## 9. Landscape and cultural heritage<sup>1</sup>

Prior to the onset of the pandemic in 2019, the picture of medium-term trends for the domain indicators showed a slight prevalence of negative signals<sup>2</sup>. Compared to 2010, the municipalities' current expenditure per capita on culture had decreased, while the illegal building rate had increased. The comparison was negative as well for the perception indicators (with a higher share of people not satisfied with the quality of landscape of the place of living, and a lower share of people concerned about landscape deterioration), and – to a lesser extent – for the indicator of density and importance of museums' heritage. In contrast, improvements were observed in the pressure of mining and guarrying activities and, even more, in the impact of forest fires and the spread of rural tourism facilities. A comparison of 2021/2022 values with the pre-pandemic benchmark of 2019 is fully positive only for the spread of rural tourism facilities, which increases in both 2020 and 2021, continuing its upward trend. The indicator of density and importance of musems' heritage, instead, is further worsening, since in 2021 it has only partially recovered from 2020's heavy losses in terms of facilities and visitors. The impact of forest fires, affected by the adverse evolution of climatic parameters, is worsening as well, while the illegal building rate improves in 2020 and 2021, but remains stable in 2022. Finally, the experience of the pandemic seems to have had only a transitory effect on perception indicators, which had resulted in downsizing the dissatisfaction with the landscape of the place of living (probably due to the rising of other forms of discomfort, related to the lockdown experience), and interrupting the decline in the concern about landscape deterioration. By 2022, in fact, dissatisfaction has come back to rise (although it still remains below the 2019 level), while the concern inclines to resume its downward trend, even though there is no significant change from 2019. In 2020, the impact of the pandemic severely reduced budgets of municipalities for culture, further widening huge territorial inequalities in public spending. On the other hand, it had a limited effect on the pressure from mining and quarrying activities, as this indicator decreased between 2019 and 2020, but is expected to rise above the 2019 level as early as 2021, according to Eurostat's provisional estimates.

<sup>1</sup> This chapter was edited by Luigi Costanzo and Alessandra Ferrara, with contributions from Francesca Budano, Elisabetta Del Bufalo, Alessandra Federici, Antonino Laganà, Maria G. Magliocchi, Stefano Tersigni, Francesco G. Truglia and Donatella Vignani.

<sup>2</sup> Medium- and short-period analysis is limited to nine of the 11 domain indicators. The two indicators on farmland erosion, for which no data is available for the reference periods, were not considered.

Table 1. Landscape and cultural heritage indicators: value for the latest available year and percentage changes for different periods

		Latest available year	Latest available year value	Percentage changes			
Indicators	Starting year			2019 compared with starting year	2021 compared with 2019	2022 compared with 2021	2022 compared with 2019
Current expenditure of Municipalities for culture (Euro per capita) (a)	2010	2020	17.3	•	•	-	-
Density and importance of musems' heritage (per 100 km²)	2015	2021	1.42	•	•	-	-
illegal building rate (per 100 building permits issued)	2010	2022	15.1	•	•	0	•
Pressures of mining and quarrying activities (m³ per km²) (a)	2013	2020	275	•	•	-	-
Impact of forest fires (per 1,000 km²)	2010	2021	5.0	•	•	-	-
Spread of rural tourism facilities (per 100 km²)	2010	2021	8.4	•	•	-	-
Presence of Historic Parks/Gardens and other Urban Parks recognised of significant public interest (per 100 m²)	2011	2021	1.7	0	0	-	-
People that are not satisfied with the quality of landscape of the place where they live (percentage values)	2012	2022	20.5	•	•	•	•
Concern about landscape deterioration (percentage values)	2013	2022	11.8	•	0	•	•

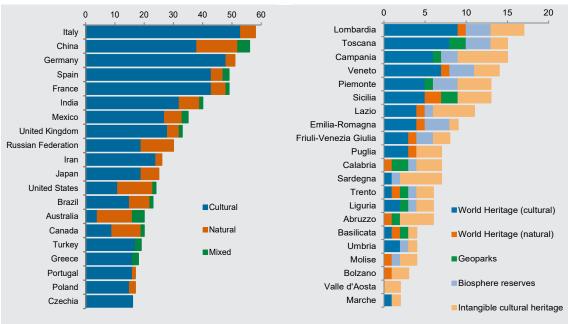
<sup>(</sup>a) Year 2021 not available. Changes referred to 2019 compared with 2020.

### Italy retains top spot on UNESCO World Heritage List

Italy is still the country with the largest number of properties inscribed in Unesco World Heritage List (58), despite recording no new entries in 2022. Italy is followed by China (56), Germany (51), Spain and France (49 each; Figure 1a).

Figure 1a. Properties inscribed in the UNESCO World Heritage List, by category and country (top 20 countries by number of inscribed properties). Year 2022. Absolute values.

Figure 1b. Properties inscribed in the World Heritage List by category and other elements recognised by the UNESCO, by region (a). Year 2022. Absolute values.



Note: If the relative change between the two years exceeds 1% it is considered positive (green), if it is lower than -1% it is considered negative (red). In the range -1 and +1% the change is considered stable (yellow). The polarity of the indicator was taken into account when calculating the changes to consider the improvement or worsening in terms of well-being. Indicators of Erosion of farmland (from urban sprawl and from abandonment) do not appear in this table because no comparison is possible for any of the reference periods.

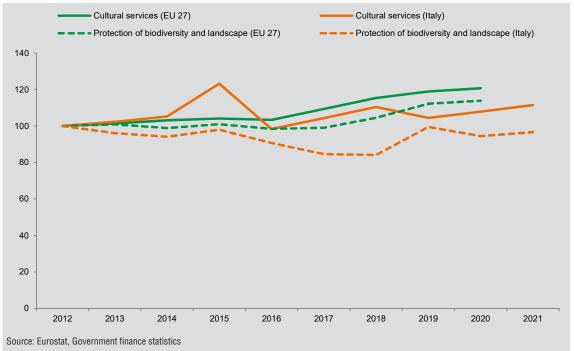
Source: Istat, processing on Unesco data
(a) Elements located in more regions are counted more times. Two intangible cultural heritages, not located in a specific territory are not respresented on the chart.

As for the other UNESCO initiatives that contribute to the protection and promotion of cultural heritage and landscape, Italy has so far achieved recognition of 20 Biosphere Reserves, 11 Geoparks and 15 Intangible Cultural Heritages (two of which recognised in 2022). The number and territorial distribution of recognitions (all regions are represented with more than one element in the various UNESCO lists) testify to the richness and diversity of Italy's cultural heritage and landscape (Figure 1b).

### Public spending on cultural services on the rise, but remains among the lowest in Europe

In 2020 and 2021, Italy's general government expenditure on Cultural services is about 5 billion euros: an amount comparable to that of Spain, among the largest EU economies, but far lower than those of France and Germany (16.6 and 15.3 billion in 2020, respectively). Despite an increasing trend, Italy's public spending on cultural services remains among the lowest in Europe in relation to the GDP: 2.9 per thousand in 2020, compared with an EU average of 4.8 per thousand. Italy, by contrast, is the EU country that spends the most on the Protection of biodiversity and landscape: 2.2 billion euros in 2020, and 2.3 in 2021. This entry, however, is equal to only 1.3 per thousand of GDP, and declines by 2.9% between 2019 and 2021 (Figure 2). As a result, in a ranking of public spending on landscape and cultural heritage, formed by relating the sum of both expenditure entries to the GDP (which cover a much broader area than that strictly referable to protection and promotion of landscape and cultural heritage, anyway), Italy ranks only 22<sup>nd</sup> among the 27 EU member States in 2020 (Figure 3).





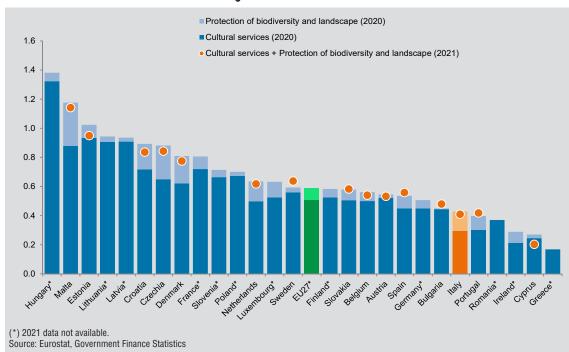


Figure 3. General government expenditure on Cultural services and Protection of biodiversity and landscape in the EU countries. Years 2020 e 2021. Percentages of GDP

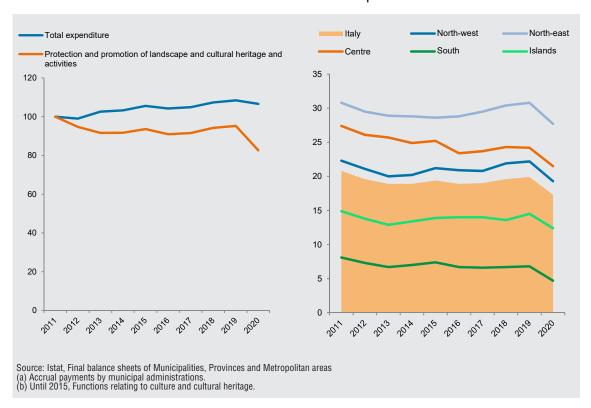
### During the pandemic, municipalities' spending on culture collapses, especially in the South

In 2020, the current expenditure of the municipalities for the management of cultural heritage and activities decreased sharply to 17.3 euros per capita (2.6 less than the previous year), and – for the first time since 2013 – the trend of this spending entry deviates significantly from that of overall spending (Figure 4a). As a result, the share of culture in the budget of municipalities falls from 2.8 to 2.5%. In addition, inequalities are increasing: compared to 2019, per capita spending is decreasing by 10.1% in the North-east (where municipalities spend 27.7 euros per capita, about 60% more than the national average) and by 30.9% in the South, where in 2020 they spend only 4.7 euros per capita (less than 30% of the national average; Figure 4b).

A comparison between per capita spending in 2020 and its change from the average of the previous five-year period clearly shows how the budget cuts have been more severe in the regions where the spending on culture was already lower (Figure 5). Thus, the territorial gap keeps widening, with a ratio of 20 to 1 between the extreme values (55 euros per capita in the Autonomous province of Bolzano, and 2.7 in Campania).

Figure 4a. Current expenditure of municipalities (a), in total and on Protection and promotion of landscape and cultural heritage and activities (b). Years 2011-2020. Index, 2011=100.

Figure 4b. Current expenditure of municipalities (a) on Protection and promotion of landscape and cultural heritage and activities (b), by geographic area. Years 2011-2020. Euro per capita.



### Flow of museum visitors more distributed, but still far from pre-pandemic levels

In 2021, the indicator of density and relevance of the museum's heritage, which represents the number of permanent exhibition facilities per 100 km² (museums, archaeological areas and monuments open to public), weighted by the number of visitors, is 1.42 per 100 km². Although marking a progress, compared to the previous year (1.30), this value remains far below the average pre-pandemic value (1.62, in the three-year period 2017-2019). The indicator doubles its value in the Centre (2.85), is close to the Italian average in the North and well below it in South and Islands (0.80). Among the regions, Lazio retains the highest value (4.09), despite suffering the largest loss compared to 2019. Most regions, however, shows values close to the pre-pandemic ones (Figure 6a). The overall number of visitors to museums, monuments and archaeological sites (48.7 million) increases by 34.9% over the previous year, but is still far from the level of 2019 (Figure 6b).

Figure 5.Current expenditure of Municipalities for Protection and promotion of cultural and landscape heritage and activities (a) by region and geographic area. Years 2020 and 2015-2019. Euro per capita and percentage changes from the average values of the period 2015-2019

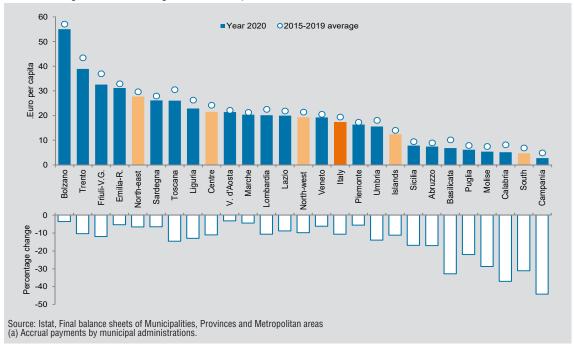
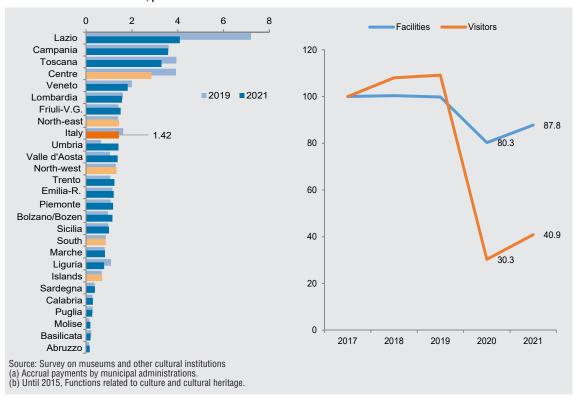


Figure 6a. Density and importance of museums' heritage by region and geographic area. Years 2019 and 2021. Exhibition facilities weighed by the number of visitors, per 100 km<sup>2</sup>

Figure 6b. Exhibition facilities (a) and visitors. Years 2017-2021. Index, 2017=100



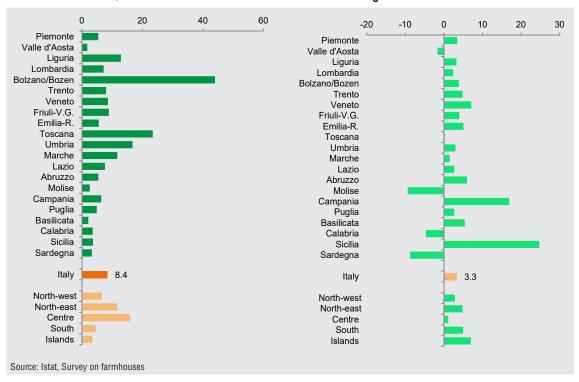
## **137**

### The growth of rural tourism continues, at a faster pace in South and Islands

In 2021, the farms that practice rural tourism are 25,390 all over Italy (+1.3% on the previous year and +3.3% on 2019). The indicator of spread of rural tourism facilities is among the few that were not affected by the pandemic, rising from 8.1 farmhouses per 100 km² in 2019 to 8.4 in 2021. The number of their guests is also growing again (around three million, almost fully recovering the level of 2019), and the share of foreigners is 37%. The density of rural tourism facilities rises to 15.9 per 100 km² in the Centre (23.4 in Toscana) and 11.7 in the North-east (with a maximum of 44 in the Autonomous province of Bolzano; Figure 7a). However, the largest increases compared to the pre-pandemic period (2019) are observed in South and Islands: +24.7% in Sicilia and +16.9% in Campania (Figure 7b).

Figure 7a. Spread of rural tourism facilities by region and geographic area. Year 2021. Number of farmhouses per 100 km<sup>2</sup>

Figure 7b. Rural tourism facilities by region and geographic area. Years 2019-2021. Percentage changes



### One tenth of green areas in Italian cities is recognised of historic or artistic interest

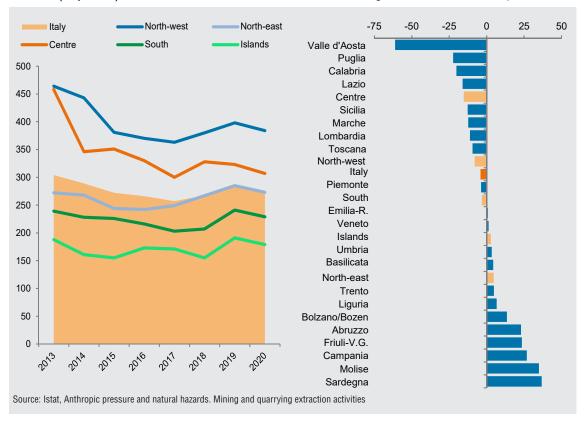
Villas, gardens and urban parks recognised as being of outstanding historical or artistic interest under the Law on Cultural Heritage and Landscape account for more than 10 per cent of the total urban green areas in Italian cities. In 2021, the density of historic greenery over the municipal territory of the 109 provincial capitals is 1.7 m<sup>2</sup> per 100 m<sup>2</sup> of built-up area (2.3 in the North, 1.4 in the Centre and 0.9 in South and Islands).

### Temporary drop in the pressure from mining and quarrying activities during the pandemic

In 2020, the extraction of non-energy mineral resources was affected by the pandemic-related slowdown in economic activity, leading to a drop in the pressure indicator to 274.5 m<sup>3</sup> per km<sup>2</sup> (-4.5% on the previous year). The most pronounced reductions are observed in Puglia (-19.0%), Toscana and Abruzzo (between -14 and -15%), but there are also regions that are bucking the trend: Campania (+25.5%), Lazio (+6.3%) and the Autonomous province of Trento (+5.6%). The highest values are found in Lombardia (547.6 m<sup>3</sup>/km<sup>2</sup>), Umbria and Molise (over 400 m<sup>3</sup>/km<sup>2</sup>). Over the 2013-2020 period, the pressure levels remain quite stable in the North-east, the South and the Islands (273, 229 and 179 m<sup>3</sup>/km<sup>2</sup> in 2020, respectively), while a downward trend can be observed in the North-west and the Centre, where pressure is most intense (383.7 and 307 m<sup>3</sup>/km<sup>2</sup> in 2020, respectively; Figure 8a). A comparison between the average values for the periods 2013-2016 and 2017-2020, however, shows that the pressure from mining and guarrying activities tends to increase especially in Abruzzo, Friuli-Venezia Giulia, Campania, Molise and Sardegna (Figure 8b). Besides, Eurostat's provisional estimates anticipate for 2021 a rebounce in the extraction of non-energy minerals as economic activity resumes, leading to fully recovering the pandemic-related decline, and even to exceeding the quantities extracted in 2019 (by 4.6% in the whole of EU countries, and by 17.7% in Italy).

Figure 8a.Pressures of mining and quarrying activities by geographic area. Years 2013-2020. Volume of non-energy mineral resources extracted (m³ per km²)

Figure 8b.Pressures of mining and quarrying activities by region and geographic area. Years 2013-2016 and 2017-2020. Percentage changes in average values between the two periods





### Severe impact of forest fires in 2021

2012

2013

2014

2015

In 2021 there was a sharp increase in both the number of forest fires (+23.1% on the previous year) and in their average size (from 11.4 to 25.4 hectares). A total of 152 thousand hectares were burnt, equivalent to 5 per thousand of the national territory. The forest fire impact indicator, up for the third consecutive year, is far higher than the average for the other EU countries of Southern Europe, second only to Greece. More than 75% of the area covered by fire is located in Calabria, Sicilia and Sardegna, where adverse weather conditions have favored the fires onset and made firefighting operations more difficult (Figure 9).

### Illegal building rate stable in 2022, unsustainable situation in South and Islands

Also in 2022, more houses were built than those authorised by the Municipalities. According to the provisional estimates provided by Cresme, the illegal building rate (new unauthorised dwellings every 100 authorised) is 15.1, substantially unchanged from the previous year, as well as its territorial differences (Figure 10a). Illegal building remains marginal in the North, but has a significant weight in the rest of the country, and especially in the South (42.1) and the Islands (36.3). Besides, 2022 witnessed a net increase of illegal dwellings to an extent no longer observed since 2004 (+9.1%), which might be a side effect of the post-pandemic recovery in the construction sector (Figure 11b). What concerns most, however, is the long persistence of this phenomenon, that imposes very high social costs in terms of landscape degradation, seismic risk and hydrogeological instability.

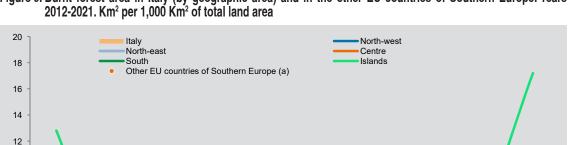


Figure 9. Burnt forest area in Italy (by geographic area) and in the other EU countries of Southern Europe. Years

Source: State Forestry Corps and Civil Protection Service (Italy 2005-2015), Carabinieri Command for Forestry, Environmental and Agri-food protection (Italy 2016-2020), Processing on JRC data (other countries).

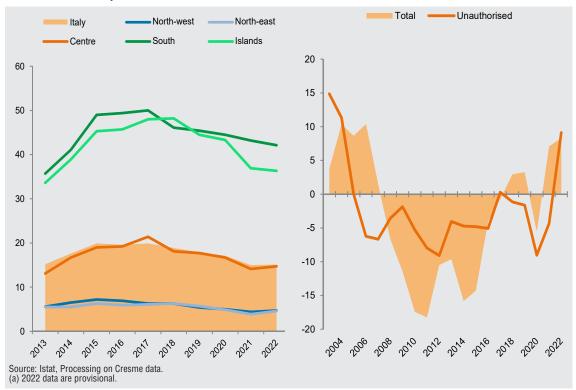
(a) Bulgaria, Cyprus, Croatia, Greece, Portugal, Romania, Slovenia and Spain. Data not available for Malta.

2017

2018



Figure 10b. New housing units, total and unauthorised. Years 2004-2022 (a). Annual percent change rates



### After the pandemic, the perception of landscape deterioration is back on the rise

In 2022, after the reductions observed in 2020 and 2021, the share of people that are not satisfied with the landscape of the place of living (i.e. those reporting to live in places "affected by evident deterioration"), returns to grow, rising to 20.5% of the population aged 14 years and over, from 18.7% in 2021 (Figure 11a). The territorial variability of this indicator is huge, with large gaps between Northern and Southern regions (ranging from 7.7% in the Autonomous province of Bolzano to 31.3% in Campania), and between small towns and big cities (from 12% of people living in towns up to 2,000 inhabitants to 32.5% of metropolitan centres). Signs of a comeback to pre-pandemic "normality" also come from the indicator of concern for landscape deterioration, which measures social attention to protection issues, with special regard to land consumption. In 2022, the share of those who indicate this concern among the top five in the environmental area stands at 11.8%, after remaining stable at 12.4% for the previous three years. Although such change is not significant in itself, it resumes the downward trend observed from 2013 to 2018. Like for the other perception indicator, regional variability is significant, although less marked and tending to decline (Figure 11b). Compared to the dissatisfaction indicator, however, the geographic distribution follows an opposite pattern, with values generally lower in Southern regions and higher in the Northern ones (from 8.7% in Basilicata to 16.5% in the Autonomous province of Bolzano), and no major differences between large cities and small towns.

A joint representation of the two perception indicators (Figure 12) tries to outline a map of Italians' relationship with the landscape, for the two aspects considered: the judgment on the quality of landscape, based on their daily experience (dissatisfaction) and the aware-

1/1

ness about landscape value and fragility (concern). The resulting pattern, where the dissatisfaction with the landscape of one's place of living (with a wider variability) is clearly the determining factor, is consistent with other indicators relating to care/attention to territory and cultural heritage (such as municipal spending on culture and illegal building) in describing a critical situation in the Southern regions.

Figure 11a.People that are not satisfied with the quality of landscape of the place where they live, by geographic area. Years 2018-2022. Per 100 people aged 14 and over

Figure 11b.Concern about landscape deterioration, by geographic area. Years 2018-2022. Per 100 people aged 14 and over

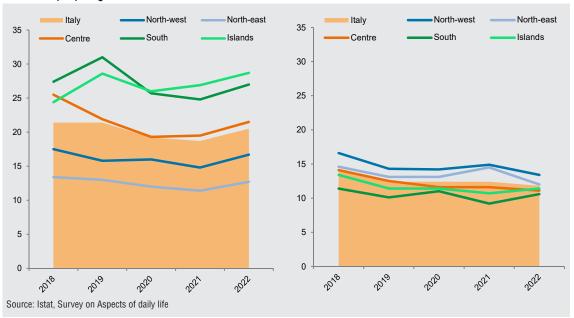
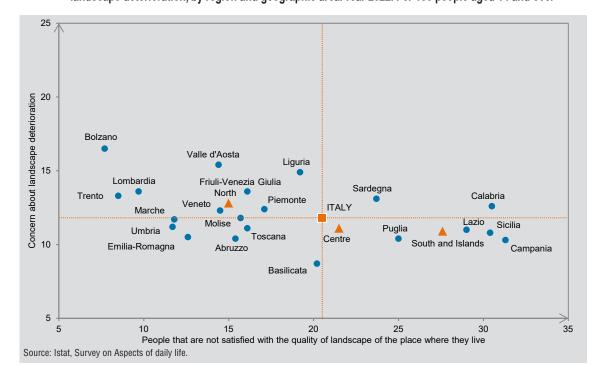


Figure 12. People that are not satisfied with the quality of landscape of the place where they live and concern about landscape deterioration, by region and geographic area. Year 2022. Per 100 people aged 14 and over



# **Indicators**

 Current expenditure of Municipalities for culture: Current expenditure for protection and valorisation of cultural properties and activities in euro per capita.

Source: Istat - Processing of data from Final balance sheets of Municipalities, Provinces and Metropolitan areas.

 Density and importance of musems' heritage: Number of permanent exhibition facilities per 100 sq.km (museums, archaeological sites, and monuments open to public), weighed by the number of visitors.

Source: Istat - Survey on museums and other cultural institutions.

 Illegal building rate: Ratio of the number of unauthorised buildings built in the reference year to the number of building permits issued by the Municipalities.

Source: Center for social, economic and market research for building and the territory (Cresme).

Erosion of farmland from urban sprawl: Percentage ratio of rural areas affected by urban sprawl to the total of rural areas ("rural areas affected by urban sprawl": rural areas with increasing population and decreasing agricultural land).

Source: Istat - Processing of data from General Census on Agriculture, General Census on Population and Housing, Census Mapping.

5. Erosion of farmland from abandonment: Percentage ratio of abandoned rural areas to the total of rural areas ("abandoned rural areas": rural areas with decreasing population and decreasing agricultural land).

Source: Istat - Processing of data from General Census on Agriculture, General Census on Population and Housing, Census Mapping.

Pressures of mining and quarrying activities: Volume of non-energy mineral resources extracted (cubic metres) per sq.km.

Source: Istat - Anthropic pressure and natural hazards. Mining and quarrying extraction activities.

Impact of forest fires: Burnt forest area (wooded and non-wooded) per 1,000 sq.km.

Source: Istat - Processing of data from Carabinieri Command of Units for Forestry, Environmental and Agri-food protection

Spread of rural tourism facilities: Number of farmhouses per 100 sq.km.

Source: Istat - Survey on farmhouses.

9. Presence of Historic Parks/Gardens and other Urban Parks recognised of significant public interest: Percentage ratio of the area of parks and gardens classified as "historic" and/or "of a significant public interest" by the Legislative Decree no. 42/2004 to the total area of the provincial capital Municipalities.

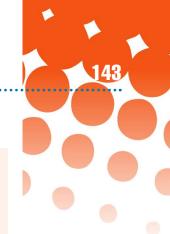
Source: Istat - Processing of data from Survey on urban environmental data and Census Mapping.

10. People that are not satisfied with the quality of landscape of the place where they live: Proportion of regional population reporting that the landscape of the place where they live is affected by evident deterioration.

Source: Istat - Survey on Aspects of daily life.

Concern about landscape deterioration: Proportion of population reporting, among the environmental problems for which they express more concern, the decay of landscape due to overbuilding.

Source: Istat - Survey on Aspects of daily life.





#### Indicators by region and geographic area

REGIONS GEOGRAPHIC AREAS	Current expenditure of Municipalities for culture (a)	Density and importance of museum heritage (b)	Illegal building rate (c)	Erosion of farmland from urban sprawl (d)	Erosion of farmland from abandonment (d)	Pressure of mining and quarrying activities (e)	
	2020	2021	2022	2011	2011	2020	
Piemonte	16.3	1.2	4.2	18.5	41.4	311	
Valle d'Aosta/Vallée d'Aoste	21.4	1.4	4.2	-	66.5	13	
Liguria	22.8	0.8	6.4	31.8	57.4	226	
Lombardia	20.1	1.6	4.7	24.0	31.0	548	
Trentino-Alto Adige/Südtirol	46.9	1.2	3.3	-	28.4	194	
Bolzano/Bozen	55.0	1.2		-	31.3	148	
Trento	38.9	1.2		-	24.9	249	
Veneto	19.2	1.8	5.3	56.9	23.1	363	
Friuli-Venezia Giulia	32.5	1.5	3.3	7.0	54.2	238	
Emilia-Romagna	31.1	1.2	4.2	27.0	42.6	259	
Toscana	26.0	3.3	6.8	14.2	47.7	262	
Umbria	15.5	1.4	10.9	8.3	50.0	474	
Marche	20.3	0.8	10.9	14.7	38.8	147	
Lazio	19.9	4.1	20.0	53.6	15.4	372	
Abruzzo	7.4	0.2	30.0	16.3	43.1	165	
Molise	5.3	0.2	30.0	6.9	74.4	443	
Campania	2.7	3.6	50.4	29.6	34.2	264	
Puglia	6.1	0.3	34.8	33.1	17.1	303	
Basilicata	6.8	0.2	54.1	14.5	38.2	251	
Calabria	5.1	0.3	54.1	22.0	54.3	71	
Sicilia	7.8	1.0	48.2	16.9	29.5	199	
Sardegna	26.1	0.4	22.5	6.5	27.1	158	
North	22.9	1.4	4.6	24.3	37.5	326	
North-west	19.3	1.3	4.7	20.9	40.0	384	
North-east	27.7	1.4	4.6	27.4	35.2	273	
Centre	21.5	2.9	14.7	25.1	37.0	307	
South and Islands	7.1	0.8	40.2	18.8	34.2	209	
South	4.7	0.9	42.1	23.6	38.1	229	
Islands	12.4	0.7	36.3	11.8	28.3	179	
Italy	17.3	1.4	15.1	22.2	36.1	275	

<sup>(</sup>a) Euros per capita.

<sup>(</sup>b) Number of museums and similar facilities per 100 km², weighed by the number of visitors.
(c) Illegal buildings per 100 authorised buildings (Provisional data). Values for Piemonte and Valle d'Aosta, Trentino-Alto Adige and Friuli-Venezia Giulia, Umbria and Marche, Abruzzo and Molise, Basilicata and Calabria refer to the two regions as a whole.

<sup>(</sup>d) Percentage of total land area.

<sup>(</sup>e) Cubic metres extracted per km² of total land area. Data for Calabria is provisional.

Impact of forest fires (f)	Spread of rural tourism facilities (g)	Presence of historic parks/gardens and other urban parks recognised of significant public interest (h)	People that are not satisfied with the quality of landscape of the place where they live (i)	Concern about landscape deterioration (i)
2021	2021	2021	2022	2022
0.4	5.4	3.8	17.1	12.4
	1.8	0.9	14.4	15.4
1.3	12.9	1.0	19.2	14.9
0.1	7.2	2.8	16.1	13.6
	27.6	0.3	8.1	14.9
	44.0	0.1	7.7	16.5
	8.0	0.3	8.5	13.3
	8.6	2.4	14.5	12.3
0.1	8.9	6.0	9.7	13.6
0.1	5.6	0.6	12.6	10.5
0.4	23.4	1.3	16.1	11.1
0.5	16.7	4.2	11.7	11.2
0.4	11.7	1.4	11.8	11.7
4.4	7.6	1.0	29.0	11.0
2.8	5.4	0.9	15.4	10.4
5.7	2.6	0.1	15.7	11.8
5.1	6.4	1.7	31.3	10.3
5.0	4.9	0.6	25.0	10.4
3.8	2.1	0.2	20.2	8.7
18.7	3.6	0.5	30.5	12.6
23.2	3.7	1.2	30.4	10.8
10.7	3.3	0.3	23.7	13.1
0.2	9.3	2.3	15.0	12.8
0.3	6.6	2.8	16.7	13.4
0.1	11.7	1.9	12.7	12.0
1.6	15.9	1.4	21.5	11.1
11.3	4.1	0.9	27.6	10.9
7.4	4.5	0.9	27.0	10.6
17.2	3.5	1.0	28.7	11.4
5.0	8.4	1.7	20.5	11.8

<sup>(</sup>f) Area covered by forest fires, values per 1,000 km². (g) Number of farms per 100 km². (h) Square metres per 100 m² of built-up area. (i) Per 100 people aged 14 years and over.