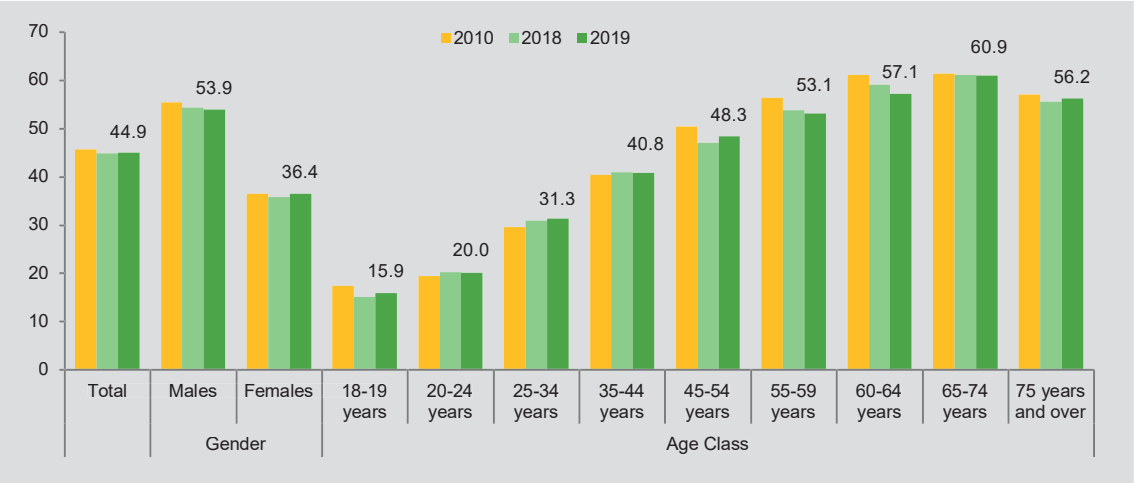
Between 2007 and 2017, effects on mortality linked to short-term factors can also be observed, which can lead to deviations from long-term trends. For example, 2015 was a year characterised by a significant increase in deaths, only partly due to the ageing of the population. It should be considered, in fact, that the two previous years (2013 and 2014) recorded a particularly low mortality rate, which favoured, in 2015, the high presence of an ageing population in conditions of higher fragility. One interpretation of the mortality increase is based on the theory that epidemiological (particularly aggressive or mild influenza, etc.) or environmental (atypical climatic periods, such as mild or cold winters, hot or cool summers) contexts act on population determining the survival of fragile subjects or anticipating their death. 2015 had a very hot July, a very cold winter and a more aggressive influence[5]. Similarly, an increase in mortality have been recorded also in other countries (France, Spain, Great Britain) during the same period.

Overweight or obesity[6] is an important health risk factor, associated with the development of metabolic or cancerous diseases, with consequences also on the reduction of life expectancy. In the adult population, overweight or obese people account for 44.9% of the total, a stable proportion since 2016, after having peaked the maximum share (46.1%) in 2009. The highest prevalence is in the South (49.3%), among men (53.9%) and among older people (60.9% of individuals between 65 and 74 years old; Figure 3.5).

5 In addition, in the 2014/2015 winter season, vaccination coverage of the population over 65 years of age fell below 50% (see SDG indicator 3.b.1).

6 The indicator refers to the Body Mass Index (BMI), which classifies people as overweight (25 <= BMI 30) as classified by the World Health Organization (WHO). The indicator is standardised using the Italian 2001 Census population as standard population.

Figure 3.5 - Prevalence of overweight in Italian population aged 18 years and over by gender and by age group. Year 2019 (%)



Source: Istat, Indagine sugli Aspetti della vita quotidiana

SDG 3.4.2 - Suicide mortality rate

In 2016, the last year with data available, 10.6 people per 100,000 suicided in the world. The rate among men, 13.5 deaths per 100,000 inhabitants, is almost double than women, 7.7 per 100,000.

In Italy, the suicide mortality rate is also lower than the EU28 average. In 2016, the standardised rate for the EU28 average was equal to 10.3 deaths per 100,000 inhabitants, compared to 5.9 deaths in Italy in the same period.

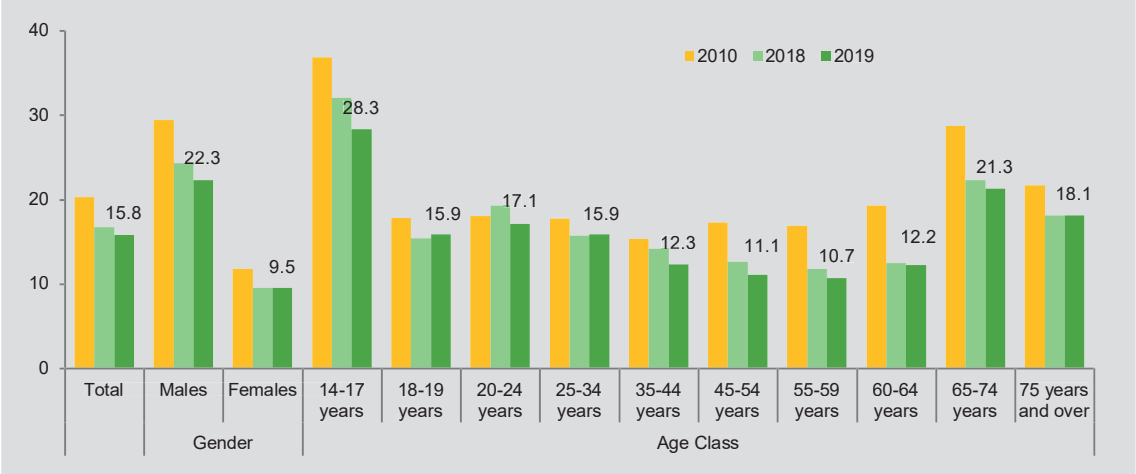
In 2017, in Italy, there were 3,843 suicides, equal to 5.9 suicides per 100,000 inhabitants (9.8 deaths per 100,000 males and 2.5 deaths per 100,000 women).

SDG 3.5.2 - Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol

In Italy in 2019 the standardised rate of people aged 15 and older with risky alcohol consumption is equal to 15.8%, lower than the previous year (16.7%) and 2010 (20.3%).

Risky drinking habits are more widespread among men (22.3% compared to 9.5% among women), among very young people (28.3% for 14-17 year old people) and among the elderly (21.3% among 65-74 year old people; Figure 3.6).

Figure 3.6 - Standardised rate of risky alcohol consumption by gender and by age class. Years 2010, 2018, 2019 (%)



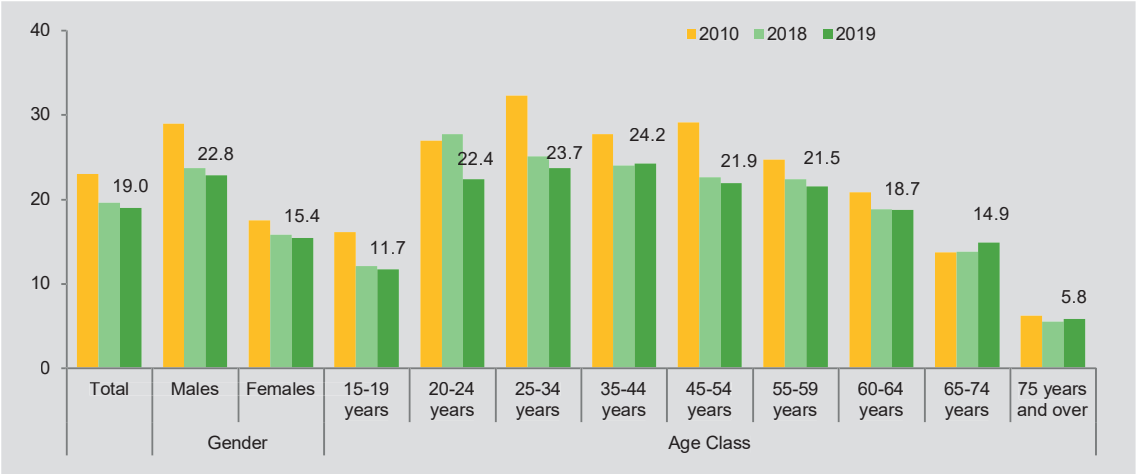
Source: Istat, Indagine Aspetti della vita quotidiana

SDG 3.a.1 - Age-standardized prevalence of current tobacco use among persons aged 15 years and older

In Italy, the standardised proportion of people aged 15 years and over who currently smoke is 19% in 2019, down from the previous year (19.6%) and from 2010 (23%).

As alcohol consumption, the propensity to smoke is more widespread among men (22.8%) than among women (15.4%), among adults (24.2% between 35 and 44 years old people and 23.7% between 35 and 44 years old people), rather than among people over 75 (5.8%; Figure 3.7).

Figure 3.7 - Standardized proportion of people aged 15 and over who currently smoke by gender and by age class. Years 2010, 2018, 2019 (%)



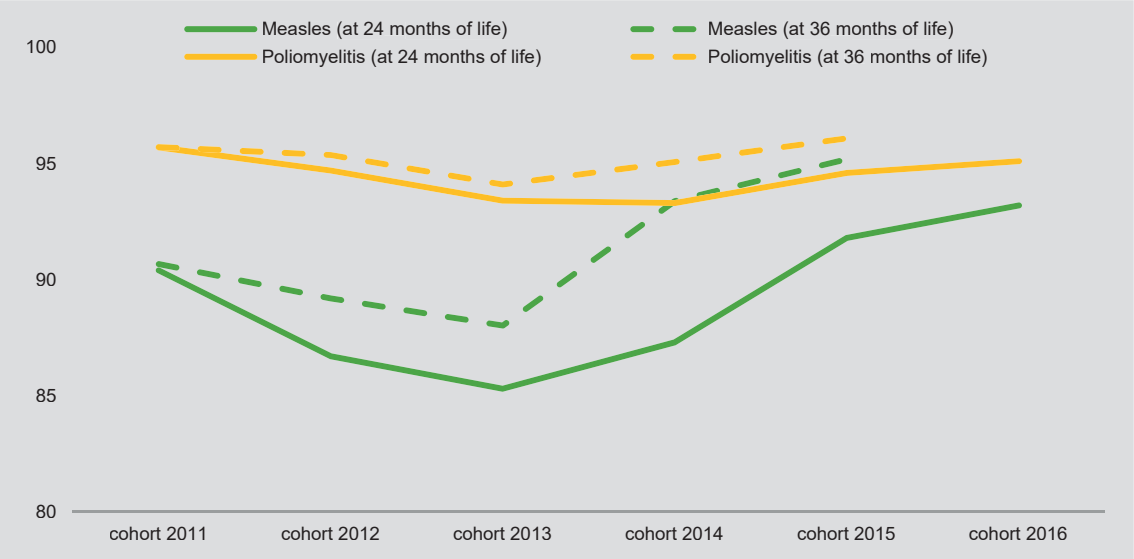
Source: Istat, Indagine Aspetti della vita quotidiana

3.b.1 - Proportion of the target population covered by all vaccines included in their national programme

Vaccination coverage is the major indicator to assess the actual implementation of prevention strategies. Influenza vaccination is recommended for the elderly population (people aged over 65) and for people at high health risk. Trend of vaccination for over 65 people has increased again in the 2018-2019 winter season (53.1%) after the lowest level in the 2014-2015 winter season (48.6%), although is still below the 2011-2012 winter season (beyond 60%). In the 2018-2019 winter season the share of vaccinated people respect to the whole population is equal to 15.8%.

Pediatric vaccinations, compared to influenza vaccinations, reach a wider coverage on the target population despite they are spread in a differentiated way on the country. The 24-month vaccination coverage[7] for polio, measles and rubella, for children born in 2016, reaches 95.1%, 93.2% and 95.1%, respectively. The vaccination coverage at 36 months has been carried out in the third year of life, especially for cohorts of children born in 2014 and 2015 (Figure 3.8). Measles vaccination coverage reached high levels, even for these cohorts of children: 93.4% of those born in 2014 and 95.2% of those born in 2015 (beyond the 95% target threshold recommended by the WHO).

Figure 3.8 - Measles and polio vaccination coverage for cohorts of children, at 24 months and 36 months of age. Birth cohorts 2011-2016 (%)



Source: Ministry of Health, Dati coperture vaccinali
http://www.salute.gov.it/portale/vaccinazioni/dettaglioContenutiVaccinazioni.jsp?lingua=italiano&id=811&area=vaccinazioni&menu=vuoto

7 Data on vaccination coverage is collected annually on children aged 24 months and 36 months, i.e. on a cohort of children born in the same year and vaccinated at the time of detection (e.g. coverage of children born in 2013 is calculated with completed vaccinations on 31 December 2015).

Goal 3 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
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[1]

Goal 4 addresses the issue of quality of education, which is important for improving people's lives and ensuring inclusive and sustainable development.

The targets to be monitored regard different dimensions: access for all to all levels of education (primary, secondary and tertiary), the quality of education, the possession of knowledge and skills for employment and sustainable development; the elimination of gender disparities in education and equal access for the most vulnerable; monitoring of school facilities, so that they are suitable for everyone's needs.

The monitoring of Goal 4 for Italy focuses on the educational path of individuals, from access to learning activities in kindergarten, continuing with inclusion in primary, secondary and tertiary education levels and monitoring, at the same time, the skills and knowledge learned in mathematics, reading, science and digital skills of adults. Education and training programmes must be accessible to all, girls and boys, including foreigners and people with disabilities.

The statistical measures released by Istat for Goal 4 are fifty-one[2] and refer to nine UN-IAEG-SDGs indicators (Table 4.1).

1 This section was edited by Barbara Baldazzi with contributions from Raffaella Cascioli and Laura Zannella.
2 The 21 indicators of target 4.5 on parity indices are included.

Table 4.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS		
				Compared to 10 years before	Compared to the previous year	
4.1.1	Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex					
Share of 15-year-old students failing to reach level 2 ("basic skills level") for the literacy (OECD - Invalsi, 2018, %)		Identical	23,3			(a)
Share of 15-year-old students failing to reach level 2 ("basic skills level") for the mathematics (OECD - Invalsi, 2018, %)		Identical	23,8			(a)
Share of 15-year-old students failing to reach level 2 ("basic skills level") for science (OECD - Invalsi, 2018, %)		Identical	25,9			(a)
Share of students in grade 8 (third year of lower secondary education) performing below the baseline level of proficiency in literacy competence (Invalsi, 2018/19, %)		Identical	34,4	--		
Share of students in grade 8 (third year of lower secondary education) performing below the baseline level of proficiency in numerical competence (Invalsi, 2018/19, %)		Identical	38,7	--		
Share of students in grade 8 (third year of lower secondary education) performing below the baseline level of proficiency in english listening competence (Invalsi, 2018/19, %)		Identical	40,1	--		
Share of students in grade 8 (third year of lower secondary education) performing below the baseline level of proficiency in english reading competence (Invalsi, 2018/19, %)		Identical	22,4	--		
Share of students in grade 10 (second year of upper secondary education) performing below the baseline level of proficiency in literacy competence (Invalsi, 2018/19, %)		Identical	30,4	--		
Share of students in grade 10 (second year of upper secondary education) performing below the baseline level of proficiency in numerical competence (Invalsi, 2018/19, %)		Identical	37,8	--		
4.1.2	Completion rate (primary education, lower secondary education, upper secondary education)					
Early leavers from education and training (Istat, 2019, %)		Proxy	13,5			
4.2.2	Participation rate in organized learning (one year before the official primary entry age), by sex					
Participation rate in organized learning (one year before the official primary entry age) (MIUR, 2018, %)		Identical	95,4		(b)	
4.3.1	Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex					
Participation rate of youth and adults (25-64) in formal and non-formal education and training in the previous 12 months (Istat, 2016, %)		Identical	41,5	(c)		(d)
Participation in long-life learning (4 weeks) (Istat, 2019, %)		Proxy	8,1			
Students with disabilities: Pre-primary (MIUR-SIMPI), 2016, %)		Context indicator	1,5	--	--	
Students with disabilities: Primary (MIUR-SIMPI), 2016, %)		Context indicator	3,2	--	--	
Students with disabilities: Lower secondary (MIUR-SIMPI), 2016, %)		Context indicator	3,9	--	--	
Students with disabilities: Upper secondary (MIUR-SIMPI), 2016, %)		Context indicator	2,3	--	--	
4.4.1	Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill					
People with high level of IT competencies (Istat, 2019, %)		Proxy	22,0	--		(e)
4.5.1	Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated (**)					
4.6.1	Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex					
People having completed tertiary education (ISCED 5,6,7,8) (Istat, 2019, %)		Context indicator	27,6			
4.a.1	Proportion of schools offering basic services, by type of services					
Buildings equipped with specific arrangements for overcoming architectural barriers (MIUR, 2017/18, %, n)		Proxy	74.5 (29.923)	--		
Buildings equipped with facilities to reduce energy consumption (MIUR, 2017/18, %, n)		Proxy	57.6 (23.122)	--		
Buildings equipped with specific noise protection measures (acoustic insulation) (MIUR, 2017/18, %, n)		Proxy	10,0 (4.111)	--		
Class equipment: number of devices per class, national average (MIUR, 2015/16, n)		Proxy	(*)	--	--	
Public school class connection (MIUR, 2015/2016, %)		Proxy	(*)	--	--	
Laboratory facilities available in the institute (number of devices per laboratory)(MIUR, 2015/16, n)		Proxy	(*)	--	--	
Laboratory network connection (MIUR, 2015/16, %)		Proxy	(*)	--	--	
Number of schools with pupils with disabilities by adapted computer workstations (Percentage value): Primary (Istat, 2019, %)		Identical	74,9			
Number of schools with pupils with disabilities by adapted computer workstations (Percentage value): Lower secondary (Istat, 2019, %)		Identical	79,9			
Number of schools with pupils with disabilities by adapted computer workstations (Percentage value): Upper secondary (Istat, 2019, %)		Identical	72,2	--		
4.b.1	Volume of official development assistance flows for scholarships by sector and type of study					
Volume of official development assistance flows for scholarships by sector and type of study (MAECI, 2018, Millions of Euro)		Identical	15,1	--	--	

Legend

IMPROVEMENT

STABILITY

DETERIORATION

-- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2015
(b) Variation compared to 2010
(c) Variation compared to 2006
(d) Variation compared to 2011
(e) Variation compared to 2016
(*) Please refer to the data table on www.istat.it

(**) The 21 parity indices present in the database are tabulated in the data tables at the end of the 15 indicators to which they refer

In brief

In 2018, in Italy, the percentage of students who do not reach the minimum level of reading literacy is equal to 23.3%, slightly below than the OECD average (22.6%). The basic level of mathematical literacy was not reached by 23.8% of students, a share similar to the OECD average. The proportion of low performers in scientific literacy is equal to 25.9%, significantly lower than the OECD average (22%).

The percentage of young people (18-24 age class) who have not completed their education is equal to 13.5% in 2019, lower than 2017-2018.

The last decade recorded a pronounced acceleration of the digitalization process. Digital tools have deeply affected the modalities of communicating, reading, exchanging information, bringing difficulties and concerns about their diffusion.

In 2019, in Europe and Italy, respectively 87% and 76% of the population (16-74 age class) used the Internet in the last 3 months.

Moreover, in Italy, only 22% of the population has advanced digital skills[3], with a large heterogeneity by age class. Young people aged 20-24 have advanced digital skills in 45.1% of cases, only 10.5% of people aged 65-74 have advanced digital skills. In case of separate analysis of the four dimensions of the composite indicator on advanced digital skills, it emerges that "Internet users" have more advanced digital skills in communication (72.3%) and information (61.8%), compared to the skill of problem solving (49.8%) and to use software to process/vehicle digital content (42.6%).

In 2019 in EU28, the share of the population with tertiary education is equal 41.3%[4] beyond the EU target of 40%. In Italy, only 27.6% of young people aged 30-34 years hold a tertiary degree (33.8% of women and 21.6% of men); the value is stable respect to 2018 and is among one of the lowest in EU28.

In Italy, the participation of adults in formal and non-formal training activities remains constant between 2018 and 2019: 8.1% of those aged between 25 and 64 have carried out at least one training activity in the last 4 weeks.

SDG 4.1.1 - Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

An important goal of Agenda 2030 is to succeed in developing national educational systems capable to provide adequate numeracy and literacy skills, trying to minimize inequalities in skills and knowledge. Education, in fact, is the main pillar to build, from the earliest years of life, an

3 The European Parliament and the European Council identify digital competences as a key competence for lifelong learning, aimed at the acquisition of knowledge that lasts over time and is necessary for every citizen to be able to fit into the social and working environment. The indicator is calculated as the share of people aged 16-74 who have advanced skills in the four domains identified by the Digital Competence Framework. The domains are: information, communication, content creation, and problem solving. For each domain, a number of activities are selected (from 4 to 7) and a level of competence is assigned according to the number of activities carried out: 0 = no competence 1= basic level 2 = above basic level. Therefore, advanced skills are given to people who have level 2 for all domains.

4 Provisional data.

efficient and effective participation in labour market and in socio-cultural life of a nation; it is also a fundamental key to escape poverty and to allow people a favourable socio-economic mobility.

The international PISA-OECD[5] survey allows comparisons of national reference frameworks in reading, mathematical and scientific literacy.

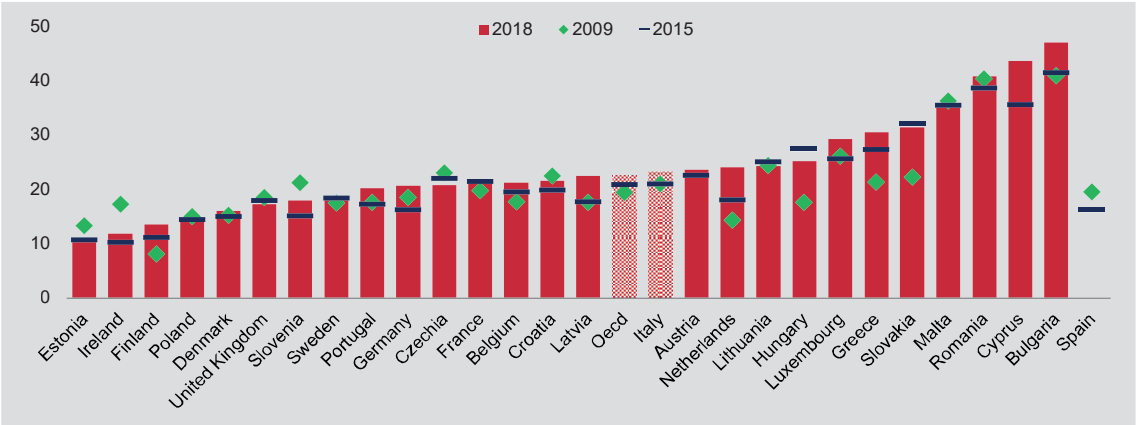
The first competence examined is reading literacy[6]. The variety of texts has become much wider, with the quick development of technology and the different means by which information is conveyed: magazines, books, newspapers, computers, smartphones, websites, etc. With the plenty of available information for a student it is most important the understanding of the ability to interpret the content and to think critically and it is less relevant searching information from reading. PISA surveys have evolved to adapt to the new tools.

The indicator proposed in the SDGs framework is the proportion of students who do not reach the minimum level of reading literacy: students who do not reach this level have difficulty dealing with unknown, long or complex texts and need to be stimulated with suggestions or instructions before they can understand them.

In Italy the proportion of students who do not reach the minimum level of reading literacy is equal to 23.3%, slightly above than the OECD average equal to 22.6% (Figure 4.1).

Over the years, the performance of 15-year-old students has deteriorated or remained stable, with the exception of students from the Czech Republic and Hungary. The negative changes affect Italy too, which sees an increase in the share of students who do not reach a minimum reading level of 2.3 percentage points (they were 21% in 2009 and 2015).

Figure 4.1 - Proportion of 15-year-old students who do not achieve a minimum proficiency level in reading for some European countries and OECD average. Years 2009, 2015, 2018 (a) (%)



Source: PISA-OECD
((a) Data for Spain 2019, Austria 2009 and Cyprus 2009 are not available.

The second competence examined is mathematics literacy, defined as "students' capacity to formulate, employ and interpret mathematics in a variety of contexts"[7].

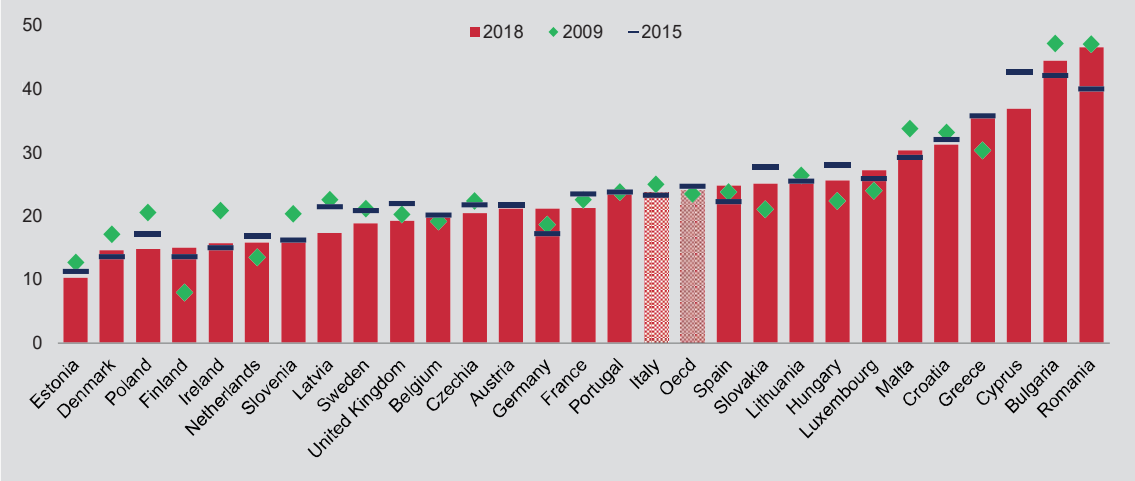
5 PISA-OECD (*Programme for International Student Assessment*) is an international survey by OECD, every three years. The first cycle of the survey took place in 2000. Italy has participated since the first cycle. 79 countries participated in PISA 2018, including 37 OECD countries, for a total of about 600,000 15-year-old students. For Italy 11,785 students participated, divided into 550 schools.

6 Reading literacy is defined as "students' capacity to understand, use, evaluate, reflect on and engage with texts in order to achieve one's goals, develop one's knowledge and potential, and participate in society".

7 Mathematics literacy includes reasoning mathematically and using mathematical concepts, procedures, facts and tools to describe, explain and predict phenomena.

In 2018, 23.8% of 15-year-old students in Italian schools did not reach the basic level of competence, a proportion similar to the average recorded in OECD countries (Figure 4.2).

Figure 4.2 - Proportion of 15-year-old students who do not achieve a minimum proficiency level in mathematics for some European countries and OECD average. Years 2009, 2015, 2018 (%)

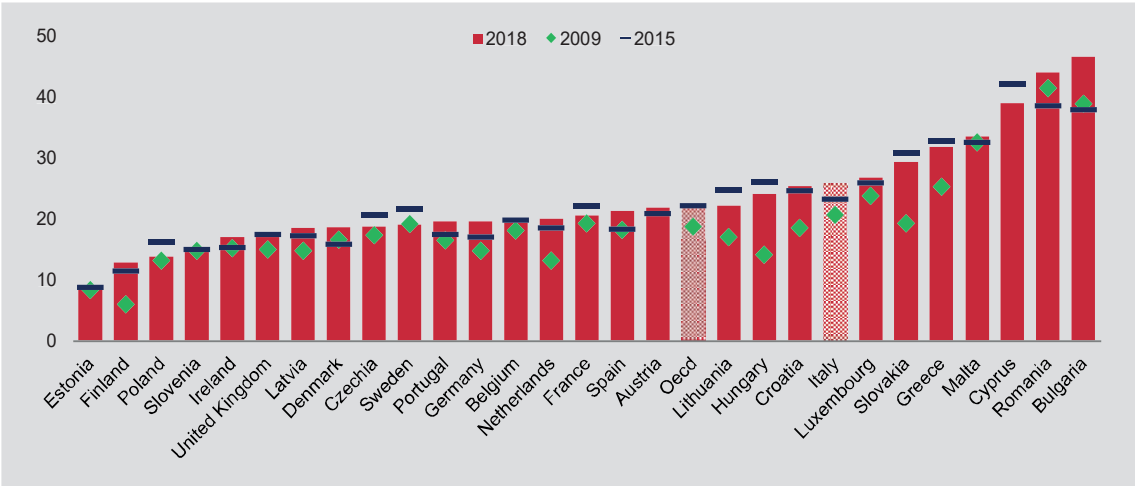


Source: PISA-OECD

The last competence investigated is the science literacy defined as "the ability to engage with science-related issues, and with the ideas of science, as a reflective citizen. A scientifically literate person is willing to engage in reasoned discourse about science and technology, which requires the competencies to explain phenomena scientifically, evaluate and design scientific enquiry, and interpret data and evidence scientifically".

In Italy, the 15-year-old students who do not reach a minimum level of scientific competence are 1 in every 4 (25.9%), significantly higher than the OECD average (22%, Figure 4.3). Compared to 2015, in twelve countries the percentage of low performers has decreased conversely respect to 10 years before, there is a worsening of skills in almost all countries, although with different intensities.

Figure 4.3 - Proportion of 15-year-old students who do not achieve a minimum proficiency level in science for some European countries and OECD average. Years 2009, 2015, 2018 (%)

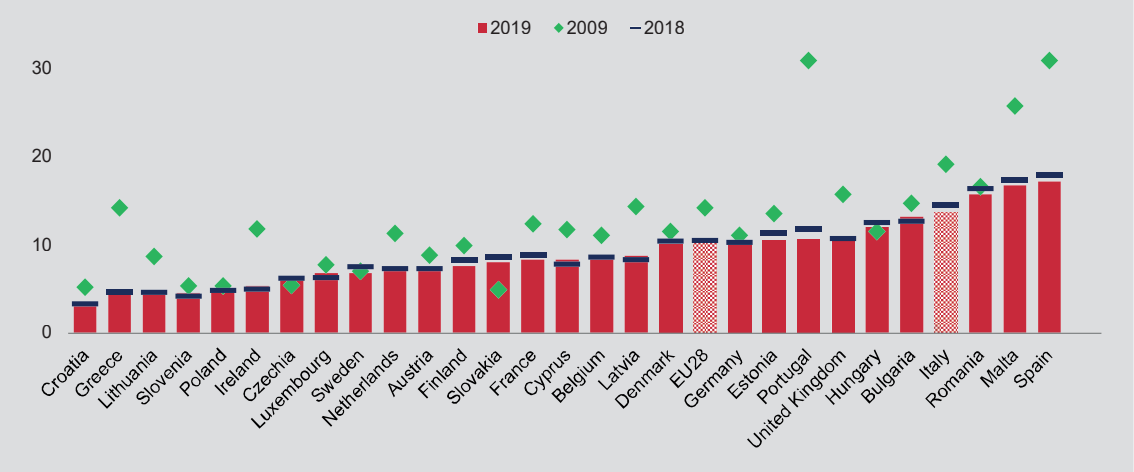


Source: PISA-OECD

SDG 4.1.2 - Completion rate (primary education, lower secondary education, upper secondary education)

Compulsory education, in Italy, lasts 10 years, from 6 to 16 years of age (Law 296/2006), and for all young people the right/duty to education applies for at least 12 years or, in any case, until they reach a three-year professional qualification by the age of 18[8]. However, in some cases, the student leave the education and training course without having obtained a higher qualification than the secondary education degree, placing himself in a situation of disadvantage compared to his peers. In 2019 the percentage of early school leavers, aged 18 to 24, is equal to 13.5%, with a decrease in the last year after the increase in years 2017-18 (Figure 4.4). In Europe, 10.3% of young people do not hold a secondary education degree.

Figure 4.4 - Early leavers from education and training for some European countries. Years 2009, 2018, 2019 (%)



Source: Eurostat

SDG 4.4.1 - Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill

The last decade has been a period of fast acceleration of the digitalization process and digital tools have changed the way of communicating, reading, exchanging information, accompanied by difficulties towards generalized diffusion and concerns about its increasing use.

In 2019, in Europe, 87% of the 16-74 year old population used the Internet in the last 3 months, respect to the 76% in Italy. One third of the 16-74 year old population in EU28 have advanced digital skills, respect to the 22% in Italy.

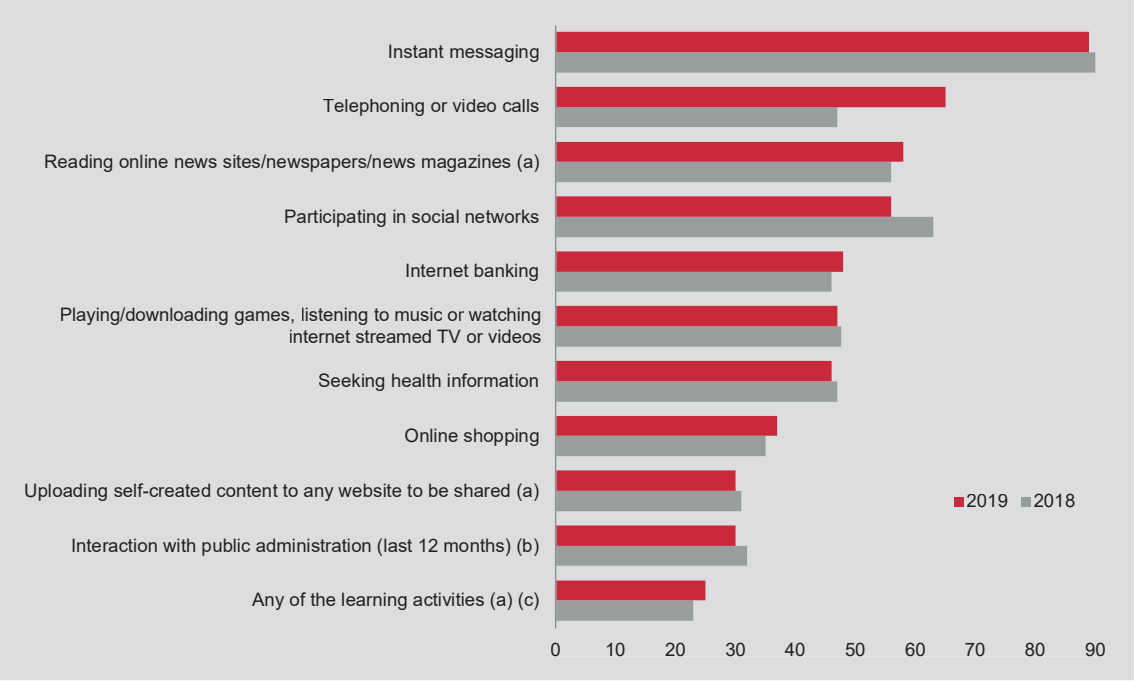
Throughout years, the delay in infrastructure, training and learning digital skills has favoured the digital divide to the detriment of the elderly, the less educated, people living in poverty and women.

8 Law n.53/2003.

The share of households with broadband access has increased rapidly from 43.4% in 2010 to 74.7% in 2019[9]. The percentage of the 16-74 year old population using the Internet in the last 3 months, in 2019, is 76%[10]. Almost all 16-24 year old population use the Internet (92%), while among 55-59 year old population the share of Internet users drops to 72.4% and reaches 41.9% among 65-74 year old population. Men use the Internet more frequently than women do; people with higher educational qualifications use the Internet more frequently than people with low education.

The most widespread activities on the web are related to communication services that allow people to connect with multiple users. In the last three months, 89% of Internet users aged 16-74 used instant messaging services; 65% made Internet calls; 56% actively participated in social networks. The web is also widely used to read information and news (58%), for banking services (48%), to download images, films, music and/or games (46.8%) and to search for medical information (46%). 37.3% of Internet users aged 16-74 years have made online purchases. 25% used the web to carry out one of the following learning activities: communicating with a teacher/instructor using a dedicated training site; attending an online course; consulting material (Figure 4.5).

Figure 4.5 - Percentage of individuals aged 16-74 years who have used the Internet in the last 3 months for activities carried out. Years 2018, 2019 (%)



Source: Istat, Aspetti della vita quotidiana
(a) Data referring to 2017 and 2019.
(b) Interaction with public administration means: obtaining information from websites, downloading forms, uploading forms in the last 12 months.
(c) Learning activities are: communicating with instructors or students using educational websites/portals; doing an online course; online learning material.

9 See Goal 9 (indicator 9.c.1).
10 See Goal 17 (indicator 17.8.1).

In 2019, among the 16-74 individuals who use the Internet, only 29.1% own high skills, i.e. they can perform various activities in the 4 domains of information[11], communication[12], problem solving[13] and content creation[14]. The majority of Internet users own, instead, low (41.6%) or basic skills (25.8%). Moreover, there is a low proportion of users who do not own any digital competence (3.4%, equal to 1,135,000).

Age remains an important factor: people aged 20-24 own advanced levels of skills in 45.1% of cases while among people aged 65-74 the share is 10.5%. Another discriminating factor is education level, even though just over half of the graduates who use the web have high digital skills (52.3%).

SDG 4.6.1 - Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex

The education system and lifelong learning activities allow to learn, exercise and maintain, throughout years, an adequate level of functional literacy and mathematical skills. Two proxy indicators allow to measure indirectly the level of skills and knowledge in adult population: the proportion of the population aged 30-34 having completed tertiary education (the EU target is 40%) and the proportion of adult population aged 25-64 participating in formal and non-formal activities (the EU target is 15%).

The European Union has reached and exceeded the target of 40% of the population with tertiary education: in 2019, the share is 41.3%[15]. In Italy, only 27.5% of people aged 30-34 years hold a degree or other tertiary qualification, a stable share if compared to 2018. However, the level remains among the lowest in EU28 (Figure 4.6).

There is a wide gender gap that increased throughout the years: in 2019, 33.8% of women aged 30-34 hold a tertiary title, compared to 21.6% of men in the same age class.

Another relevant feature is the participation throughout life in learning opportunities that promote the continuous updating of knowledge and the possibility to learn and develop new skills and abilities. In 2019 in the EU28 countries those aged 25-64 years have participated in at least one training activity in the last 4 weeks - are higher than in Italy: 11,2% of 25-64 year olds compared to 8.1% in Italy. In Italy, the most involved in formal and non-formal learning activities in 2019 were people aged between 25 and 34 (15.3%), women (8.6%) and residents in large cities (10.2%).

11 Information skills: identify, locate, retrieve, store, organise and analyse digital information, judging its relevance and purpose.

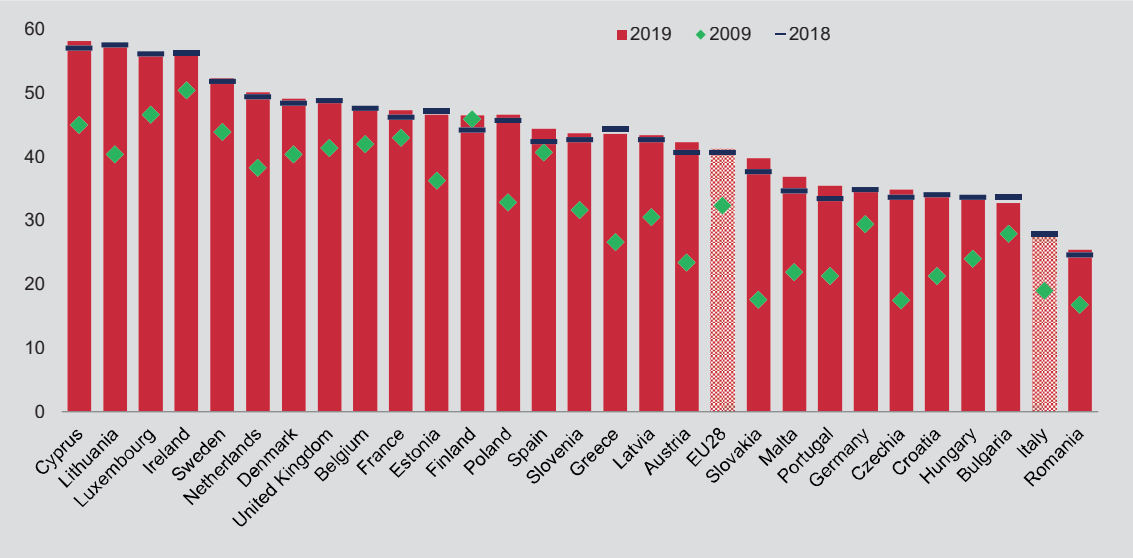
12 Communication skills: communicate in digital environments, share resources through online tools, link with others and collaborate through digital tools, interact with and participate in communities and networks, cross-cultural awareness.

13 Problem solving skills: identify digital needs and resources, make informed decisions as to which are the most appropriate digital tools according to the purpose or need, solve conceptual problems through digital means, creatively use technologies, solve technical problems, update one's own and others' competences.

14 Software skills (for content manipulation): create and edit new content (from word processing to images and video); integrate and re-elaborate previous knowledge and content; produce creative expressions, media outputs and programming; deal with and apply intellectual property rights and licences.

15 Provisional data.

Figure 4.6 - Proportion of 30-34 year old with tertiary education (ISCED 5, 6, 7 or 8) out of total 30-34 year olds for European countries. Years 2009, 2018 and 2019 (%)



Source: Eurostat

Goal 4 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
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 non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.			
4.a	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.			
4.b	By 2020, 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[1]

Despite the progress achieved in gender equality and women's empowerment, women and girls continue to deal with disparities in rights and access to economic, natural and technological resources, to face with gender stereotypes and to suffer discrimination and violence.

Goal 5 aims to remove any kind of discrimination and violence for women, both in the public than in private sphere, as well as any kind of exploitation and harmful practice, child or forced marriage and genital mutilation. It is important to ensure access to sexual and reproductive health, to acknowledge and enhance unpaid housework and care work, to provide public services, infrastructure and social protection policies finally to promote shared responsibility within the household. This goal wants to ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

Gender equality is not a fundamental human right only it is an essential condition for a prosperous, sustainable and peaceful world too. Gender differences and inequalities must therefore be contrasted in every field.

The statistical measures released by Istat for Goal 5 are sixteen and refer to seven UN-IAEG-SDGs indicators (Table 5.1)

1 This section was edited by Carmen Federica Conte with contributions from Barbara Baldazzi, Maria Giuseppina Muratore, Miria Savioli, Vincenzo Spinelli, Giovanna Tagliacozzo.

Table 5.1 - Statistical measures released by Istat, taxonomy with regard to the SDG framework, latest available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
5.2.1	Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age				
	Proportion of women aged 16-70 subjected to physical or sexual violence by a partner or previous partner in the previous 12 months (Istat, 2014, %)	Identical	2,0	(a)	--
	Proportion of women aged 16-70 subjected to physical or sexual violence by a partner or previous partner in the last 5 years (Istat, 2014, %)	Proxy	4,9	(a)	--
	Proportion of women aged 16-70 subjected to psychological violence by a current partner in the previous 12 months (Istat, 2014,%)	Proxy	9,2	(a)	--
	Murders of women committed by partners, ex-partners or other relatives (per 100 women killed) (Istat, 2018, %)	Context indicator	79,7		
	Anti-violence centres and refuge houses: rate on women aged 14 and over (Istat, 2017, per 100,000)	Context indicator	1,7	--	--
5.2.2	Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence				
	Proportion of women aged 16-70 subjected to sexual violence by a man other than intimate partner in the previous 12 months (Istat, 2014, %)	Identical	1,6	(a)	--
	Proportion of women aged 16-70 subjected to physical or sexual violence by a man other than intimate partner in the previous 5 years (Istat, 2014, %)	Proxy	7,7	(a)	--
5.4.1	Proportion of time spent on unpaid domestic and care work, by sex, age and location				
	Ratio of employment rate for women aged 25-49 with at least one child aged 0-5 to the employment rate of women 25-49 years without children (Istat, 2019, %)	Context indicator	74,3		
	Proportion of time spent on unpaid domestic and care work (Istat, 2013-2014, %)	Identical	13,5	--	--
5.5.1	Proportion of seats held by women in national parliaments and local governments				
	Proportion of seats held by women in Senate of the Republic and the Chamber of Deputies (Istat, 2018, %)	Proxy	35,4	(b)	(c)
	Proportion of seats held by women in Regional Councils (Individual regional councils, 2020, %)	Proxy	21,1	(d)	
5.5.2	Proportion of women in managerial positions				
	Proportion of women in decision-making bodies (Privacy Authority, AgCom, Antitrust Authority, Constitutional Court, Superior Council of the Magistracy, Ambassadors, CONSOB, 2020, %)	Proxy	18,6	(e)	
	Proportion of women in the boards of companies listed in stock exchange (Consob, 2019, %)	Proxy	36,5		
5.6.1	Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care				
	Abortion rate of women aged 15-49 (Istat, 2017, per 1.000)	Context indicator	5,8		
5.b.1	Proportion of individuals who own a mobile telephone, by sex				
	People aged 6 and more who use their mobile phone at least a few times a year (Istat, 2019, %)	Proxy	91,9		
	People aged 16-74 who used internet once a week (including every day) in the last 3 months (Istat, 2019, %)	Context indicator	73,9		

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2006
(b) Variation compared to 2008
(c) Variation compared to 2014
(d) Variation compared to 2012
(e) Variation compared to 2013

In brief

In 2018, in Italy were committed 133 murders of women, respect to 123 in 2017. Around 80% of these crimes have been committed at home by people like partners, former partners and family members of the victim. The incidence of this typology of women's murders increased by about 7 percentage points respect to 2017. The increase is mainly due to the women killed by their partners, +11.6 percentage points respect to 2017 and 17 percentage points respect to 2010, of which 18.9 percentage points coming from murders committed by the current partner.

In 2019, 55.2% of women aged 25-49 with pre-school children (0-5 years) and 74.3% of women aged 25-49 without children had an employment.

The gap between employed women with children and without children is stable respect to 2018 and it shows some improvement respect to 2010, due to the joint increase of employed women with pre-school children, 53.9%, +1.4 percentage points, and the slight reduction of employed women without children, 75.2%,-0.9 percentage points.

In seven Italian regions the share of women elected to Parliament is higher than 40%; in nearly all the other regions the share of elected women is higher than 20%.

In 2019, Italy is among the EU28 countries with the highest proportion of women on the boards of large listed companies (36.1%). Considering all the listed companies, in Italy the percentage of women in the boards reached 36.5%.

The percentage of women in decision-making bodies is 18.6%, an increase of 1.8 percentage points compared to 2019.

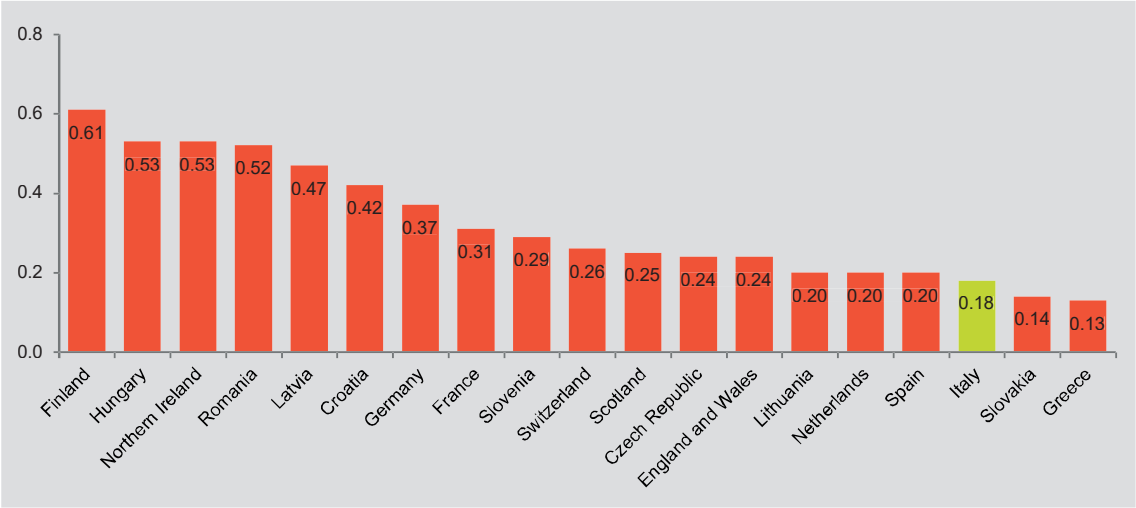
SDG 5.2.1 - Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age.

According to the United Nations, violence against women is defined as "any act of gender-based violence that causes or is likely to cause physical, sexual or psychological harm to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life" (Vienna, 1993)[2].

Information about physical and/or sexual violence highlights is limited by scarce international comparability and by lack of updated data. However, the indicator of murders of women committed by partners, former partners or family members, is a proxy on violence suffered by women within target 5.2.

In Europe, the ratio of the number of murders of women committed by partners per inhabitants is higher in Finland (0.61 per 100,000 inhabitants) and Hungary (0.53 per 100,000 inhabitants). Italy, Slovakia and Greece record much lower values, ranging from 0.18 per 100,000 inhabitants in Italy to 0.13 in Greece (Figure 5.1).

Figure 5.1 - Women victims of murder committed by their partner in some EU countries. Year 2017 (per 100,000 inhabitants)

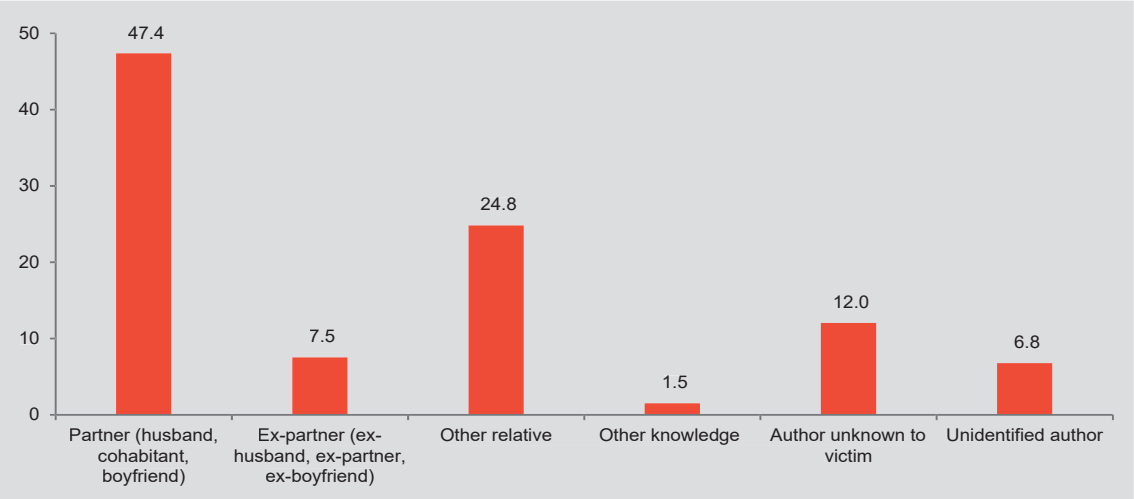


Source: Eurostat

In 2018 Italy recorded 133 murders of women, respect to 123 in 2017. About 80% of these crimes have been committed at home by people known from the victim like partners, former partners and family members. Namely 63 women, equal to 47.4% have been murdered by their partner, 10 (7.5%) by their former partner and 33 (24.8%) by other family members (Figure 5.2). The incidence of this typology of women's murders increased by about 7 percentage points respect to 2017. In 2018 murders committed by the current partner increased up to 11.6 percentage points; murders by other relatives and former partners decreased respectively of 3.6 and 0.6 percentage points.

2 The World Conference on Human Rights, Vienna 14-25 June 1993, adopted and strengthened the "Declaration on the Elimination of Violence against Women adopted by the General Assembly of the United Nations with Resolution No. 48/104 of 20 December 1993.

Figure 5.2 - Women murder victims based on the relationship between victim and perpetrator. Year 2018 (percentage composition)



Source: Istat processing on Ministry of Interior data -Direzione centrale della polizia militare

Respect to 2010, women murdered by their partner increase of 17 percentage points. In 2010 62.7% women have been murdered by partner, former-partners or family members.

SDG 5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location

The ratio between the employment rate of women aged 25-49 with pre-school children (0-5 years old) and the employment rate of women aged 25-49 without children is an indirect indicator to assess the reconciliation of women's work and family, especially for families with children.

In 2019, 55.2% of women aged 25-49 with pre-school children (0-5 years) and 74.3% of women aged 25-49 without children had an employment. The employment gap is equal to 19.1% and is stable respect to 2018 and lower than 2010 (21.3%) due to the joint increase of employed women with pre-school children, (53.9%, +1.4 percentage points), and the slight reduction of employed women without children, (75.2%, -0.9 percentage points).

In 2019 the ratio between the employment rate of women with pre-school children and the employment rate of women without children, equal to 74.3%, recorded a substantial stability respect to 2018, (+0.5 percentage points). The improvement is higher respect to 2010, (+2.6 percentage points), lower than 2015: year in which the employment of women with children at pre-school age was closer to that without children (77.8%).

SDG 5.5.1 Proportion of seats held by women in national parliaments and local governments

The percentages of women elected to the European Parliament is increasing steadily, from around 15% in the first elections in 1959 to almost 40% in 2019. Italy elected to the European Parliament 41% women.

Although the overall total is still well below 50%, the share of women in national parliaments is steadily increasing too. In 2019, in EU28, the percentage of women elected to the national parliament was equal to 31.7%. Italy with a percentage of 35.8% is above the EU28 average.

Moreover, in the period 2008-2019, the percentage of women in national parliament rose of around eight percentage points. Especially, France, Italy, Portugal and Slovenia recorded the highest increase compared to 2008, (more than 10 percentage points).

SDG 5.5.2 Proportion of women in managerial positions

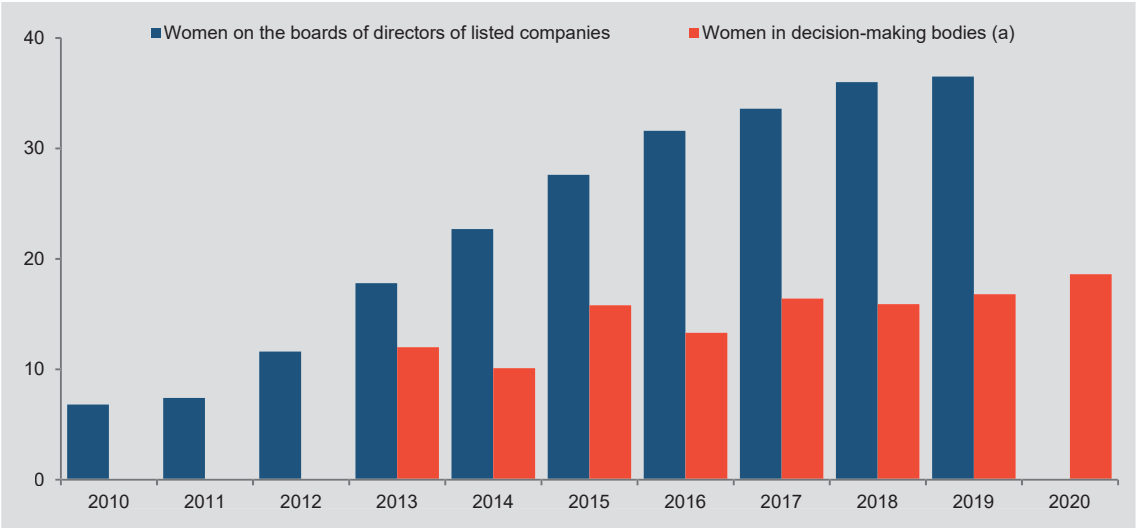
In 2019 in EU28, women have the 28.8% of positions in the boards of directors of large listed companies. Although this percentage still shows a persistent gender gap, it has more than doubled in the last ten years. In 2010 it was around 12%. France, Sweden and Italy are the countries with the higher proportion of women in the boards of directors, respectively 45.2%, 37.5% and 36.1%.

In 2019 in Italy the proportion of women reaches 36.5% for the total of listed companies, a large improvement from the beginning of the decade, since the growth from 2010 is around 30 percentage points (Figure 5.3).

This performance is largely due to the implementation of policy measures aimed to ensure gender equality in the management and the control bodies of listed companies and public companies[3].

In 2020, the percentage of women in Italian decision-making bodies (Privacy Authority, AgCom, Antitrust Authority, Constitutional Court, Superior Council of the Magistracy, Ambassadors, CONSOB) is equal only to 18.6%, with an increase of 1.8 percentage points compared to 2019. The growth over time, although steady, + 6.6 percentage points compared to 2013, is still far from the target of gender equality (Figure 5.3).

Figure 5.3 - Percentage of women on the boards of directors of listed companies and in decision-making bodies. Years 2010-2020 (percentage values) (a)



Source: Others - Consob
(a) Privacy Authority, Agcom, Competition and Market Authority, Constitutional Court, Superior Judicial Council, Ambassadors, Consob

3 With Law no. 120 of July 12, 2011 (the so-called Gulf - Moscow Law), significant changes were made to the Consolidated Law on Financial Intermediation - TUF (as per Legislative Decree no. 58 of 1998) in order to protect gender equality in access to the administrative and supervisory bodies of companies listed on regulated markets and public companies. A fixed quota initially reserved for gender equality of one third (33%) was introduced. To date, with the 2020 Budget Law, this share has been increased to two fifths (40%).

Goal 5 - Statistical measures by Target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
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[1]

Goal 6 focuses on the availability of water, a vital and essential resource for all forms of life. Making drinking water accessible to the entire population and usable for ecosystems is a prerequisite for the survival of life. The planet has sufficient drinking water, but in several areas of the world, many people - especially children - still die from diseases due to the use of water unfit for human consumption, inadequate health services and levels of hygiene. Climate change and increasing demand pressure reinforce the need to consider water availability as a major item on the political agenda, which is likely to grow in importance in the coming years. In particular, in Italy the criticality of water resources has assumed relevant importance in some very vulnerable areas of the country, mainly in the South. A more efficient water use is, therefore, indispensable in order to allow natural restoration of the resource. For this reason, groundwater and surface water reserves and related ecosystems must be safeguarded by limiting losses and waste. Water cycle, from the abstraction to wastewater treatment, must be optimized for each use (urban, industrial, agricultural, livestock and energy), with investments along the entire supply chain. Returned water to the environment needs to improve, in qualitative terms, by enhancing the capacity and number of wastewater treatment plants and adopting advanced treatment technologies. Water reuse, recycling and collection practices must be strengthened, together with education and awareness on the subject.

The statistical measures released by Istat for Goal 6 are sixteen and refer to eight UN-IAEG-SDGs indicators (Table 6.1).

1 This section was edited by Giovanna Tagliacozzo with contributions from Simona Ramberti and Antonino Laganà.

Table 6.1 - Statistical measures realised by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
6.1.1	Proportion of population using safely managed drinking water services				
	Water supplied per capita (Istat, 2015, litres per capita per day)	Context indicator	220	(a)	--
	Households that don't trust to drink tap water (Istat, 2019, %)	Context indicator	29.0		
	Households unsatisfied for the continuity of the water supply service (Istat, 2019, %)	Context indicator	8.6		
	Rationing of public water supply for part or all of the municipality (Istat, 2018, number of municipalities and number of rationing days per municipality)	Context indicator	12	(b)	
6.3.1	Proportion of domestic and industrial wastewater flow safely treated				
	Urban sewage treatment (Istat, 2015, %)	Partial	59.6	(a)	--
6.3.2	Proportion of bodies of water with good ambient water quality				
	Coastal bathing waters (Istat -processing on Ministry of Health data, 2018, %)	Partial	66.5	(c)	
	Quality of ecological and chemical status of surface waters (Ispra, 2010-2015)	Partial	(*)	--	--
	Quality of chemical and quantitative status of groundwater (Ispra, 2010-2015)	Partial	(*)	--	--
	Quality of ecological status and chemical status of transitional waters (Ispra, 2010-2015)	Partial	(*)	--	--
	Quality of ecological status and chemical status of coastal marine waters (Ispra, 2010-2015)	Partial	(*)	--	--
	Percentage of water bodies that have achieved the objective of ecological quality on the total water bodies of surface waters (rivers and lakes) (Ispra, 2010-2015,%)	Partial	41.7	--	--
6.4.1	Change in water-use efficiency over time				
	Urban water supply network efficiency (Istat, 2015, %)	Proxy	58.6	(a)	--
6.4.2	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources				
	Freshwater withdrawal for public water supply (Istat, 2018, Millions of m^3)	Partial	9,219.8	(a)	
6.5.2	Proportion of transboundary basin area with an operational arrangement for water cooperation				
	Proportion of transboundary basin area with an operational arrangement for water cooperation (Istat, Ministry of the Environment, Land and sea protection, 2017, %)	Identical	100	--	--
6.6.1	Change in the extent of water-related ecosystems over time				
	Wetlands of International Importance (Ispra, 2018, ha)	Identical	80,863	(c)	--
6.a.1	Amount of water-and sanitation-related official development assistance that is part of a government-coordinated spending plan				
	Water and sanitation related ODA that is part of a government coordinated spending plan (Ministry of Foreign Affairs and International Cooperation, 2018, Millions of euro)	Identical	18.33	(c)	

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2012
(b) Variation compared to 2014
(c) Variation compared to 2013
(*) Please refer to the data table on www.istat.it

In brief

Italy holds the European record in the freshwater withdrawal for public water supply in absolute terms, with values among the highest in per capita terms too.

In 2018, the total volume of water abstracted for public water supply in Italy amounted to 9.2 billion cubic metres (419 litres per inhabitant per day), marking, for the first time since 1999, a decrease (-2.7% on 2015)[2].

Almost all the water for urban use (99.9%) has been withdrawn from groundwater and surface sources, conversely sea and brackish water were a residual source.

In 2018, 237 litres per inhabitant have been daily supplied in the public water supply networks of the 109 provincial/metropolitan capitals, with a reduction of about three litres compared to 2016[3]. The efficiency of the networks showed a slight improvement: the share of water supplied to end users was 62.7% of the volume input in public water network, about two percentage points more than in 2016.

In 2018, rationing measures in public water supply have been adopted in 12 provincial/metropolitan capitals, almost all located in Southern and Islands area. The annual number of days with rationing measures is increasing.

In 2019, the number of households complaining about irregular water supply in their houses fell by about two percentage points (8.6%). The value was lower than in 2010 (10.8%). The share of households that declared not to trust to drink tap water remains high (29.0%). Territorial disparities are still wide.

Italy has concluded agreements with neighbouring countries for transboundary waters; the share of the cross-border basin area under an operational cooperation agreement, in terms of transboundary water resources, reached 100%.

Wetlands of international importance (Ramsar Areas[4]) play a relevant ecological role in regulating the water regime and like habitat for flora and fauna[5]. In 2018 in Italy there were 65 wetlands recognized[6] and included in the list of the Ramsar Convention, allocated in 15 regions, for a total of over 80 thousand hectares. In the period 2013-2018, wetlands increased by 3,626 hectares (+ 4.7%).

2 Istat, Censimento delle acque per uso civile (Years 1999, 2005, 2008, 2012, 2015 and 2018).
3 Istat, Rilevazione dati ambientali nelle città.
4 Established on the basis of the Ramsar Convention (Iran, 1971), an intergovernmental treaty for the conservation and rational use of wetlands and their resources.
5 Especially aquatic birds and migratory species not mentioned in Annex I of the Directive 79/409/EEC.
6 Some are currently awaiting the procedure for international recognition.

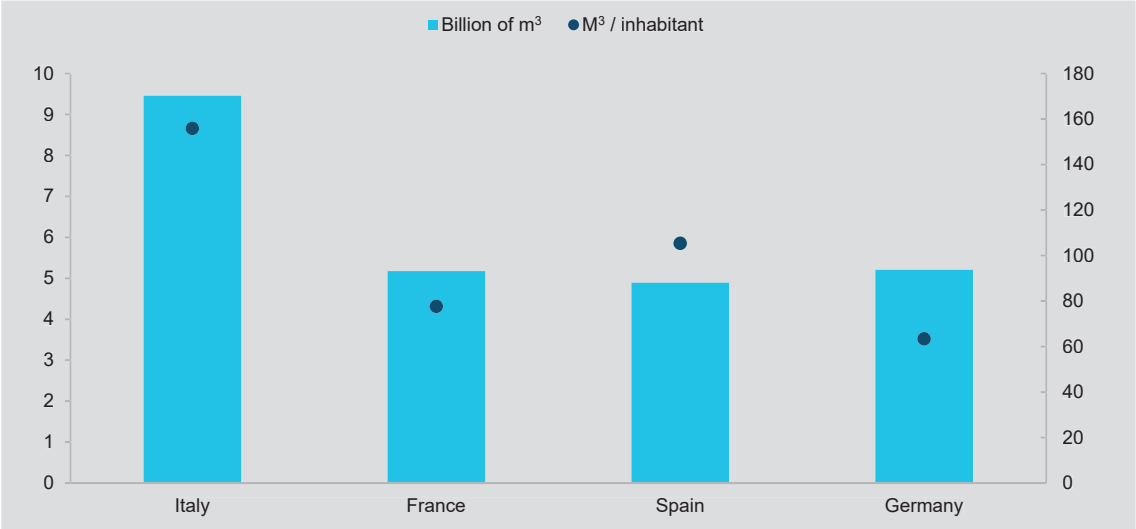
SDG 6.4.2 - Level of water stress: freshwater withdrawal as a proportion of available freshwater resources

In Italy, almost the entire population has access to water and hygienic services in their houses. However, in some areas of the country and in some periods of the year are occurring more frequently criticalities, with consequences in the regularity and quality of water supply.

For some of the main Italian rivers, from 2001 to 2019, there has been a significant reduction in the outflow into the sea compared to the 1971-2000 average: 15% for the Tiber river and over 11% for the Po. The seasonal and monthly analysis of the runoff showed an increase in drought and flood episodes, also due to changes in the intensity and frequency of extreme weather events[7].

Among the EU28 countries, Italy has recorded, for about twenty years, the highest freshwater withdrawal for public water supply, in absolute terms above to 9 billion cubic metres. The per capita value (superior to 150 cubic metres per inhabitant, calculated on resident inhabitants) is also among the highest in the EU28 (Figure 6.1).

Figure 6.1 - Water withdrawal for public water supply in some EU countries. Year 2016 (billion cubic metres, cubic metres per inhabitant)



Source: Eurostat

In 2018, water withdrawn for public water supply amounted to 9.2 billion cubic metres[8], corresponding to a daily abstraction of 25.0 million cubic metres of water and 419 litres per inhabitant.

84.8% of the volume abstracted came from groundwater sources (of which 48.9% from wells and 35.9% from springs), 15.1% from surface sources (of which 9.8% from artificial basins, 4.8% from rivers and 0.5% from natural lakes) and the remaining 0.1% from marine or brackish water.

7 World Water Day: Istat water statistics. Years 2018-2019. Date of issue 20 March 2020. https://www.istat.it/en/archivio/240310

8 On Italian territory.

The variability on the territory is quite evident and due to the different water requirements, to the water bodies' location, performance and the different water transport infrastructures (Figure 6.2).

In 2018, for the first time in the last twenty years, withdrawals for public water supply decreased (-2.7% compared to 2015), reflecting a reduction in the use of springs and reservoirs and an increase in abstractions from well.

Figure 6.2 - Water withdrawal for public water supply by river basin district. Year 2018 (volumes in billion cubic metres and per capita in litres per inhabitant per day)

Source: Istat, Censimento delle acque per uso civile

SDG 6.4.1 - Change in water-use efficiency over time

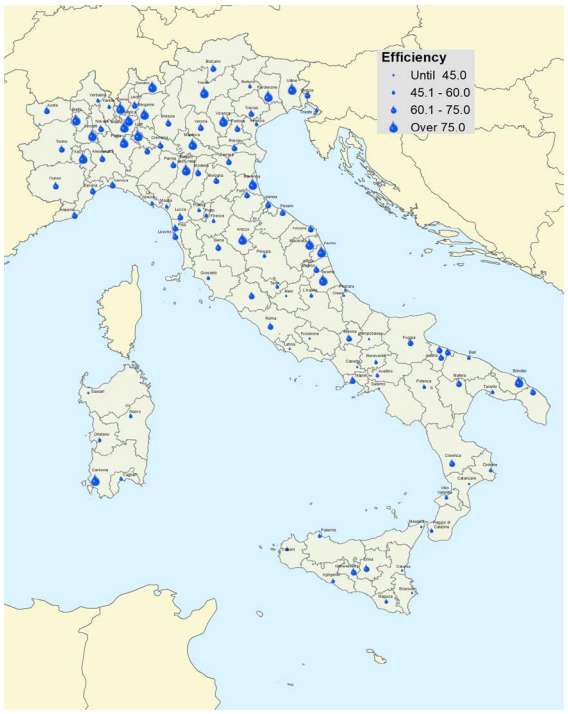
In 2018, in the public water supply networks of the provincial/metropolitan capitals, 2.5 billion cubic metres of water were input into the network and 1.6 billion cubic metres were supplied to final users for authorized uses[9]. The efficiency indicator of the supply network, obtained by comparing the water supplied to users to the water input into the network, slightly improved for the first time since 2012 (62.7%, 2 percentage points more than in 2016)[10].

However, the efficiency is still too low, indicating a high share of volumes of water losses that do not reach the end users, mainly depending on deterioration of the infrastructure, illegal connections and eventual measurement errors of the meters, at the base of frequent

9 The volume of water supplied for authorised uses also include public uses, such as fountains, street cleaning, water in schools and hospitals, watering of public green areas, etc.

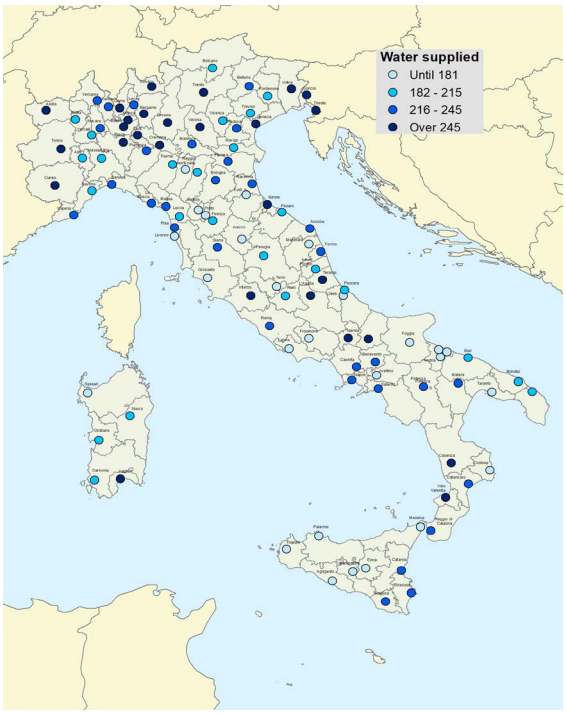
10 Changes with respect to the historical series can be caused by actual changes in the water supply, due to investments in network modernization and hidden leakage search campaigns, the worsening of historically compromised situations or emergency situations during the year, changes in the calculation systems of unmeasured volumes delivered to users and changes in the management structure that often lead to differences, even substantial, in the accounting system.

Figure 6.3a - Urban water supply network efficiency in provincial or metropolitan capitals. Year 2018 (%)



Source: Istat, Censimento delle acque per uso civile

Figure 6.3b - Water supplied per capita in provincial or metropolitan capitals. Year 2018 (litres per capita per day)



Source: Istat, Censimento delle acque per uso civile

malfunctioning, especially in certain areas of the territory (Figure 6.3a).

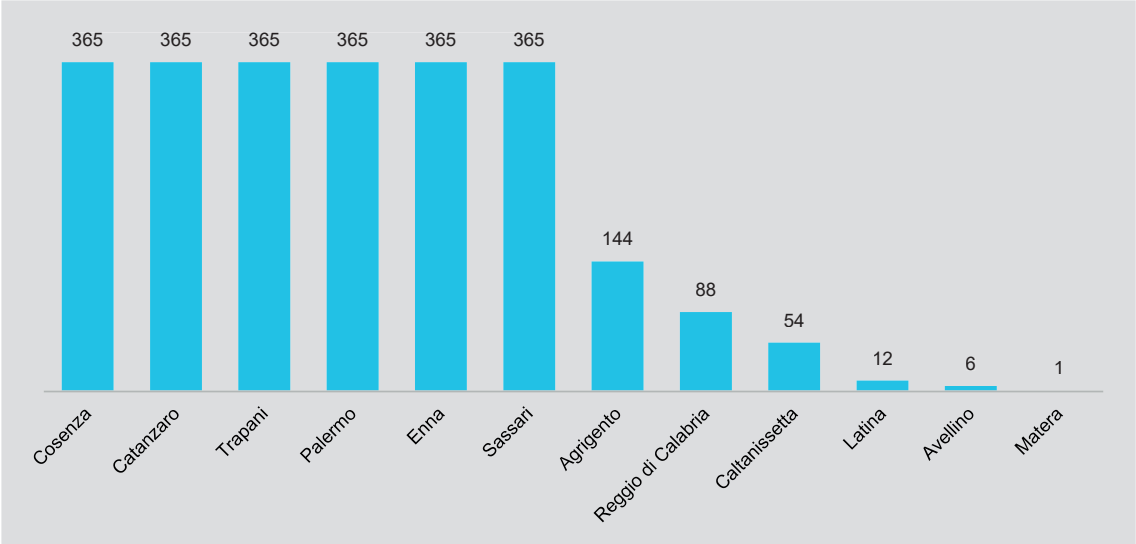
SDG 6.1.1 - Proportion of population using safely managed drinking water services

In 2018, the public water supply networks of the provincial/metropolitan capitals supplied 237 litres per inhabitant per day, both for invoiced and free of charge uses, about three litres less compared to 2016. The indicators showed, also in 2018, a high heterogeneity on the territory: the infrastructural aspects and socio-economic characteristics, often quite different between municipalities, inevitably affect water use in Italian cities (Figure 6.3b).

In some provincial/metropolitan capitals, water rationing measures were adopted by the suspension or reduction of the service, in order to cope with the obsolete conditions of water infrastructure, with the flow reduction of some sources and with issues related to water quality. In detail, in 2018, twelve municipalities adopted rationing measures. The number of municipalities with rationing measures has remained almost stable over the last five years, but the days of suspension or reduction have increased[11] (Figure 6.4).

11 The cases of rationing extended only to a part of the municipal territory were more frequent and occurred in 10 municipalities. Often it consists of reductions in water intake at night in order to recharge the storage tanks. The most critical situation was registered in the city of Palermo, where for a month the distribution took place with tankers in some neighbourhoods, due to the increase in turbidity of the water.

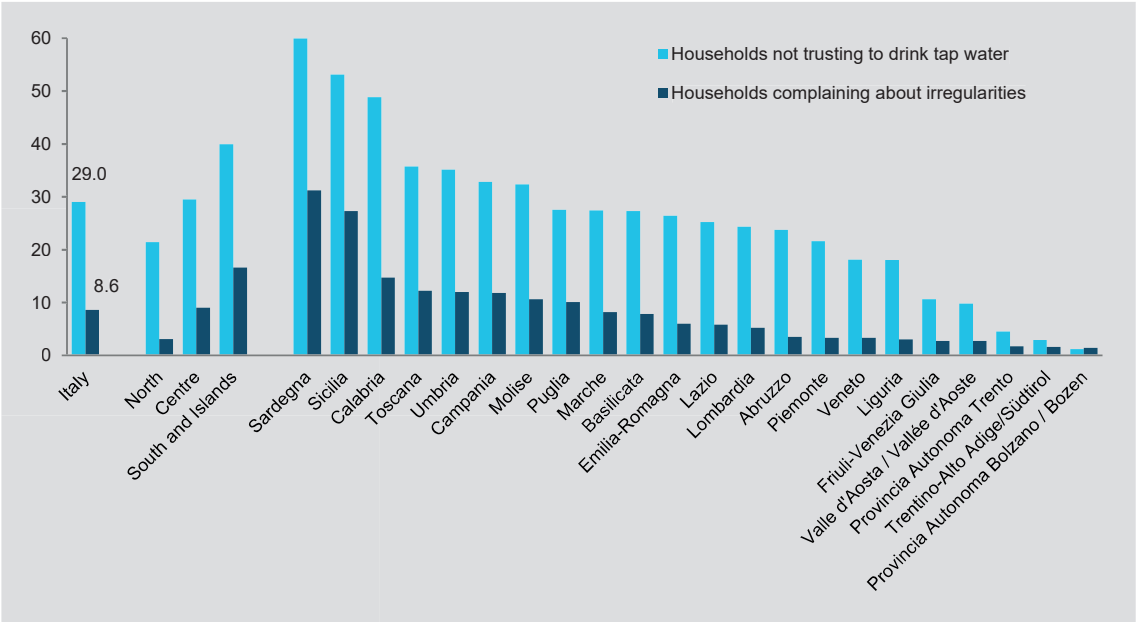
Figure 6.4 - Rationing measures in public water supply in provincial or metropolitan capitals. Year 2018 (number of days)



Source: Istat, Rilevazione dati ambientali nelle città

In 2019, Italian households did not report significant changes in the quality of the water supply service compared to the previous year. Households complaining about irregularities in the water supply in their houses amounted at 8.6%, a slight decrease compared to 2018, while those who did not trust to drink tap water were 29.0%, a share substantially stable compared to the previous year (Figure 6.5).

Figure 6.5 - Households complaining about irregularities in water supply in their houses and households not trusting to drink tap water by region. Year 2019 (%)



Source: Istat, Aspetti della vita Quotidiana

Goal 6 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy/ Partial	Context indicator
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	Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management.			

GOAL 7

ENSURE ACCESS
TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL[1]

Ensuring 'access to affordable, reliable, sustainable and modern energy for all' is very relevant to enable inclusion and equity in the use of energy resources and for the positive returns of a more efficient and rational use of such resources on both economic and social development and in terms of energy and environmental sustainability. The use of inefficient and unsafe technologies and 'unclean' fuels indeed affects the quantity and quality of energy consumption, incurring significant social, economic and environmental costs, in terms of both the continuing depletion of non-renewable energy resources, and health risks connected with emissions of harmful gases. From this point of view, there is a great disparity of opportunity globally, especially between urban and rural areas and between more and less developed countries, all to the advantage of the former. On the other hand, the increase in energy consumption from renewable sources and improvements in energy efficiency are very relevant targets for the most developed economies, which indeed are often among those most energy intensive.

The fight against climate change represents a global challenge that requires first, and rapidly, a transition to a low-carbon economy. It is a shared goal that such transition is just, in the name of solidarity and protection of human and workers' rights, as recommended by the United Nations Framework Convention on climate change (COP-24) and Silesian Declaration on Solidarity and just transition, and confirmed by the investments plan of the European Green Deal. The transition to a greener economy, improving social well-being and guaranteeing economic competitiveness and environmental protection, requires a redesign of the relationship between energy and economic activities. This involves the evolution from a kind of energy-intensive and non-sustainable production to a new model of economic development based on energy savings and diversification of energy sources, in order to protect natural resources and reduce environmental impacts.

The statistical measures released by Istat for Goal 7 are twelve and refer to four UN-IAEG-SDGs indicators (Table 7.1).

1 This section was edited by Paola Ungaro with contributions from Ilaria Arigoni, Andrea Cutillo and Clodia Delle Fratte.

Table 7.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
7.1.1	Proportion of population with access to electricity				
	Households very or fairly satisfied with the continuity of the service of electricity supply (Istat, 2019, %)	Proxy	93.5		
	Inability to keep home adequately warm (Istat, 2018, %)	Context indicator	14.1		
7.2.1	Renewable energy share in the total final energy consumption				
	Renewable energy share in the gross final energy consumption (GSE- Gestore dei Servizi Energetici, 2018, %)	Proxy	17.8		
	Renewable energy share (transport sector excluded) in the gross final energy consumption (GSE- Gestore dei Servizi Energetici, 2018, %)	Context indicator	16.7	(a)	
	Renewable energy share in thermal sector (in the gross final energy consumption) (GSE- Gestore dei Servizi Energetici, 2018, %)	Partial	19.2	(a)	
	Renewable energy - Electricity from renewable sources in the gross electricity consumption (Terna Spa, 2018, %)	Partial	34.3		
	Renewable energy share in transport sector (in the gross final energy consumption) (GSE- Gestore dei Servizi Energetici, 2018, %)	Partial	7.7	(a)	
7.3.1	Energy intensity measured in terms of primary energy and GDP				
	Energy intensity (Enea processing on Eurostat and Istat data, 2018, Tonnes of oil equivalent (Toe) per million euros)	Identical	93.0		
	Energy intensity of industry sector (Enea processing on Eurostat and Istat data, 2018, Tonnes of oil equivalent (Toe) per million euros)	Partial	73.0		
	Energy intensity of services sector (Enea processing on Eurostat and Istat data, 2018, Tonnes of oil equivalent (Toe) per million euros)	Partial	17.0		
	Final energy consumption in households per capita (Eurostat, 2018, Kilogram of oil equivalent (KGOE))	Context indicator	531.0		
7.b.1	Installed renewable energy generating capacity in developing countries (in Watts per capita)				
	Net installed renewable energy generating capacity (Istatprocessing on International Renewable Energy Agency data, 2019, Watt per capite)	Identical	916.4	(a)	

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2012

In brief

Over the last ten years, the renewable energy share in the final energy consumption has increased by 5 percentage points, although in the last year it slightly decreased to 17.8% (-0.5 percentage compared to previous year). Italy is among the few EU countries that have already reached the 2020 national target.

The contribution from renewables varies at a sectoral level, with a more relevant share for electricity sector than for thermic and transport sectors.

Electricity generation is a major driver for the entire energy from RES (Renewable Energy Sources) sector: electricity from renewable sources in the gross electricity consumption has considerably grown over the last decade and showed a significant increase even in 2018, reaching 34.3%.

In year 2018, the country recorded a fall of the percentage of consumption from renewable sources in the gross final energy consumption in thermal sector, while the share of renewables increased in the transport sector, which however remains still below the foreseen development trajectory.

The Italian energy intensity is recording a steady positive trend. The ratio between gross available energy and GDP decreased by 11% in the last ten years and by 2.1% in the last year, reaching 93 tonnes of oil equivalent per million euro. In 2018, Italy has reached the fifth position in the EU28 countries ranking. Differently from industry, the service sector shows an increasing trend of energy intensity.

The share of population not able to keep their home adequately warm keeps on decreasing in 2018 (14.1%). Nevertheless, the value is still higher than the Italian pre-crisis levels and, to a marked extent, the EU28 average. The population groups at risk of poverty, foreign citizens and residents in the southern regions have the largest difficulties.

SDG 7.2.1 - Renewable energy share in the gross final energy consumption

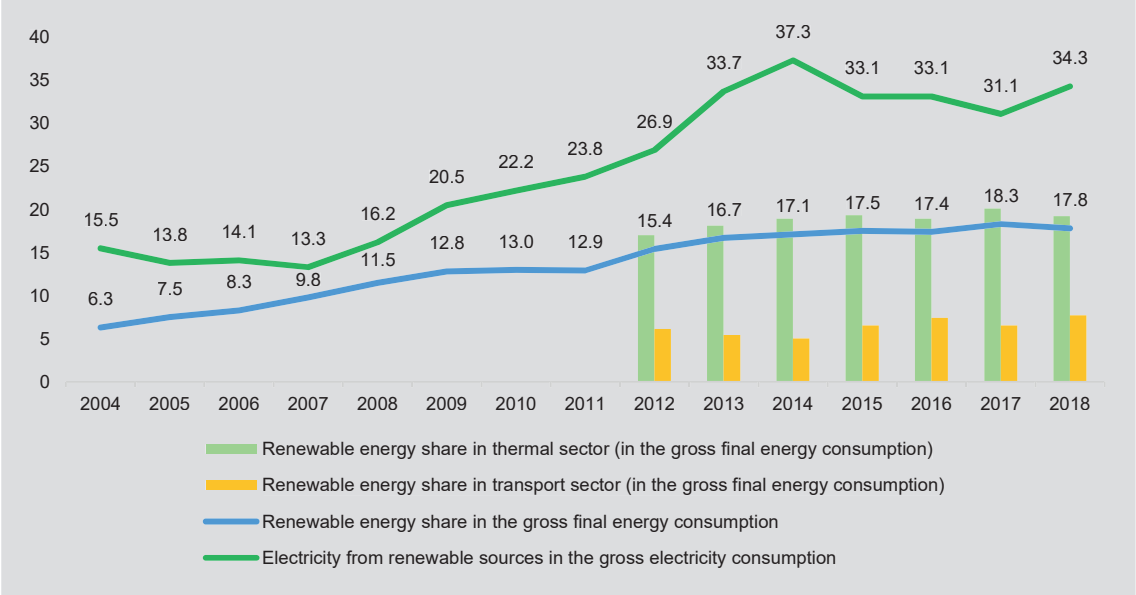
The promotion of renewable energy sources is a major priority for the European Union, as stressed by the setting of more and more challenging energy and climate targets for the Union and for the single Member States. In Italy, the share of energy from renewable sources (electrical, thermal and transport sectors) in gross final energy consumption is equal to 17.8% in 2018, in line with EU28 average level. In terms of overall weight of renewables on national energy system, Italy filled over time the gap with other EU countries: in 2018, our country is among the eleven Member States that have already reached the 2020 target set by the Climate-Energy Package[2].

The performance over time of the indicator has been partially affected by the contraction in gross final consumption due to the effects of the economic crisis and to the increase in energy intensity produced by efficiency. Nevertheless, thanks to the incentive policy implemented in recent years, which determined a massive increase particularly in renewable electricity generation, Italy tripled the overall share of RES in energy consumption since 2004 and increased by 5 percentage points compared to 2009 (Figure 7.1). The slowdown

2 The target of 17% assigned to Italy has been exceeded since 2014.

recorded in 2018 (-0.5 p.p.) is mainly due to the drop in photovoltaic production caused by worse irradiation conditions (-7.1% compared to 2017), even if the effect of the upturn of energy consumption in the last year should not be underestimated. In the last ten years, the percentage of RES in the gross final energy consumption has always been above the development trajectory defined by the National Action Plan for Renewable Energy 2010.

Figure 7.1 - Renewable energy share in final energy consumption. Years 2004-2018 (%)



Source: GSE - Gestore dei Servizi Energetici; Terna Spa

The contribution from renewables varies at a sectoral level, with a larger share for electricity sector than for thermal (heating and cooling) and transport (biofuels and the share of renewable electricity consumed in transports) sectors.

From 2009 to 2018, electricity sector experienced a high growth, increasing the share of renewables in the gross electricity consumption from 20.5% to 34.3%. After the 2015-2017 decline, the incidence of renewables was characterized by a significant increase in 2018 (+3.2 percentage points compared to previous year), supported by the positive performance of the hydric source, which continues to represent the most productive source.

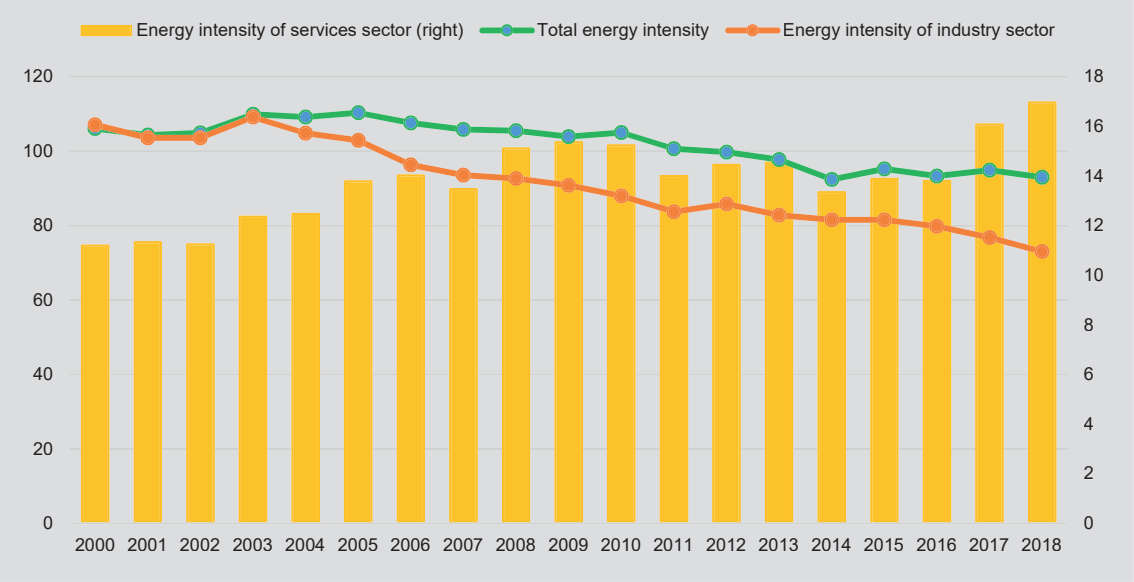
Between 2012 and 2018, the percentage of renewable energy in the gross final energy consumption grew from 17.0 to 19.2% in thermal sector and from 6.1 to 7.7% in transport sector. The decrease observed in the thermal sector in the last year is mainly due to a lower use of solid biomasses for domestic heating, determined by the higher temperatures of 2018 compared to 2017. Mainly due to the increase in biofuels, the transport sector recorded a significant growth also in the last year, approaching the 2020 target set by European legislation (10%). However, comparing with domestic policy targets, the transport sector is still below the development trajectory designed by the National Action Plan for Renewable Energy, while the electrical and the thermal sectors are above.

SDG 7.3.1 - Energy intensity measured in terms of primary energy and GDP

Among the targets for Goal 7, the 2030 Agenda includes the doubling of the global rate of improvement in energy efficiency. The issue of energy efficiency has become increasingly relevant with respect to the need of optimization of the relationship between energy demand and emissions level, in order to reduce climate impacts due to the use of energy products. Target 7.3 shows relevant elements of convergence with energy efficiency policies adopted by the European Union[3], which propose an energy governance model focused on energy efficiency ('putting energy efficiency first'), as a means of economic and employment promotion as well as sustainability. The 2030 Agenda target adopts energy intensity (the ratio between gross inland energy consumption and gross domestic product, or GIC/GDP) as an indicator of an economy's energy consumption and its overall energy efficiency.

In 2018, Italian energy intensity is equal to 93 tonnes of oil equivalent per million euro (Toe/M€), in decline of -2.1% compared to 2017 (95 Toe/M€) and of -11% compared to 2009 (104 Toe/M€; Figure 7.2). Even considering the combined effect of the dynamics of gross domestic product and gross inland consumption on the indicator, the decreasing trend of the ratio GIC/GDP is mostly due to the contribution of policies incentivizing energy efficiency. Between 2011 and 2018, the incentives led to savings of final energy of 10.4 Mtoes/year, equivalent to 67% of the national target for 2020 set by the National Action Plan for Energy Efficiency 2014 and confirmed in 2017[4]. Compared with Europe, Italy has had over time a low energy intensity: in 2018, given 100 as the average value for the EU28, the Italian energy intensity has a value of 83, placing in fifth place in the European ranking.

Figure 7.2 - Energy intensity, by sector. Years 2004-2018 (tonnes of oil equivalent (toe) per million euro, chain linked volumes)



Source: ENEA processing on Eurostat and Istat data

3 One of the '20-20-20 Targets' of the Climate and Energy Package set 20% increase in energy efficiency to decrease the primary energy demand (Directive 2012/27/EU).

4 Thanks to the incentives, the 2020 targets have been exceeded by the residential sector (which achieved the target by 137%), while the industrial (54%), transport (42%) and tertiary sector (26%) are still below (ENEA, "Rapporto Annuale sull'Efficienza Energetica 2019").

Trends in energy intensity can be affected, among the other effects, by the economic structure and the relative diffusion of energy-intensive productive activities in a country. The ODEX Index[5] - which measures progresses corrected by structural and short-term effects and by other not related to efficiency factors - confirms the positive trend of our country over time. Given 100 as the value of the entire Italian economy's ODEX index in 2000, in 2016 Italy reached a value of 85.1, largely due to the contribution of the industrial and residential sectors.

The energy intensity of industry sector shows a decreasing trend that accentuated in the last two years, characterized by a high contraction of the indicator, from 79.8 Toe per million euro in 2016 to 76.8 in 2017 (- 3.8%) and to 73.0 Toe/M€ in 2018 (-4.9%). In the last year, it reached the lowest amount since 2000. In the period 2000-2018 the industry energy intensity decreased by 20%. The reduction in energy intensity has followed on also during the recovery in industrial production started in 2015. On the contrary, the service sector shows a growing trend: in the last two years, energy intensity rose by 16.6% in 2017 and 5.5% in 2018 (+10.4% compared to 2009).

SDG 7.1.1 - Proportion of population with access to electricity

Indicator 7.1.1 enlisted in the SDGs framework has little relevance for Italy since our country has high standards for the accessibility to electricity services. For this reason, Istat adopted two proxy indicators more appropriate for the national framework.

The proxy indicator on the percentage of households very or fairly satisfied with the continuity of the service of electricity supply shows a stable trend over time, settling on 94.0% in 2019. The share of satisfied families is higher in the North (95.4%) and lower in the Centre (92.4%) and South (91.3%).

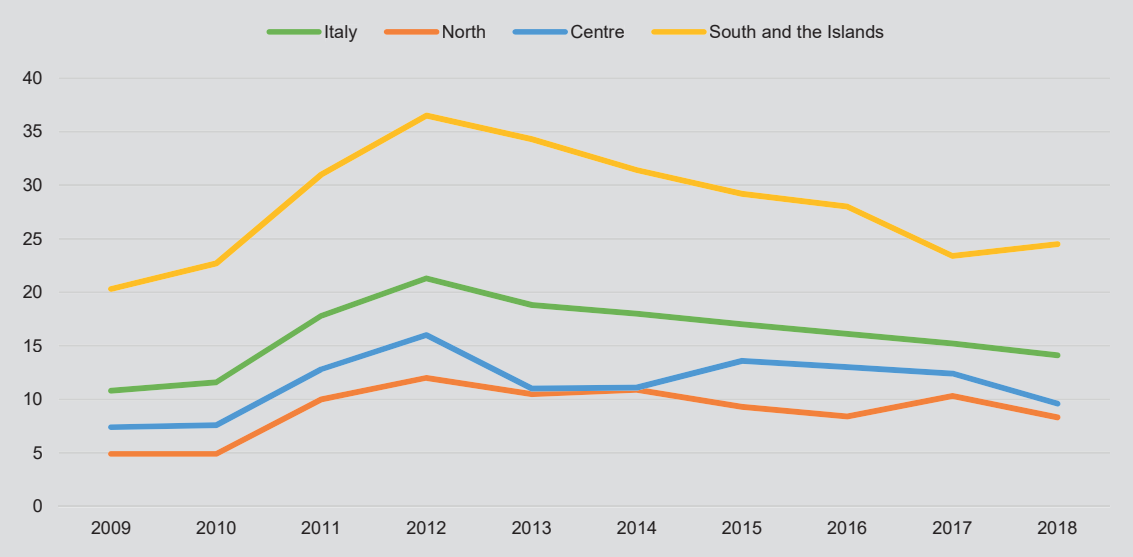
Italy, although not recording any particular difficulties in accessing electricity resources can present risks of energy poverty (EP), like many other developed countries, especially among the most disadvantaged social categories. The issue of EP has acquired growing importance in terms of policy, considering the direct effects on living standards, well-being and health of the population connected with inadequate or lack of access to basic energy services. While the methodological debate has not led yet to a single shared measure of EP for the monitoring of policies, the indicator 'Inability to keep home adequately warm', is here adopted as a proxy indicator[6].

In 2018, the share of population not able to keep their home adequately warm further decreased to 14.1%, strengthening the negative trend offered since 2012, when the indicator reached its maximum (21.3%). However, the value is still higher than the EU28 average (7.3%) and than the percentage before the deep increase recorded during the second phase of the economic crisis.

5 http://www.odyssee-mure.eu/.

6 The European Energy Poverty Observatory suggests the adoption of the indicator, alongside three others (https://www.energypoverty.eu/).

Figure 7.3 - Inability to keep home adequately warm. Years 2004-2018 (percentage)

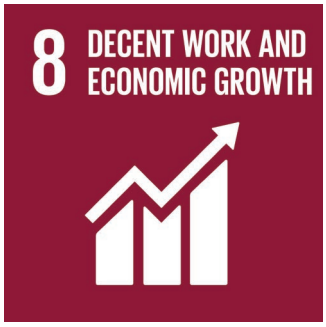


Source: Istat, EU-SILC

The difficulties are more relevant in the more vulnerable population groups. The share of population declaring problems in home heating is triple among the population at risk of poverty (30% against 10% compared to the rest of the population) and higher among foreign citizens (23% vs. 14% for Italians) and in the South and Islands area (27% in the Islands and 23 % in the South).

Goal 7 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
7.1	By 2030, ensure universal access to affordable, accessible, 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 landlocked 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[1]

Goal 8 focuses on the promotion of a new model of economic development that combines economic growth with environmental protection and ensures inclusion and equity in the distribution of economic resources and working conditions. The monitoring of economic growth refers to the performance of economies and their production capacity, to be supported and strengthened by stimulating diversification, technological progress and innovation. This means promoting a development model based on drivers that can increase the potential for growth, with a balanced leveraging of qualitative factors, not just quantitative ones, in order to generate inclusive and sustainable effects. The aspect of labour is addressed with reference to the goal of ensuring full employment and decent work for all, including the categories at risk of exclusion (young people, women, persons with disabilities, migrants) and fairness in compensation, improving safety conditions in the workplace and eliminating all forms of labour exploitation. Specific targets are directed at promoting efficiency in using natural resources, in order to decouple economic development from environmental degradation, and at sustainable tourism as a means for creating employment, environmental protection and appreciation for local culture. Strengthening of financial institutions should also be carried out as inclusive, aiming to broaden access to financial, banking and insurance services.

The statistical measures released by Istat for Goal 8 are twenty-eight and refer to twelve UN-IAEG-SDGs indicators (Table 8.1).

1 This section was edited by Carmen Federica Conte and Paola Ungaro with contributions from Federica Pintaldi, Gaetano Proto, Chiara Rossi, Vincenzo Spinelli.

Table 8.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
8.1.1	Annual growth rate of real GDP per capita				
Annual growth rate of real GDP per capita (Istat, 2019, %)		Identical	0,4	--	--
8.2.1	Annual growth rate of real GDP per employed person				
Annual growth rate of real GDP per capita (Istat, 2019, %)		Identical	-0,3	--	--
Annual growth rate of value added in volume per employed person (Istat, 2019, %)		National context	-0,4	--	--
Annual growth rate of real value added per worked hour (Istat, 2019, %)		National context	-0,1	--	--
8.3.1	Proportion of informal employment in total employment, by sector and sex				
Share of employed person not in regular occupation (Istat, 2017, %)		Proxy	13,1		
8.4.2	Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP				
Domestic material consumption per capita (Istat, 2018, ton per capita)		Identical	8,1		
Domestic material consumption per GDP (Istat, 2018, ton/thousand euro)		Identical	0,29		
Domestic material consumption (Istat, 2018, ton)		Identical	489.850		
8.5.1	Average hourly earnings of employees, by sex, age, occupation and persons with disabilities				
Hourly earnings (Istat, 2014, euro)		Identical	(*)	--	--
Gender pay gap (Eurostat, 2017, %)		National context	5,0		
8.5.2	Unemployment rate, by sex, age and person with disabilities				
Unemployment rate (Istat, 2019, %)		Identical	10,0		
Non-participation rate (Istat, 2019, %)		National context	18,9		
Employment rate (15-64) (Istat, 2019, %)		National context	59,0		
Employment rate (20-64) (Istat, 2019, %)		National context	63,5		
Percentage of employed in the total population (Istat, 2019, %)		National context	39,0		
Involuntary part time (Istat, 2019,%)		National context	12,2		
Share of employed persons with temporary jobs since at least 5 years (Istat, 2019, %)		National context	17,1		
8.6.1	Proportion of youth (aged 15-24 years) not in education, employment or training				
People not in education, employment, or training (NEET) (aged 15-24) (Istat, 2019, %)		Identical	18,1		
People not in education, employment, or training (NEET) (aged 15-29) (Istat, 2019, %)		National context	22,2		
8.8.1	Fatal and non-fatal occupational injuries per 100,000 workers, by sex and migrant status				
Incidence rate of fatal occupational injuries or injuries leading to permanent disability (INAIL, 2017, per 10,000 employed)		Proxy	11,4		
8.9.1	Tourism direct GDP as a proportion of total GDP and in growth rate				
Tourism direct GDP as a proportion of total GDP (Istat, 2015, %)		Proxy	6,0	--	--
Number of jobs in tourism industries as a proportion of total jobs (Istat, 2015, %)		National context	8,3	--	--
8.10.1	(a) Number of commercial bank branches per 100,000 adults and (b) number of automated teller machines (ATMs) per 100,000 adults				
Number of branches per 100,000 inhabitants (Istat processing on Bank of Italy data, 2018, 100,000 inhabitants)		Proxy	42,0	(a)	

Table 8.1 continued - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS		
				Compared to 10 years before		Compared to the previous vear
	Number of ATM per 100,000 inhabitants (Istat processing on Bank of Italy data, 2018, 100,000 inhabitants)	Proxy	66,8		(a)	
	Number of institutions per 100.000 inhabitants (Istat processing on Bank of Italy data, 2018, 100,000 inhabitants)	Proxy	0,8		(a)	
8.a.1	Aid for Trade commitments and disbursements					
	Aid for trade (Ministry of Foreign Affairs and International Cooperation, 2018, millions of euro)	Proxy	(*)	--		--
8.b.1	Existence of a developed and operationalized national strategy for youth employment, as a distinct strategy or as part of a national employment strategy					
	Total government spending in employment programmes and social protection from unemployment as a proportion of the national budgets (Istat, 2018, %)	Proxy	2,448		(b)	
	Total government spending in employment programmes and social protection from unemployment as a proportion of GDP (Istat, 2018, %)	Proxy	1,185		(b)	

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(*) Please refer to the data table on www.istat.it

(a) Variation compared to 2012

(b) Variation compared to 2010

In brief

After the recovery in 2015-2017, the last two years showed a slowdown in the growth of GDP per capita, more pronounced in 2019 (+ 0.4%). The value added per employed person decreased by 0.4% in the last year, highlighting a more sustained dynamic of the labour factor than the production factor. The agriculture sector recorded the most significant contraction of value added per employed (-1.9%), conversely, signs of dynamism (+ 1.0%) are observed in construction.

The evolution of the economic situation is still characterized by significant levels of non-regular employment. In 2017, in Italy, the percentage of employed persons not in regular occupation out of the total was 13.1%, a stable share compared to the previous year. Irregular work is more widespread in agriculture and in and arts, entertainment and recreation activities, as well as in the in the households as employer sector, in which almost 60 workers out of 100 are non-regular.

Italy is the EU28 country with the lowest domestic material consumption compared to the population. In 2018, the domestic material consumption per capita slightly returned to grow, reaching 8.1 tonnes per inhabitant.

In recent years, the continuation of the positive phase of the economic cycle has led to an improvement in employment and a reduction in unemployment rate.

In 2019, the employment rate in the EU28 in the 15-64 age group was equal to 69.2%. In Italy, the employment rate in the 15-64 age group is 59%, +0.5 percentage points compared to 2018, recording still a wide gap between genders (over 17 percentage points).

In 2019, the unemployment rate in EU28 was 6.3% (-0.5 percentage points compared to 2018). The reduction is generalised in all the EU28 countries, although with different intensities. In Italy, the unemployment rate remains significantly higher than the European average (10%, 3.7 percentage points above the average), while the improvements in the last year (-0.6 percentage points) were only slightly higher than the average of the EU28 countries. The fall in the Italian unemployment rate is accompanied by signs of improvement also for the other context indicators, which, however, do not show a decisive reduction in the gap with the average of the European countries.

In 2019 the Italian non-participation rate, including also people who are not actively searching for a job but would be willing to work, dropped (-0.8 percentage points compared to the previous year).

The percentage of employees who declared to be in part time work because they have not found a full-time job (involuntary part time position) out of total employment is a useful indicator to measure the degree of underutilization of the labour force. In 2019 in Italy, 12.2% of employed people were in involuntary part time positions, marking a marginal increase compared to the previous year (+0.3 percentage points compared to 2018).

In 2019, the percentage of employees from at least 5 years in temporary jobs showed a slight improvement compared to 2018 (-0.6 percentage points).

In 2019 in Europe, the percentage of NEET “Not in Education, Employment or Training” in 15-29 years age group was higher than 12%. NEETs in Italy in 2019 were equal to 22.2% far higher than EU28 average although lower respect the previous year, -1.2 percentage points.

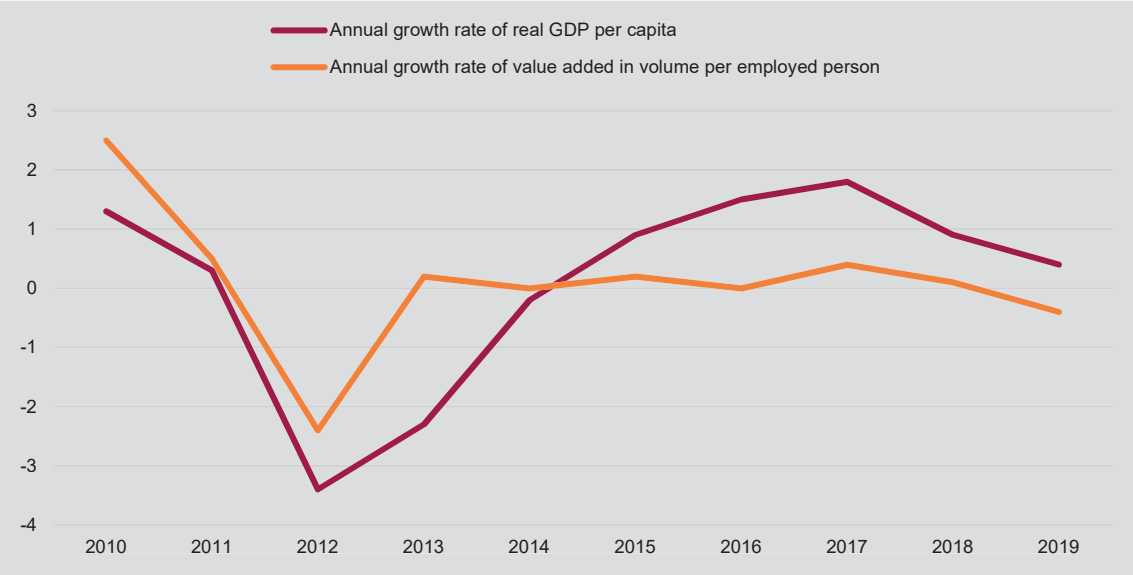
The rate of fatal occupational injuries or injuries leading to permanent disability continues to decline, falling to 11.4 per 10,000 employed in 2017 (-4.0% compared to the previous year). Nonetheless, there are still high territorial and regional disparities.

In 2018, the Italian government spending in employment programmes and social protection from unemployment was equal to 1.19% of GDP and 2.45% of national budgets. However, the last year increase has not compensated the contraction of 2017 and both indicators are lower than 2013.

SDG 8.1.1 - Annual growth rate of real GDP per capita
SDG 8.2.1 - Annual growth rate of real GDP per employed person

Within the SDGs framework, the monitoring of the annual real GDP trend responds to several purposes. In accordance with the goal of sustaining economic growth, the annual growth rate of real GDP per resident measures the potential ability of an economy to fulfil the needs of the population, ensuring resources for socio-economic development and primary incomes. However, it is only a partial indicator of sustainable development, as it does not include the social and environmental costs of production, purchasing power of households and the distribution of disposable income. The annual growth rate of value added in volume per employed person[2] is an indicator of labour productivity, which contributes to measure efficiency in the use of factors.

Figure 8.1 - Annual growth rate of real GDP per capita and annual growth rate of value added in volume per employed person. Years 1996-2018 (chain linked values)



Source: Istat, Produzione e valore aggiunto delle attività manifatturiere e del settore energetico; Input di lavoro per settore di attività economica e per tipologia di occupazione (regolare e non regolare)

The recovery in production rates that began in 2015 showed an acceleration in 2016-2017 (respectively, + 1.5% and + 1.8%) that slowed down in 2019 with a variation equal to + 0.4% (Figure 8.1). The annual growth rate of value added per employed person followed a similar trend, but at a slower pace, partially linked to a more sustained growth in occupation. In the last year, there has been a return to negative rates (-0.4%). In 2019, the contraction of value added per employee affected most of the major production sectors (-1.9%, -0.8% and -0.3%, respectively in agriculture in industry in the strict sense and in services), on the other side constructions recorded a positive trend (+ 1.0%).

2 The value added in volume is the output measure usually used by Istat to estimate labour productivity, capital productivity and total factors productivity (https://www.istat.it/it/files/2019/11/Report_misure_produttivit%C3%A0_2018.pdf).

SDG 8.3.1 - Proportion of informal employment in total employment, by sector and sex

In 2017 in Italy, employed persons not in regular occupation[3] were 13.1% out of the total, with an increase respect to ten years later (in 2008 they were 12.2%) and stable respect to the previous year. Irregular employment, more widespread among employees than self-employed, is a relevant share of the underground economy, estimated at 5.0% of GDP[4]. The irregularity rate varies considerably by industry and is higher in agriculture and in arts, entertainment and recreation activities (around 24%), peaking in the activities of households as employers (58.3%).

SDG 8.5.2 - Unemployment rate, by sex, age and persons with disabilities

Until 2019, the still positive evolution of the economic cycle has led to a generalized improvement in labour market conditions at European and national level, with an increase in employment and a reduction in the unemployment rate.

In 2019, the Italian employment rate (15-64 years) went beyond, for the first time, pre-crisis levels. Although growing, there is still a considerable distance (more than 10 percentage points) between the Italian employment rate (59%) and the EU28 average (69.2%).

In Italy, the employment gap between men and women still remains wide. The male employment rate (15-64 years) is 68% (67.6% in 2018, +0.5 percentage points compared to 2010), the female employment rate is 50.1% (49.5% in 2018, + 4 p. p. compared to 2010).

The improvements in employment were reflected in a reduction in the unemployment rate, which measures the level of underutilization of a country's workforce. High levels of unemployment are a major obstacle to the well-being of population.

In Italy in 2019, the unemployment rate of 10% recorded a further reduction compared to the previous year (-0.6 percentage points compared to 2018 and -1.2 compared to 2017). The gap with the EU28 average, in 2019, is 3.7 percentage points.

Beside the unemployment rate, the non-participation rate provides a more articulated understanding of labour market. The non-participation rate includes persons who are available to work but do not seek a job from 4 weeks[5].

In 2019, the Italian non-participation rate was 18.9%, 0.8 percentage points lower than the previous year. The non-participation rate reflects the same differentiation by gender, age and territory of the unemployment rate.

In EU28 involuntary part time workers on the total part time is 22.4%. Greece and Italy are the countries with the highest percentage of involuntary part time work rate (65.4% and 64.7% respectively).

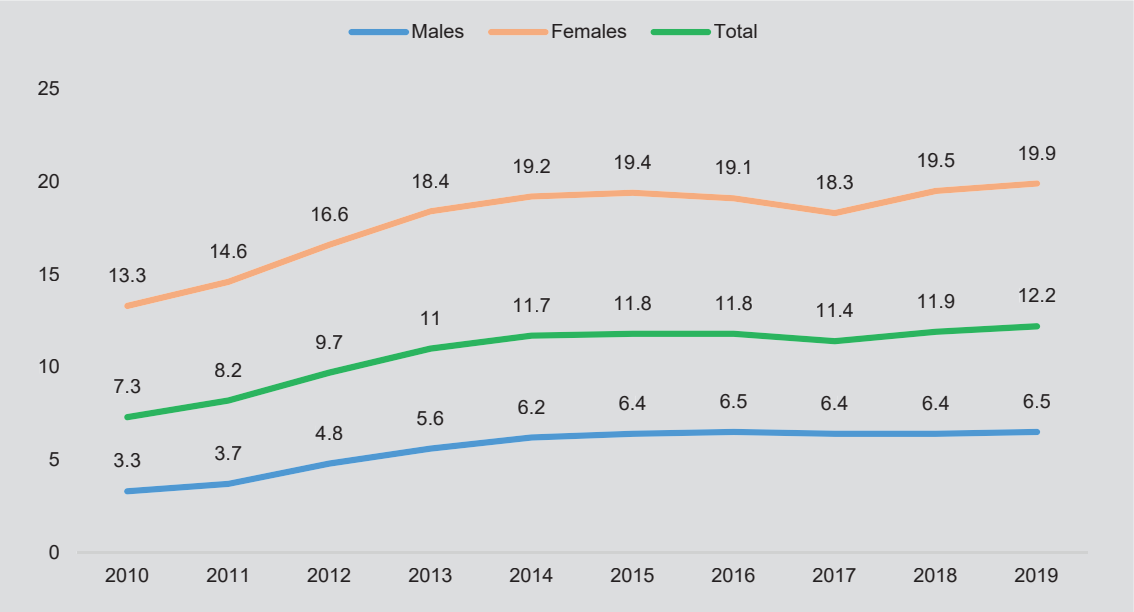
3 People employed who do not comply with work, fiscal and pension laws on total people employed.

4 See Istat, "Non observed economy in national accounts. Years 2014-2017" (https://www.istat.it/en/archivio/234851).

5 Percentage of unemployed people and the potential labour force (those who have not looked for a job in the past 4 weeks but willing to work), on the total labour force (employed and unemployed) plus the potential labour force, referred to population aged 15-74.

In 2019 in Italy the involuntary part time work rate, measured by the percentage of employed people declaring to work on part time basis because of a full-time position was not available on the total employment, is substantially stable (12.2%, +0.3 percentage points compared to 2018). Females record a higher involuntary part time rate than males, 19.9% vs. 6.5% (Figure 8.2).

Figure 8.2 - Involuntary part time employees (15-74 years) out of total part time employees (15-74 years), by gender. Years 2010-2019 (percentage values)



Source: Istat, Rilevazione sulle Forze di Lavoro

In 2019 the indicator that measures the percentage of temporary employees and fixed term contract workers who have been working from at least 5 years in that position out of the total temporary employees and fixed term contract workers, showed a moderate improvement falling of 0.6 percentage points respect to 2018.

Women and migrants are more affected by fixed term jobs, respectively 17.3% and 18.1%, than men and Italians, both 16.9%. Moreover fixed term positions are widespread in the over-60s age group of workers, 45.2% in the 60-64 age group and 54.8% in the over-65 age group.

SDG 8.6.1 - Proportion of youth (aged 15-24) not in education, employment or training

In 2019, Italy has the highest share of NEETs (22.2%; 23.4% in 2018) among EU28 countries (12.5% of NEETs as average). In detail, in 2019 NEETs were the 30% in the 25-29 age group and around 25% in the 20-24 age group.

The share of NEETs is higher among immigrants than Italians (30% vs. 21.2%).

SDG 8.8.1 - Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status

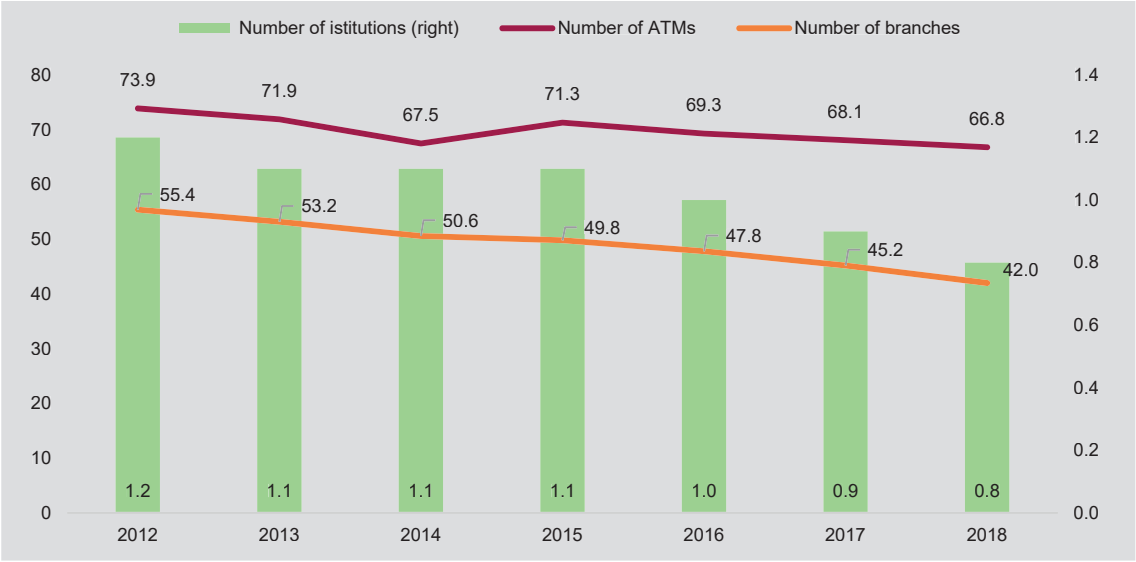
The 8.8.1 target is devoted to the promotion of safe workplace and sets up, as monitoring indicator, the rate of fatal occupational injuries or injuries leading to permanent disability per 10,000 employed persons.

In Italy, the number of fatal injuries or injuries leading to permanent disability per 10,000 employed shows a decreasing trend since 2010, declining from 15.4 to 11.4 in 2017 (-26% compared to 2010 and -4.0% in the last year). The gender differential tends to decrease slightly over time, however still in 2017 the value recorded by males was more than double compared to the females (15.2 vs. 6.3). The gap is also due to the unsafe working conditions in sectors with a prevalent male component, such as Constructions or Agriculture. The incidence of fatal or leading to permanent disability injuries is directly related with the age class, from 6.3 among 15-34 year old workers to 29.1 among over 64 year old.

SDG 8.10.1 - Number of commercial bank branches per 100,000 adults and (b) number of automated teller machines (ATMs) per 100,000 adults

The spread of formal financial services in the territory is essential for the financial inclusion: banks are key institutions to grant the access to the population to essential services such as insurance, payments, credit and remittances. The indicators relating to the availability, with respect to potential users, of branches and other access points are therefore relevant in view of monitoring the target of supporting financial institutions.

Figure 8.3 - Number of istitutions, branches and ATMs. Years 2012-2018 (per 100,000 inhabitans)



Source: Istat processing on Bank of Italy data

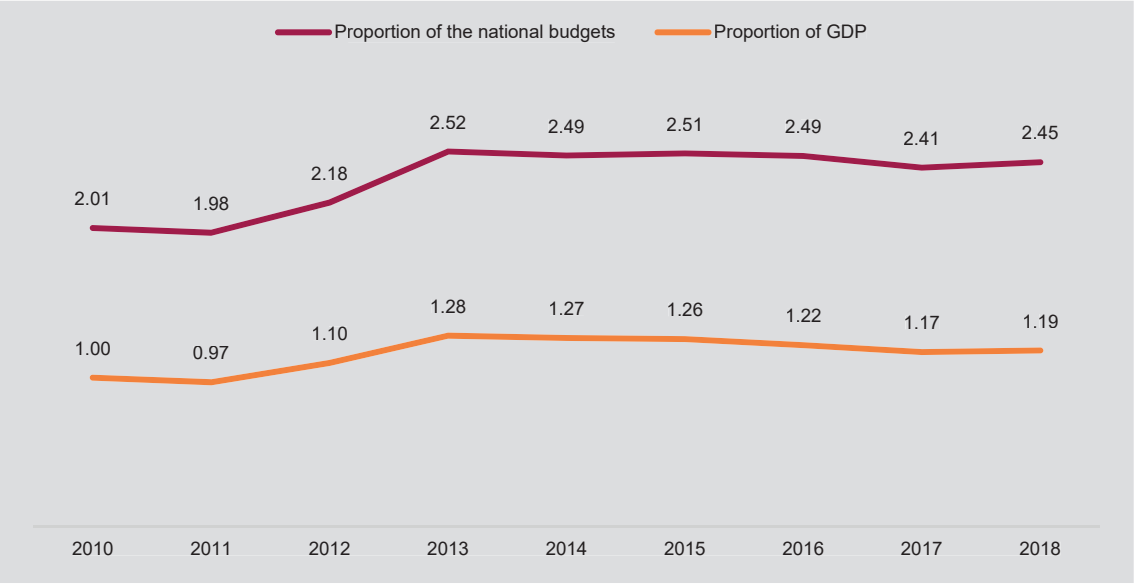
In 2018 operated in Italy 505 banks, 25,409 operational branches and 40,396 Automated Teller Machines (ATMs). In recent years, banking network has suffered a sharp and sudden contraction (Figure 8.3), partly due to the effects of the global financial crisis on

the national banking system[6], partly due to the increasing success of online services like home banking. 2018 confirmed previous years' trend: the bank concentration fell to 0.8 per 100,000 inhabitants, with a reduction of more than 10% compared to 2017. The share of bank branches per 100,000 inhabitants fell from 45 to 42 (-7.1%); the ATMs per 100,000 inhabitants fell from 68 to 67 (-1.9%).

SDG 8.b.1 - Existence of a developed and operationalized national strategy for youth employment, as a distinct strategy or as part of a national employment strategy

In 2018, in Italy, the government spending in employment programmes and social protection from unemployment was equal to 1.19% of GDP and 2.45% of public budget (Figure 8.4). In 2010-2018, the incidence of government spending in employment programmes and social protection on total public expenditure increased by 0.4 percentage points. The increase has been more pronounced in 2012 and 2013, in contemporary with the deeper worsening of the labour market for the recession, followed by years of stability. In 2017, the share of government spending in employment programmes and social protection from unemployment fell down, with a partial recover in the last year.

Figure 8.4 - Total government spending in employment programmes and social protection from unemployment as a proportion of the national budgets and of GDP. Year 2018 (percentage values)



Source: Istat, Spese della pubblica amministrazione per funzione

6 Especially the increase of non-performing loans, and the merger and incorporation of small banks out of Basel's parameters in large companies.

Goal 8 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / partial	Context indicators
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[1]

Goal 9 focuses on infrastructure, innovation and industrialisation, the essential drivers of sustainable development. It is a cross-sectional goal of the 2030 Agenda and preparatory to reaching other goals. Strengthening and modernising infrastructure is necessary to support over time the services – such as health, education, energy and water supplies, safety and justice, transportation, waste management, etc. - that encourage economic competitiveness and social well-being. The development of 'quality, reliable, sustainable and resilient' infrastructure must ensure equal access opportunity to all potential users. The promotion of industrialisation, more generally, of productive activity - primary sources of employment and income and support for living standards - must be associated with inclusion and sustainability targets. In particular, inclusive and sustainable industrialisation is encouraged by investments in modernising infrastructure, as well as by technological, innovative and research capabilities of the production system. Target 9.5 is specifically dedicated to strengthening Research and Development (R&D), as scientific and technological progress is an important factor in economic and productivity growth, social development and environmental protection. Targets promoting research, innovation, infrastructure and technology, especially ICT (Information and Communications Technology), are addressed to developing countries, via economic and technological support from the more developed countries.

Statistical measures released by Istat for Goal 9 are twenty-five and refer to ten UN-IAEG-SDGs indicators (Table 9.1).

1 This section was edited by Leopoldo Nascia and Paola Ungaro with contributions from Gaetano Proto, Chiara Rossi, Giampiero Siesto and Valeria Mastrostefano.

Table 9.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS		
				Compared to 10 years before		Compared to the previous year
9.1.2	Passenger and freight volumes, by mode of transport					
	Passenger volumes, by mode of transport (Istat, 2018, thousands of passengers)	Proxy	(*)	--		--
	Freight volumes, by mode of transport (Istat, 2018, thousands of tonnes)	Proxy	(*)	--		--
	Kilometers of railways per 10,000 resident (MIT - RFI, 2018, per 10,000 resident)	National context	3.3		(a)	--
	Kilometers of railways per 10,000 hectare (MIT - RFI, 2018, per 10,000 hectare)	National context	6.7		(a)	--
	Double and multiple track railway on total railway (MIT - RFI, 2018, %)	National context	40.4		(a)	--
	High speed railway on total railway (MIT - RFI, 2018, %)	National context	3.6		(a)	--
	Electrical railway on total railway (MIT - RFI, 2018, %)	National context	67.0		(a)	--
9.2.1	Manufacturing value added as a proportion of GDP and per capita					
	Manufacturing value added per capita (Istat, 2019, euro per capita)	Identical	4,295.2			
	Manufacturing value added as a proportion of total value added (Istat, 2019, %)	Proxy	16.6	--		--
9.2.2	Manufacturing employment as a proportion of total employment					
	Manufacturing employment as a proportion of total employment (Istat, 2019, %)	Identical	15.5	--		--
9.3.1	Proportion of small-scale industries in total industry value added					
	Share of manufacturing value added of small-scale manufacturing enterprises on total manufacturing value added (Istat, 2017, %)	Proxy	42.1	--		
9.3.2	Proportion of small-scale industries with a loan or line of credit					
	Percentage of small scale enterprises with a least one line of credit (Istat, 2018, %)	Proxy	51.6	--		--
9.4.1	CO_2 emission per unit of value added					
	CO_2 emission per unit of value added (Istat, 2018, tonn/mil euro)	Identical	164.5			
9.5.1	Research and development expenditure as a proportion of GDP					
	R&D intensity (Istat, 2018, %)	Identical	1.39			
	Product and/or process innovative enterprises (per 100 enterprises) (Istat, 2014/2016, %)	National context	38.1		(b)	
	Investment in ICT machinery on total investment (Istat, 2019, %)	National context	4.2			
	Intellectual property rights investment on total investment (Istat, 2019, %)	National context	17.3			
	Investment in R&D on total investment (Istat, 2019, %)	National context	8.1			
	Software investment on total investment(Istat, 2019, %)	National context	8.6			

Table 9.1 continued - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to ten years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS		
				Compared to 10 years before		Compared to the previous year
9.5.2	Researchers (in full-time equivalent) per million inhabitants					
Researchers (in full time equivalent) (Istat, 2017, per 10,000 inhabitants)		Identical	23.1		(a)	
Impact of knowledge workers on employment (Istat, 2019, %)		National context	22.2			
9.b.1	Proportion of medium and high-tech industry value added in total value added					
Proportion of medium and high-tech industry value added in total value added (Istat, 2017, %)		Identical	32.4		(c)	
9.c.1	Proportion of population covered by a mobile network, by technology					
Households with fixed and/or mobile broadband connection (Istat, 2019, %)		Proxy	74.7			
Enterprises with at least 10 persons employed with connection to the Internet via fixed and/or mobile broadband (Istat, 2019,%)		National context	94.5			
Enterprises with at least 10 persons employed with web site or a homepage (Istat, 2019, %)		National context	72.1			

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2010
(b) Variation compared to 2008
(c) Variation compared to 2012
(*) Please refer to the data table on www.istat.it

In brief

In 2017 R&D intensity reached 1.72% on world GDP, increasing of 0.12 percentage points respect to 2008. In the same year in the world researchers per 10,000 inhabitants reached 11.98, increasing of 22% respect to 2008.

The average R&D intensity of the European Union on GDP grew from 1.93 in 2009 to 2.12 in 2018, far below to the EU 2020 target. In the same period, researchers increased from 31 to 40.7 per 10,000 inhabitants.

In Italy, R&D intensity on GDP is significantly lower compared to the major EU28 countries. However, there are some clear improvements: R&D intensity on GDP increased from 1.22% in 2009 to 1.39% in 2018. In the same years, researchers grew from 17.3 to 23.1 unit per 10,000 inhabitants.

Since 2008, there has been a progressive change in the composition of fixed capital investments in Italy, with an increase of the share of investments in ICT equipment and intellectual property rights. However, the value of total investments is still lower than the 2007 level.

Railway network indicators show a polarization in favour of Northern and Central regions compared to the Southern regions, which have a railway network with safety indicators, double or multiple track networks, environmental sustainability indicators, electrified networks and modernity indicators, high-speed networks, less performing than the rest of the country.

The increase in the value added of the manufacturing sector per inhabitant recovered from 2015, in the last year showed a slight contraction. The manufacturing employment as a proportion of total employment has remained substantially stationary in the last five years, reaching in 2019 16 employed out of 100 in the total economy.

The decreasing trend in CO_2 emissions on the value added recorded in the last decade is confirmed in 2018, with a contraction of 2.4%.

The proportion of Medium and High-Tech industry (MHT) value added in total value added remains substantially stable at 32.4% in 2017.

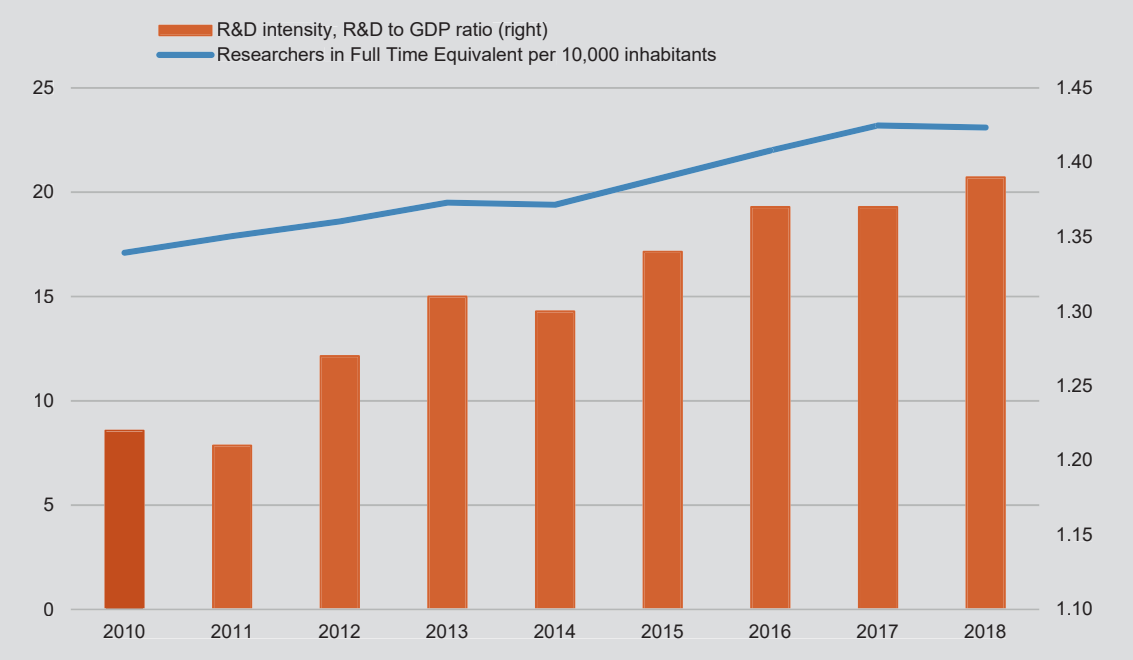
SDG 9.5.1 - Research and development expenditure as a proportion of GDP
SDG 9.5.2 - Researchers (in full-time equivalent) per million inhabitants

The SDGs indicators adopted for monitoring target 9.5 – addressed to the promotion of scientific research, technological capabilities and innovation – refer to the inputs of R&D sector, in terms of financial resources (R&D intensity, calculated as the percentage ratio of spending on research and development to GDP) and human resources (number of researchers per inhabitant).

In 2009-2018, the evolution of the relationship between R&D and GDP in European countries despite an overall improvement is stressed by a large heterogeneity of trends between countries. Italy is recording significantly lower values respect to the major European countries. In the European Union, full-time equivalent researchers in public institutions, businesses and non-profit institutions recorded a widespread increase reaching 40.7 researchers per 10,000 inhabitants in 2018 from 31 in 2009. Nonetheless, there is still a wide gap between virtuous countries (Nordic countries, Austria, The Netherlands and Germany) and countries with lower intensity of researchers including Italy.

In Italy, the share of investments in R&D on GDP grew from 1.22% in 2009 to 1.39% in 2018 (Figure 9.1). In the same period intensity of human resources rose from 17.3 to 23.1 researchers per 10,000 inhabitants. Nonetheless, the Italian situation of human resources in R&D has some critical feature. The structural weakness of the R&D system triggered a brain drain of researchers with a further impoverishment of the human capital available for Italy.

Figure 9.1 - R&D intensity (R&D to GDP ratio) and Researchers (FTE) per 10,000 inhabitants in Italy. Years 2010-2018



Source: Istat, Rilevazione statistica sulla Ricerca e sviluppo

The European Innovation Scoreboard, a ranking of the European Union to compare, through a large set of indicators, the innovation and R&D activities of the Member Countries, has for years placed Italy in the group of 'moderate innovators' with the countries Mediterranean

and Eastern European countries. Italy's inclusion into the group of moderate innovators comes from some limiting factors such as the scarce availability of resources for research and innovation in the public sector and the Italian production specialization, with the prevalence of low and medium technology industries and small and medium firms.

The largest share of R&D investment is performed by the business sector. In 2017, firms spent € 15.2 billion in R&D, universities € 5.6 billion and public and private institutions respectively € 2.9 and € 0.4 billion. R&D funding, in the period 2008-2017, recorded a reduction of the share of public institutions (from 42% to 32.3%), an increase of funding of firms (from 45.9% to 53.7%) and funding from abroad (from 7.9% to 11.7%).

Gross fixed capital formation, also known as investment[2], is a key variable to ensure the increase of productivity and economic growth.

Investments in the European Union has returned to the values prior to the 2008 crisis. Conversely, investments in Italy in 2018 did not fully recover yet the recession fall. In Italy, investments fell from 388 billion euro in 2007 to just 315 billion in 2019, despite the country recorded steady improvements since 2015.

The slow recovery of Italian investments includes an increasing share of the ICT equipment and of intellectual property rights that increased from 3% and 11% in 2007 to 4.2% and 17.3% respectively in 2019.

In Italy, in 2018, the sectors with a larger propensity to invest in ICT equipment are constructions (6% of total investments) and services (5.1%). The manufacturing industry is characterized by the high share of investments in intellectual property, 26.3%.

SDG 9.1.2 - Passenger and freight volumes, by mode of transport

The railway network in Italy is a key infrastructure for the transport of people and goods, to reduce the environmental impact of mobility, especially in terms of emissions, and for the integration of logistics in the international value chain. The availability of a modern, safe and sustainable railway network for the environment is functional to Goal 9 objectives.

In Italy, the density of the railway network did not change significantly between 2010 and 2018. Conversely, the main characteristics of the railway network showed some improvements. The percentage of electrified networks, relevant for environmental sustainability, rose from 64.9% in 2010 to 67% in 2018. In the same period, network security, measured by the percentage of double or multiple track network, increased from 38.8% to 40.4%. The modernization of the railway network, expressed by the spread of high-speed networks recorded some moderate improvement, from 3.6% to 3.8%.

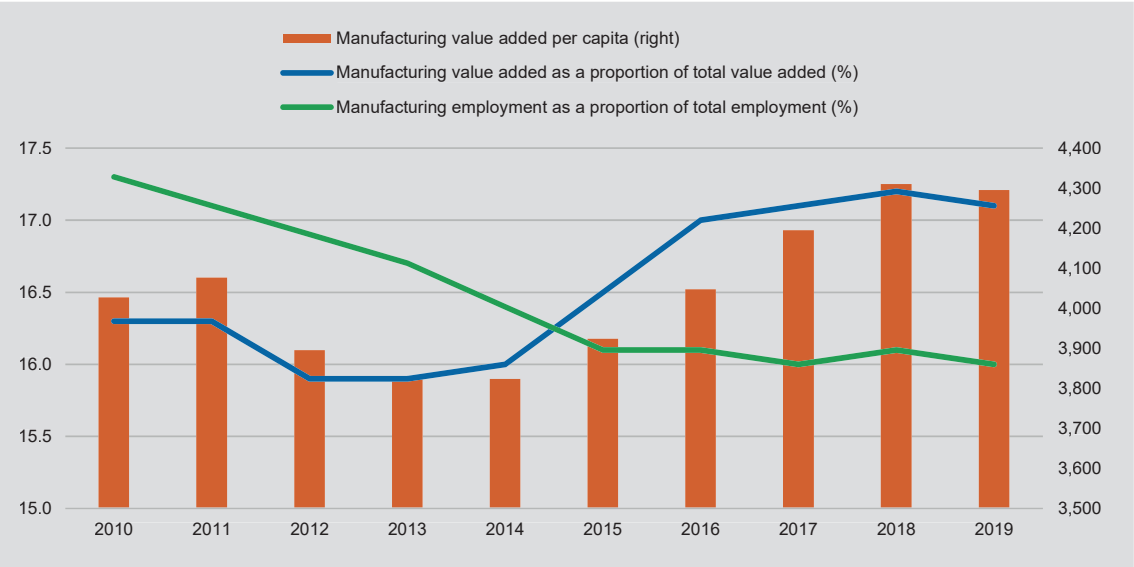
2 Gross fixed capital formation, also known as investments, consists of resident producers' acquisitions, less disposals, of fixed assets during a given period plus certain additions to the value of non-produced assets.

SDG 9.2.1 - Manufacturing value added as a proportion of GDP and per capita
SDG 9.2.2 - Manufacturing employment as a proportion of total employment

Target 9.2 aims to promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, doubling it in least developed countries.

In the last decade, in Italy, the value added of the manufacturing industry per inhabitant has increased by 7% from over € 4,000 in 2010 to almost 4,300 in 2019 (Figure 9.2). After the fall during the second phase of the double economic crisis, starting from 2015, the indicator showed a recovery, higher in 2016 (+ 3.1%) and 2017 (+ 3.6%), and a slight contraction in the last year (-0.3%). The proportion of manufacturing value added on the total economy increased from 15.8% in 2010 to 16.6% in 2019, recording a slight decrease in the last year. After a steady decline between 2010 and 2015, the manufacturing industry's employment share compared to total employment has been stationary reaching in 2019 around 16 out of 100 employees in the total economy. The partial divergence between trends in value added and employment reflects a productivity recovery.

Figure 9.2 - Manufacturing value added and employment. Years 2010-2019 (euro at chain-linked value and percentage on total economy)



Source: Istat, Produzione e valore aggiunto delle attività manifatturiere e del settore energetico; Input di lavoro per settore di attività economica e per tipologia di occupazione (regolare e non regolare)

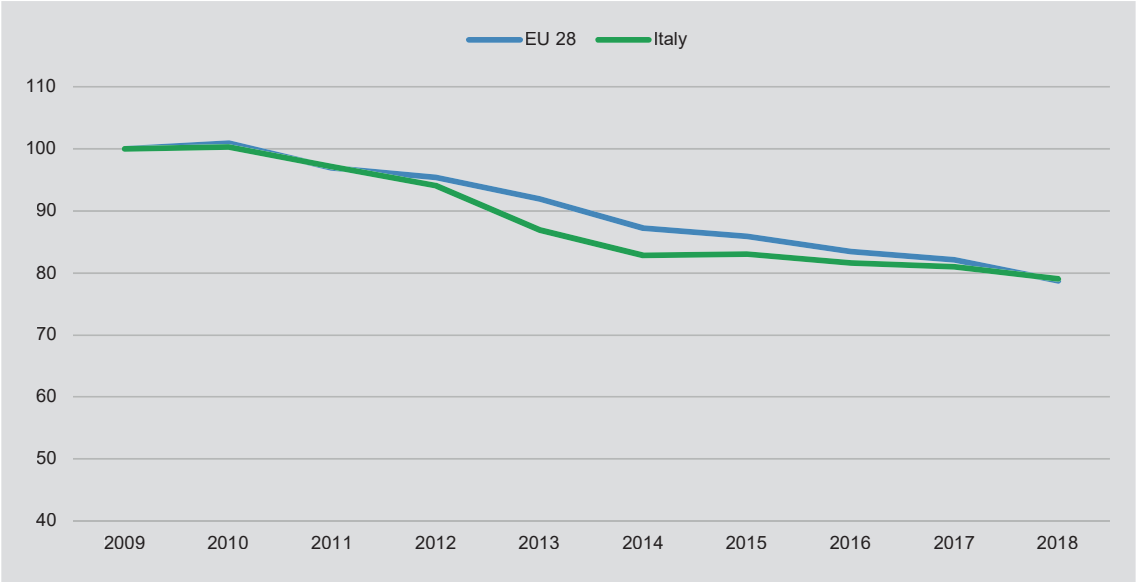
SDG 9.4.1 - CO_2 emission per unit of value added

The development of infrastructure, industrialization and innovation promoted in Goal 9 must go together with the environmental protection and the promotion of "clean" technologies and industrial processes and efficiency in the use of natural resources[3]. The analysis of emissions' trend is essential for monitoring the decarbonisation process, in line with the request of the European Green Deal, which aims at achieving neutrality in terms of emissions by 2050, and the previous climate and energy policies (see Goal 7).

3 For more information on efficiency, see Goals 7 and 12.

In line with EU28 trend, in Italy CO_2 emission per unit of value added has decreased in the last ten years (Figure 9.3). In absolute terms, it has fallen from 208.1 tonnes per million euro in 2009 to 164.5 in 2018 (-21%). During the crisis years CO_2 emissions recorded a steep decrease, -7.6% and -4.8% respectively in 2013 and 2014. In the last year, emissions have further decreased by 2.4% confirming the presence of a decoupling effect between emissions and economic activities showing the success of more sustainable production technologies. In 2018, Italy recorded one of the lowest emission intensities among the EU Member States in absolute values.

Figure 9.3 - CO_2 emission per unit of value added in Italy and EU28. Years 2009-2018 (chain linked volumes, fixed base index 2009=100)



Source: Istat processing on Eurostat data

SDG 9.b.1 - Proportion of medium and high-tech industry value added in total value added

The proportion of medium and high-tech (MHT) industry value added in total manufacturing value added is an indicator of the technological progress level of industrial development, selected for the monitoring of 9.b.1 target (one of the means of implementation of 2030 Agenda aiming at supporting the developing countries). The indicator provides information about the state of progress of industrial countries with respect to the structural transition of economic systems from activities based on low-tech resources to MHT activities. A modern and technologically advanced production structure offers better opportunities for sustainable development, considering also the higher technological intensity and labour productivity of MHT activities.

The percentage of value added of Italian MHT firms on total manufacturing sector increased, between 2012 and 2017, from 30.7% to 32.4% with a growth of 1.7 percentage points. The Southern regions recorded an increase in MHT firms' value added higher than the country average, 4.1 and 4.4 percentage points respectively for South and the Islands. However, the southern regional growth did not fill the gap with the northern regions (36.6 for North-Est and 35.8 for North-West).

Goal 9 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
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[1]

Goal 10 involves modification of policies and legislation to reduce disparities based on income, gender, age, disability, race, class, ethnicity, religion and opportunity and to increase the income of the poorest 40% of the population. The Goal is also aimed to improve the regulation and to monitor financial markets and institutions.

Goal 10 addresses inequalities between countries by encouraging aid for development and direct investments in the neediest nations, promoting different treatment of businesses and enhancing the representation of developing countries in the decision-making process of global economic and financial institutions. Goal 10 promotes social inclusion globally with a special focus on migration and migrant remittances.

The statistical measures released by Istat for Goal 10 are fifteen and refer to six UN-IAEG-SDGs indicators (Table 10.1).

1 This section was edited by Barbara Baldazzi and Cinzia Conti with contributions from Eugenia Bellini, Stefania Cuicchio, Clodia delle Fratte and Federico Polidoro.

Table 10.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
10.1.1	Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population				
	Growth rates of household income per capita among the bottom 40 per cent of the population (Istat, 2017, %)	Identical	0.24	--	--
	Growth rates of household income per capita among the total population (Istat, 2017, %)	Identical	1.64	--	--
	Disposable income inequality (Istat, 2017, ratio of income shares)	Proxy	6.1	🔴	🔴
	Adjusted disposable income per capita (Istat, 2019, euro)	Context indicator	22,943	🟢	🟢
	Per capita disposable income (Istat, 2018, euro)	Context indicator	18,902	🟢	🟢
	Purchasing power of households (Istat, 2019, millions of euros)	Context indicator	1,124,458	🟡	🟡
10.2.1	Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities				
	People at risk of poverty (Istat, 2018, %)	Identical	20.3	🔴	🟡
10.4.1	Labour share of GDP, comprising wages and social protection transfers				
	Labour share of GDP (Istat, 2019, %)	Identical	52.8	--	--
10.7.2	Number of countries with migration policies that facilitate orderly, safe, regular and responsible migration and mobility of people				
	Non EU citizens holding a long-term residence permit (Istat, 2019, n)	Context indicator	3,717,406	--	--
	Percentage of Non EU citizens holding a long-term residence permit (Istat, 2019, %)	Context indicator	62.3	--	--
	New permits (Istat, 2018, n)	Context indicator	242,009	--	--
	Number of acquisitions of citizenship (Istat, 2018, n)	Context indicator	112,523	--	--
	Quota di permessi rilasciati per asilo politico e motivi umanitari (Istat, 2018, %)	Context indicator	26.8	--	--
10.7.4	Proportion of the population who are refugees, by country of origin				
	Residence permits for asylum per 1,000 (Istat, 2019, per 1,000)	Proxy	9.0	--	--
10.b.1	Total resource flows for development, by recipient and donor countries and type of flow (e.g. official development assistance, foreign direct investment and other flows)				
	Total net official development assistance (ODA) to Africa, LDCs, SIDS and Landlocked (MAECI, 2018, %)	Identical	(*)	--	--

Legend

🟢 IMPROVEMENT

🟡 STABILITY

🔴 DETERIORATION

-- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(*) Please refer to the data table on www.istat.it.

In brief

The most recent national scenario, dominated by the health emergency due to the pandemic, with the lockdown for the mitigation of Covid-19, is causing an unprecedented economic recession with a steep impact on labour market, household consumption and international migration. This Goal describes the situation prior to 2020, before the virus mitigation policies and the policies for economic and social recovery.

In 2017 in Europe, the income share of the poorest 40% of the population is included between 26.2% in Slovakia and 17% in Bulgaria. In Italy, the income share of the poorest 40% of the population is equal to 19.3%, lower than EU28 average of 20.9%. Finland, Slovenia, Slovakia and the Czech Republic show values above 24%.

In Italy, in the period 2004-2017, the growth of income of the poorest population deteriorated significantly: the inequality of disposable income reached its lowest level in 2007 (5.2), its highest level in 2015 (6.3), and fell again in 2017 (6.1). In 2017 the income of the whole population increased more than the income of the poorest 40% of the population (+1.6% and +0.2% respectively).

In 2018 were issued 242,009 new residence permits, 7.9% less than the previous year. The reduction is largely due to the decrease in permits issued for asylum applications, which fell from almost 88,500 in 2017 to less than 52,500 in 2018 (-41.9%). Non-EU citizens in Italy remain stable. On 1st January 2019, they were 3,717,406 (3,714,934 in 2018). The presence of refugees in our country remains contained: less than 1% of the permits valid on 1st January 2019 were issued for the recognition of political asylum.

Acquisitions of citizenship continue to decrease. In 2018, there were new 103,485 acquisitions, 23.8% less than in 2017. As of 1st January 2018 in our country, the Italians for acquisition of citizenship are in total 1,345,261.

SDG 10.1.1 - Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population

International community and most vulnerable nations have made relevant progress in lifting people out of poverty; however, situations of high-income inequality and deep inequalities in access to health, education and other services persist. Economic growth alone is not sufficient to reduce poverty for it requires inclusiveness, ensuring the involvement of the whole population. In most countries that recorded an increase of (per capita) income, the growth has been faster for the poorest 40% of the population. Conversely, in most countries that recorded a contraction of (per capita) income, the poorest 40% of the population experienced a deep decrease. Data suggests the poorest are particularly vulnerable during economic crises and that overall income growth is a crucial factor in reducing inequalities and ensuring a shared development.

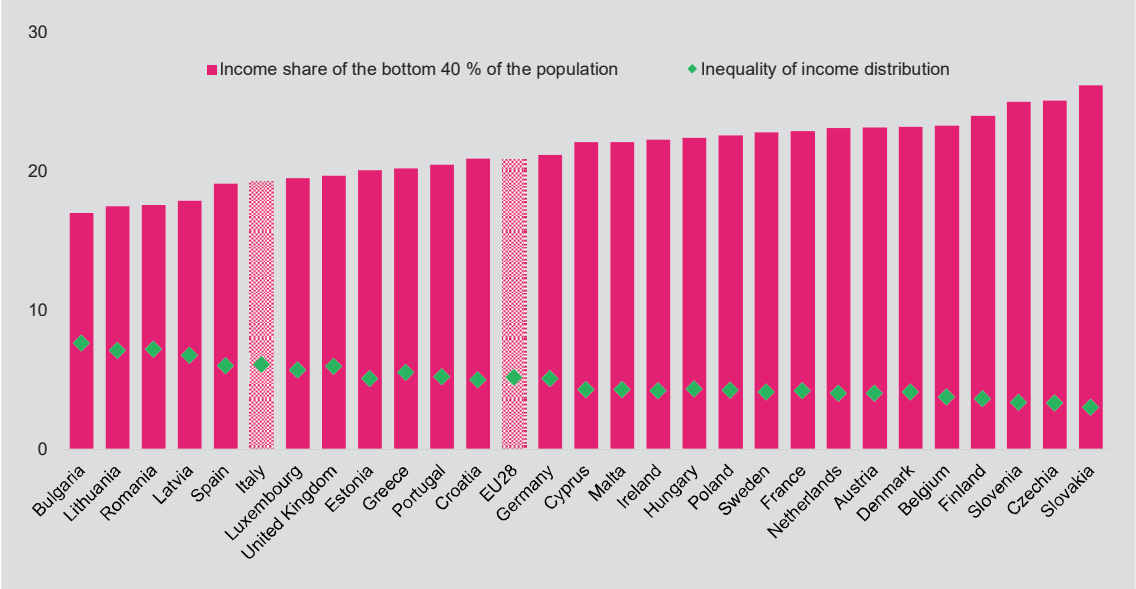
Income share of the bottom 40 % of the European population[2] in 2017 is, on average, equal to 20.9% (it was 21.1% in 2016) within a range comprised between 26.2% in Slovakia and

2 This indicator measures the income share received by the bottom 40% of the population (in terms of income). The income concept used is the total disposable household income, which is a household total income (after taxes and other deductions) that is available for spending or saving.

17% in Bulgaria (Figure 10.1). Finland, Slovenia, Slovakia and the Czech Republic have recorded values above 24%. In the last year Ireland and Slovakia recorded, improvements of more than one percentage point. In Italy, on the other hand, the percentage of income held by the poorest 40% of the population has declined: 19.3% compared to 19.5% in 2016, fallen by one percentage point compared to 2009. Italy is at the bottom of the list.

The disposable income inequality index is included between 7.7 in Bulgaria and 3.0 in Slovakia.

Figure 10.1 - Income share of the bottom 40% of population and inequality of income distribution in some EU countries. Year 2017 (% and ratio of income shares)

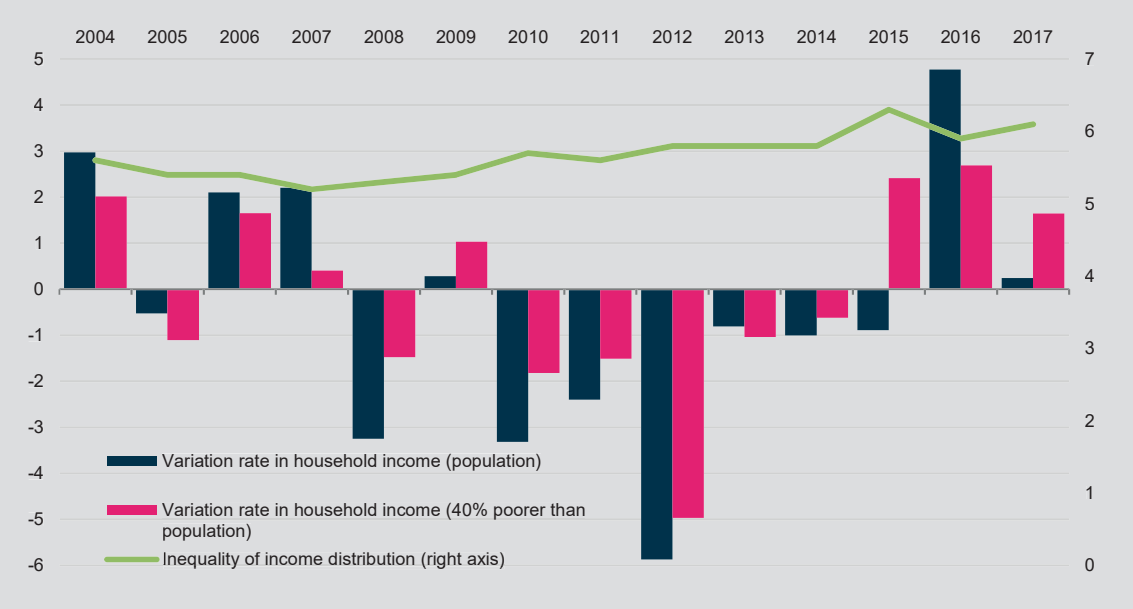


Source: Eurostat

Since 2008 in Italy at the beginning of economic crisis, the dynamics of household income per capita for the bottom 40% of the population has been slower than of the total population: the loss was larger in 2012 (-5.9% and -5% respectively). The decline in the share of lower incomes stopped momentarily in 2016 (+4.8% and +2.7% respectively) then widened again in 2017, when the incomes of the poorest people improved significantly less than those of the entire population (+0.2% and +1.6% respectively), leading to a further increase in inequality (Figure 10.2).

Reflecting the trend in the income shares of the bottom 40% of the population and of the total population, the income quintile share ratio has reached its lowest level in 2007 (5.2), its highest level in 2015 (6.3), returning to 6.1 in 2017.

Figure 10.2 - Annual rate of variation of income for the poorest 40% of population and for entire population, and inequality of income distribution. Years 2004-2017 (variation rates and ratio of income shares)



Source: Istat, EU-SILC

SDG 10.7.2 - Number of countries with migration policies that facilitate orderly, safe, regular and responsible migration and mobility of people

In 2018 Italy issued 242,009 new residence permits to non-EU citizens, 8% less than the previous year (Table 10.2). The decrease is due to the permits issued for asylum applications, which fell from almost 88,500 in 2017 to less than 52,500 in 2018 (-42%). Permits for humanitarian reasons increased by 4%. There was also an increase in permits for work (+19.7%), for study (+20%) and for family which, in relative terms, cover more than 50% of new permits in 2018.

Table 10.2 - Non-EU citizens entered Italy in 2017 and 2018, first ten country of citizenship and reason for permit. Years 2017 and 2018 (absolute values and %)

Countries of citizenship	Total		Reason for permit - Year 2018				
	2017	2018	Work	Family	Study	Asylum / Humanitarian	Other reason
Albania	20,013	23,479	7.2	67.4	2.3	2.6	20.5
Morocco	18,609	20,396	5.2	82.6	1.4	7.0	3.7
Nigeria	26,843	15,532	0.2	19.0	1.3	74.8	4.6
India	8,658	13,621	20.0	58.3	13.8	3.5	4.4
Pakistan	15,082	13,355	1.0	38.2	2.4	56.2	2.2
Bangladesh	14,235	13,189	0.4	47.1	0.2	50.3	2.0
People's Republic of China	12,030	11,367	5.0	49.6	40.1	2.2	3.2
United States	8,234	9,135	34.7	35.0	24.3	0.0	5.9
Egypt	7,787	8,807	4.2	81.9	3.4	6.1	4.4
Ukraine	7,727	7,951	4.4	51.1	2.8	30.5	11.1
Other countries	123,552	*105,177*	*4.2*	*45.5*	*10.9*	*31.7*	*7.7*
Total	**262,770**	**242,009**	**6.0**	**50.7**	**9.1**	**26.8**	**7.3**

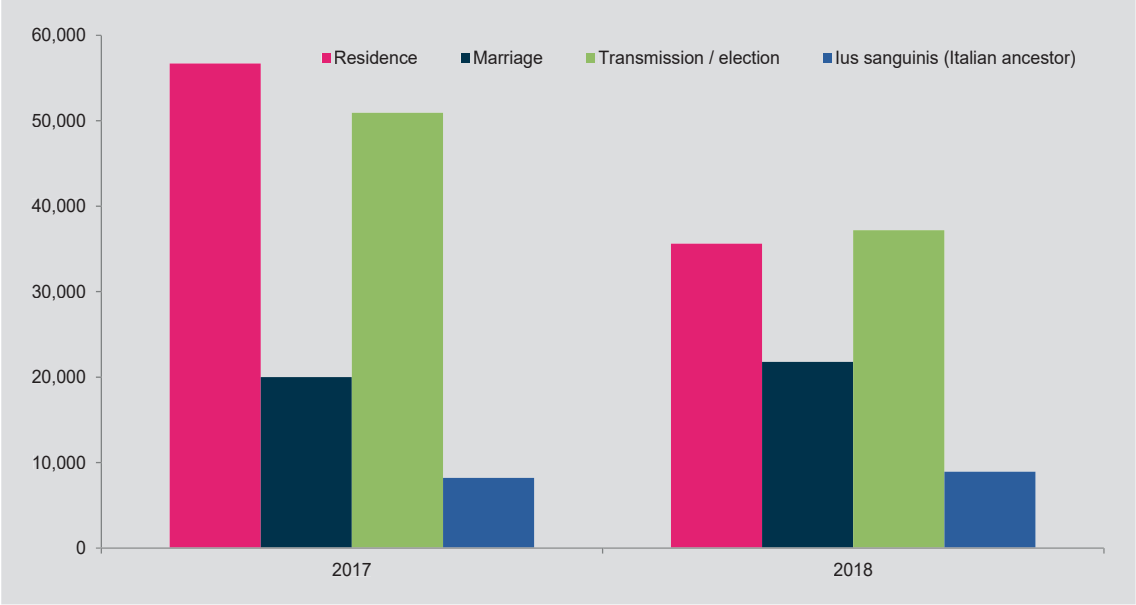
Source: Istat processing on Ministry of Interior data

The female component of residence permits rose from 39% in 2017 to over 45% in 2018; the proportion of women was particularly high (over 58%) for family permits. The number of arrivals from Albania and Morocco increased. They are historically countries of origin of the immigrants living in Italy and the new flows are characterized by an increasing number of entries for family-related reasons. On the other hand, migration from several sub-Saharan countries, such as Nigeria, Guinea, Ivory Coast and Gambia, characterized by the emigration of asylum seekers, fell above 40%.

The number of non-EU citizens in Italy on 1st January 2019 was 3,717,406 (3,714,934 in 2018). Long-term residents - who have a permit that does not require renewal – accounted for 62.3%.

The number of foreign citizens who acquired Italian citizenship in 2018 was equal to 112,523 (a fall of about 23.8% compared to 2017); of these 103,478 originated from a non-EU country. The most significant decrease compared to 2017 was due to acquisitions by residence and by transmission from parents) respectively -21 thousand and -14 thousand in absolute terms (-37.2% and -31.9% in terms of percentage variation). The two reasons are closely intertwined for the parents who acquire Italian citizenship hold the right to transmit it to their cohabitant children. On the other hand, data show an increase of the acquisitions for *ius sanguinis* (by descent), i.e. a person born abroad of a father or mother who is a citizen of Italian origin (Figure 10.3). New citizens by descent are arising quickly since in 2016 they were 7,000, equal to the 3.8% of all acquisitions of non-EU citizens; in 2017 they rose to 8,211 (6.1%) and in 2018 they reached almost 9,000 (8.6%). The largest number of acquisitions regards Albanians (21,841) and Moroccans (15,496), which account for more than 36% of the total citizenship acquisitions. Brazilians are permanently in third place recording an increasing number of citizenship acquisitions between 2017 and 2018 (+7.3%).

Figure 10.3 - Acquisitions of citizenship of non-EU Citizens by reason. Years 2017-2018 (absolute values)



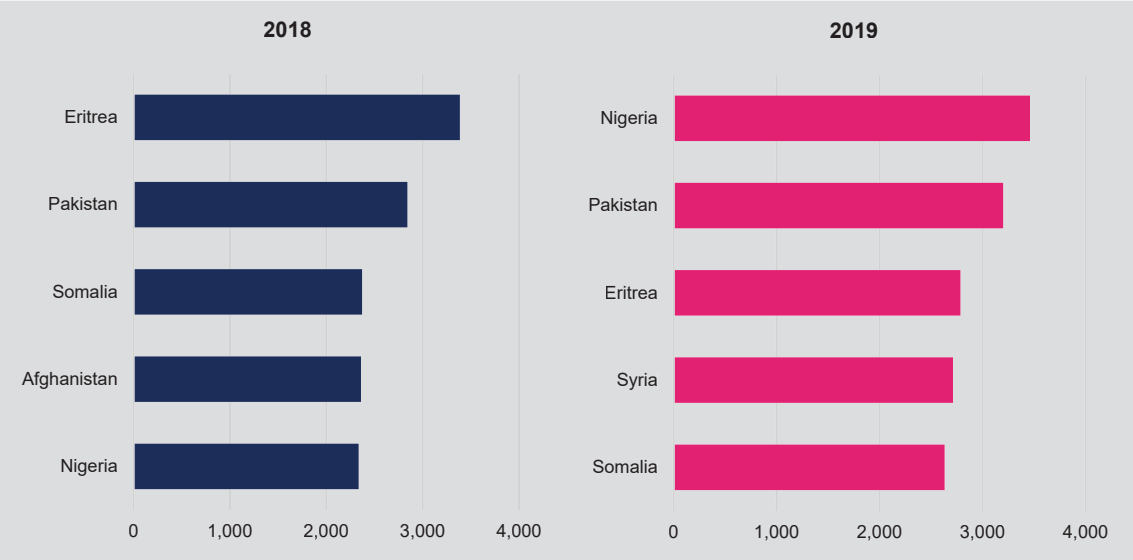
Source: Istat processing on Ministry of Interior data

SDG 10.7.4 - Proportion of the population who are refugees, by country of origin

According to the new UN indicator, due to the 2020 revision, only over 264,000 non-EU citizens (7.1% of the total) have a permit for asylum or humanitarian reasons. Moreover, the flows of asylum seekers and persons seeking protection are characterized by a low stability on the Italian territory. More than 10% of the permits issued for this reason in 2018 have expired and not been renewed during the year. The limited share of permits issued implies also a rapid mutation in the characteristics of the collective present on the Italian territory. In example, between 2018 and 2019, the ranking of the countries with the highest number of refugees changed deeply, affected by the events occurred in the countries with the highest emigration flows of asylum seekers.

Eritrea and Somalia are the countries from which most refugees come in Italy traditionally. More recently, an increasing number of permits for political asylum has been issued also to citizens of Pakistan and Nigeria. Nevertheless these citizenships benefit very often also from other kind of protection, such as residence permits for humanitarian reasons. Afghanistan and lately Syria are the countries originating the most recent waves of refugees and in some cases, for Syrians, also through the opening of humanitarian corridors (Figure 10.4).

Figure 10.4 - Asylum residence permits, at the beginning of the year first 5 countries of origin. Years 2018-2019 (absolute values)



Source: Istat processing on Ministry of Interior data

Goal 10 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
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[1]

Goal 11 deals with urban sustainability. Cities play a crucial role in achieving the Sustainable Development Goals: half the world's population and three quarters of the European population live in urban areas (Eurostat, Statistical books, 2018). Cities are the main responsible for the increasing pressure on the environment, considering the high demand of natural resource and their externalities associated to safety, public health, quality of life. It is therefore necessary to build a coherent, integrated and systemic system of governance embracing all the complex interconnections that cross over all the dimensions of the life in the urban areas and in the communities. People's safety and health are threatened by pollution caused by human activities related to mobility and heating, they depend on the availability of safe water supplies, sanitary facilities and of adequate hygiene; wellbeing is related to adequate housing and urban planning for all services and mitigation and availability of green areas. The adverse effects of climate change and the risks derived from new and unexpected hazards - induced by the alteration of the relationship between human and environment systems - urgently call to urban transformation and regeneration, towards more green, safe, faire, inclusive communities. Target 11.b calls for the adoption of integrated resilience oriented plans by 2020 in line with the Sendai Framework for Disaster Risk Reduction 2015-2030 (see Goal 13).

The statistical measures released by Istat for Goal 11 are thirty and refer to eight UN-IAEG-SDGs indicators (Table 11.1).

1 This section was edited by Giovanna Tagliacozzo with contributions from Domenico Adamo and Antonino Laganà.

Table 11.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
11.1.1	Proportion of urban population living in slums, informal settlements or inadequate housing				
	Share of total population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames of floor (Istat, 2018, %)	Proxy	13.2		
	Overcrowding dwellings (Istat, 2018, %)	Proxy	27.8		
	Noise from neighbours or from street (Istat, 2018, %)	Proxy	10.9		
11.2.1	Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities				
	Households per difficulties of links with public transport means (Istat, 2019, %)	Context indicator	33.5		
	Persons who travel to work by private means of transport (Istat, 2019, %)	Context indicator	74.2		
	Students who travel to their study place, only by public transports (Istat, 2019, %)	Context indicator	28.5		
11.3.1	Ratio of land consumption rate to population growth rate				
	Soil sealing from artificial land cover per capita (Ispra, 2018, m^2/ab)	Identical	381	(a)	
	Illegal building rate (Cresme, 2018, values for 100 authorised constructions)	Partial	19.0		
11.5.1	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population				
	Population at risk of landslides (Ispra, 2017, %)	Context indicator	2.2	--	--
	Population at risk of flood (Ispra, 2017, %)	Context indicator	10.4	--	--
	Deaths and missing persons for landslides (Ispra, 2018, number)	Partial	12	--	--
	Injured persons for landslides (Ispra, 2018, number)	Partial	29	--	--
	Deaths and missing persons for floods (Ispra, 2018, number)	Partial	32	--	--
	Injured persons for floods (Ispra, 2018, number)	Partial	12	--	--
11.6.1	Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities				
	Landfill of waste (Ispra, 2018, %)	Proxy	21.5		
11.6.2	Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)				
	Urban population exposure to air pollution by particulate matter Particulate <2.5µm (Eurostat, 2017, µg/m^3)	Identical	19.4		
	Urban population exposure to air pollution by particulate matter Particulate <10µm (Eurostat, 2017, µg/m^3)	Identical	29.2		
	Urban air quality PM10 (Istat, 2017,% of control units exceeding the annual limit)	Proxy	22	--	--
	PM10 daily limit exceeds in the municipalities (Istat, 2017, Italy figure corresponds to Number of capitals with more than 35 days of exceeds)	Proxy	28	--	--
	PM10 Annual average concentration in the municipalities (Istat, 2017, Italy figure corresponds to number of capitals with maximum value higher than 40 µg/m^3)	Proxy	1	--	--
	PM2.5 Annual average concentration in the municipalities (Istat, 2017, Italy figure corresponds to number of capitals with maximum value higher than 25 µg/m^3)	Proxy	3	--	--
	Urban air quality Nitrogen dioxide (Istat, 2017, % of control units exceeding the annual limit)	Context indicator	11.9	--	--
	NO_2 Annual average concentration in the municipalities (Istat, 2017, Italy figure corresponds to number of capitals with maximum value higher than 40 µg/m^3)	Context indicator	17	--	--
	O_3 daily target exceeds in the municipalities. (number of days of exceeds of the target in provincial capital cities (Istat, 2017, Italy figure corresponds to Number of capitals with more than 25 days exceeds of the long-term objective)	Context indicator	48	--	--
	Temperature and precipitation indices of climatic extremes in the main municipalities (Istat, 2018 and Climatic Normal (CLINO) 1971-2000, Number of days and mm of precipitation)	Context indicator	(*)	--	--
11.7.1	Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities				
	Incidence of urban green areas on urbanized area of the cities (Istat, 2018, m^2 per 100 m^2 of urbanized areas)	Proxy	8.9	(b)	
11.7.2	Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months				
	Persons aged 14-65 years old victims of at least one form of sexual harassment in the last 12 months (Istat, 2015/16, %)	Identical	5.1		

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2012
(b) Variation compared to 2014
(*) Please refer to the data table on www.istat.it

In brief

Unsatisfactory housing conditions involve more than a quarter of the Italian population. In 2018, the share of households living in overcrowded dwellings increased to 27.8%. On the other hand, in the last year, population living in a dwelling with structural problems decreased from 16.1% to 13.2% and people living in a dwelling with noise from neighbours or from outside from 12.5% to 10.9%.

One third of households is unsatisfied of public transportation: in 2019, 33.5% showed difficulties for public transport service in their area of residence, with a slight increase compared to the previous year (33.3%). 2019 recorded the worst satisfaction in ten years (29.5% in 2010). At the same time, the share of those who regularly reach their place of work by private transport remains high (74.2%), and the share of students who use only public transport to reach their place of study remains low, despite a slight increase (28.5%).

Concentration of particulate air pollution remains high and above the EU28 average. Some pollutants have slightly increased concentrations in the last two years due to weather and climate conditions. Air quality continues to be critical in many capital cities.

2018 confirmed the increasing trend in the soil sealing from artificial land cover per capita, with 381 m^2/ab respect the 376 m^2/ab of 2015. Illegal building rate marks a slight reduction in 2018 (19.0 illegal constructions every 100 authorised, compared to 19.8 in 2017), but remains at high levels (10.5 in 2009). Territorial disparities are wide.

The share of municipal waste going to landfills continues to decrease, falling below a quarter in the last two years (21.5% in 2018), while it represented about half of municipal waste until 2009.

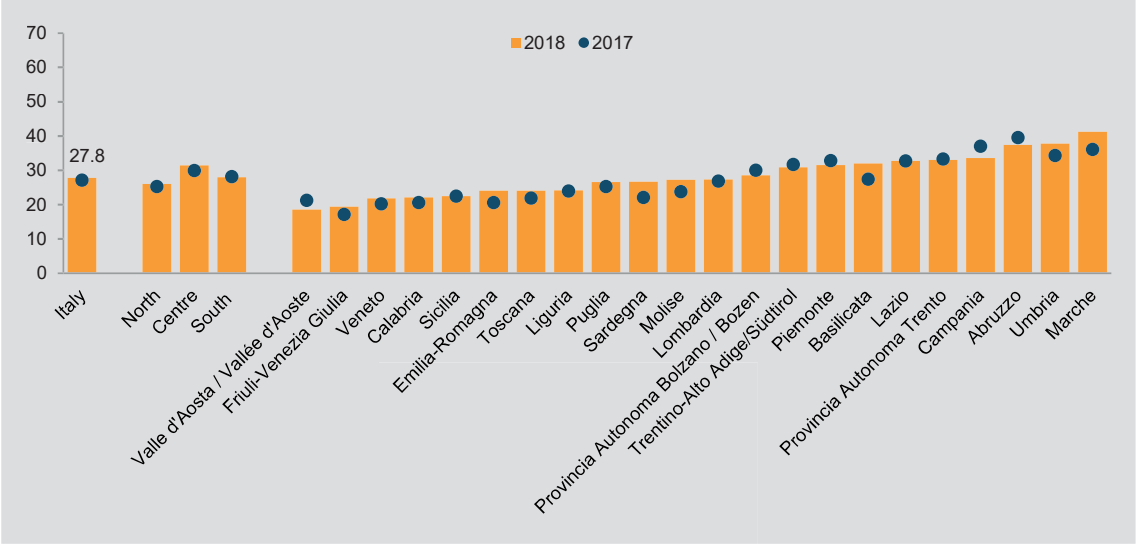
The incidence of urban green areas on urbanised area of the cities remains stable, equal to 8.9 m^2 per 100 m^2 of urbanised area on average in the 109 provincial capitals.

SDG 11.1.1 - Proportion of urban population living in slums, informal settlements or inadequate housing

Access to adequate and safe housing and basic services for all is a primary condition for a sustainable city. Urban contexts with inadequate housing conditions experience less equality and inclusion, reduced urban security and opportunities and therefore less prosperity. Among the three dimensions under observation, overcrowding dwellings is the most widespread problem, showing an increase in the last year (27.8%). Since 2013, the share has exceeded 27%, whereas it was 23.3% in 2009. Italy is among the countries with the highest value in the EU28 (15.5%).

The percentage of households claiming to experience structural or humidity problems has decreased in the last year from 16.1% to 13.2%, the lowest recorded value (in 2009 it was 20.9%). The value is in line with the EU28 average equal to 13.9%. There is also a contraction of the percentage of household that claim noise from neighbours or from the road, which affects 10.9% of households (it was 12.5% in 2017 and 26.1% in 2009). In this case Italy is at the lowest levels (10.9%) compared to other EU28 countries, with a EU28 average of 18.3%. The improvement respect to structural or humidity and noise problems is generalised among social categories and type of settlement: men and women, all age groups, Italians and foreigners, large cities, medium cities and urban belts, rural areas. Differences are wide at regional level and improvements are widespread but not generalised (Figure 11.1). Data on overcrowding are the most heterogeneous.

Figure 11.1 - Overcrowded dwellings by region. Years 2017 and 2018 (%)



Source: Istat, EU-SILC

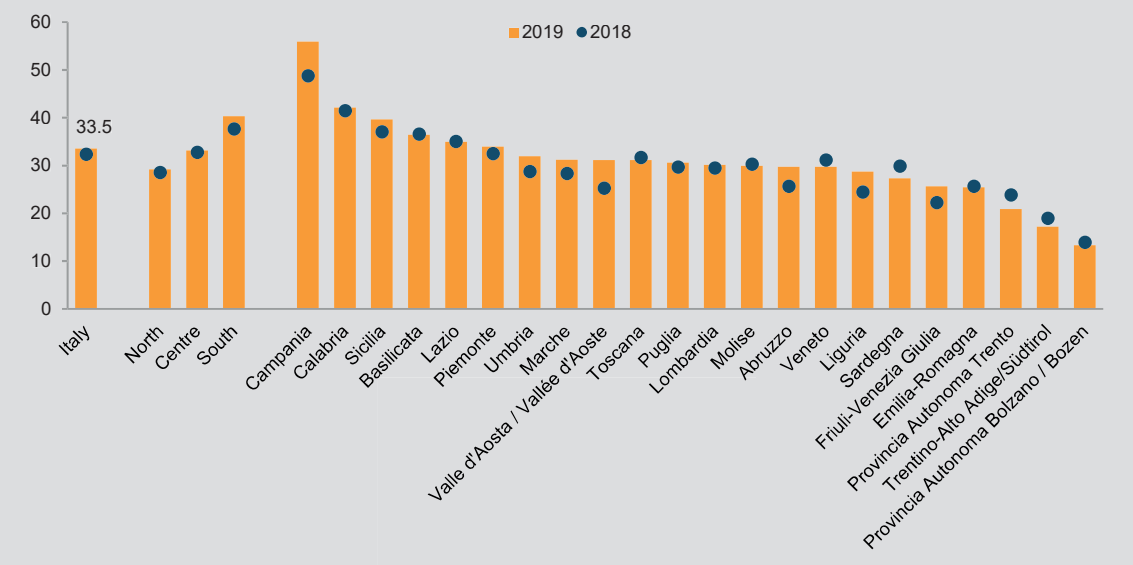
The breakdown by degree of urbanisation (DEGURBA) shows greater criticalities in large cities, where the problem of overcrowding reaches 30.7% of persons.

SDG 11.2.1 - Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities

Mobility is one of the crucial dimension of urban sustainability. The benefits in terms of decongestion and reduction of travel time and of pollutant emissions have positive effects for people's health and well-being. These can be achieved through a plurality of sustainable behaviours. One of these is the choice to use public mobility systems rather than private transport. A specific policy of incentives for public transport could facilitate that choice. However, the latest data confirm that difficulties of reaching public transport are not decreasing and peaked in 2019 in the last ten years affecting one third of households (33.5%; 29.5% in 2010, Figure11.2). Compared to the previous year, there was an increase of 1 percentage point (32.4%).

The proportion of people who routinely move to work only by private means returns in 2019 to the values of 2009 equal to 74.2%, after a decline over the years. The share of students who usually travel to their place of study only by public transport increases by 2 percentage points and reaches 28.5%.

Figure 11.2 - Households per difficulties of links with public transport means, by region. Years 2018 e 2019 (%)



Source: Istat, Multiscopo sulle famiglie: aspetti della vita quotidiana

SDG 11.6.2 - Annual mean levels of fine particulate matter (e.g. $PM_{2.5}$ and PM_{10}) in cities (population weighted)

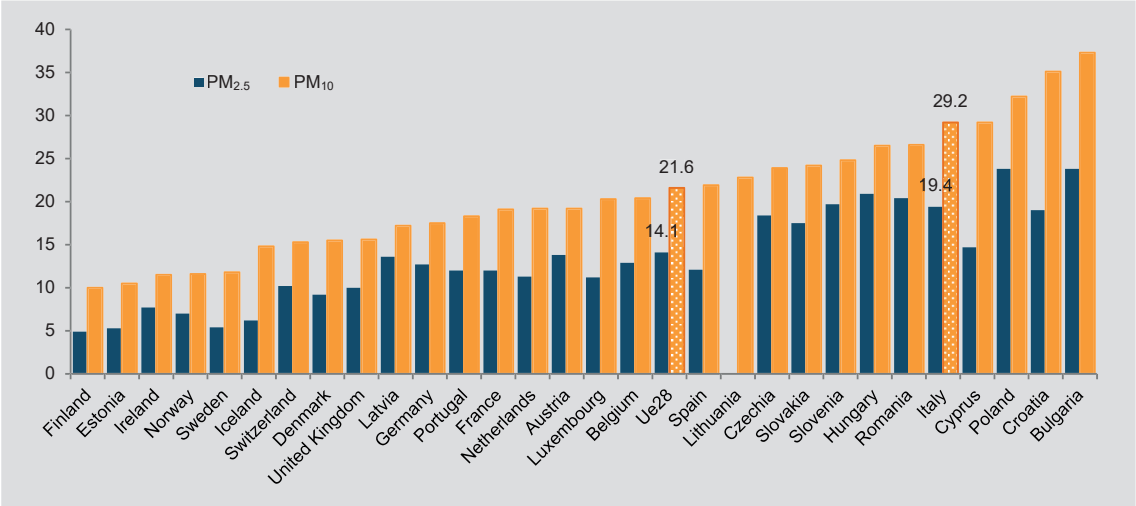
Worldwide, in 2016, the concentration of $PM_{2.5}$ in urban centres is estimated at 39.6 micrograms per cubic metre (µg/m^3). In Europe there is a general decrease in particulate concentration over time. Considering PM_{10}, with the exception of Bulgaria and Croatia - concentrations have decreased since the year 2000[2], with a constant annual reduction until

2 Since 2008, air quality monitoring at European level has followed uniform, high the quality of the data collected by the monitoring units (Directive 2008/50/EC transposed by Legislative Decree no. 13 August 2010, n. 155).

recent years. However, in 2017 both the countries (Cyprus, Romania, Greece, Italy and Spain), which in the long term have recorded faster improvements, and the less virtuous ones (Czech Republic, Hungary, Poland, Slovakia, Denmark, the Netherlands, Austria and Portugal), have marked a setback or, in some cases, a worsening, probably also due to unfavourable weather conditions. In particular in the last five years, in Italy, the interaction between pollution and weather conditions has been particularly accentuated[3].

In 2017 in Italy, there was an increase for both PM_{10} and $PM_{2.5}$ at 29.2 µg/m^3 and 19.4 µg/m^3 respectively (Figure11.3), although the values remain at their lowest levels in recent years. Despite these values are lower than the regulatory limits for the protection of human life (40 µg/m^3 for PM_{10} and 25 µg/m^3 for $PM_{2.5}$), both parameters are above the WHO reference thresholds (20 µg/m^3 for PM_{10} and 10 µg/m^3 for $PM_{2.5}$).

Figure 11.3 - Urban population exposure to air pollution by particulate $PM_{2.5}$ and PM_{10} by EU countries. Year 2017
(µg/m^3)



Source: Eurostat

In Italy, the concentrations of pollutants and the days when the legal limits are exceeded are recorded annually with reference to the 109 provincial capitals or metropolitan cities[4].

In addition to PM_{10} and $PM_{2.5}$, nitrogen dioxide[5] (NO_2) and tropospheric ozone[6] (O_3) are

3 For a more in-depth examination of the combined effects of weather and fuel consumption changes on air pollution see: La situazione energetica nazionale nel 2018, Mise, "Uso di combustibili e inquinamento atmosferico in ambito urbano" (https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039948-la-situazione-energetica-in-italia-si-consolida-il-ruolo-delle-energie-rinnovabili-ediminuisce-la-dipendenza-estera).

4 Air quality law in force since 30 September 2010 (Legislative Decree no. 155 of 13 August 2010) implementing the European directive (2008/50/EC).

5 NO_2: nitrogen dioxide is a pollutant with a predominantly secondary component, since it is the product of the oxidation of the nitrogen monoxide (NO) in the atmosphere, only to a lesser extent directly released into the atmosphere. The main source of nitrogen oxide emissions (NO_x=NO+NO_2) is vehicle traffic, followed by civil and industrial heating, energy production and many industrial processes. It has negative health effects and contributes to smog processes. photochemical, precursor for the formation of ozone and secondary particles.

6 O_3: Ground-level ozone is a secondary pollutant that is formed in the atmosphere through photochemical processes in the presence of primary pollutants such as nitrogen oxides (NO_x) and volatile organic compounds (COV). Photochemical pollution, as well as local pollution, is a cross-border phenomenon that takes place on a large spatial scale; it follows that the levels found in a certain area are not always exclusively attributable to emission sources located near the

considered[7]. The data show that air quality continues to be a critical factor in many Italian capital cities. Annual average concentrations of PM_{10} decrease in a substantial number of municipalities to the levels of two years earlier.

Figure 11.4 - Selection of climate extreme indices in some metropolitan cities. Anomalies between 2017 and 2018 and Climatic Normal 1971-2000 (number of days)

Source: Istat, Rilevazione dati meteoclimatici ed idrologici

same area. The highest ozone concentrations occur in the hottest months and hours of maximum irradiation. In urban areas, ozone is formed and transformed very rapidly following complex dynamics unlike other pollutants. The main sources of ozone precursors (NO_x and COV) are road transport, civil heating and energy production. Ozone is a source of serious problems for human health, the ecosystem as a whole, agriculture and material goods.

7 Climatic conditions and precipitation regimes affect air pollution levels. Concentrations of particulate matter and nitrogen dioxide are related to average temperatures, wind patterns and wind speed. Cumulative rainfall, particularly in autumn and winter, while ozone is more conditioned in the summer months mainly due to the increase in weather and climate phenomena highlighted by extreme heat indices.

The climate extremes indices[8] show the variations over time of the values compared to the climate reference period[9]. Restricting the analysis to some metropolitan cities, there is a general increase in the hot extremes indices and a decrease in the cold extremes indices[10]. In all cities there is, for example, an increase in the number of: summer days, tropical nights, hot days, hot nights, and a decrease in cold days and cold nights[11] (Figure11.4).

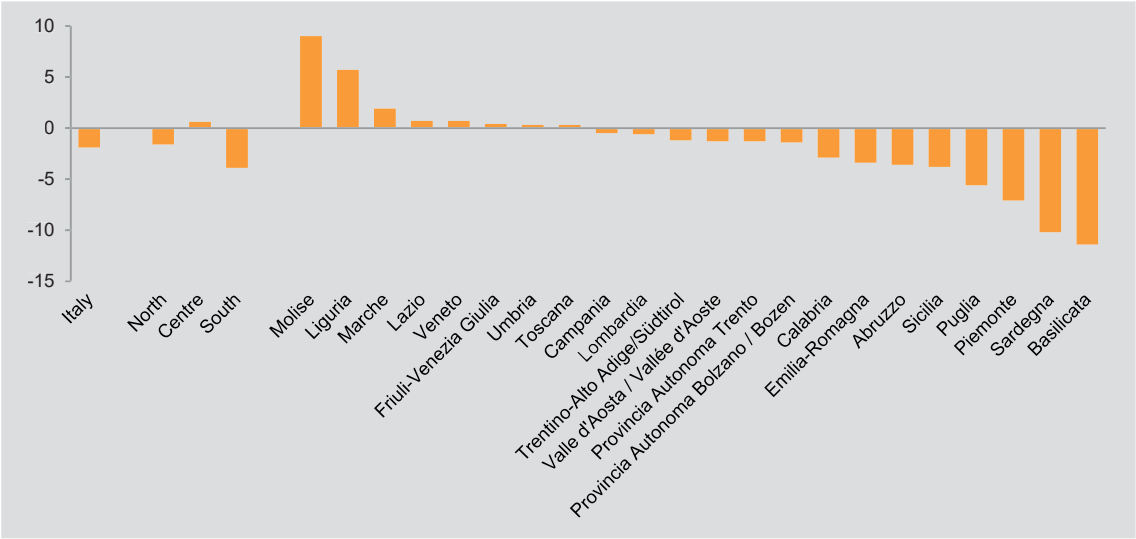
SDG 11.6.1 - Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities

The management of the waste cycle is a crucial element of city administration, with significant effects on soil and human health. The implementation of technological innovations allows increasingly the transformation of waste material into reusable or recyclable material, in accordance with the principles of the circular economy (see Goal 12). Awareness and responsible practices at all levels are crucial.

The share of municipal waste sent to landfills has been decreasing since 2006, when more than half of the municipal waste produced was sent to landfills (56.8%). In 2018, the landfilled wastes amounts to 6.5 million tonnes and represents just over one fifth (21.5%) of the total, also lower than the previous year (23.4%).

Regional comparison shows a variety of situations, although inbound and outbound flows between regions should be taken into account (Figure 11.5).

Figure 11.5 - Landfill of waste, by region. Years 2017 e 2018 (%)



Source: ISPRA

8 Climate Extreme Indices (ETCCDI) Expert Team on Climate Change Detection and Indices.

9 Climatic Normal: reference climatological averages are calculated over a 30-year period.

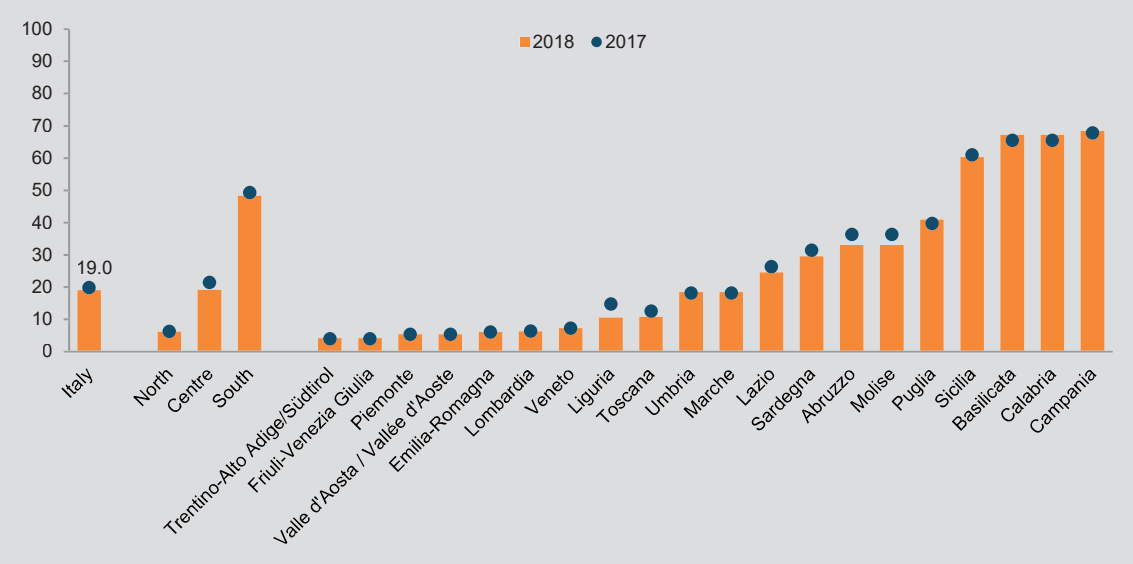
10 Istat, Statistiche Report - Temperatura e precipitazione nelle città capoluogo di provincia - Anno 2018. 30 aprile 2020. https://www.istat.it/it/archivio/242010.

11 Summer days: Annual count of days when daily maximum temperature > 25°C
Tropical nights: Annual count of days when daily minimum temperature > 20°C
Hot days: Percentage of days when daily maximum temperature > 90th percentile
Hot nights: Percentage of days when daily minimum temperature > 90th percentile
Cold days: Percentage of days when daily maximum temperature < 10th percentile
Cold nights: Percentage of days when daily minimum temperature < 10th percentile.

SDG 11.3.1 - Ratio of land consumption rate to population growth rate

Soil is a natural non-renewable resource that must be preserved in quantity and quality, also in urban areas. Uncontrolled land consumption, overbuilding and consequent soil sealing are all factors that increase hydrogeological risks. In 2018, the index of soil sealing and consumption per capita[12] was 381 m²/ab, and 376 m²/ab in 2015. Soil cover resulting from buildings built illegally and in the absence of urban planning compromises land tenure and safety, the health and well-being of people and of the entire community. Illegal construction is significant in Italy, with an index that in 2018 estimates 19.0 illegal constructions for every 100 authorized (Figure 11.6). Compared to 2009, the increase is about ten points. The last four years have recorded the highest values: in 2015 the index was equal to 19.9 and then fluctuated in the following two years, reaching 19.8 in 2017 and then slightly decrease in the last year.

Figure 11.6 - Illegal building rate by region. Years 2017 and 2018 (per 100 authorised constructions)



Source: Cresme

SDG 11.7.1 - Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities

Green areas in urban areas have direct repercussions on the quality of life of citizens and represent an environmental factor that has a positive impact on the mitigation of certain pressures, contributing to the reduction of major air pollutants, the containment of noise pollution and the natural protection of soils.

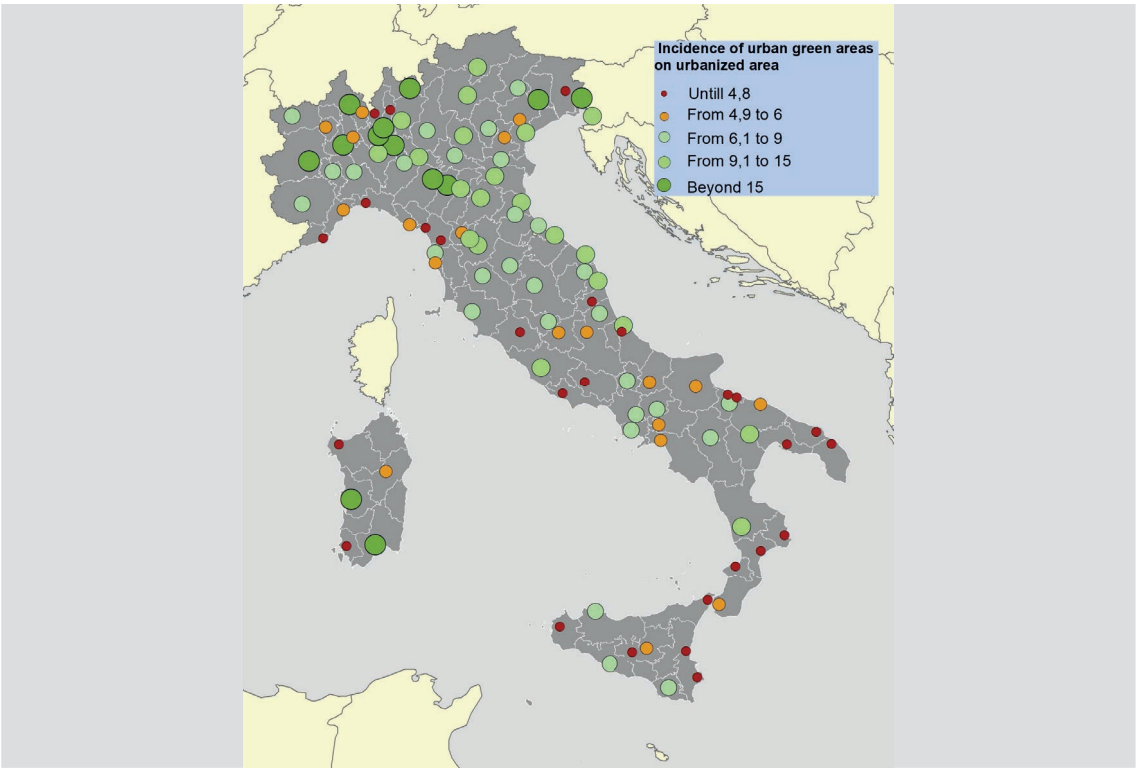
In the 109 provincial capital cities where live 30% of the Italian population (over 18 million inhabitants)[13], urban green covers an average of 2.9% of the territory (573 million m²), a share that corresponds to 31.7 square meters per inhabitant.

12 Per capita land area occupied by artificial coverings (buildings, infrastructure and other permanent structures), which result in total or partial sealing of the underlying soil (soil sealing), preventing it from performing its vital functions.

13 Istat, I.Stat http://dati.istat.it/?lang=en&SubSessionId=003314b6-4da2-461d-84cb-cb99329c7e3e

In 2018, in these territories, the incidence of green areas directly usable by citizens compared to the urbanized area is on average 8.9 m^2 per 100 urbanised area, corresponding to over 356 million m^2. Capital cities have several specific characteristics. One third of the capital cities, mainly located in the North, record a large incidence of green areas in reference to the urbanised areas, placing themselves above the average value, while among those with values below the average, about half are located in the South.

Figure 11.7 - Incidence of urban green areas on urbanized area of the cities. Year 2018 (m^2 per 100 m^2 of urbanized areas)



Source: Istat, Rilevazione Dati ambientali nelle città

Goal 11 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
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 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.			
11.6	By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.			
11.7	By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.			
11.a	Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.			
11.b	By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.			
11.c	Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.			

GOAL 12

ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS [1]

In line with the principle of 'doing more and better with less', Goal 12 promotes sustainable consumption and production (SCP) models aiming at reducing the environmental footprint of socioeconomic systems (consumption of natural resources compared to the natural capacity for regeneration), fighting poverty and improving living standards and economic development. The progress towards Goal 12 is very relevant to reach other sustainable development goals related to hunger and health, reduction of inequality, sustainable management of water and energy, and the mitigation of climate change.

Sustainable production and consumption can be achieved throughout a transition to a circular economy pattern that 'closes the loop' of production of goods by reusing and recycling, ensuring an economic growth more consistent with environmental protection. Sustainable management of natural resources in production and distribution, responsible consumption, implementation of an efficient waste cycle are all tools for protecting eco-systemic goods and services, reducing natural resources consumption and disposal of climate-altering gases and pollution of the air, earth and water.

The Goal has a special focus on the reduction of food waste, on the achievement of appropriate standards of eco-compatibility in managing chemical substances and waste and on the development of sustainable tourism. In compliance with the 2030 Agenda, the adoption of SCP models must be achieved through contributions by enterprises (encouraged to adopt sustainable practices and making them traceable), citizens (whose awareness needs to be increased by leveraging information on sustainable lifestyles and consumption) and public administrations (addressed at expanding Green Public Procurement and pushing for environmental tax reform). Moreover, this sustainability model must be achieved with the participation of all countries. The more developed countries are required to support the developing countries through international cooperation, and to increase their scientific and technological capacities.

The statistical measures released by Istat for Goal 12 are nineteen and refer to eight UN-IAEG-SDGs indicators (Table 12.1).

1 This section was edited by Paola Ungaro with contributions from Aldo Femia, Maria Teresa Santoro e Angelica Tudini.

Table 12.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
12.2.2	Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP				
	Domestic material consumption per capita (Istat, 2018, ton per capita)	Identical	8,1		
	Domestic material consumption per GDP (Istat, 2018, ton/thousand euro)	Identical	0,29		
	Domestic material consumption (Istat, 2018, ton)	Identical	489.850		
12.4.2	(a) Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment				
	Amount of hazardous waste generated (Ispra, 2017, ton)	Proxy	9.669.476	--	--
	Hazardous waste sent to the recovery operations (Ispra, 2017, ton)	Proxy	4.345.801	--	--
	Hazardous waste disposed of (Ispra, 2017, ton)	Proxy	5.211.285	--	--
12.5.1	National recycling rate, tons of material recycled				
	National recycling rate (Ispra, 2018, %)	Proxy	50,8	(a)	
	Separate collection of municipal waste (Ispra, 2018, ton)	Proxy	17.548.603		
	Separate collection of municipal waste (Ispra, 2018, %)	Proxy	58,2		
12.6.1	Number of companies publishing sustainability reports				
	Public Institutions that adopt forms of social and/or environmental reporting (Istat, 2012/2015, %)	Proxy	19,5	--	--
	Number of organizations/enterprises with EMAS registration (Ispra, 2018, n)	Context indicator	965	--	--
12.7.1	Degree of sustainable public procurement policies and action plan implementation				
	Public institutions that purchase goods and/or services by adopting minimum environmental criteria (CAM), in at least one purchase procedure (Green purchases or Green Public Procurement) (Istat, 2015, %)	Context indicator	63,2	--	--
12.a.1	Installed renewable energy generating capacity in developing countries (in Watts per capita)				
	Net installed renewable energy generating capacity (Istatprocessing on International Renewable Energy Agency data, 2019, Watt per capite)	Identical	916,4	(b)	
	Total net official development assistance (ODA) gross deliveries for research in the different areas of intervention (Ministry of Foreign Affairs and International Cooperation, 2018, million euros)	Context indicator	7,8	--	
12.b.1	Implementation of standard accounting tools to monitor the economic and environmental aspects of tourism sustainability				
	Impact of tourism on waste (Ispra, 2018, kg/equivalent inhabitant)	Context indicator	9,1		
	Tourism intensity index (Istat, 2018, per 1.000 inhabitans)	Context indicator	7.090	--	--
	Nights spent in open air establishments, farmhouses and mountain refuges on nights spent in all the accommodation establishments (Istat, 2018, %)	Context indicator	18,9	(c)	
	Tourism trips in Italy by type of trip and main means of transport (Istat, 2019, %)	Context indicator	(*)	--	--
12.c.1	(a) Amount of fossil-fuel subsidies as a percentage of GDP; and (b) amount of fossil-fuel subsidies as a proportion of total national expenditure on fossil fuels				
	Fossil-fuel subsidies as a percentage of GDP (Ministry of the Environment, Land and sea protection, 2018, %)	Identical	1,0	--	

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2010
(b) Variation compared to 2012
(c) Variation compared to 2007
(*) Please refer to the data table on www.istat.it

In brief

2018 shows divergent trends of the indicators that measure the progress of Italy in achieving higher levels of sustainability of production and consumption.
Our country records further progress in the field of waste management, despite the increase in the production of municipal waste (MW) per capita.
The reduction in the incidence of MW sent to landfill out of the total continues (21.5%).
National recycling rate increased to 51%, exceeding, for the first time, the 2020 target set by European Union and confirming a higher level than EU28 average.
In 2018, the percentage of MW object of separate collection out of total municipal waste (58%) also increased, although it still falls below the regulatory targets. The territorial disparities are significant too, with the South lagging behind.
In 2018, domestic material consumption (DMC), per capita and per unit of GDP, returned to grow, interrupting the contraction that has characterized the last ten years, although with reduced intensities in the last five years.
In 2018, 8.1 tonnes of material per inhabitant and 0.29 tonnes per 1,000 euro of GDP have been consumed in Italy. In the European context, Italy occupies a virtuous position for the limited consumption of domestic material expressed in terms of both GDP ratio and DMC per capita.
In 2018, the tourism intensity index reached a new peak in the last twenty years, recording 7,090 presences per 1,000 inhabitants (+ 2.1% compared to 2017).
Coherently with the tourism intensity's trend, the impact of tourism on waste increased for four consecutive years reaching 9.1 kilogrammes per equivalent resident, a higher than ten years ago level. The percentage of nights spent in touristic structures with a higher sustainability (open-air establishments, farmhouses and mountain refuges) decreased again; in 2018, it was 18.9%.
In 2018, the fossil-fuel subsidies, equal to 1% of GDP, registered a new increase.
After the growth recorded since 2013, the total net official development assistance (ODA) gross deliveries for research implemented in international cooperation activities registered in the last year a decrease to 7.8 million euro (-24% compared to 2017).

SDG 12.5.1 - National recycling rate, tonnes of recycled material

In order to reach the SCP goals it is necessary to prevent and reduce the short term and long term return to the environment of waste, atmospheric emissions, pollutants and other substances harmful to the ecosystem and human health. Target 12.5.1 focuses specifically on waste and it envisages by 2030 'substantially reducing the production of waste through prevention, reduction, recycling and reuse'.

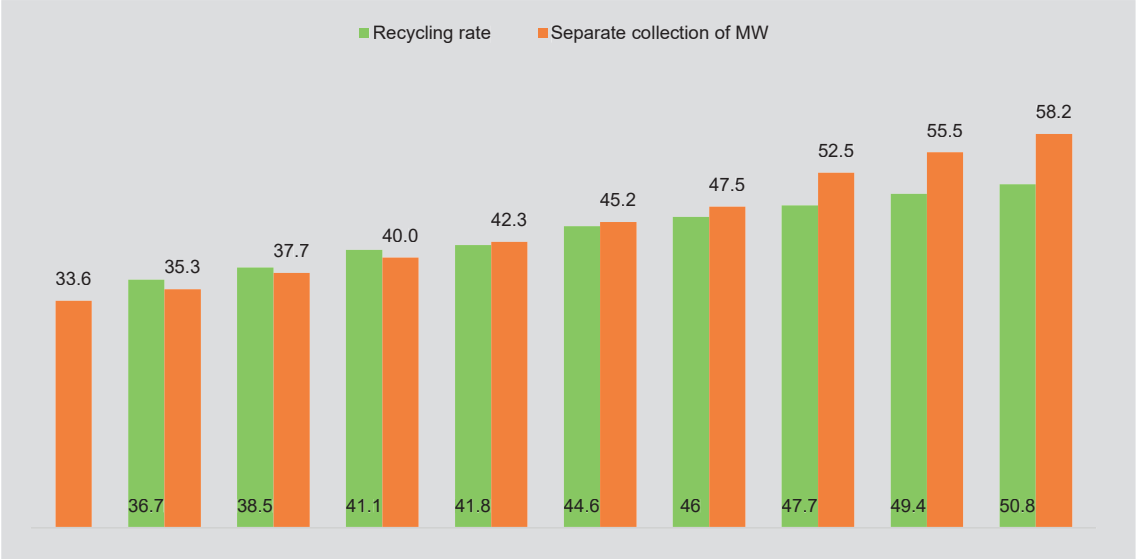
In 2016 in Italy, despite an increase respect to the last decade, the production of municipal waste (MW) is aligned with EU28 average levels, in relation to both the population (1,799 kilograms per capita vs. 1,772 for the EU28) and GDP (69 kilograms for 1000 euro vs. 65). Between 2009 and 2018, our country has reached significant improvements: the municipal waste per capita dropped from 543 kilograms per inhabitant to 499 (-8.1%).

Italy is showing a positive trend in relation to waste management as well. Between 2009 and 2018, the percentage of municipal waste sent to landfill on total municipal waste collected

has more than halved, from 50% in 2009 to 21.5% (-2 percentage points compared to last year; see Goal 11).

The percentage of recycling[2], an indicator of the economy's ability to convert consumer waste into new resources, showed a trend on the rise over time: from 36.7% in 2010 to 49.4% in 2017 (Figure 12.1). In the last year, Italy exceeded, for the first year, the target established by the European Union for 2020 reaching 50.8% (+1.4 p.p. over 2017), higher than EU28 average level.

Figure 12.1 - National recycling rate and separate collection of municipal waste (a)**. Years 2009-2018** (percentage values)



Source: Ispra, Produzione, recupero, trattamento e smaltimento di rifiuti urbani, speciali e pericolosi
(a) From 2016, data is only partially comparable with that of the previous years, due to a change in the calculation criteria for data on production of separate collection introduced by M.D. of 26 May 2006.

In the last decade, the volume of municipal waste object of separate collection has increased by 6.7 million tonnes, with a percentage increase of over 60%, although still lagging behind the targets set by the Italian legislation[3]. The 17.6 million tonnes of MW separated in 2018 represent 58.2% of the national production of waste, a percentage increased by 2.7 percentage points (+1.1 tonnes), compared to last year.

2 Percentage ratio between the amount of municipal waste prepared for reuse or recycled, in a given year, and the total amount produced in the same year.

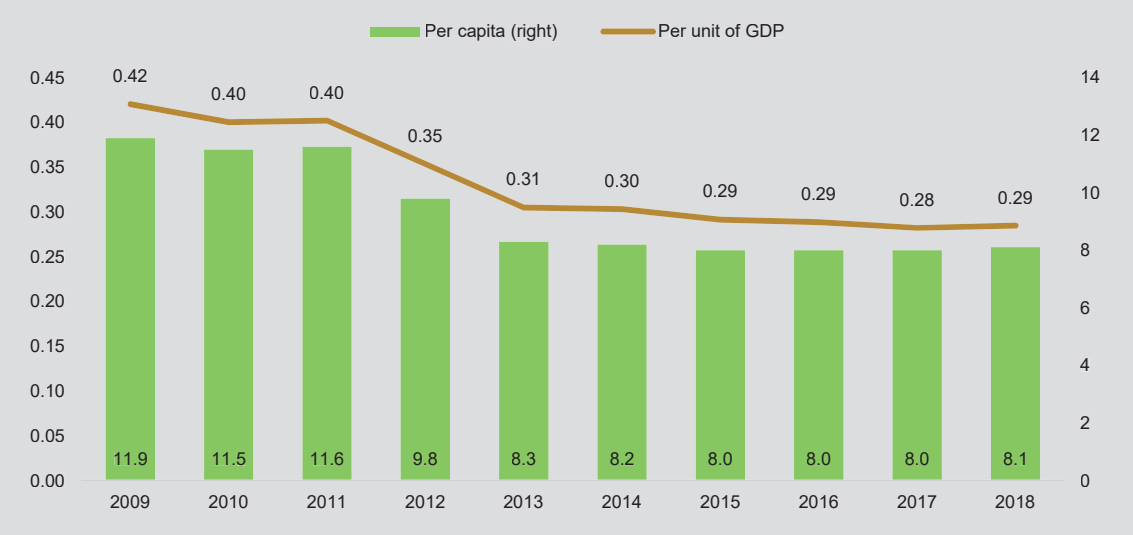
3 The targets set by Italian law for separate collection are: 35% by 2006, 40% by 2007, 45% by 2008, 50% by 2009, 60% by 2011 and 65% by 2012 (Legislative Decree 152/2006, Law 296/06).

SDG 12.2.2 - Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP

The indicators selected for the monitoring of target 12.2 refer to material consumption, which provides important indications on the sustainability of the production and consumption models related to the risk of qualitative/quantitative deterioration of natural resources. Domestic material consumption (DMC)[4] measures the apparent consumption of materials in a national economy and equals the amount of materials used by the socioeconomic system in a given year.

The ratio of domestic material consumption and GDP - an indicator of efficiency in the usage of material resources – shows progress towards the target of decoupling of material consumption from economic activity. During the last decade, the DMC per unit of GDP registered a decrease for EU28 average and Italy was among the countries that recorded the most consistent contraction. In 2018, Italy reached the third position in the EU28 countries ranking of material consumption ratio to GDP (62% of the EU average) and the first place in terms of per capita DMC (59%).

Figure 12.2 - Domestic material consumption per capita and per GDP. Years 2009-2018 (tonnes per capita and tonnes/ thousand of euro, chain linked volumes)



Source: Istat, Conti dei flussi di materia

Over the last ten years, in Italy, the total amount of domestic material consumed decreased by around 30%, reaching 490 million tonnes in 2018. The relative measures of the DMC, in relation to the GDP and to the number of inhabitants, showed a similar trend too, from 0.42 to 0.29 tonnes per 1,000 euro and from 11.9 to 8.1 tonnes per capita, respectively in 2009 and in 2018 (Figure 12.2). The contraction, most pronounced in 2009 and 2012, was influenced by the double crisis of the Italian economy and, in particular, by the crisis in the construction sector. Nonetheless, the trend indicates a progress in efficiency in the use of material resources by our economy. The indicator recorded in the last year a slight increase, after years of stability from 2014.

4 DMC is calculated as the sum of domestic extraction of materials used (quantities of biomass, non-energy minerals and fossil fuels extracted and sent for processing) and the balance of the direct imports of materials from other countries and the direct exports of materials to other countries.

SDG 12.a.1 - Installed renewable energy generating capacity in developing countries (in Watts per capita)

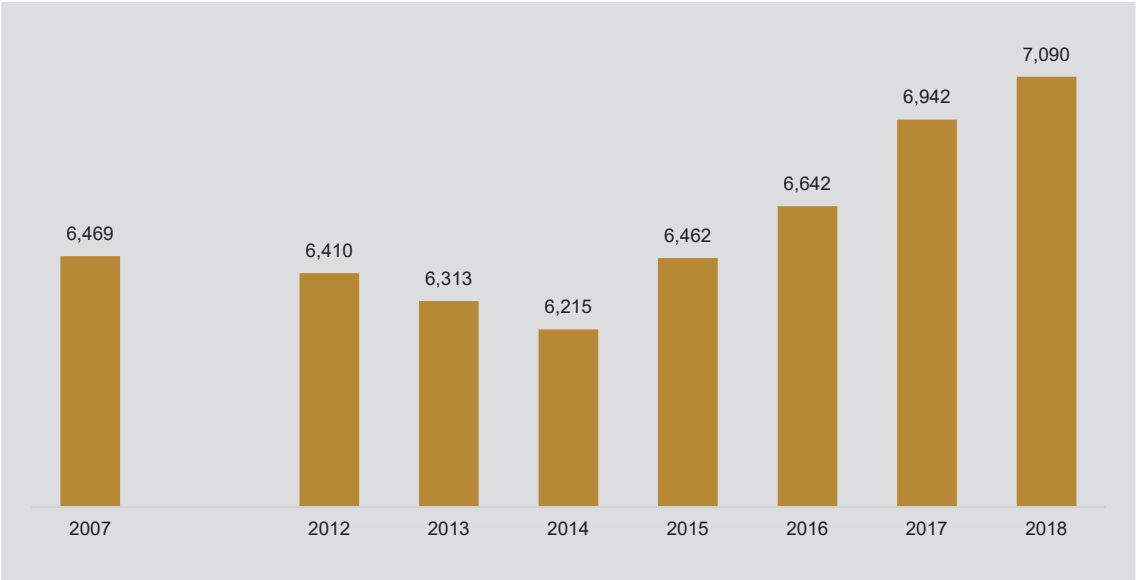
The first of the three means of implementation of Goal 12 aims to support developing countries in strengthening their scientific and technological capacity to move towards more sustainable patterns of consumption and production. Total net official development assistance (ODA) gross deliveries for research shows a significant improvement, going from 2.5 million euro in 2013 to 7.8 in 2018, although in the last year there has been a fall of 2.5 million (-24%). 2018 marked an overall reduction in ODA in relation to gross national income (see Goal 17).

SDG 12.b.1 - Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools

The promotion of sustainable tourism is an integral part of the plans and programmes for SCP, not only in relation to the goal of mitigating human burden on the environment, but also with respect to the role of sustainable tourism as an economic driver, a tool for job creation and a stimulus for enhancement of local culture and products. The national and international debate recognizes the methodological need to shed light on the environmental impacts of tourism, setting up specific analytical tools and indicators for the monitoring. We decided to disseminate indicators (of national context) of demand and impact.

The tourism intensity index (nights spent in tourist accommodation establishments per 1,000 inhabitants) is an indicator of tourist demand, which provides information on the impact of tourism on the community of residents and on the pressures in terms of additional services and infrastructures to deal with increasing demand due to fluctuation in attendance. The monitoring of the indicator is relevant for the concentration of tourist flows in territorial and temporal terms (high seasonality of flows, in particular for Italians).

Figure 12.3 - Tourism intensity index. Anni 2007-2018 (nights spent per 1,000 inhabitans)



Source: Istat, Movimento dei clienti negli esercizi ricettivi

2018 data confirms the increasing trend observed since 2015: with 7,090 presences per 1,000 inhabitants (+ 2.1% compared to the previous year), tourist intensity reached a new peak in the last twenty years (Figure 12.3).

The increase in waste production is one of the most significant effects of tourism. The impact of tourism on waste[5] is a context indicator to measure the sustainability of tourism on the territory. The tourism sector's contribution to the production of municipal waste shows an irregular trend over time, characterized by a first increasing phase (years 2009-2011) followed by a decrease in the period 2012-2014. The last four years marked an increase, coinciding with the recovery of the tourism, which takes the impact of tourism on waste to 9.1 kilograms per equivalent inhabitant, higher than in 2009 (8.9 kg/ab.eq.).

SDG 12.c.1 – (a) Amount of fossil-fuel subsidies as a percentage of GDP; and (b) amount of fossil-fuel subsidies as a proportion of total national expenditure on fossil fuels

The target 12.c aims at the rationalization of inefficient fossil fuel subsidies, in accordance to the targets of reducing the use of more polluting energy sources and with a larger impact on environment. Not yet compliant with the policies in the climate and energy sector and with the requested transition to a low carbon economy (see Goal 7), fossil fuels subsidies continue to be significant. The ratio to GDP indicates, for many countries, a growth in more recent years too. It is the case of Italy, where, in 2018, subsidies to fossil sources amounted to 1% of GDP, growing from 2016 (0.96%) and 2017 (0.97%).

5 Difference between the per capita generation of urban waste calculated with the resident population and the per capita generation of urban waste calculated with the equivalent population, which is obtained by adding to the resident population also the number of overnight stays recorded in the year and spread over 365 days.

Goal 12 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
12.1	Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, 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[1]

Goal 13 addresses the climate crisis by monitoring mitigation and adaptation measures, strengthening resilience, supporting knowledge on climate change issues at all levels: its determinants, the impacts on natural and human systems. The climate issue is by its nature holistic and multidimensional, as it synthetises economic, social and environmental factors[2], in the context of a wider environmental and ecological crisis resulting from the exploitation of natural ecosystems: excessive resource withdrawals, pollutants, upheaval of ecological balances.

In order to tackle the climate risk, the United Nations Framework Convention[3] and the related agreements, such as the Kyoto Protocol[4] and the Paris Agreement[5], have committed countries to contain the increase of global temperature by reducing emissions and by increasing removals (mitigation), and to adopt adaptation strategies in order to prevent and protect from the adverse effects. Tackling climate, environmental and ecological crisis is a global challenge that requires a transition to a more sustainable economy with less pressure on the environment. The paradigm shift required by the economic system is complex and ambitious, but it could be a driving force to take advantage from the opportunities, by investing in modern, efficient, competitive systems, respectful of the environmental. To support these efforts at a global level, countries need to adopt strong incentive policies aimed at halving emissions by 2030 and making the transition to carbon neutrality by 2050[6], combining economic competitiveness, social justice and environmental balance.

In 2015, in addition to the Paris Agreement, the United Nations World Conference on Disaster Risk Reduction adopted the Sendai Framework to reduce risks from natural or man-made disasters, with the objective of reducing mortality, number of people affected, economic losses, damages to infrastructure and basic services. It includes biological, environmental, meteorological, geophysical, technological hazards.

1 This section was edited by Giovanna Tagliacozzo with contributions from Aldo Femia.

2 Climate change-related statistics include: environmental, social and economic data that measure the human causes of climate change, the impacts of climate change on human and natural systems, the efforts of humans to avoid the consequences as well as their efforts to adapt to the consequences. UNECE Recommendations on Climate Change-Related Statistics Published: December 2014 www.unece.org/stats/publications/ces_climatechange.html

3 1992, United Nations Framework Convention on Climate Change (UNFCCC) http://unfccc.int/essential_background/items/6031.php

4 1997, Kyoto Protocol http://unfccc.int/kyoto_protocol/items/2830.php

5 Paris Climate Agreement (UN decision 1/CP.21, adoption of the Paris Agreement). Third UN World Conference on Disaster Risk Reduction in Sendai, Japan.

6 https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_it

The statistical measures released by Istat for Goal 13 are thirteen and refer to two UN-IAEG-SDGs indicators (Table 13.1).

Table 13.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
13.1	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries				
	Population at risk of landslides (Ispra, 2017, %)	National context	2.2	--	--
	Population at risk of flood (Ispra, 2017, %)	National context	10.4	--	--
	Deaths and missing persons for landslides (Ispra, 2018, number)	Partial	12	--	--
	Injured persons for landslides (Ispra, 2018, number)	Partial	29	--	--
	Deaths and missing persons for floods (Ispra, 2018, number)	Partial	32	--	--
	Number of injured persons for floods (Ispra, 2018, number)	Partial	12	--	--
	Number of the seismic movements (>= 4.0) by magnitude class (Ingv, 2018, number)	National context	16	--	--
	Forest fires impact: Area covered by the fire (Istat, Comando Carabinieri Tutela forestale, Nucleo Informativo Antincendio Boschivo, 2018, per 1,000 km^2)	National context	0.6	●	●
	Mean near surface temperature deviation compared to normal climatological values (1961-1990) Global and Italy (Ispra, 2018, °C)	National context	Global: +0.98 Italy: + 1.71	●	●
13.2.2	Total greenhouse gas emissions				
	Total greenhouse gas emissions (CO_2 and other greenhouse gases) (Istat-Ispra, 2018, tonCO_2eq):				
	- Greenhouse gas emissions (GHG) inventory totals (UNFCCC)	Identical	423,478,015	●	●
	- Balance between the emissions generated in the Rest of the World by units that are resident in Italy and the emissions generated on the national territory by units that are not resident in Italy.	Identical	14,666,034	●	●
	- Greenhouse gas emissions (GHG) accounts totals	Identical	438,124,785	●	●
	Emissions of CO_2 and other greenhouse gases (Istat, 2018, Tonn CO_2 equivalent per inhabitant)	National context	7.3	●	●

Legend

● IMPROVEMENT

● STABILITY

● DETERIORATION

-- NOT AVAILABLE / NOT SIGNIFICANT

In brief

Global carbon dioxide emissions from fossil combustion increased by 41% compared to 2000, reaching around 33 billion tonnes of CO_2 in 2017. The contribution to emissions by developed and developing countries has changed deeply in recent years. The former have progressively reduced their emissions by around 11% since 2008, while the latter have increased their emissions. Several factors have contributed to this divergence of trends. On the one hand, in developed countries, the adoption of more resource-efficient production systems, and on the other, in developing countries, a marked increase in production quotas linked to industrial development and, in part, to relocation processes.

Total greenhouse gas emissions[7] in Europe continue to decrease, with an index of 78.3 in 2017 compared to the base year 1990. Conversely the value of GHG emissions per capita returned to 8.8 tonnes of CO_2 equivalent in the same year.

The emissions of resident units[8], which in 2018 in Italy amounted to 438,124[9] thousand tonnes of CO_2 equivalent, are generated by production activities for three quarters and by households' consumption for one quarter. The predominant element of greenhouse gases in terms of CO_2 equivalent is carbon dioxide (82%), methane is present at 10%.

In Italy, extreme weather phenomena are also intensifying due to climate change, with multi-risk cascading events: landslides, floods, forest fires, extreme weather phenomena, heat waves, water shortages, droughts and desertification. Fragility, vulnerability, poor land management, maintenance and obsolescence of infrastructure aggravate human losses and economic and environmental damages.

In 2018, average temperatures anomalies on the mainland[10] increased by 1.71°C in Italy and by 0.98°C globally, compared to normal climatological values (1961-1990).

In 2018, favourable meteo-climatological factors compared to the previous year, led to a reduction in forest fires: 3,220 fires, a decrease of 41.0% compared to 2017. The surface covered by fire has reached its lowest value of the last years, equal to 0.6 per 1,000 km^2 in 2018, 5.4 in 2017. In Southern Italy occur 77% of fires.

Our country is subject to disasters of seismic and volcanic origin that cause more losses and damages where the territory and infrastructure are more fragile and vulnerable. In 2018, there have been recorded 16 earthquakes with a magnitude equal or higher than 4.0, one of which was within the 5.0-5.4 magnitude range without any event of greater magnitude. In 2017 there have been recorded 20 earthquakes, of which three within the 5.0-5.4 magnitude range and one within 5.5-5.9 magnitude range. 2016 has been a year of high seismic intensity, with 67 earthquakes with a magnitude equal or higher than 4.0 of which two were higher than magnitude 6.

7 In addition to carbon dioxide (CO_2), which is the gas emitted in the greatest quantities, the main atmospheric gases that cause the greenhouse effect are hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluorides (SF_6), methane (CH_4), nitrous oxides (N_2O) and nitrogen trifluoride (NF_3).

8 Atmospheric emissions consistent with the principles and standards of the national economic accounts

9 Provisional data.

10 Climate variability refers to fluctuations in meteorological parameters relative to average values. of a long period (at least thirty years) taken as a reference.

SDG 13.2.2 - Total greenhouse gas emissions[11]

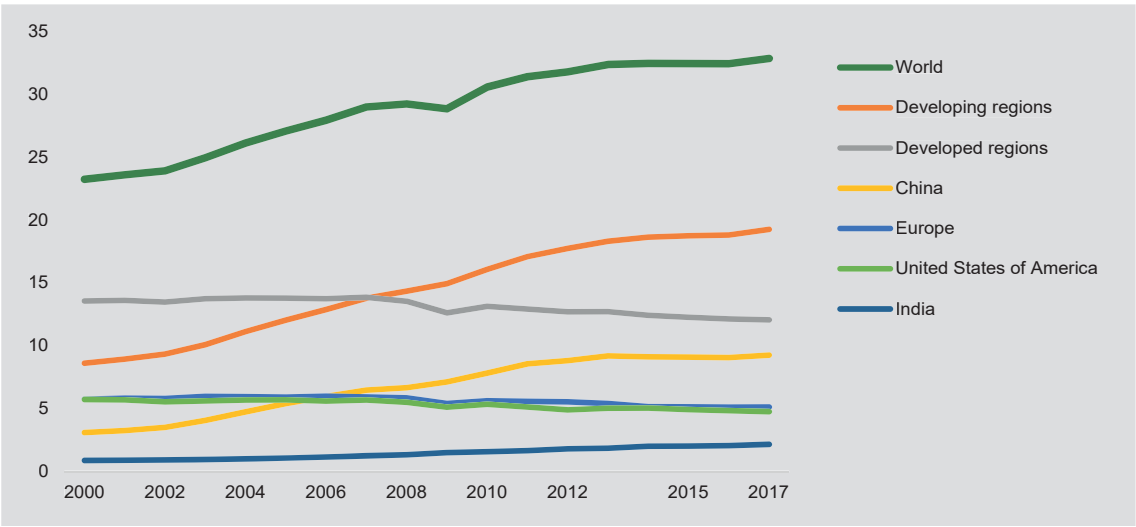
Global warming, caused by increased concentrations of greenhouse gases in the atmosphere, is mainly due to anthropogenic emissions. The set of chain reactions that occur include changes in the rainfall system, melting glaciers, rising sea and ocean temperatures, their acidification, rising sea levels, the intensification of adverse weather phenomena.

These changes are taking place and have destructive effects on the environment: alteration of ecosystems, loss of biodiversity, loss of soil quantity and quality[12], heat waves and water crises, with serious repercussions on the economic and social systems. Urgent mitigation and adaptation measures are needed in order to address this global risk, by strengthening resilience at global scale, to be implemented on a local scale by a systemic and integrated approach.

In 2015, the countries that signed the Paris Agreement were committed to reduce greenhouse gas emissions. The annual Conferences of the Parties following the COP21 were aimed at implementing the agreement, focusing on the progress and giving substance to the contributions determined at national level (NDC), stressing increasingly the urgency. On the practical side, however, there has been no concrete action leading to a systematic reduction in emissions, especially by the major contributors, such as China and United States; USA formally left the agreement in 2019.

Globally, carbon dioxide emissions from fossil combustion have increased more than 41% compared to 2000 level, reaching almost 33 billion tonnes in 2017. Since 2000, the share of developing countries' emissions has grown significantly (+118%), while developed countries have reduced their emissions (-11%, Figure 13.1). The reduction in the level of emissions in developed countries is attributable on the one hand to the increased use of imports to meet demand for goods and to the relocation of production activities, and on the other hand to the conversion of energy supplies and the efficiency of production systems (see Goal 7).

Figure 13.1 - Emissions of carbon dioxide from fossil fuel combustion by geographical area. Years 2000-2017 (billion tonnes of CO_2)



Source: unstats.un.org/sdgs/indicators/database/

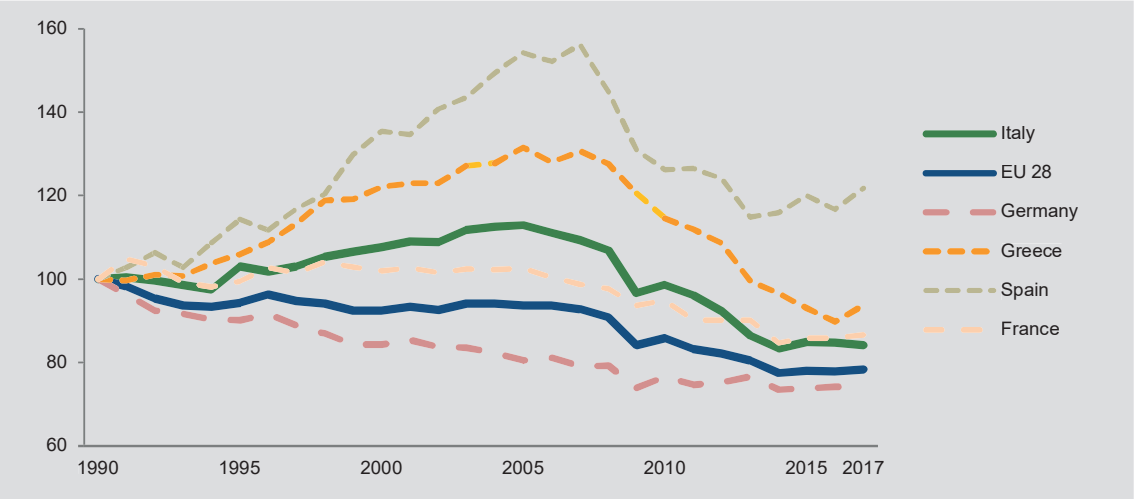
11 Indicator added by the 2020 UN-IAEG-SDGs Review of indicators (see Chapter 2).

12 Rapporto sullo Stato del Capitale Naturale in Italia, Comitato per il Capitale Naturale, 2019 www.minambiente.it/sites/default/files/archivio/allegati/sviluppo_sostenibile/iii_rapporto_stato_capitale_naturale_2019.pdf

In 2017 the EU28 total greenhouse gas emissions, expressed as an index number based on 1990=100, were 78.3. The index level is below 100 for a large number of European countries, such as Germany (74.1), Italy (84.1) and France (86.6) which are the largest contributors, while it is significantly higher in Portugal (122.8), Spain (121.8), Ireland (112.9, Figure 13.2).

Similarly, the value of GHG emissions per capita in the last year does not confirm the slight decrease recorded between 2015 and 2016 in the EU28. In 2017 per capita emissions increased again, both in the EU28 average (8.8 tonnes of CO_2 equivalent per capita[13] [14]) and in countries such as Greece (from 8.8 to 9.2) and Spain (from 7.4 to 7.7). In Germany and France, there is a substantial stabilisation (respectively 11.3 and 7.2).

Figure 13.2 - Greenhouse gas emissions (CO_2 equivalent) in the main European countries. Years 1990-2017 (fixed base index numbers 1990=100)



Source: Eurostat

Italy reduced greenhouse gases emissions per capita from 7.4 in 2017 to 7.3 in 2018. According to the national inventory of atmospheric emissions[15], in fact GHG emissions have been decreasing since 2005, when they amounted to 580,599 thousand tonnes of CO_2 equivalent. In 2018 they amounted to 423,478 thousand tonnes of CO_2 equivalent[16], with a further decrease of about 1% compared to the previous year, values below those recorded in 1990 (517,746 thousand tonnes of CO_2 equivalent).

Air emissions accounts, consistent with the principles and standards of the national economic accounts, measure the emissions of resident units generated by production activities and household consumption. These units' emissions were in total 438,124 thousand tonnes of CO_2 equivalent in 2018[17] [18]. According to the national accounts, the

13 EU27 equal to 8.9.

14 Provisional data.

15 The national inventory of air emissions, annually released by Ispra, provide the data for the Italian National Communications within the framework of the United Nations Convention on Climate Change (Unfccc) and the Convention on long range transboundary air pollution (Clrtap).

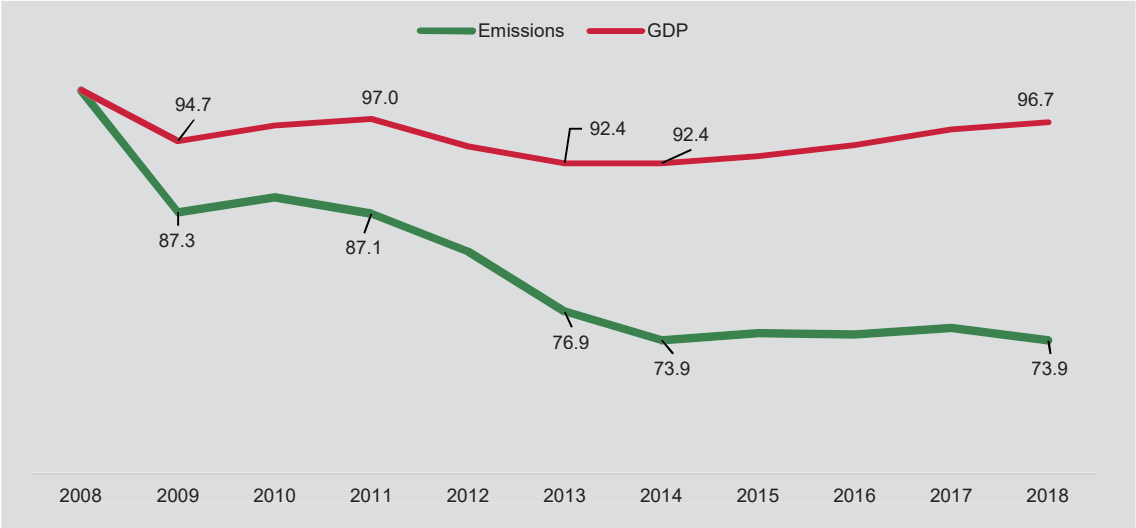
16 Provisional data.

17 The difference between the two measurements is due to the balance of the emissions of resident units operating abroad for road, air and sea transport activities (i.e. those that contribute to the GDP of Italy even when they occur outside the national territory) and the emissions of non-resident units operating on the national territory for the same activities.

18 Provisional data.

relationship between the dynamics of emissions from production activities and GDP, in the period considered, shows clear signs of decoupling, accentuated in the last years of the economic recovery when, in the presence of an increase in GDP, emissions remained substantially stable (Figure 13.3).

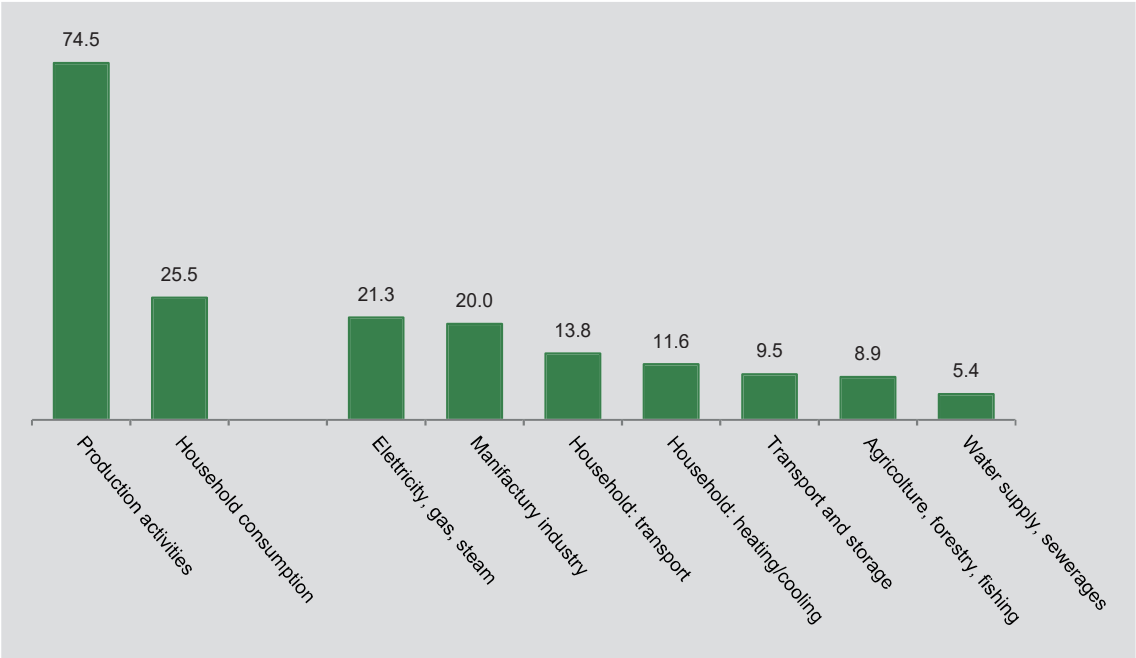
Figure 13.3 - Greenhouse gas emissions of production activities and GDP. Years 2008-2018 (chain linked values, fixed base index 2008=100)



Source: Istat, Conti nazionali delle emissioni atmosferiche

Three quarters of these emissions are generated by production activities, the remaining quarter by household consumption.

Figure 13.4 - Greenhouse gas emissions according to air emission accounts, by households and production activities. Year 2018 (%)



Source: Istat, Conti nazionali delle emissioni atmosferiche

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

In 2015, in addition to the Paris Agreement, United Nations for Disaster Risk Reduction adopted the Sendai Framework, with the aim of reducing mortality, the number of people affected, economic losses, damage to infrastructure and basic services in the event of natural or man-made disasters. It includes geophysical, hydrological, meteorological, climatological, technological and biological hazards and environmental degradation. Risk management is a cyclical and continuous process based on prevention, emergency management, risk assessment, knowledge and risk understanding to increase resilience and to intervene effectively in recovery, response, prevention, preparedness, in order to reduce the risk of future shocks and losses. Risk management is based on the components of hazard, vulnerability, exposure[19] and capacity.

Climate change is the cause of adverse weather phenomena and natural disasters that are intensifying in Italy too, with disastrous multi-risk cascade events: landslides, floods, forest fires, storms, extreme weather phenomena, heat waves, drought and desertification. The country is also subject to volcanic phenomena and earthquakes. The damage is greater in the most exposed, fragile and vulnerable areas with high hydrogeological risk.

In 2017, 10.4% of the population is exposed to flood risk[20], i.e. the risk of personal injury (dead, missing, injured, evacuated), while the percentage exposed to landslide risk[21] is 2.2%[22]. The values vary greatly from one region to another. 240 people died as a result of landslides, floods or flooding in the period 2010-2018; more than 300 were injured[23].

In 2018, for favourable meteo-climatological factors compared to previous years, 3,220 fires occurred (7,846 in 2017) spread over an area of 19,481 hectares, of which 8,805 were wooded and 10,676 unwooded. The surface covered by fire for 1,000 km^2 reached in 2018 its lowest value in recent years, equal to 0.6, while the previous year it was equal to 5.4 for 1,000 km^2, the highest peak year.

Average temperature anomalies on mainland in 2018 reported an increase of 1.71°C in Italy and an increase of 0.98 globally. The period 1991-2018 confirm a positive trend (Figure 13.5).

19 Hazardous Events and Disasters includes Statistics on the occurrence and magnitude of hazardous events and disasters, exposure to hazards, vulnerability, coping capacity, impact of hazardous events and disasters on human and natural systems, and the efforts to reduce disaster risk. UNECE Recommendations on the Role of Official Statistics in Measuring Hazardous Events and Disasters. Published: March 2020 www.unece.org/index.php?id=53838

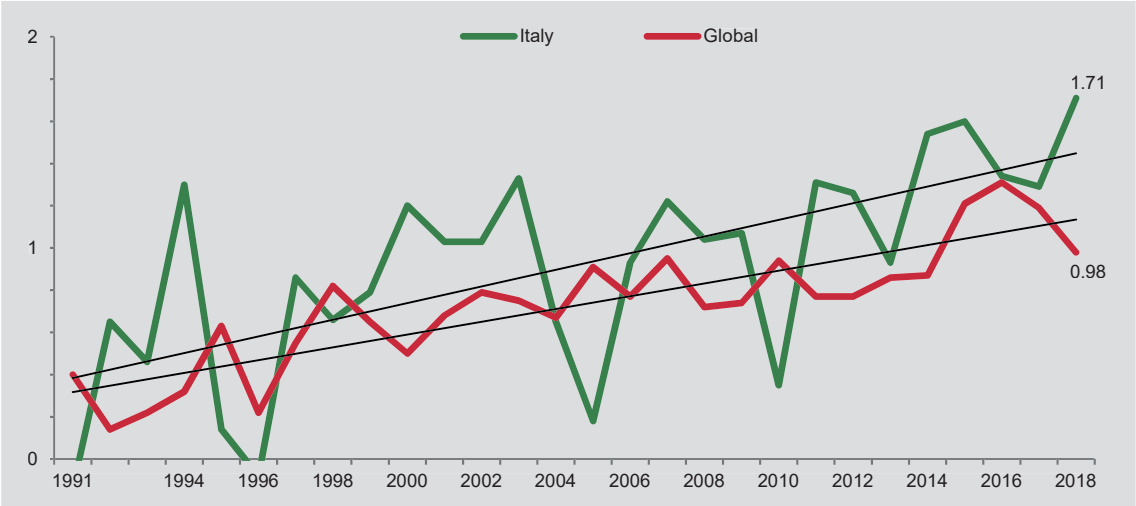
20 Population at flood risk resident in medium flood hazard zones (Return period 100-200 years; D. Lgs. 49/2010)

21 Percentage of the population in areas with high and very high landslide hazards on the total resident population.

22 For the analysis of these indicators see: Istat, "2019 SDGs Report".

23 Between 2005 and 2018, avalanches caused 310 deaths (and injured 419 - Source: AINEVA), fires caused a total of 53 deaths (source ex CFS-Pubblicazione annuale "Incendi Boschivi", Regione autonoma della Sardegna, Regione Siciliana).

Figure 13.5 - Mean near surface temperature deviation (Global and Italy), with respect to Normal Climatological values 1961-1990. Years 1991-2018 (°C)



Source: Ispra

Goal 13 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	National context
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[1]

The targets of Goal 14 aim to the conservation of the oceans, seas and marine resources, essential elements for health and the safeguard of the whole planet. The climate, the availability of fresh water and food, even the air we breathe are regulated by the sea. Healthy and productive oceans preserve marine and coastal ecosystems, ensuring prosperity to countries and populations on the sea. The protection of the sea is based on the conservation, recovery and restoration of ecosystems by combating the negative effects of climate change, marine pollution caused by human activities and destructive fishing activities. Unregulated human activities lead to the depletion of fish stocks and the loss of natural habitats along the coasts. Sustainable management policies for fisheries, aquaculture and tourism need therefore to be adopted for the conservation of marine biodiversity and coastlines.

The statistical measures released by Istat for Goal 14 are four and refer to two UN-IAEG-SDGs indicators (Table 14.1).

1 This section was edited by Giovanna Tagliacozzo with contributions from Tiziana Baldoni.

Table 14.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS		
				Compared to 10 years before		Compared to the previous year
14.4.1	Proportion of fish stocks within biologically sustainable levels					
Fish stock in over exploitation (Western Mediterranean) (Ispra, 2017, %)		Partial	90.7			
14.5.1	Coverage of protected areas in relation to marine areas					
Coastal bathing waters (Istat processing on Ministry of Health data, 2018, %)		Proxy	66.5		(a)	
Marine protected areas EUAP (Istat processing on Ministry of the Environment, Land and sea protection data, 2013, km^2)		Partial	3,020.5	--		--
Marine areas included in the Natura 2000 network (Ministry of the Environment, Land and sea protection, 2019, km^2)		Partial	11,041		(b)	

Legend

IMPROVEMENT

STABILITY

DETERIORATION

-- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2013
(b) Variation compared to 2014

In brief

Marine sites included in the Natura 2000 network are the major policy tool of the European Union's biodiversity conservation policy. In 2019 this perimeter delimits a total area of 11,041 km^2, with an increase of 5,163 km^2 respect to the previous year.

Bathing waters indicator allows an assessment of the overall quality of marine-coastal waters. Italy is the European country with the largest amount of bathing waters – about a quarter of the EU total coastline – most of them are of more than sufficient quality (less than 1% are in the "poor" class). In 2018, the bathing marine coasts reach the 66.5% of the Italian coastline. The share of non-bathing coastline includes areas with health and safety risks, military areas, ports, river mouths and natural areas subject to protection.

Fishing activity is overfished in the Western Mediterranean. Fishing in the 90.7% of cases is not biologically sustainable to ensure the reproductive capacity of most fish stocks.

SDG 14.5.1 - Coverage of protected areas in relation to marine areas

The marine Natura 2000 network, the main tool of EU's biodiversity conservation policy, include the Special Protection Areas (Zps), the Sites of Community Importance (Sic) and Special Areas of Conservation (Zsc)[2]. In 2019 Italy has doubled in size the share of the sea surface from 3.2% to 7.2% of territorial waters, in compliance with a recent European Commission procedure (EU-Pilot 8348/16/ENVI) for the lack of marine sites falling into the Natura 2000 network.

The total sea area extends for 11,041 km^2, of which 86% belongs to the two island regions:

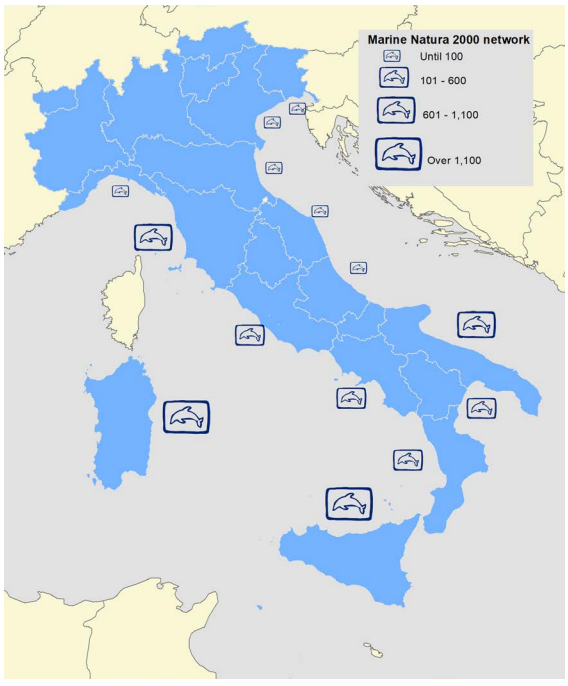
2 Net of overlaps.

6,503 km² in Sicilia and 1,225 km² in Sardegna. In addition, Puglia, Toscana and Lazio show a significant extension to the sea. Compared to the previous year, there are relevant increases, for the extension and the designation of new marine sites in Lazio, Basilicata and Sicilia, for a total of 5,614 km², involving 29 areas, which double the total extension of marine areas (Figure 14.1).

The notion of bathing waters is defined by the "Bathing Water Directive" (Directive 2006/7/EC), implemented in Italy by the Legislative Decree 116/2008, followed by the Decree of 30 March 2010 and recently modified by Ministerial Decree of 19 April 2018. According to the Directive, bathing water includes "any element of surface water where the competent authority expects a large number of people to bathe and has not imposed a permanent bathing prohibition, or issued permanent advice against bathing (hereinafter bathing water)". Bathing areas are monitored to assess the "presence of microbiological contamination or other organisms or waste affecting bathing water quality and presenting a risk to bathers' health"[3].

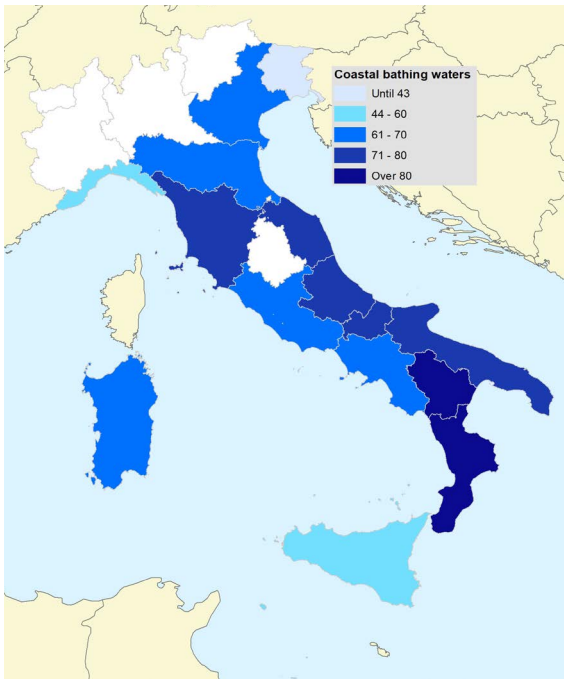
The bathing prohibition includes areas with health and safety risks, but also protected natural areas, military areas, ports and river mouths. In 2018, the sea bathing coast is equal to 66.5% of the total length of the Italian coast. It does not include monitored waters banished from bathing (temporary bans) for the entire bathing season due to the concentration of contaminants above health risk thresholds or as a preventive measure (Figure 14.2).

Figure 14.1 - Marine areas included in the Natura 2000 network. Year 2019 (km²)



Source: Ministry of the Environment, Land and sea protection

Figure 14.2 - Coastal bathing waters. Year 2018 (%)



Source: Istat processing on Ministry of Health data

Finally, there is a slight decrease in the share of the bathing coast in the country respect to the previous year.

3 The microbiological parameters monitored are, according to current legislation, intestinal enterococci and Escherichia coli. There is also the constant observation of other factors of health interest which, although not examined for the purposes of the classification, may determine preventive measures in the event that values considered to be at risk are detected for health.

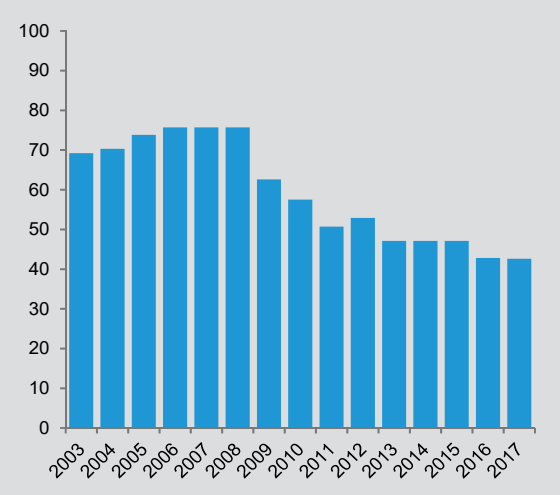
SDG 14.4.1 - Proportion of fish stocks within biologically sustainable levels

Intensive fishing leads to overfishing of fish stocks in relation to their self-regenerating capacity, with negative effects on ecosystems and on the productivity of fisheries related economic activities. Phenomena induced by climate change, such as acidification[4], water warming, sea levels rise, have a negative impact on the marine ecosystem and aggravate the unsustainability of intensive fishing. The exploitation of fish stocks must be within biologically sustainable levels to ensure their reproduction in order to guarantee fish regeneration.

Eurostat provides the indicator for the share of fish stocks that exceed the estimated fishing mortality (by death or removal of fish), consistent with the achievement of Maximum Sustainable Fish Stocks (FMSY)[5].

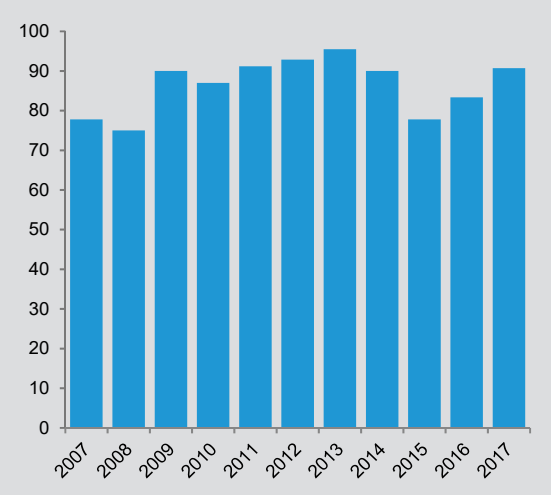
The share of assessed fish stocks exceeding fishing mortality at Maximum Sustainable Yield (FMSY) in the North-East Atlantic and adjacent areas has fallen below 50% since 2012, reaching 42.6% in 2017 (Figure 14.3a).

Figure 14.3a - Fish stocks exceeding mortality for fishing at maximum sustainable yield (FMSY) in the north-east Atlantic and adjacent areas. Years 2003-2017 (%)



Source: Eurostat, JRC, STECF

Figure 14.3b - Percentage of overfished fish stock in the geographical area of the Western Mediterranean. Years 2007-2017 (%)



Source: Ispra

In the Western Mediterranean, fishing is carried out under conditions of overfishing too[6]. From 2009, the share of overfished fish stocks, in the assessed fish stocks, exceeds 90% (90.7% in 2017) and is not biologically sustainable for the reproductive capacity of fish stocks (Figure 14.3b).

4 The oceans normally absorb between 25% and 30% of the carbon dioxide released into the atmosphere annually. If the concentration of CO_2 present in the atmosphere increases, the chemical balance is altered causing the process known as ocean acidification.

5 The FMSY (Fishing mortality at Maximum Sustainable Yield) value is determined by the long-term average stock size and represents the point at which the largest catch can be taken from a fish stock for an indefinite period without damaging it. The percentage ratio represents the proportion of overfished fish stocks on the stock valued.

6 The values measured in the north-east Atlantic and adjacent areas and in the geographical area of the Western Mediterranean are the result of different methodologies and are therefore not comparable.

Goal 14 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
14.1	By 2025, prevent and significantly reduce marine pollution, 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 (c).			
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 the United Nations Convention on the Law of the Sea, 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[1]

Goal 15 aims to safeguard terrestrial ecosystems and their biodiversity. A comprehensive strategy is needed, because the entire planet is affected, in every part of it, by different forms of land and environment degradation – to stop which, the simple conservation of the natural ecosystems that still survive, or the large reserves of the biosphere, is not enough. Special emphasis is put on the issues of deforestation and desertification: macro-phenomena that are deeply connected to the anthropic activities and to the climate change, which jeopardize the livelihoods of millions of people fighting against poverty in developing countries. The other main theme is the loss of biodiversity, to be tackled with conservation and environmental restoration policies, the promotion of a sustainable and shared use of genetic resources and the fight against the extinction of threatened species.

In Italy, the monitoring of the progress towards this Goal regards mainly the protection of natural environments and the fight against land degradation and the loss of biodiversity.

The statistical measures released by Istat for Goal 15 are twenty and refer to nine UN-IAEG-SDGs indicators (Table 15.1)[2].

1 This section was edited by Luigi Costanzo.

2 Two of the statistical measures released (*Checks done in application of the CITES and Offences detected in application of the CITES*) are relevant to two different UN-IAEG-SDGs indicators (15.7.1 and 15.c.1).

Table 15.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG Indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
15.1.1	Forest area as a proportion of total land area				
	Forest area as a proportion of total land area (Istat and FAO, 2015, %)	Identical	30.8		--
	Forest area index (ISPRA and FAO, 2015, %)	Context indicator	36.8		--
15.1.2	Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type				
	Average proportion of terrestrial Key Biodiversity Areas (KBAs) covered by protected areas (BirdLife International, IUCN and UNEP-WCMC, 2019, %)	Identical	77.3		
	Average proportion of freshwater Key Biodiversity Areas (KBAs) covered by protected areas (BirdLife International, IUCN and UNEP-WCMC, 2019, %)	Identical	84.7		
	Protected natural areas (Istat and Ministry for Environment, Land and Sea Protection, 2017, %)	Context indicator	21.6	--	
15.2.1	Progress towards sustainable forest management				
	Forest area net change rate (FAO, 2010-2015, %)	Identical	0.59		--
	Above-ground biomass in forest (FAO, 2015, t/ha)	Identical	110.6		--
	Proportion of forest area within legally established protected areas (FAO, 2015, %)	Identical	35.1		--
	Forest area certified under an independent verification scheme (Istat and ISPRA, 2018, thousand hectares)	Identical	852		
15.3.1	Proportion of land that is degraded over total land area				
	Soil sealing from artificial land cover (ISPRA, 2018, %)	Proxy	7.64	(a)	
	Fragmentation of natural and agricultural land (ISPRA, 2018, %)	Context indicator	38.8	--	
15.4.1	Coverage by protected areas of important sites for mountain biodiversity				
	Average proportion of mountain Key Biodiversity Areas (KBAs) covered by protected areas (BirdLife International, IUCN and UNEP-WCMC, 2019, %)	Identical	78.1		
15.5.1	Red List Index				
	Proportion of species threatened with extinction, by level of the threat: Terrestrial vertebrates (ISPRA and IUCN, 2013, %)	Proxy	31.2	--	--
	Proportion of species threatened with extinction, by level of the threat: Dragonflies (ISPRA and IUCN, 2014, %)	Proxy	11.2	--	--
	Proportion of species threatened with extinction, by level of the threat: Saproxylic Beetles (ISPRA and IUCN, 2014, %)	Proxy	21.0	--	--
	Proportion of species threatened with extinction, by level of the threat: Butterflies (ISPRA and IUCN, 2016, %)	Proxy	6.3	--	--
	Proportion of species threatened with extinction, by level of the threat: Bees (IUCN, 2018, %)	Proxy	24.1	--	--
15.7.1 15.c.1	Proportion of traded wildlife that was poached or illicitly trafficked				
	Checks done in application of the CITES (ISPRA and CUTFAA, 2016, n)	Proxy	67,683	(b)	
	Offences detected in application of the CITES (ISPRA and CUTFAA, 2018, n)	Proxy	992	(b)	
15.8.1	Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species				
	Spreading of alien animal and vegetal species (ISPRA, 2017, n)	Context indicator	618		

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2012
(b) Variation compared to 2010

In brief

More than 30% of the national territory is covered by forests, whose extension is constantly increasing (+0.6% per year from 2000 to 2015), as well as their biomass density (from 95 to 111 tonnes per hectare). Although the growth of forest areas favours carbon absorption, it involves degradation risks too, because it is largely the spontaneous outcome of the abandonment of marginal agricultural lands, and of an increasing under-utilization of forest resources - which transfers abroad part of the pressure generated by the domestic demand for wood products.

The certification of forest management – attesting the sustainability of the production processes of forestry companies – is still uncommon in Italy: in 2015, only 7.4% of forest areas got a certification, well below the EU28 average (47.1%).

The system of protected natural areas covers about 80% of the Key Biodiversity Areas (also in the mountain ecosystems). However, most EU countries are closer to the target of total coverage. Conversely, in Italy, the coverage of forest areas (35.1%) and of the entire national territory (21.6%), is higher than the EU28 average.

Despite a slowdown in recent years – due to the crisis of the construction sector – land consumption continues to increase (about 48 km^2 of new paved or built-up surfaces realized during 2018). Artificially sealed surfaces are equal to 7.6% of the territory, but almost 40% has a high degree of fragmentation, which compromises its ecological functionality.

The state of biodiversity raises concern: among the terrestrial species living in our country, over 30% of Vertebrates, and about 20% of Insect species, are classified as endangered in the Italian Red Lists of Threatened Species. Besides, the presence of invasive alien species continues to grow (on average, about 11 new species detected every year, from 2000 to 2017).

SDG 15.1.1 - Forest area as a proportion of total land area

According to the latest available estimates, 30.8% of the national territory was covered by forests in 2015. The proportion reached 36.8% with the inclusion of the "other wooded lands", which are counted in the calculation of the Forest area index. Despite the constant growth observed in recent years, in contrast to the global trend (from 8.4 million hectares in 2000 to 9.3 in 2015)[3], forest coverage remains, in Italy, below the average values of Europe and the Developed regions (Figure 15.1). Moreover, the growth of Italian woodlands is mainly due to a spontaneous colonization of former marginal agricultural lands, subsequent to their abandonment. As a consequence, the advantages related to an expansion of forest coverage, such as the increase in carbon storage capacity, may be counterbalanced by negative effects in terms of landscape deterioration, land degradation and loss of ecological functionality.

3 Data referring to forest areas only. Taking into account also the "other wooded lands", in the same period the area increased from 9.1 to 11.1 million hectares.

SDG 15.2.1 - Progress towards sustainable forest management

Forest management is deemed sustainable if it contributes "to maintain and enhance the economic, social and environmental value of all types of forests, for the benefit of present and future generations"[4] and is assessed through a dashboard of outcome measures.

The first of these measures is the Forest area net change rate. Italy, in the decade 2005-2015, showed a steady growth, at the rate of 0.6% per year: slower than in the previous five years, but faster than in the rest of Europe and of the Developed regions.

The second measure is the Above-ground biomass in forest (measured in tonnes per hectare), whose variations can be seen as an account of gains and losses, the former coming from the forest growth, and the latter from wood removals, deforestation, fires, vegetal diseases, etc. A sustainable management of forest resources is supposed to keep the account in surplus, or at least in balance: i.e. to avoid a reduction in biomass density, indicating a loss of renewal capacity (generally due to over-exploitation) and a loss of ecological functionality in the long term. In 2015, the estimate for Italy is equal to 111 tonnes per hectare, higher than the averages of Europe and of the Developed regions (103 and 78 tonnes/ha, respectively) and, like these, it has been growing systematically since 2000 (Figure 15.2).

Figure 15.1 - Forest area as a proportion of total land area in Italy, Europe, the World, Developed and Developing regions. Years 2000-2015 (percentage values)

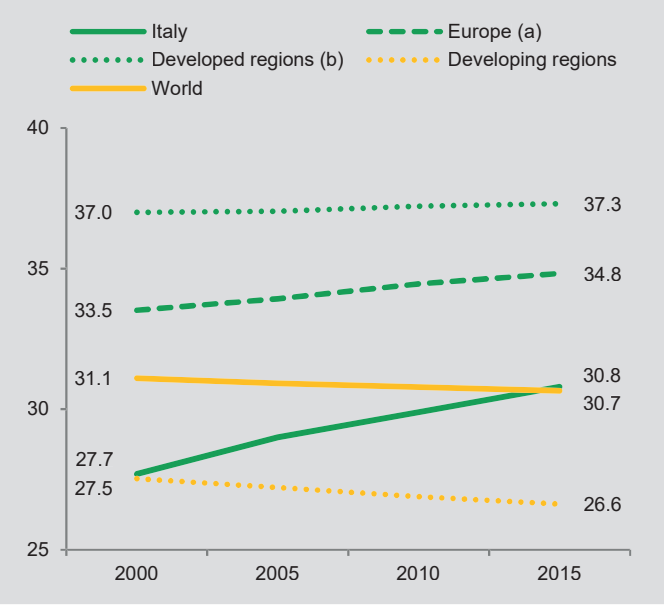
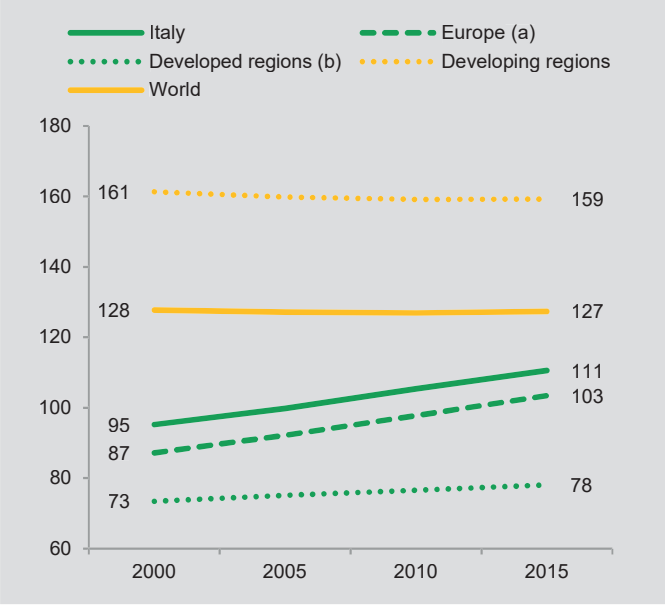


Figure 15.2 - Above-ground biomass in forest in Italy, Europe, Developed and Developing regions. Years 2000-2015 (tonnes per hectare)



Source: FAO, Global Forest Resources Assessment (for Italy: Istat, based on FAO, Gfra)
(a) Excluding the Russian Federation; (b) Europe (including the Russian Federation), Israel, the United States, Canada, Japan, Australia and New Zealand.

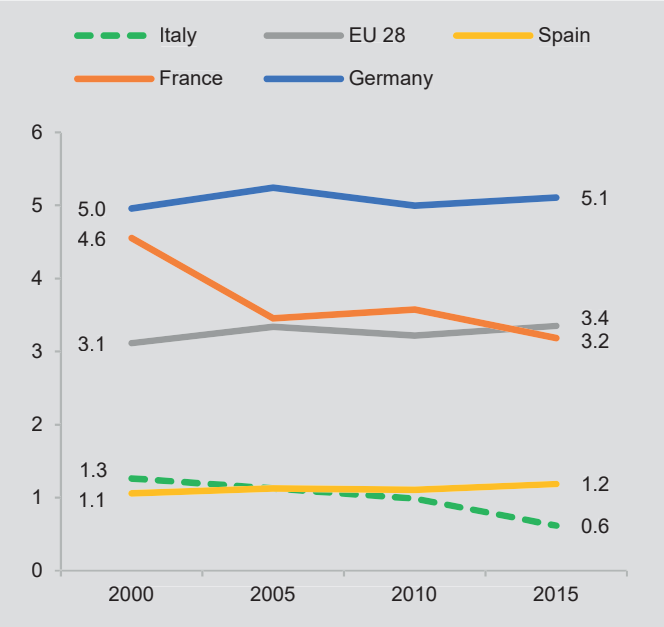
4 UN General Assembly, 1997, Resolution A/RES/62/98: *Non-legally Binding Instrument on All Types of Forests.*

The positive trend in the developed countries can be linked to more effective protection policies and a lower pressure from the economic system on domestic resources. In Italy, however, the densification of the vegetal cover in forest areas, as well as the growth of forest areas shown by these estimates, should be evaluated with caution.

Also the increase in the biomass density, in fact, can be linked to the abandonment of traditional agricultural practices, while a comparison with other European countries on wood removals seems to indicate, rather, an under-utilization of forest resources in Italy. Wood removals are among the lowest in Europe (0.6 m^3 per hectare in 2015, against an EU average of 3.4, Figure 15.3), while the imports of timber and wood products largely outstrip domestic extraction. Thus, much of the pressure on the ecosystem generated by the domestic demand is merely transferred abroad.

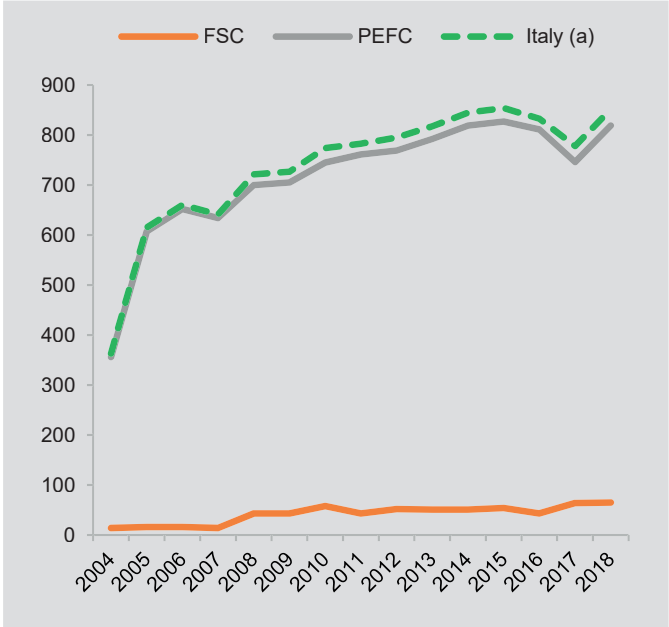
The third measure is the Proportion of forest areas within legally established protected areas, which in Italy in 2015 was equal to 35.1%, far beyond the EU28 average (19.6%). The forest area covered by the Italian system of protected areas (including both forests and other wooded lands) amounts to 3.9 million hectares, of which 1.5 million (13.9% of forest areas) are subject to a double protection regime, since they fall both within the national and regional parks and reserves of the Official List of Protected Areas (Euap), and within the Natura 2000 Network[5].

Figure 15.3 - Roundwood removals in Italy, EU28, Spain, France and Germany. Years 2000-2015 (cubic meters per hectare)



Source: Istat, based on Eurostat, Forestry statistics (Roundwood removals) and Forest Europe/Unece/Fao Enquiry on pan-European quantitative indicators (Extent of forest available for wood supply)

Figure 15.4 - Forest area certified in Italy, by certification scheme. Years 2004-2018 (thousand hectares)



Source: Istat and ISPRA, based on FSC-Italy and PEFC-Italy data
(a) Estimates.

5 See Mipaaft (2019), RAF Italia 2017 2018. https://www.reterurale.it/flex/cm/pages/ServeAttachment.php/L/IT/D/8%252F4%252F1%252FD.f8bffe877b6ff2584b21/P/BLOB%3AID%3D19231/E/pdf

Finally, the fourth measure regards the certified management of forest areas[6]. This is a voluntary process, through which forestry companies achieve a quality label from internationally acknowledged bodies, certifying the compliance of their production processes with specified requirements of environmental protection, social equity and economic efficiency. In Italy, it is estimated that in 2018 the certified forest areas are equal to 852 thousand hectares, an amount that remained quite stable in recent years (Figure 15.4). Italy is among the European countries where forest certification is less widespread, although in the decade 2005-2015 certified areas grew by almost 40%. In 2015, certified areas were equal to 7.4% of Italian forest areas (1.5 percentage points more than 2005), compared to the EU28 average of 47.1% (almost 9 points more than 2005).

SDG 15.3.1 - Proportion of land that is degraded over total land area

Surfaces made impervious by the construction of buildings and infrastructures (soil sealing) prevent the underlying soil from performing its ecological functions. The uncontrolled expansion of artificially sealed surfaces, favoured by a weak governance of urban development, has been a major cause of hydrogeological instability and landscape degradation over a large part of our country. The resulting land consumption, practically irreversible in the short term, should be considered just like other forms of consumption of non-renewable resources.

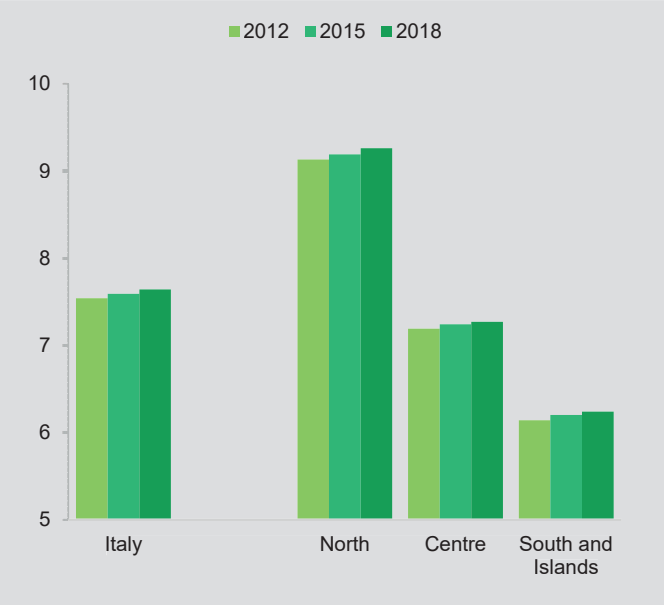
The National Strategy for Sustainable Development (2017) commits Italy to achieve the zero land consumption objective within 2030, anticipating by 20 years a target set by the European Commission in 2006. Even though, in recent years, the crisis of the construction sector has led to a slowdown in soil sealing, this phenomenon is still increasing at a worrying rate, especially in the North (Figure 15.5). In 2018, the soil sealed by artificial coverings reached the 7.6% of the national territory (9.3% in the North, 7.3% in the Centre, 6.2% in the South and Islands).

Land consumption interferes with the functionality of ecosystems, not only through the mere subtraction of space, but also through the fragmentation of open spaces. In 2018, according to the estimates of ISPRA, 38.8% of the national territory (0.5 points more than the previous year) shows a high or very high degree of fragmentation, which is a relevant factor of land degradation.

Land fragmentation and soil sealing are clearly related, but a land fragmentation index provides a more comprehensive measure of the actual impact of land consumption on environment and landscape, which affects a much wider area than the artificially sealed surfaces (Figure 15.6).

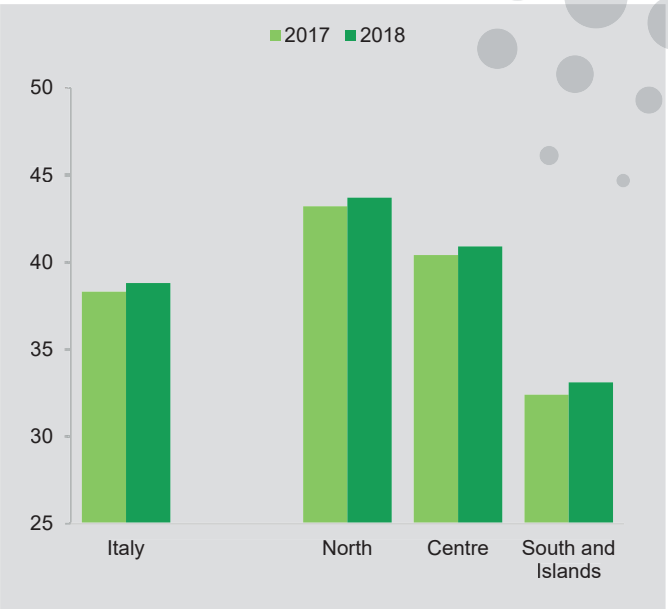
6 Indicator 15.2.1 also includes a fifth measure, the Proportion of forest area under a long-term management plan, for which the Italian situation does not allow, at the moment, to summarize a specific statistical measure, given the variety of planning instruments provided by the current legislation.

Figure 15.5 - Soil sealing from artificial land cover in Italy by geographical area. Years 2012, 2015 and 2018 (percentage values)



Source: ISPRA, Monitoraggio del consumo del suolo e del soil sealing

Figure 15.6 - Fragmentation of natural and agricultural land in Italy by geographical area. Years 2017-2018 (percentage values)



Source: ISPRA, Frammentazione del territorio

SDG 15.5.1 - Red List Index

According to the most recent updates of the Italian Red Lists, carried out between 2013 and 2018, 31.2% of the Vertebrates terrestrial species living in Italy are threatened with extinction (138 out of 442 species assessed, 17 of which are considered "critically endangered"). Among the Invertebrates, a complete assessment is available only for four taxonomic groups of the Insects class: Butterflies (6.3% of threatened species), Dragonflies (11.8%), Saproxylic beetles (24.0%) and Bees (24.1%). In total, out of more than 2,000 assessed insect species, about 20% have been classified as threatened with extinction (Figure 15.7). The general picture, although partial, clearly shows that Italy is still far from reaching the target 15.5 on halting the biodiversity loss by 2020.

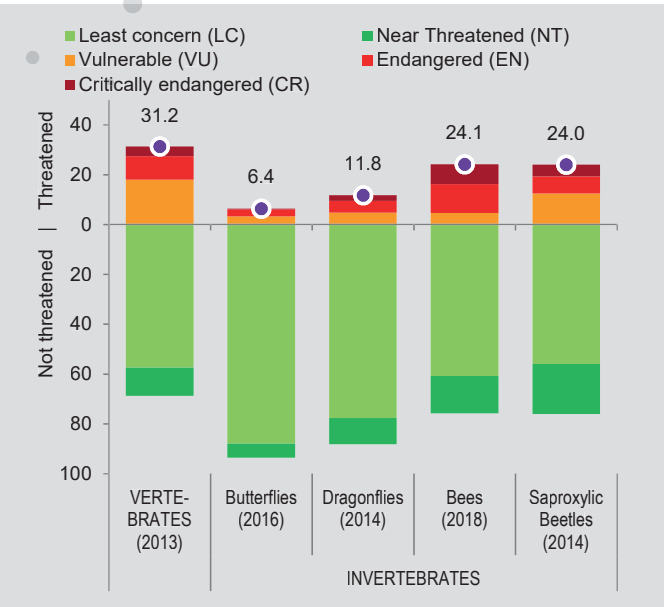
SDG 15.8.1 – Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species

With the Legislative Decree no. 230/2017, Italy has formally met the target 15.8, throughout the adoption of a specific legislation on the prevention and mitigation of impacts coming from the spread of invasive alien species by 2020.

The statistical measure proposed for this indicator describes the spread of invasive alien species in our country. This is considered a threat to biodiversity, since invasive species can alter the equilibrium of the ecosystems in which they settle, and lead to the extinction of native species. The time series of ISPRA, revised in 2018, shows a progressive acceleration of this phenomenon, connected to the intensification of trade and the development of transport and tourism on a global scale. From the year 1900, 618 species, still present

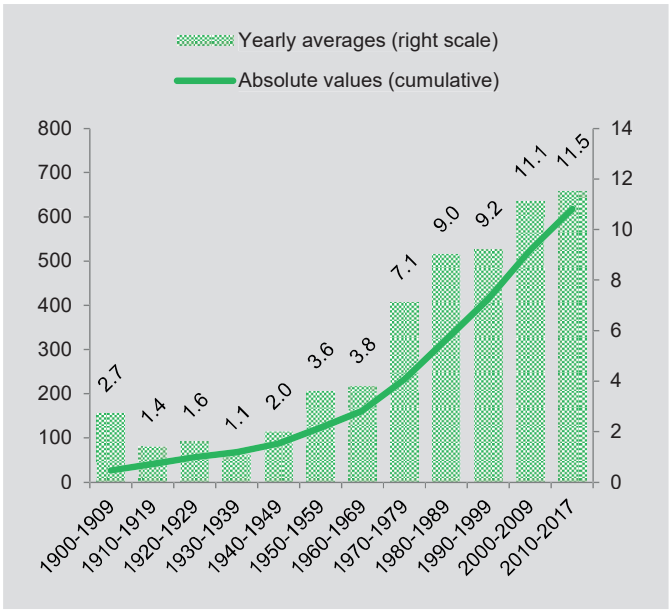
today, entered artificially in our country; about one third of which appeared after 2000, at the rate of over 11 new species per year (Figure 15.8).

Figure 15.7 - Animal terrestrial species extant in Italy by taxon and level of extinction threat. Years 2013, 2014, 2016 and 2018 (percentage values)



Source: Istat, based on ISPRA and IUCN data

Figure 15.8 - Alien animal and vegetal species extant in Italy by period of introduction (a)**. Years 1900-2017** (cumulative absolute values and yearly averages)



Source: ISPRA, Banca dati delle specie alloctone
(a) Only species with known year of introduction.

Goal 15 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
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.			
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.		 (*)	

(*) The measures referred to target 15.7 are identical to those referred to target 15.c.

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[1]

Goal 16 is dedicated to promoting peaceful and inclusive societies, ensuring universal access to justice and the creation of responsible and effective institutions. The Goals of Agenda 2030 cannot be achieved without peaceful, responsible and prosperous societies. Restoring peace in countries in conflict through effective institutions is the principal element for the achievement of equity and social justice, intergenerational, in accordance with the guiding principle of the Agenda: "Leave no one behind" which implies the protection of the environment, the ecosystems and of all species.

In order to achieve this objective, each country should commit itself to reducing all forms of violence, combating all forms of crime and eliminating corruption and flows linked to illegal arms trafficking. It is also essential the rule of law be guaranteed[2], at national and international level, and strengthened partnerships between countries.

At national level, it means having an accountable system of justice for citizens, efficient and effective justice, active participation of citizens, satisfaction with the services used, protection of the safety and well-being of people, which also involves respectful environmental safeguard.

The statistical measures realised by Istat for Goal 16 are eighteen, referring to nine UN-IAEG-SDGs indicators (Table 16.1).

1 This section was edited by Giovanna Tagliacozzo with contributions from Maria Giuseppina Muratore and Franco Turetta.

2 The UN has developed a set of conventions that originate from the 1948 Universal declaration of Human Rights. Of particular importance: The International Covenant on Economic, Social and Cultural Rights (ICESCR); The International Covenant on Civil and Political Rights (ICCPR); The International Convention on the Elimination of All Forms of Racial Discrimination (ICERD); The Committee on the Elimination of Discrimination against Women (CEDAW); The Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT); The Committee on the Rights of the Child (CRC); The Committee on the Rights of Persons with Disabilities (CRPD); The Committee on Enforced Disappearances (CED).

Table 16.1 - Statistical measures realised by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
16.1.1	Number of victims of intentional homicide per 100,000 population, by sex and age				
	Intentional homicide (Ministry of Interior, 2018, per 100.000 inhabitants)	Identical	0,6		
16.1.3	Proportion of population subjected to (a) physical violence, (b) psychological violence and (c) sexual violence in the previous 12 months				
	Proportion of persons aged +14 year old and victims of phisical assault in the last 12 months previous the survey (Istat, 2015/16, %)	Partial	1,2	--	--
	Proportion of persons aged +14 years old and victims of physical assault and robbery in the last 12 months previous the survey (Istat, 2015/16, %)	Partial	2,4	--	--
16.1.4	Proportion of population that feel safe walking alone around the area they live				
	People aged 14 and over feeling unsafe when walking alone in the dark in the area where they live (Istat, 2016, %)	Identical	60,6	(a)	--
16.2.3	Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18				
	Proportion of persons aged 18-29 years who experienced sexual violence by age 18 (Istat, 2015/16, %)	Proxy	Female 4.1 Male 0.7	--	--
16.3.1	Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms				
	Reporting rate of victims of physical assault for population aged 14-65 years old (Istat, 2015/16, %)	Partial	27,0	--	--
16.3.2	Unsentenced detainees as a proportion of overall prison population				
	Unsentenced detainees as a proportion of overall prison population (Ministry of Justice , 2019, %)	Identical	16,0		
	Juveniles unsentenced detainees as a proportion of overall prison population (Dipartimento per la giustizia minorile e di comunità - Ministry of Justice , 2018,%)	Identical	70,7	(b)	
	Prison density (Istat, processing on Ministry of Justice , Dipartimento amministrazione penitenziaria data, 2019, Number of prisoners for 100 available)	Context indicator	119,9		
16.5.1	Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months				
	Households where at least one component has received requests for money, gifts or favours in exchange of favours or services, lifetime (Istat, 2015/16, %)	Proxy	7,9	--	--
	Households where at least one component has received requests for money, gifts or favours in exchange of favours or services, in the last 3 years (Istat, 2015/16, %)	Proxy	1,7	--	--
	Households where at least one component has received requests for money, gifts or favours in exchange of favours or services, in the previous 12 months (Istat, 2015/16, %)	Proxy	1,2	--	--
16.6.2	Proportion of population satisfied with their last experience of public services				
	Trust in judicial system (expressed by people aged 14 and over) (Istat, 2019, score)	Partial	4,7	(c)	
	Trust in other institutions: police and fire brigade (Istat, 2019, score)	Partial	7,5	(d)	
	Percentage of households who find very difficult to reach some basic services (Istat, 2017-2019, %)	Partial	6,9	(e)	
	Effective average duration in days of civil proceedings (Dipartimento dell'organizzazione giudiziaria, del personale e dei servizi - Direzione Generale di Statistica e Analisi Organizzativa, 2019, average number of days)	Context indicator	421	(d)	
16.7.1	Proportions of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups				
	Youth and political representation in Parliament (Istat, processing on Camera dei Deputati e del Senato della Repubblica data, 2018, %)	Identical	42,2	--	--
	Women and political representation in Parliament (Istat, processing on Camera dei Deputati e del Senato della Repubblica data, 2018, %)	Identical	35,4	(f)	

Legend

- IMPROVEMENT
- STABILITY
- DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(a) Variation compared to 2009
(b) Variation compared to 2013
(c) Variation compared to 2011
(d) Variation compared to 2012
(e) Variation compared the mobile average 2017-2019 to the mobile averages 2016-2018 and 2008-2010, respectively
(f) Variation compared to 2008 and 2014, respectively

In brief

In 2018, in Italy 345 voluntary murders have been committed, corresponding to 0.6 per 100,000 inhabitants. The homicide rate has significantly decreased over the years, with a more gradual decrease in the recent years. The reduction of 12 victims compared to 2017 is due to the reduction of 22 male victims and an increase of 10 female victims, mainly for domestic violence.

At 31 December 2019 there were 9,746 unsentenced detainees, equal to 16.0% of the prison population. The number of adult prisoners in detention institutions is higher than the regulatory capacity. In 2019, the prison density in adult prisons increased compared to the previous year, from 117.9 to 119.9 prisoners per 100 available places.

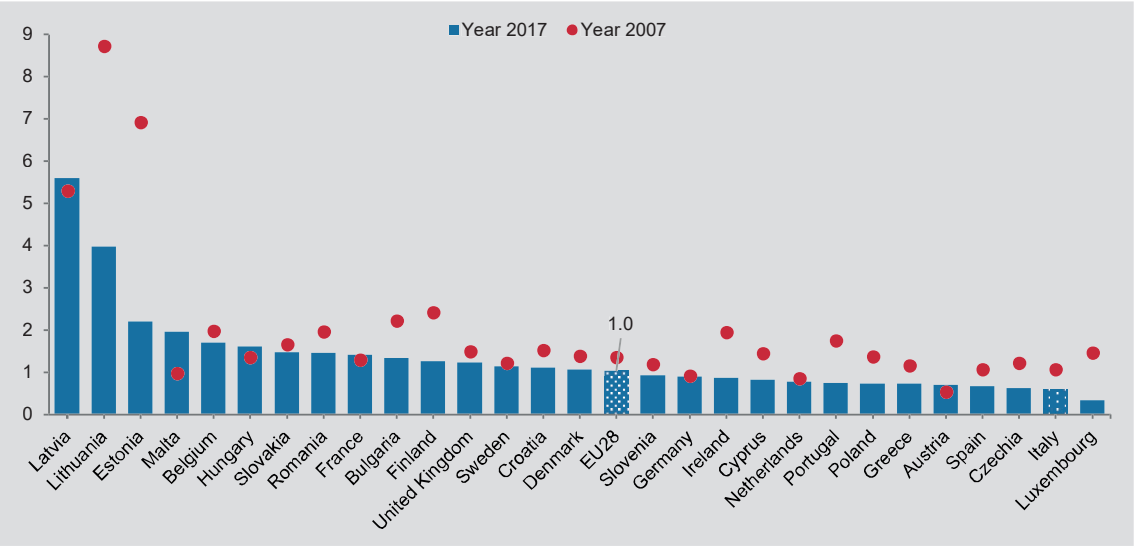
In accordance with the target aimed at developing effective, accountable and transparent institutions, the effective average duration of civil proceedings in ordinary courts, remains high at 421 days, although fell of twenty days in 2019 compared to 2018. This figure has been decreasing since 2014, when were required on average 505 days. Nonetheless, regional differences are relevant.

In 2019 citizens' satisfaction with some services, compared to the previous year showed a slight improvement. Households showing difficulties to reach at least three essential services between pharmacies, emergency room, post office, police, carabinieri, municipal offices, nursery school, primary school, junior high school, food shops, markets, supermarkets, were equal to 6.9% in 2019, a slight contraction compared to the previous year (7.3%).

SDG 16.1.1 - Number of victims of intentional homicide per 100,000 population, by sex and age

In most of the EU countries there was a progressive, albeit heterogeneous, reduction in the homicide rate, with a contraction in the differentials between countries. In 2017 the EU28 average was equal to about one voluntary homicide per 100,000 inhabitants; Italy is below the average recording 0.6 homicides per 100,000 inhabitants (Figure 16.1).

Figure 16.1 - Intentional homicides in the EU28. Years 2007 and 2017 (per hundred thousand inhabitants)

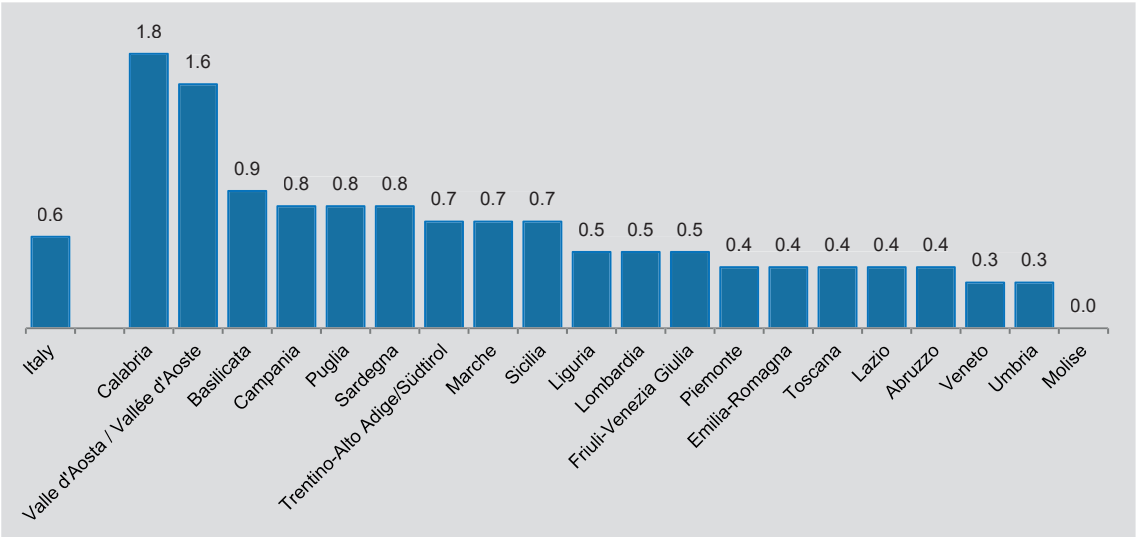


Source: Eurostat, crim_off_cat database; for the Netherlands: Eurostat, crim_hom_soff database; for Italy: Istat

In Italy the number of voluntary homicides has decreased significantly over the years. From the peak of 1991, with 1,916 victims (3.4 murders per 100 thousand inhabitants), to the figure for 2018 with 345 murders of which 212 males and 133 females[3].

The reduction of 12 victims compared to 2017 is due to the reduction of 22 male victim and an increase of 10 additional female victims. In the early 1990s, the ratio of men to women victims was equal to 5; in 2018 the ratio fell to 1.6. However, the murder rate remains higher for males (0.7) than for females (0.4). Male murders occur mainly in the South, also due to the presence of organized crime, female murders do not show any prevailing geographical location (Figure 16.2). The female murders occur mainly in the domestic environment. In 2018, 81.2% of females have been killed by a person they know: in more than half of the cases (54.9%) it is a partner (47.4% current, 7.5% previous), 24.8% a relative (including sons and parents) and 1.5% another known person (see Goal 5). Only in 12.0% of the cases the murderer was unknown to the victim, while in 6.8% the perpetrator was not identified. The murders of men occur only marginally within the family context: 2.4% by partners (none by former partners) and 16.0% by another relative. The author was known by the victim in a further 10.8% of cases, both the percentage of unknown and unidentified perpetrators were high (37.7% and 33.0%, respectively).

Figure 16.2 - Intentional homicides by region. Year 2018 (per 100.000 inhabitants)



Source: Ministry of Interior – Direzione Centrale della Polizia Criminale

Some indicators relating to victims of physical and sexual violence, households involved in corruption and citizens' perceptions of safety are calculated on the basis of regular surveys and can only be updated every 5-6 years[4].

3 Statistiche Report. Le vittime di omicidio. Periodo di riferimento 2018. Data di pubblicazione 5 marzo 2020. www.istat.it/it/files//2020/03/Report-Le-vittime-di-omicidio.pdf

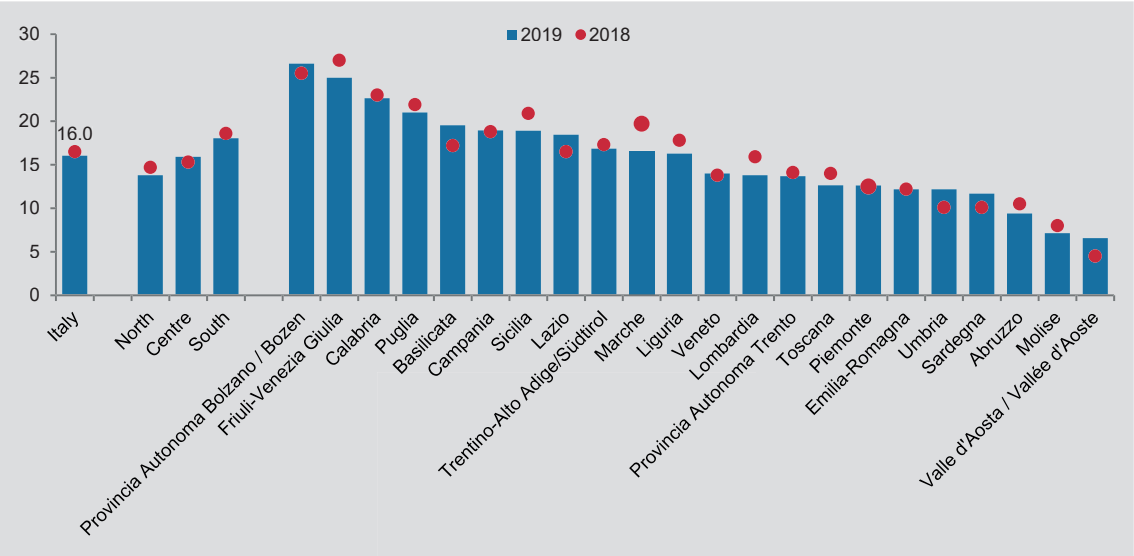
4 Istat, "2019 SDGs Report".

SDG 16.3.2 – Unsentenced detainees as a proportion of overall prison population

As at 31 December 2019, 60,769 people were detained in adult prisons, including 58,106 men and 2,663 women. Unsentenced detainees were 9,746, equal to 16.0%. In 2018, the proportion was 16.5% out of a total of 59,655 prisoners. At regional level there are significant differences, determined not only by the level of efficiency of the judicial system, but also by the type and seriousness of the crime committed (Figure 16.3). The percentage of people awaiting trial is prevalent among the youngest, in particular 18-20 year olds (39.4%), although it is decreased compared to the previous year (44.5%), and among foreigners (19%) compared to Italians (15.3%)[5]. There are no significant differences between genders.

The proportion of minors awaiting first judgment is higher, 70.5% in 2018, but it is not appropriate to perform a comparison between the two numbers; "only for a very limited part of the minors who enter the criminal circuit for violations committed, a restrictive measure of freedom in the residential structures of the justice system is established[6].

Figure 16.3 - Unsentenced detainees as a proportion of overall prison population. Years 2018 and 2019 (%)



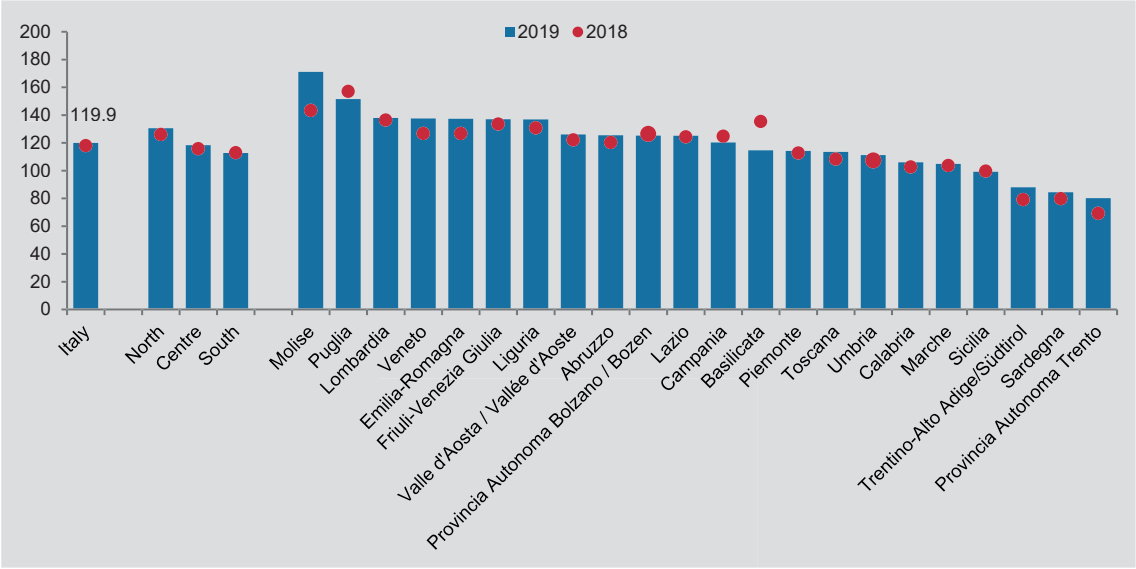
Source: Ministry of Justice

The number of inmates in detention institutions is higher than the regulatory capacity. In 2019, the prison density (number of prisoners per 100 regulatory places) rose from 117.9 to 119.9 in comparison with the previous year (171.1; Figure 16.4).

5 I detenuti nelle carceri italiane. Periodo di riferimento 2013. Data di pubblicazione 19 marzo 2015. www.istat.it/it/files/2015/03/detenuti-2015-1.pdf?title=Detenuti+nelle+carceri+italiane+-+19%2Fmar%2F2015+-+Testo+integrale.pdf.

6 Istat, "2019 SDGs Report".

Figure 16.4 - Prison density. Years 2018 and 2019 (prisoners per 100 available places)

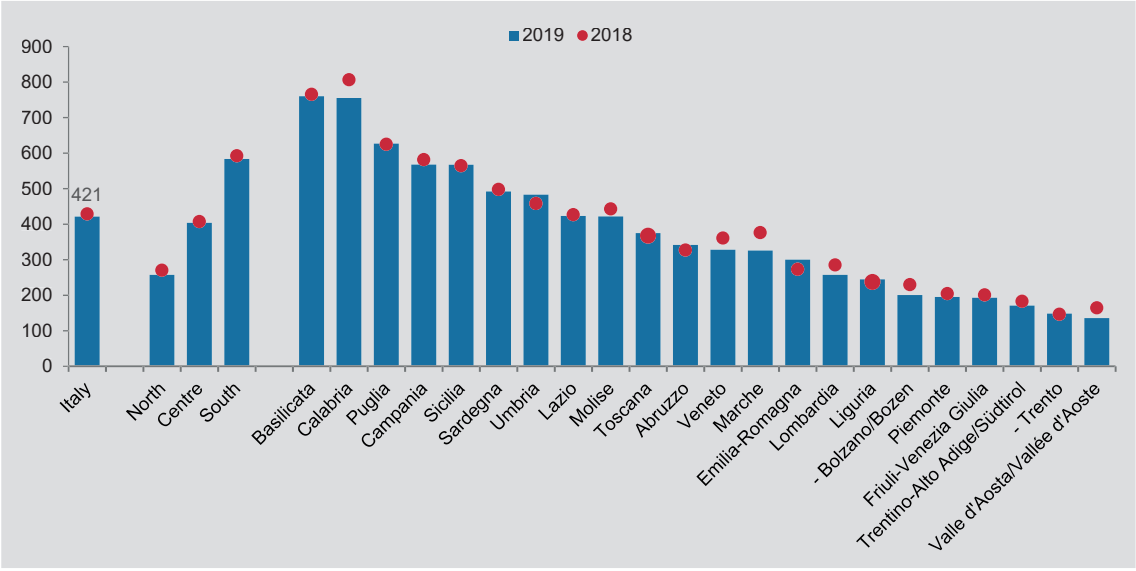


Source: Istat processing on Ministry of Justice data - Dipartimento dell'Amministrazione Penitenziaria

SDG 16.6.2 - Proportion of population satisfied with their last experience of public services

The effective duration of civil proceedings in ordinary courts has slightly shortened by 20 days in 2019 compared to the previous year, nonetheless it remains high at 421 days. This figure has been decreasing since 2014, when an average of 505 days were required to complete civil proceedings (Figure 16.5).

Figure 16.5 - Effective average duration in days of civil proceedings. Years 2018 and 2019 (average number of days)

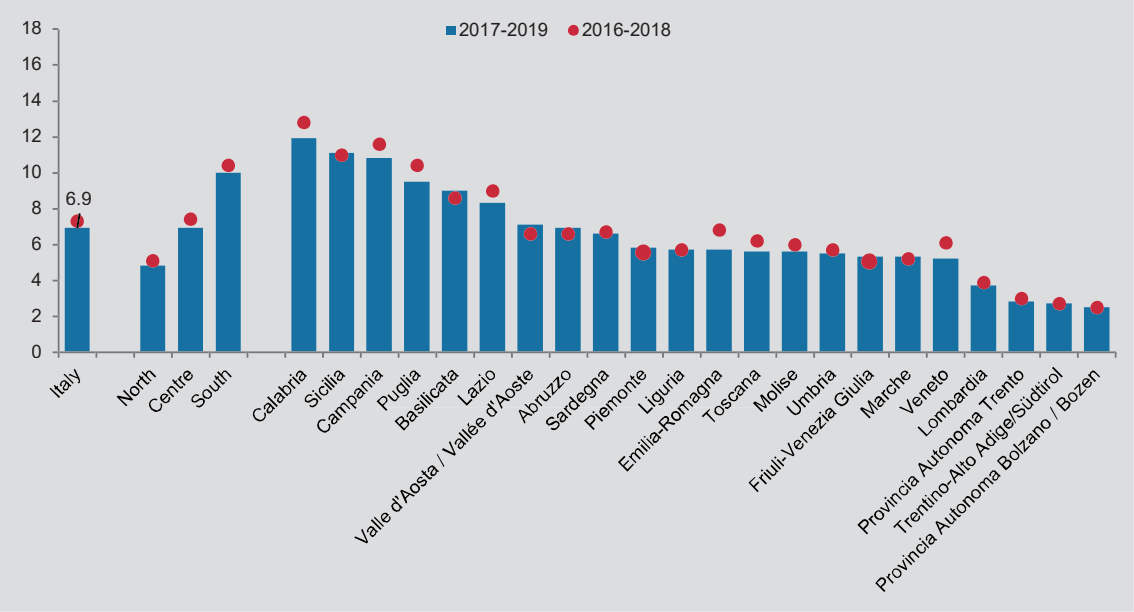


Source: Ministry of Justice

Households showing difficulties to reach at least three essential services between pharmacies, emergency room, post office, police, carabinieri, municipal offices, nursery

school, primary school, junior high school, food shops, markets, supermarkets[7], were equal to 6.9% in 2019, a slight contraction compared to the previous year (7.3%; Figure 16.6).

Figure 16.6 - Percentage of households who find very difficult to reach some basic services (a)**. Years 2018 and 2019** (%)



Source: Istat
(a) Calculated as mobile average of 2016-2018 (for 2018) and 2017-2019 (for 2019).

7 Three-term moving average: the figure for each year is calculated as a three-year average of the reference year, of the year before and after.

Goal 16 - Statistical measures by target and typology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy/ Partial	National context
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[1]

Goal 17 focuses on strengthening the means of implementation of the 2030 Agenda and promoting the global partnership for sustainable development. It is a goal with a strong cross-sectional character compared to the other SDGs, which instead provide for specific means of implementation. Cooperation, a principle inherent in the concept of sustainability itself, is the basic precondition for implementing the Agenda: 'All countries and all stakeholders, acting in collaborative partnership, will implement this plan'. Collaboration for sustainable development must be realised at international, national and local level, and involve public institutions, the private sector and civil society, reinforcing solidarity and protecting the needs of the most vulnerable categories. Goal 17 particularly focuses on the developing and least developed countries, with the objective of integrating them more effectively into the global economy, especially for investments in services and infrastructures, through the resources of developed countries, to allow an improvement in well-being and the adoption of sustainable economic models and lifestyles.

The multiple Goal 17 targets refer to different areas of global partnership: finance (targets 17.1-17.5); technology (targets 17.6–17.8); capacity building (target 17.9); trade (targets 17.10-17.12); policy and institutional coherence (targets 17.13-17.15); multi-stakeholder partnerships (targets 17.16 and 17.17); data, monitoring and accountability (targets 17.18 and 17.19). Regarding the latter field, a substantial acceleration of statistical activities is urgent to implement the needed indicators.

The statistical measures released by Istat for Goal 17 are nine and refer to five UN-IAEG-SDGs indicators (Table 17.1).

1 This section was edited by Paola Ungaro with contributions from Maria Liviana Mattonetti and Gaetano Proto.

Table 17.1 - Statistical measures released by Istat, taxonomy compared to SDGs indicators, last available value and variations compared to 10 years before and to the previous year

Ref. SDG	INDICATOR	Compared to SDG Indicator	Value	VARIATIONS	
				Compared to 10 years before	Compared to the previous year
17.1.2	Total government revenue as a proportion of GDP, by source				
	Total government revenue as a proportion of GDP, by source (Istat, 2019, %)	Proxy	42.44	--	--
17.2.1	Net official development assistance, total and to least developed countries, as a proportion of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee donors' gross national income (GNI)				
	Official Development Assistance as a proportion of gross national income (Ministry of Foreign Affairs and International Cooperation, 2018, %)	Identical	0.25	--	🔴
	Official Development Assistance to Least Developed Countries as a proportion of gross national income (Ministry of Foreign Affairs and International Cooperation, 2018, %)	Identical	0.06	--	🟢
17.3.2	Volume of remittances (in United States dollars) as a proportion of Total GDP				
	Foreign workers' remittances (Istat processing on Bank of Italy data, 2019, Millions of Euros)	Proxy	6,079	🔴	🟢
	Foreign workers' remittances (Istat processing on Bank of Italy data, 2019,%)	Proxy	(*)	--	--
17.6.2	Fixed Internet broadband subscriptions per 100 inhabitants, by speed				
	Households with fixed and/or mobile broadband connection (Istat, 2019, %)	Proxy	74.7	🟢	🟢
	Enterprises with at least 10 persons employed with connection to the Internet via fixed and/or mobile broadband (Istat, 2019, %)	Context indicator	94.5	🟢	🟡
17.8.1	Proportion of individuals using the Internet				
	Individuals aged 6 years and over using the Internet in the last 3 months, per 100 individuals (Istat, 2019, %)	Identical	67.9	🟢	🟢
	Enterprises with at least 10 persons employed with web site or a homepage (%) (Istat, 2019, %)	Context indicator	72.1	🟢	🟡

Legend

- 🟢 IMPROVEMENT
- 🟡 STABILITY
- 🔴 DETERIORATION
- -- NOT AVAILABLE / NOT SIGNIFICANT

Notes

(*) Please refer to the data table on www.istat.it

In brief

In 2019, government revenue represented 42.4% of GDP, increased of 0.6 percentage points respect 2018, and of 1 p.p. compared to ten years before.

In 2018, the ratio between Official Development Assistance (ODA) and gross national income lost 0.05 percentage points, reaching 0.25%. ODA to Least Developed Countries (LDCs) still grew in 2017. The 2030 targets are still far and Italy is below the average contribution of the Development Assistance Committee donors (DAC) countries.

2019 recorded a contraction in the foreign workers' remittances in Italy equal to 2% of the total amount. Bangladesh is confirmed as the main destination of remittances from Italy (14.1% of the total).

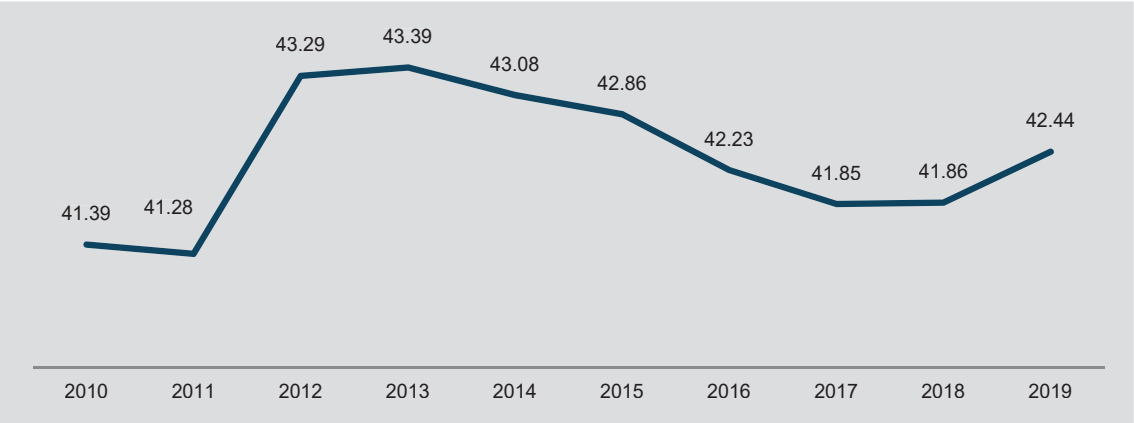
ICT usage continued to widespread in the population and enterprises over the last year, albeit at a reduced pace. In 2019, the percentage of households which access to the Internet by broadband connection is 75% (95% in enterprises with at least ten employees), while the incidence of individuals using the Internet is 68%. The territorial gaps are still wide.

SDG 17.1.1 - Total government revenue as a proportion of GDP, by source

Target 17.1 aims at strengthening domestic capacity for tax and other revenue collection by government to achieve such objectives as the stabilization of the economy, the reallocation of resources and the redistribution of income. The indicator for monitoring fiscal policies is the ratio between total tax revenue and GDP[2].

In 2018, Italy recorded an incidence of general government revenues on GDP slightly above the EU28 average. In 2019, the share of tax revenues on GDP marked an intense growth (+0.6 percentage points compared to 2018) and reached 42.4% (Figure 17.1). In the last year, most of the tax revenues derived from direct and indirect taxes (both equal to 14.4% of GDP). Actual social contributions represented a share of GDP equal to 13.3%, while figurative social contributions and capital taxes were marginal (0.3%).

Figure 17.1 - Total government revenue as a proportion of GDP. Years 2010-2019 (%)



Source: Istat, Analisi dei contributi alla produzione, imposte sulla produzione e importazioni, Iva; Conti della protezione sociale per funzione e per regime (SESPROS)

2 Tax revenues include taxes (direct, indirect and capital) and social contributions (actual and imputed).

SDG 17.2.1 - Net official development assistance, total and to least developed countries, as a proportion of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee donors' gross national income (GNI)

The 17.2 target of 2030 Agenda focuses on Official Development Assistance (ODA) and defines specific targets for overall assistance and for that directed to the Least Developed Countries (LDCs). In this context, the Development Assistance Committee (DAC) of the OECD[3] plays a significant role. The DAC has been monitoring financial flows to developing countries since 1961, the year it was established, and paying special attention to the official, facilitated part of these flows, defined as ODA. According to the OECD's official definition, ODA consists of transfers to the countries and territories in the DAC list (http://oe.cd/dac-list) and to multilateral institutions, performed by governmental agencies with the main goal of promoting economic development and well-being in developing countries[4]. ODA comprises the key measurement of the public contribution to cooperation for development and a tool for evaluating the participation of the donor countries.

Over the past decade, total net ODA from DAC countries grew up to 150 billion dollars[5] (+ 25% at constant prices compared to 2009). In 2015 and 2016, there were significant increases partially due to the growth in aid for refugees in donor countries[6] to deal with the European migrant crisis. From 2017, however, the total sum allocated to ODA has progressively reduced.

In 2018, the ratio between net disbursements for ODA and gross national income (GNI) reached or exceeded the 0.7% target set by Agenda 2030 only in a few countries: Sweden and Luxembourg (1.0%), Norway (0.9%) and Denmark (0.7%). Most countries are still far below the target. However not all EU28 countries must meet a target of 0.7%, as various Member States contribute to the overall EU target of 0.7% with different national targets[7].

With reference to the target for official development assistance to LDCs (0.15%-0.20% of gross national income), in 2017, Luxembourg (0.43%), Sweden (0.31%), Norway (0.28%), Denmark (0.22%) exceeded the 20% target; Belgium, Finland and Netherlands were approaching 0.15%.

3 DAC is an international forum consisting of many of the major aid funders (including the European Union), with the participation of the World Bank, the International Monetary Fund and the United Nations Development Programme (UNDP) acting as observers.

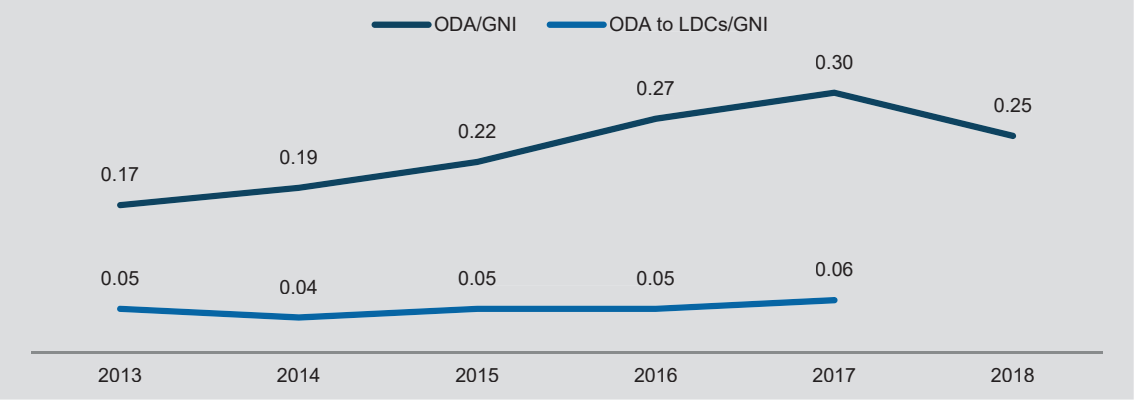
4 These resources are provided as loans with favourable terms, with a non-repayable portion of at least 25% until 2017, raised to 45% for low income countries (including LDCs) and lowered to 10-15% for middle income countries starting from 2018 (http://www.oecd.org'; https://www.un.org/ldcportal/when-should-concessional-loans-be-reported-as-oda/). In Italy, the Law 125/2014 disciplines international cooperation for development.

5 https://stats.oecd.org/

6 In fact, spending reserved for refugees in donor countries can be computed as ODA for the first year after their arrival. In 2016, the share of ODA designated for reception of refugees exceeded 20% in our country, in Austria, Germany and Greece. Even excluding that share, ODA has remarkably increased (7.1% in 2016; http://www.oecd.org/).

7 For the countries in the EU before 2002, the target is 0.7% or higher (if achieved), while for the countries that joined the EU after 2002 the target is 0.33% (see 'A new global partnership for poverty eradication and sustainable development after 2015', European Council conclusions 9241/15).

Figure 17.2 - Total ODA and ODA to LDCs in Italy. Years 2013-2018 (percentage of gross national income)



Source: Ministry of Foreign Affairs and International Cooperation

In Italy, the ODA share of GNI shows a growing trend (Figure 17.2): the indicator increased by 0.13 percentage points from 2013 (0.17%) to 2017 (0.30%), with a more significant increase in 2016 (+0.05 percentage points). The recent contraction in total ODA recorded in the EU28 average which started in 2017 (-0.02 percentage points compared to the previous year, both in 2017 and 2018) only occurs in our country in 2018 with a fall of 0.05 percentage points to 0.25%. Compared to the areas of ODA considered by the 2030 Agenda, there are reductions in disbursements in the sectors of agriculture (SDG indicator 2.a.2), medical research and basic health (SDG 3.b.2) and trade (SDG 8.a.1), conversely aid for scholarships (SDG 4.b.1) and water and sanitation (SDG 6.a.1) is growing.

In a framework of overall low variability throughout time, in 2017, the percentage of GNI allocated to ODA to LDCs by Italy showed a marginal improvement, rising to 0.06%. Italy lies below the 2030 Agenda target and the average contribution from DAC countries, in terms of both total ODA and ODA to the LDCs. The economic planning does not suggest any short-term improvement. Budget Law 2020, as well as the previous one, does not foresee any expansion of funds for Official Development Assistance.

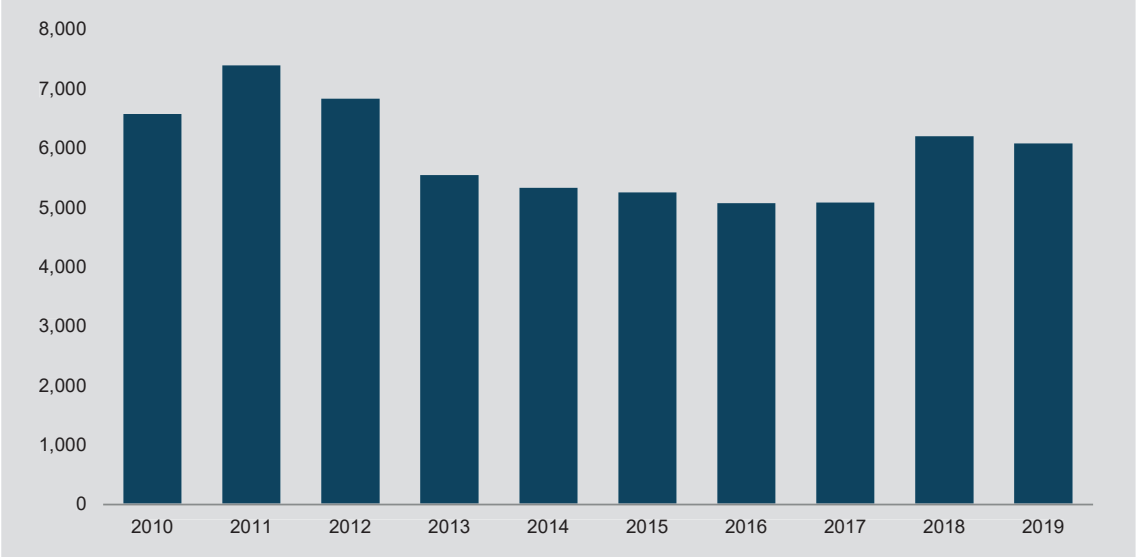
SDG 17.3.2 - Volume of remittances (in United States dollars) as a proportion of total GDP

The mobilization of financial resources other than foreign direct investments and Official Development Assistance represents one of the targets of the global partnership for sustainable development. Foreign workers' remittances contribute to economic inclusion of migrants in the host countries, but also provide an important contribution for the countries of origin for they increase financial stability, constituting a lever for investment growth and sustainability of development. Remittances, defined as cross-border transfers of money between natural persons, represent a more direct source of income than other financial flows, less volatile and subject to economic cycles, with an immediate impact on the population. Over time, the relevance of remittances has grown considerably, not only for their increased volume, but mostly to the growing weight of remittances compared to other international flows[8] and to the national GDP of many destination countries, especially low-

8 In 2018, at global level, the volume of remittances to low- and middle-income countries was more than three times the amount of ODA they received, and was significantly larger than foreign direct investment (China excluded; see United Nations, The Sustainable Development Goals Report 2019).

income ones. Between 2000 and 2018, the share of remittances on global GDP doubled, reaching 0.76%. In 2018, the ratio between remittances showed a very large range of variation and exceeded 30% in some national contexts.

Figure 17.3 - Foreign workers' remittances. Years 2010-2019 (millions of euro)



Source: Istat processing on Bank of Italy data

In Italy between 2010 and 2019, migrants' remittances grew from 6.6 to 6.1 billion euro (Figure 17.3). After the peak of 7.4 billion euro in 2011, the money delivered to the origin countries by immigrants in our country showed a negative trend, more prominent in 2013 (-20% compared to the previous year). The overall loss of remittances between 2011 and 2017 was equal to 2.3 billion (-31.0%). 2018 recorded a significant increase (+22%), followed by a slight decrease in 2019 (-0.1 billion euro, equal to -2%).

In 2019, Bangladesh received the largest share of remittances from Italy equal to 14.1% of the total remittances, followed by Romania (10.1%), the Philippines and Pakistan (6.8%), Senegal (6.2%), Morocco, and Sri Lanka (around 5%). Overall, these countries collected about 60% of total remittances.

SDG 17.6.2 - Fixed Internet broadband subscriptions per 100 inhabitants, by speed
SDG 17.8.1 - Proportion of individuals using the Internet

The 2030 Agenda points out the importance of technology facilitation to implement the global partnership for sustainable development and in particular focuses on ICT and Internet as a means of implementation of many Goals.

Digital transformation is a key factor in the transition to innovative and modern economic systems, and an indispensable means for growth in the productive sector. The use of the web has become an increasingly important tool to provide access to information, services, knowledge sharing, and an essential tool of development, social inclusion and protection of human rights. Infrastructural availability is essential to ensure that users have quality access to the Internet for an effective use of the web. Despite the acceleration of technological

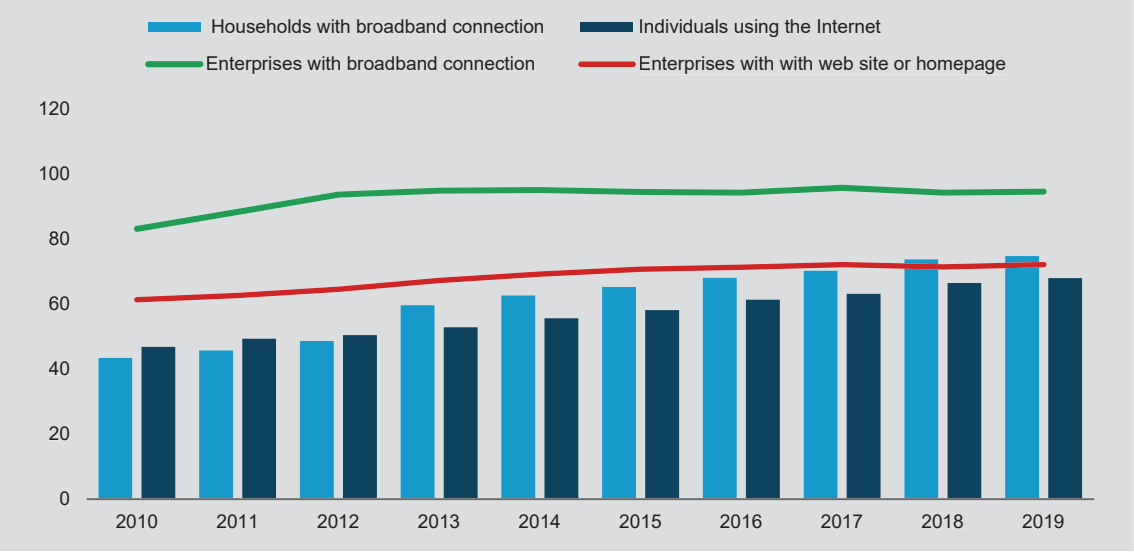
development, access and use of web services still show large disparities between social categories and geographical areas.

Italy suffers a delay in terms of investments, infrastructures and penetration of technologies in the population and in the production sector at both private and public level, although in recent years several digital transition-oriented policies have been developed.

The percentage of households with fixed and/or mobile broadband connection grew very quickly during the last ten years (from 43.4% in 2010 to 74.7% in 2019) together with the expansion of the number of individuals using the Internet (from 46.8% in 2010 to 67.9% in 2019; Figure 17.4). However, 2019 recorded a slowdown in growth for both indicators (+1.0 and +1.5 percentage points respectively).

The digitalization of business has manifested a strong acceleration as well[9]. In 2019, the number of enterprises with at least 10 employed with broadband connection was equal to 94.5 out of 100, while the enterprises with a website/home page (or at least one Internet page) were 72.1%. 2019 was characterised by stationarity for the indicator on broadband diffusion (increased by only 0.3 percentage points), as it is close to saturation, and the indicator on website/home page.

Figure 17.4 - Households and enterprises (a) **with broadband connection, individuals using the Internet** (b) **and enterprises** (a) **with a website/home page (or at least one Internet page). Years 2010-2019** (%)



Source: Istat, Multiscopo sulle famiglie: aspetti della vita quotidiana, Rilevazione sulle tecnologie dell'informazione e della comunicazione nelle imprese
(a) Enterprises with at least 10 persons employed in Industry and Services sectors.
(b)Percentage of individuals aged 6 years and over using the Internet in the last 3 months.

Regional differences are still substantial in terms of both infrastructure and use of new technologies, in population and businesses, with the southern geographical area in delay in comparison to the central area and especially to the northern area. Disparities between social categories in Internet usage are mainly due to age and gender, to disadvantage of older generations and women.

9 Between 2003 and 2010, the percentage of enterprises with broadband connection grew from 31.2 to 82.8.

Goal 17 - Statistical measures by target and tipology

	TARGET	STATISTICAL MEASURES		
		Identical	Proxy / Partial	Context indicator
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 gross national income for official development assistance (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.			
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.	●		●
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.			
17.10	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.			
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.			

17.16	Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries.	
17.17	Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.	
17.18	By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts.	
17.19	By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries.	