



TEXTS ADOPTED

P9_TA(2021)0143

Soil protection

European Parliament resolution of 28 April 2021 on soil protection (2021/2548(RSP))

The European Parliament,

- having regard to the Treaty on the Functioning of the European Union (TFEU), and in particular Article 191 thereof,
- having regard to the European Council conclusions of 12 December 2019 on climate change,
- having regard to the Council conclusions of 23 October 2020 on Biodiversity - the need for urgent action,
- having regard to Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 ‘Living well, within the limits of our planet’¹ (the ‘7th EAP’) and its vision up to 2050,
- having regard to Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment²,
- having regard to Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage³,
- having regard to the Commission proposal for a directive of the European Parliament and of the Council establishing a framework for the protection of soil and amending Directive 2004/35/EC (COM(2006)0232),
- having regard to Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and

¹ OJ L 354, 28.12.2013, p. 171.

² OJ L 156, 25.6.2003, p. 17.

³ OJ L 143, 30.4.2004, p. 56.

control)¹,

- having regard to Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for the Community action in the field of water policy²,
- having regard to Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture³,
- having regard to Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources⁴ (the Nitrates Directive),
- having regard to Directive 2009/128/EC of 21 October 2009 of the European Parliament and of the Council establishing a framework for Community action to achieve the sustainable use of pesticides⁵, and its subsequent amendments,
- having regard to Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants⁶,
- having regard to Regulation (EU) 2017/852 of the European Parliament and of the Council of 17 May 2017 on mercury, and repealing Regulation (EC) No 1102/2008⁷,
- having regard to Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework⁸,
- having regard to Regulation (EU) No 1307/2013 of the European Parliament and of the Council of 17 December 2013 establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No 73/2009⁹,
- having regard to the Commission’s political guidelines for 2019-2024, in particular to the zero-pollution ambition for Europe,
- having regard to the proposal for a regulation of the European Parliament and of the Council establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulation (EU) No 1305/2013 of the European Parliament and of the Council and Regulation (EU) No 1307/2013 of the

¹ OJ L 334, 17.12.2010, p. 17.

² OJ L 327, 22.12.2000, p. 1.

³ OJ L 181, 4.7.1986, p. 6.

⁴ OJ L 375, 31.12.1991, p. 1.

⁵ OJ L 309, 24.11.2009, p. 71.

⁶ OJ L 344, 17.12.2016, p. 1.

⁷ OJ L 137, 24.5.2017, p. 1.

⁸ OJ L 156, 19.6.2018, p. 1.

⁹ OJ L 347, 20.12.2013.

- European Parliament and of the Council (COM(2018)0392),
- having regard to the Commission communication of 11 December 2019 entitled ‘The European Green Deal’ (COM(2019)0640),
 - having regard to the Commission proposal for a decision of the European Parliament and of the Council on a General Union Environment Action Programme to 2030 (for an 8th Environment Action Programme – EAP) (COM(2020)0652),
 - having regard to the Commission communication of 20 May 2020 entitled ‘EU Biodiversity Strategy for 2030 – Bringing nature back into our lives’ (COM(2020)0380),
 - having regard to the ‘Status of the World Soil Resources Report’ published in 2015 by the Intergovernmental Technical Panel on Soils (ITPS), the Global Soil Partnership (GSP) and the Food and Agriculture Organization (FAO),
 - having regard to the Commission communication of 20 May 2020 entitled ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’ (COM(2020)0381),
 - having regard to the Commission report of 13 February 2021 on ‘The implementation of the Soil Thematic Strategy and ongoing activities’ (COM(2021)0046),
 - having regard to the Commission communication of 20 September 2011 entitled ‘Roadmap to a Resource Efficient Europe’ (COM(2011)0571),
 - having regard to the Commission communication of 11 March 2020 entitled ‘A new Circular Economy Action Plan for a cleaner and more competitive Europe’ (COM(2020)0098),
 - having regard to the Commission communication of 14 October 2020 entitled ‘Chemicals Strategy for Sustainability Towards a Toxic-Free Environment’ (COM(2020)0667),
 - having regard to the Commission communication of 16 April 2002 entitled ‘Towards a Thematic Strategy for Soil Protection’ (COM(2002)0179),
 - having regard to the Commission staff working document of 12 April 2012 entitled ‘Guidelines on best practices to limit, mitigate or compensate soil sealing’ (SWD(2012)0101),
 - having regard to its resolution of 19 November 2003 on the Commission communication ‘Towards a Thematic Strategy for Soil Protection’¹,
 - having regard to its resolution of 13 November 2007 on the Thematic Strategy for Soil Protection²,
 - having regard to its resolution of 16 January 2020 on the 15th meeting of the

¹ OJ C 87 E , 7.4.2004, p. 395.

² OJ C 282 E , 6.11.2008, p. 138.

- Conference of Parties (COP15) to the Convention on Biological Diversity¹,
- having regard to its resolution of 28 November 2019 on the climate and environment emergency²,
 - having regard to its resolution of 16 January 2019 on the Union’s authorisation procedure for pesticides³,
 - having regard to its resolution of 10 July 2020 on a Chemicals Strategy for Sustainability⁴,
 - having regard to its resolution of 10 February 2021 on the New Circular Economy Action Plan⁵
 - having regard to its resolution of 15 January 2020 the European Green Deal⁶,
 - having regard to its resolution of 13 November 2007 on the Thematic Strategy for Soil Protection⁷,
 - having regard to the opinion of the Committee of the Regions of 19 January 2013 on ‘Implementation of the Soil Thematic Strategy’⁸,
 - having regard to the opinion of the Economic and Social Committee on the ‘Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions: Towards a Thematic Strategy for Soil Protection’ (COM(2002)0179)⁹,
 - having regard to the opinion of the Committee of the Regions of 5 February 2021 on agro-ecology (CDR 3137/2020),
 - having regard to European Court of Auditors’ Special Report No 33/2018 entitled ‘Combating desertification in the EU: a growing threat in need of more action’,
 - having regard to the EU Fitness Check on EU water legislation (SWD(2019)0439),
 - having regard to the United Nations 2030 Agenda for Sustainable Development and to the Sustainable Development Goals (SDGs), and in particular SDG 15, which is to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss,
 - having regard to the ‘New Leipzig Charter – The transformative power of cities for the

¹ Texts adopted, P9_TA(2020)0015.

² Texts adopted, P9_TA(2019)0078.

³ OJ C 411, 27.11.2020, p. 48.

⁴ Texts adopted, P9_TA(2020)0201.

⁵ Texts adopted, P9_TA(2021)0040.

⁶ Texts adopted, P9_TA(2020)0005.

⁷ OJ C 282 E , 6.11.2008, p. 138.

⁸ OJ C 17, 19.1.2013, p. 37.

⁹ OJ C 61, 14.3.2003, p. 49.

common good', adopted at the Informal Ministerial Meeting on Urban Matters of 30 November 2020,

- having regard to the Agreement adopted at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) in Paris on 12 December 2015 (the Paris Agreement),
 - having regard to the United Nations Convention to Combat Desertification (UNCCD),
 - having regard to the United Nations Convention on Biological Diversity (UNCBD),
 - having regard to the Assessment Report on Land Degradation and Restoration published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) on 23 March 2018,
 - having regard to the European Environment Agency (EEA) report of 4 December 2019 entitled 'The European environment – state and outlook 2020' (SOER 2020),
 - having regard to the report 'The State of Soil in Europe – A contribution of the JRC to the European Environment Agency's Environment State and Outlook Report – SOER 2010' published by the Commission and the Joint Research Centre in 2012,
 - having regard to the Intergovernmental Panel on Climate Change (IPCC) Special Report on Climate Change and Land published on 8 August 2019,
 - having regard to the UN Office for Disaster Risk Reduction (UNDRR) report of 2018 entitled 'Economic losses, poverty & disasters: 1998-2017',
 - having regard to the Oral Questions to the Council and the Commission on the Soil protection (O-000024/2021 – B9-0011/2021 and O-000023/2021 – B9-0010/2021),
 - having regard to Rules 136(5) and 132(2) of its Rules of Procedure,
 - having regard to the motion for a resolution of the Committee on the Environment, Public Health and Food Safety,
- A. whereas soil is an essential, complex, multifunctional and living ecosystem of crucial environmental and socioeconomic importance which performs many key functions and delivers services vital to human existence and ecosystem survival so that current and future generations can meet their own needs;
- B. whereas Earth's soils constitute the largest terrestrial carbon store and contain roughly 2 500 gigatons of carbon (1 gigaton = 1 billion metric tons), compared with 800 gigatons in the atmosphere and 560 gigatons in animal and plant life; whereas healthy soils are crucial for climate change mitigation as they remove approximately 25 % of the equivalent carbon emitted through the world's fossil fuel use each year; whereas the world's cultivated soils have lost 50-70 % of their original carbon stock¹;
- C. whereas there are over 320 major soil types identified in Europe, with enormous

¹ Schwartz, J.D. 2014. *Soil as Carbon Storehouse: New Weapon in Climate Fight?*, Yale Environment 360.

physical, chemical and biological variations within each one;

- D. whereas soil plays a central role as a habitat and gene pool as it hosts 25 % of the world's biodiversity, provides key ecosystem services to local communities and in a global context, such as the provision of food, provides raw materials, climate regulation through carbon sequestration, water purification, nutrient regulation, and pest control, serves as a platform for human activity and helps prevent floods and droughts; whereas soil formation is one of the ecosystem processes known to be declining in Europe;
- E. whereas although soil is very dynamic, it is also very fragile and is a non-renewable, finite resource, given the length of time soil formation requires, at a pace of around one centimetre of top soil every 1 000 years; whereas this makes soil a very precious resource;
- F. whereas soils play a role in the beauty of our European landscapes, along with forest areas, coastlines, mountainous areas and all of Europe's ecosystems;
- G. whereas soils under grassland and forests are a net carbon sink, estimated to remove up to 80 million tonnes of carbon per year in the EU¹; whereas, however, together EU croplands and grasslands together are net sources of emissions, releasing about 75,3 million tonnes carbon dioxide equivalent (MtCO₂e) in 2017²; whereas the agriculture and forestry sectors are therefore in a key position to contribute to the removal of carbon from the atmosphere through the capture and storage of carbon in soils and biomass;
- H. whereas soil structure and characteristics are the product of soil formation, geomorphological and geological processes occurring over thousands of years, thus making it a non-renewable resource; whereas it is therefore far more cost-effective to prevent any kind of damage to soil strata (erosion, destruction, degradation, salinisation, etc.) and soil contamination than to try to restore soil functions;
- I. whereas soil functions are strongly dependent on the full complement of soil biodiversity; whereas above-ground and below-ground diversity have important connections, and soil biodiversity is an important contributor to local levels of plant diversity;
- J. whereas the protection of soil biodiversity is absent from most environmental protection legislation (such as the Habitat Directive or Natura 2000) and the main EU common agricultural policy legislation; whereas increasing or maintaining soil biodiversity is an effective solution that can assist in soil restoration and soil pollution remediation;
- K. whereas, both in the EU and globally, land and soil continue to be degraded by a wide range of human activities, such as poor land management, land use change,

¹ European Environment Agency, *Soil Organic Carbon*, 20 February 2017.
<https://www.eea.europa.eu/data-and-maps/indicators/soil-organic-carbon-1/assessment>

² Institute for European Environmental Policy, *Climate and Soil Policy Brief: Better Integrating Soil Into EU Climate Policy*, October 2020
[https://ieep.eu/uploads/articles/attachments/437a17b8-f8a4-478d-ab7f-4a74e2e60ced/IEEP%20\(2020\)%20Climate%20and%20soil%20policy%20brief%20-%20Better%20integrating%20soil%20into%20EU%20climate%20policy.pdf?v=63771126961](https://ieep.eu/uploads/articles/attachments/437a17b8-f8a4-478d-ab7f-4a74e2e60ced/IEEP%20(2020)%20Climate%20and%20soil%20policy%20brief%20-%20Better%20integrating%20soil%20into%20EU%20climate%20policy.pdf?v=63771126961)

unsustainable agricultural practices, land abandonment, pollution, unsustainable forestry practices and soil sealing, biodiversity loss and climate change, often combined with other factors, thus reducing their capacities to provide ecosystem services for the whole of society;

- L. whereas it is regrettable that the EU and its Member States are not currently on track to meet their international and European commitments related to soil and land, in particular:
- (a) to combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world by 2030;
 - (b) to achieve the ‘no net land take by 2050’ target and reduce erosion, increase soil organic carbon, and progress with remedial work by 2020;
 - (c) to manage land sustainably in the EU, protect soils adequately, and make sure that the remediation of contaminated sites is well underway by 2020;
- M. whereas soils play a vital role for water management, as healthy soils with a high level of organic matter better benefit the water system and contribute to climate change mitigation and adaptation; whereas wetlands, peatlands and rural and urban nature-based solutions store and infiltrate rainwater, which allows aquifers to be replenished for bridging dry periods and avoids connections to sewers, which reduces spills of untreated waste water during heavy rains;
- N. whereas several key threats to soil have been identified in the EU such as: climate change, sealing, compaction erosion, floods and landslides, droughts, hydrogeological instability, loss of soil organic matter, fires, storms, salinisation, contamination, loss of soil biodiversity, acidification and desertification; whereas most of these ongoing degradation processes are not adequately addressed or are not addressed at all in existing EU and national legislation;
- O. whereas soil erosion affects 25 % of agricultural land in the EU and increased by about 20 % between 2000 and 2010; whereas it is estimated that soil erosion causes a loss of agricultural production of EUR 1.25 billion in the EU annually¹; whereas carbon stocks in arable top soils are declining and the EU has been losing its wetlands and peatlands steadily; whereas significant areas of EU farmland are facing salinisation and desertification, with 32-36 % of European subsoils² highly susceptible to compaction;
- P. whereas erosion is a natural phenomenon which can create mudflows with sometimes disastrous consequences, such as the emergence of deep gullies leading to the loss of the soil’s fertile surface layer, and whereas, in the long term, erosion can lead to soil degradation and the loss of cultivable land;
- Q. whereas the unsustainable management of land and soil has several negative impacts not only on terrestrial and freshwater biodiversity but also on marine biodiversity,

¹ <https://ec.europa.eu/jrc/en/news/soil-erosion-costs-european-farmers-125-billion-year#:~:text=Soil%20erosion%20costs%20European%20countries,consequences%20do%20not%20stop%20ther>

² Commission Staff Working Document, *Evaluation of the 7th EAP* (SWD(2019)0181).

causing changes in hydrographic conditions, excess nutrient and contamination concentrations, and increased loss and deterioration of coastal marine ecosystems; whereas, according to projections, shoreline protection is declining in Europe, threatening the natural capacity of coastal ecosystems to reduce the impacts of climate change and extreme weather events in the most vulnerable coastal zones;

- R. whereas land use modifies the quality and quantity of ecosystem services by conditioning the potential of land and soil to provide these services; whereas the main drivers of land and soil degradation are unsustainable agricultural and forestry practices, urban expansion and climate change¹;
- S. whereas soil information in Europe is still incomplete and not harmonised; whereas this hampers the adoption of relevant decisions for soil protection both at regional and local level;
- T. whereas the EU's responsibility for soil protection does not stop at its borders as demand for areas to settle, grow food and produce biomass is rising around the world, and climate change is likely to impact negatively on land demand, availability and degradation; whereas the EU contributes to land degradation in third countries, as a net 'importer' of land, embedded into imported products;
- U. whereas land degradation exacerbates the impacts of natural disasters and contributes to social problems;
- V. whereas large parts of southern Europe are likely to become desertified by 2050 as a result of climate change and inappropriate agricultural and agronomic practices if strong action is not taken; whereas this threat is not being coherently, efficiently and effectively addressed in the EU²; whereas salinisation affects 3.8 million hectares of EU land, with severe soil salinity along the coastlines, in particular in the Mediterranean;
- W. whereas soil protection in Europe currently derives from the protection of other environmental resources and is partial and fragmented among many policy instruments that lack coordination and which are often non-binding, at the EU, Member State and regional level;
- X. whereas voluntary national initiatives and existing national measures are important for achieving the objective of greater soil protection, but have proved to be insufficient on their own, and whereas more efforts are needed to prevent further degradation, including land take; whereas, despite having a soil thematic strategy, soil degradation has continued across the EU; whereas cross-border measures are also needed for pollution-related situations or major incidents;
- Y. whereas during the period 2000-2018, 11 times more land was taken than was recultivated³; whereas without binding measures to limit land take and boost restoration, recultivation and recycling, it will be impossible to achieve the objective of no net land

¹ European Environment Agency, *The European environment – state and outlook 2020*, 2019.

² Commission Staff Working Document, *Evaluation of the 7th EAP*, (SWD(2019)0181).

³ European Environment Agency, *The European environment – state and outlook 2020*, 2019.

take by 2050;

- Z. whereas the lack of a comprehensive, adequate, coherent and integrated EU legal framework for protecting Europe's land and soil resources has been identified as a key gap that contributes to the continuous degradation of many soils within the Union, reduces the effectiveness of the existing incentives and measures, and limits Europe's ability to achieve its environmental, sustainable development and climate-related agenda and international commitments; whereas an earlier attempt to introduce a legal framework for soil protection in the EU was without success as it was withdrawn in May 2014 after being blocked for eight years by a minority of Member States in the Council; recalls the 'People4Soil' European Citizens' Initiative of 2016, which was supported by 500 European institutions and organisations, which called on the EU to do more to protect soil;
- AA. whereas current sectoral policies, for example the common agricultural policy (CAP), do not do their fair share with regard to soil protection; whereas while the majority of cropland is under the CAP regime, on average less than a quarter¹ applies effective protection from soil erosion;
- AB. whereas 80 % of nitrogen is wasted and lost to the environment; whereas excessive nitrogen deposition threatens air quality, water quality, climate change through nitrous oxide emissions, soil quality and biodiversity, including plant-pollinator interaction and networks, and leads to the depletion of stratospheric ozone; whereas improving nitrogen use efficiency not only supports climate, nature and health goals but could also save USD 100 billion globally every year;
- AC. whereas agricultural intensification and overuse of pesticides are causing soil contamination by pesticide residues, including due to some pesticides' high soil persistence and toxicity to non-target species, and have lasting effects on soil health; whereas diffuse pollution by agrochemicals poses a threat to soil;
- AD. whereas EU legislation is relatively comprehensive for water protection but addresses control of pollutants from soils from the perspective of water protection rather than wider environmental protection including that of soils themselves; whereas pollutants emitted to the atmosphere and water can have indirect effects through deposition on the ground, which can negatively affect the quality of soil;
- AE. whereas scientific evidence has proved that soil and its organisms are substantially exposed to a mixture of chemicals, including persistent and bioaccumulative chemicals, pesticide residues, hydrocarbons, heavy metals and solvents and their mixtures, leading to a high risk of chronic toxicity, potentially altering biodiversity, hindering recovery, and impairing ecosystem functions; whereas approximately 3 million sites with potentially polluting activities in Europe have been identified, of which 340 000² are expected to require remediation; whereas comprehensive information is lacking on

¹ Eurostat, 2014b. *European Agricultural Census 2010*. [Online] URL: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Agricultural_census_2010 (accessed February 2014) – The European average of 19 % cropland applying winter cover crop, 21.5 % reduced tillage and 4 % no-till farming.

² European Environment Agency, *Progress in management of contaminated sites*.

diffuse soil pollution;

- AF. whereas, according to the EEA, the absence of suitable EU soil legislation contributes to soil degradation within Europe, and whereas progress towards sustainable development in Europe and globally is not possible if land and soil resources are not properly addressed¹;
- AG. whereas 95 % of our food is directly or indirectly produced from our soils;
- AH. whereas, according to the review of the current evidence of the state of EU soils, approximately 60-70 % of EU soils are unhealthy due to the current management practices, with a further, yet uncertain, percentage of soils being unhealthy due to poorly quantified pollution issues²;
- AI. whereas soil erosion by water and wind is estimated to affect 22 % of European land, and whereas more than half of agricultural land in the EU has average erosion levels higher than what can be naturally replaced (representing over one tonne of lost soil per year and per hectare)³, underlining the need for use of sustainable management techniques for soils;
- AJ. whereas around 25 % of irrigated agricultural land in the Mediterranean region is estimated to be affected by salt with an impact on agricultural potential; whereas the issue of salinisation is currently not addressed in existing EU legislation⁴;
- AK. whereas loss of fertile land to urban development reduces the potential to produce bio-based materials and fuels to support a low-carbon bioeconomy;
- AL. whereas investing in avoiding land degradation and in restoring degraded land makes sound economic sense as the benefits generally far exceed the cost; whereas the costs of restoration are estimated to be 10 times higher than prevention costs⁵;
- AM. whereas land is mostly privately owned in the EU, which is to be respected, while at the same time soil is a common good that is needed for the production of food and delivers essential ecosystem services for the whole of society and nature; whereas it is in the public interest that land users are encouraged to take precautionary measures to prevent soil degradation and to conserve soil and manage it sustainably for future generations; whereas supporting measures and further financial incentives should therefore be considered for land owners to protect soil and land;
- AN. whereas land recycling accounts for only 13 % of urban developments in the EU and whereas the EU 2050 target of no net land take is unlikely to be met unless annual rates

¹ European Environment Agency, *The European environment – state and outlook 2020*, 2019.

² Veerman, C., et al. (2020), *Caring for Soil is Caring for Life. In Interim Report for the Mission Board for Soil, Health and Food*; European Commission: Brussels, Belgium; p. 52.

³ Commission Staff Working Document, *Evaluation of the 7th EAP*, (SWD(2019)0181).

⁴ Commission Staff Working Document, *Evaluation of the 7th EAP*, (SWD(2019)0181).

⁵ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), *The IPBES assessment report on land degradation and restoration*, 2018.

of land take are further reduced and/or land recycling is increased;¹

- AO. whereas soil and land degradation has inherent transboundary aspects linked for example to climate change, water quantity and quality, and pollution, which require a response at EU level, concrete action by the Member States, and multilateral cooperation with third countries; whereas soil degrading practices in one country can result in costs being borne by another Member State; whereas differences between national soil protection regimes, for example as regards soil contamination, can impose on economic operators very different obligations and distort competition on the internal market;
- AP. whereas excavated soils accounted for more than 520 million tonnes of waste in 2018² and are by far the biggest source of waste produced in the EU; whereas excavated soils are currently considered waste under EU law and are therefore disposed of in landfills; whereas a majority of those soils are not contaminated and could be safely reutilised if a recovery target coupled with a comprehensive traceability system were put in place;
- AQ. whereas a coherent and adequate EU soil protection policy is a prerequisite to achieve the objectives of the SDGs, the Paris Agreement and the European Green Deal, and in particular, the climate neutrality objective, the farm-to-fork strategy, the biodiversity strategy, the zero-pollution ambition, the bioeconomy strategy and other main environmental and societal challenges;
- AR. whereas regularly updated, harmonised and open soil data and information are a prerequisite in order to achieve better data-driven and evidence-based policymaking to protect soil resources at EU and national level;
- AS. whereas in its opinion of 5 February 2021 the European Committee of the Regions called on the Commission ‘to propose a new European directive on agricultural soils to halt the decrease in their organic matter content, stop erosion and prioritise soil life in agricultural practices’³;
- AT. whereas food security is dependent on soil security and any practice that compromises soil health is a threat to food security; whereas healthier soils produce healthier food;
- AU. whereas Articles 4 and 191 TFEU enshrine the basic principles for EU environment policy and have established shared competence in the area;
- AV. whereas forest soils constitute half of the soils in the EU and biodiverse and healthy forests can contribute significantly to soil health;
1. Emphasises the importance of protecting soil and promoting healthy soils in the Union, bearing in mind that the degradation of this living ecosystem, component of biodiversity, and non-renewable resource continues, in spite of the limited and uneven action being in some Member States; stresses the costs of inaction on soil degradation,

¹ European Environment Agency, *The European environment – state and outlook 2020*, 2019.

² https://ec.europa.eu/eurostat/databrowser/view/ENV_WASGEN/bookmark/table?lang=en&bookmarkId=bbf937c1-ce8b-4b11-91b7-3bc5ef0ea042

³ CDR 3137/2020.

with estimates in the Union exceeding EUR 50 billion per year;

2. Underlines the multifunctional role of soil (provision of food, carbon sink, platform for human activities, biomass production, biodiversity pool, flood and drought prevention, source of raw materials, pharmaceutical and genetic resources, water and nutrient cycling, storage and filtering, storing of geological and archaeological heritage, etc.) and the resulting need to protect, sustainably manage and restore it, and preserve its capacity to fulfil its multiple roles by means of stable European-level and cross-border levels of intra-Community cooperation and with non-EU countries;
3. Considers that healthy soils are the basis for nutritious and safe food and are a prerequisite for sustainable food production;
4. Stresses that healthy soils are essential to achieve the objectives of the European Green Deal such as climate neutrality, biodiversity restoration, the zero-pollution ambition for a toxic-free environment, healthy and sustainable food systems and a resilient environment;
5. Believes that soils should have special attention in the implementation of the farm-to-fork strategy, the EU forest strategy, the biodiversity strategy for 2030 and the zero-pollution action plan for water, air and soil; calls on the Commission, therefore, to address all sources of soil pollution in the upcoming zero-pollution action plan and in the revision of the Industrial Emissions Directive;
6. Welcomes the inclusion of soil protection and restoration in the thematic priority objectives of the 8th Environment Action Programme;
7. Recognises the variability of soils in the Union and the need for targeted policy solutions and environment-specific sustainable soil management approaches to ensure their protection through joint efforts at Union and Member State level, in line with their respective competences, taking into consideration the conditions specific to the regional, local and parcel levels, the transboundary impacts of soil and land degradation, and the need to establish a level playing field for economic operators;
8. Underlines the risks stemming from the absence of a level playing field between the Member States and their different protection regimes for soil to the functioning of the internal market, which should be addressed at Union level in order to prevent distortion of competition between economic operators; underlines that the new framework would address the problem of lacking legal certainty for companies and that it has strong potential to stimulate fair competition in the private sector, develop innovative solutions and know-how and strengthen the export of technologies outside the Union;
9. Stresses that soil, which is a common resource, is, unlike air or water, not covered by specific legislation; welcomes, consequently, the Commission ambition to propose a coherent and integrated EU soil protection framework;
10. Calls on the Commission to design an EU-wide common legal framework, with full respect for the subsidiarity principle, for the protection and sustainable use of soil, addressing all major soil threats, which shall include, inter alia:
 - (a) common definitions of soil, its functions, and criteria for its good status and sustainable use;

- (b) objectives, indicators, including harmonised indicators, and a methodology for the continuous monitoring of and reporting on soil status;
 - (c) measurable intermediate and final targets with harmonised datasets and measures to tackle all identified threats and appropriate timelines, taking into consideration best practices learned from ‘first mover’ efforts and respecting land ownership rights;
 - (d) clarification of the responsibilities of different stakeholders;
 - (e) a mechanism for the sharing of best practices and training, as well as adequate control measures;
 - (f) adequate financial resources;
 - (g) effective integration with relevant policy targets and instruments;
11. Calls on the Commission to accompany its legal proposal with an in-depth impact assessment study based on scientific data, which will analyse both the costs of action and non-action in terms of immediate and long-term impacts on the environment, human health, the internal market and general sustainability;
 12. Points out that the common framework shall also consist of provisions regarding the mapping of risk areas and of contaminated, brownfield and abandoned sites, as well as for the decontamination of contaminated sites; calls on the Commission and the Member States to apply the polluter pays principle and to propose a mechanism for the remediation of orphan sites; considers that the remediation of these sites could be funded by European funding mechanisms;
 13. Calls on the Commission to consider proposing an open list of activities which can have significant potential to cause soil contamination, to be compiled from comprehensive lists at national level; stresses that this list should be publicly accessible and regularly updated; calls on the Commission, furthermore, to facilitate the harmonisation of risk assessment methodologies for contaminated sites;
 14. Believes that past efforts by Member States to identify contaminated sites should be taken into account; underlines that the identification of contaminated sites reflected in national inventories should be updated regularly and made available for public consultation; believes, furthermore, that provisions need to be adopted in the Member States to ensure that parties to land transactions are aware of the state of the soil and able to make an informed choice;
 15. Calls on the Commission to include in this common framework effective measures on prevention and/or minimisation of soil sealing and any other land use affecting soil performance, giving priority to brownfield land and soil recycling and the recycling of abandoned sites over use of unsealed soil with the aim of reaching the objective of no land degradation by 2030 and no net land take by 2050 at the latest, with an interim target for 2030, in order to achieve a circular economy, and to also include the right to effective and inclusive public participation and consultation on land use planning and to propose measures providing for construction and drainage techniques that would allow as many soil functions as possible to be preserved, where sealing occurs;

16. Calls on the Commission to update the Guidelines on best practices to limit, mitigate or compensate soil sealing in line with the objectives of the European Green Deal;
17. Calls for the measurement of occupied and/or sealed land, and of the corresponding loss of ecosystem services and ecological connectivity; calls for these aspects to be accounted and adequately compensated for in the context of the Environmental and Strategic Impact Assessments of projects and programmes;
18. Stresses that soil protection, its circular and sustainable use and its restoration need to be integrated into and should be made consistent across all relevant EU sectoral policies in order to prevent further degradation, ensure a consistent high level of protection, and rehabilitation where possible, and avoid overlapping, incoherence, and inconsistencies between EU legislation and policies; calls on the Commission, in this regard, to review the relevant policies with a view to ensuring policy coherence with soil protection¹;
19. Considers that the CAP should provide conditions for safeguarding the productivity and ecosystem services of soils; encourages the Member States to introduce coherent soil protection measures in their national CAP Strategic Plans and to ensure the wide use of agronomic practices based on agroecology; invites the Commission to assess whether CAP National Strategic Plans ensure a high level of soil protection and to promote actions to regenerate degraded agricultural soils; calls for measures to promote less intensive tillage practices which cause minimum soil disturbance, organic farming, and the use of organic matter additions to soil;
20. Emphasises the important role of soils for water purification and filtration, and hence their contribution to the provision of drinking water to a large proportion of the European population; recalls that the limited links between EU water law and soil protection actions have been recognised in the recent Fitness Check of EU water policy; emphasises the need to improve the quality of soil, together with the quality and quantity of groundwater and surface water, in order to achieve the goals of the Water Framework Directive;
21. Stresses the importance of achieving a so-called ‘water-smart society’ to support the restoration and protection of soil, as well as of exploring the close relationship between soil health and water pollution; calls on the Commission to encourage the use of the relevant digital tools to monitor the status of water and soil and the effectiveness of policy instruments;
22. Welcomes the Commission’s intention to put forward a legislative proposal for an EU nature restoration plan in 2021 and supports the fact that it should include targets on the restoration of soils; underlines that the plan should be coherent with the reviewed soil thematic strategy;
23. Reiterates its call for the revision of material recovery targets set in EU legislation for construction and demolition waste and their material-specific fractions to include a material recovery target for excavated soils in the revision of the Waste Framework

¹ Eurostat, 2014b. *European Agricultural Census 2010*. [Online] URL: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Agricultural_census_2010 (accessed February 2014) – The European average of 19 % cropland applying winter cover crop, 21.5 % reduced tillage and 4 % no-till farming.

Directive; calls on the Commission and the Member States to establish systematic diagnosis of the status and reuse potential of excavated soil, as well as a traceability system for excavated soils and regular checks at disposal sites in order to prevent illegal dumping of contaminated soils from industrial brownfield sites and ensure their compatibility with receiving sites;

24. Highlights that the fragmentation and loss of habitats in coastal marine ecosystems reduce their ability to protect shorelines as well as to provide sustainable livelihoods; recognises the crucial role of coastal protection in mitigating the threat from climate change in the EU and stresses the need for the Commission to include coastal protection and restoration in the new EU soil strategy and the EU nature restoration plan, together with ecosystem-based management, such as integrated coastal zone management and marine spatial planning; calls on the Commission to prioritise the restoration of coastal areas acting as natural sea defences and that have been negatively impacted by the urbanisation of coasts in regions threatened by coastal erosion and/or floods in the EU nature restoration plan;
25. Highlights that soil biodiversity is the very basis for key ecological processes and notes with concern the increase in soil degradation and soil sealing, and decline of soil biodiversity in European agricultural area; calls on the Commission, therefore, to establish a common framework for the protection and conservation of soil and the restoration of soil quality on the basis of scientific data and economic, environmental and social impact assessments, and to develop concrete solutions to address hotspot issues in Europe with the dual purposes of biodiversity restoration and nature-based climate change mitigation and adaptation; believes that robust EU-wide monitoring of soil organisms and trends in their range and volume must be put in place and maintained; calls on the Commission and the Member States to support further research, including at different depths and horizons, as well as monitoring and beneficial farming and forestry practices to increase soil organic matter at greater depths; welcomes, in this context, the objectives within the farm-to-fork strategy and biodiversity strategy for 2030; calls for clear trajectories to be established in view of the scheduled mid-term reviews of both strategies, with respect for the different starting points of Member States;
26. Considers it of utmost importance to achieve a healthy soil microbiome;
27. Stresses that EU forests store about 2.5 times more carbon in soils than in tree biomass¹;
28. Stresses that clearcutting forest management practice destroys the symbiotic interdependent network of trees with fungi and that subsequent reestablishment of this web after clearcut is almost non-existent; highlights that in boreal forests this web represents the single most important mechanism of accumulation of soil organic matter and is thus crucial in the global carbon cycle²; reiterates that clearcutting does not mimic natural disturbance by wildfire as unlike a clearcut site a site disturbed by wildfire is characterised by a very high amount of deadwood and soil open for

¹ Bruno De Vos et al., *Benchmark values for forest soil carbon stocks in Europe: Results from a large scale forest soil survey*, Geoderma, Volumes 251–252, August 2015, pp 33-46.

² K. E. Clemmensen et al., *Roots and Associated Fungi Drive Long-Term Carbon Sequestration in Boreal Forest*, Science 339, 1615, 2013.

colonisation of species;

29. Calls for strict enforcement of good animal husbandry standards in livestock farming so as to significantly reduce the use of veterinary medicines and their spreading on fields via manure and for strict enforcement of the Nitrates Directive;
30. Welcomes the Commission's commitment in the context of the circular economy action plan to revise Council Directive 86/278/EEC on sewage sludge; calls on the Commission to ensure that the review contributes to soil protection by increasing organic matter in soils, recycling nutrients and reducing erosion while protecting soils and groundwater from pollution;
31. Calls on the Commission to support the collection of data on compaction and promote sustainable agricultural measures aimed at reducing the use of heavy machinery;
32. Calls on the Commission to task the European Soil Data Centre with monitoring pesticide residues as well as assessing the amount of carbon stored in European soils and setting targets for soil restoration and quality improvement, including through an increase in soil organic matter, in line with IPCC recommendations and SDG requirements;
33. Believes that sustainable management of soil is a key component of farming and food policy in long term; recognises, however, the importance of legal provisions contributing to the restoration, conservation and strict protection of intact soils, focusing inter alia on soil and land use change in wetlands, peatlands, permanent grasslands and pastures;
34. Calls for the new EU soil strategy to identify and promote good and innovative farming practices that can prevent and reduce the threat of soil salinisation, or control its negative effects;
35. Encourages the Commission and the Member States to contribute effectively to reducing the overuse of synthetic fertilisers, especially nitrogen, by lowering the thresholds fixed by the Nitrates Directive; calls on the Commission to build on the UN Environment Programme resolution on sustainable nitrogen management and on the objective of the Colombo Declaration to halve nitrogen waste from all sources by 2030; calls on the Commission and the Member States to ensure sustainable nutrient management including by improving nitrogen use efficiency, the extensification of livestock farming in defined areas, mixed farming integrating livestock and cropping systems, efficient use of animal manure and greater use, in rotation, of nitrogen-fixing crops such as legumes in all relevant legislation; calls on the Commission to pay greater attention to nitrous oxide emissions in global greenhouse gas accounting, and to make more integrated efforts to tackle nitrogen excess as a climate, nature and health issue, as well as offering incentives for better nitrogen management at farm level;
36. Calls for a revision of Directive 2004/35/EC on environmental liability to strengthen its provisions with regard to contaminated sites;
37. Calls on the Commission to ensure coherence between the new soil strategy and the upcoming EU forest strategy by including sustainable soil management requirements, such as agroforestry practices, in the forest strategy;

38. Calls on the Commission to review the soil thematic strategy and to adopt the action plan entitled ‘Towards a zero pollution ambition for air, water and soil – building a healthier planet for healthier people’ without delay; welcomes in this regard the intention of the Commission to increase legal certainty for companies and citizens by setting clear objectives, measurable targets and a plan of action;
39. Stresses that agroforestry practices can actively provide environmental benefits and synergies such as acting against erosion, improving biodiversity, storing carbon and regulating water;
40. Calls on the Commission to tackle diffuse contamination deriving from farming activities, in line with the targets of the farm-to-fork strategy; welcomes in this regard the Commission’s announcement of the revision of the Directive on the Sustainable Use of Pesticides; recalls that many alternatives to synthetic pesticides already exist, such as integrated pest management (IPM), and that their use should be scaled up; expects the Commission and Member States to address all its calls within the resolution of 16 January 2019 on the Union’s authorisation procedure for pesticides, without delay;
41. Regrets that the EU authorisation process for chemicals, including environmental risk assessment and ecotoxicological studies, does not take due account of their impacts on soils; calls on the Commission, therefore, in the new EU soil strategy and in coherence with the chemicals strategy on sustainability, to adopt regulatory measures to prevent and mitigate the pollution of soil by chemicals, in particular persistent and bioaccumulative chemicals (including plastics and microplastics), and to ensure that ecologically relevant test conditions representative of field conditions are met;
42. Calls on the Commission to support research to bridge the knowledge gaps about the potential of soil biodiversity for tackling soil pollution and the impacts of pollution on soil biodiversity, and to close the legislative gaps regarding the toxicity of biocides and veterinary products to soil and its organisms, without delay; calls on the Commission and the Member States to support the work of the responsible agencies to ensure development and promotion of alternatives to the most toxic biocides in veterinary pest management; calls for the Commission in collaboration with the European Chemicals Agency to develop European limits on soil pollution from per- and polyfluoroalkyl substance (PFAS)s, based on the precautionary principle;
43. Regrets that the Fitness Check of EU water legislation does not discuss opportunities for wider integrated environmental management in catchments, linking river basin management plans with wider soil protection plans; is of the opinion that such integrated analysis and decision-making would benefit several different objectives of EU policy as well as potentially leading to gains at local governance levels;
44. Calls on the Member States to better integrate water and soil planning, with combined assessments of pressures and risks (including within river basin management plans) and the adoption of an integrated approach to measures that deliver protection to both of these environmental media;
45. Agrees with the EEA that harmonised, representative soil monitoring across Europe is needed in order to develop early warnings of exceedances of critical thresholds and to

guide sustainable soil management¹; calls on the Member States and the Commission to improve and speed up the collection and the integration of data on soil status and trends, and threats to soil at EU level; welcomes in this regard the establishment of the EU Soil Observatory, which builds on LUCAS Soil; calls on the Commission to ensure long-term operability for both instruments, as well as sufficient resources for optimal and regular monitoring of soil biological attributes and physio-chemical properties, including the presence of agro-chemicals and other contaminants, such as contaminants of emerging concern; believes this is fundamental to filling the gap on data and indicators and for supporting the European Green Deal; underlines the need to better understand the processes leading to land degradation and desertification in the EU; calls on the Commission to establish a methodology and relevant indicators to assess and collect data on the extent of desertification and land degradation in the EU;

46. Notes that 13 Member States have declared themselves as affected Parties under the United Nations Convention to Combat Desertification (UNCCD); calls on the Commission to incorporate into EU policies the SDGs regarding soil;
47. Notes the challenges of a governance, coordination, communication, financial, technical and legal nature that hinder the improvement of the consistency and interoperability of EU-level and national soil monitoring and collection of information; urges the Commission and the Member States to tackle those challenges jointly and to accelerate cooperation, including within the EU Expert Group on Soil Protection, with a view to ensuring a high level of soil protection, and avoiding duplications and unnecessary bureaucratic burdens and costs for the Member States and SMEs;
48. Calls on the Commission and the Member States to improve and speed up efforts to fully exploit the value in water, in particular to achieve the full reuse of nutrients and valuable components found in wastewater in order to improve circularity in agriculture and avoid excessive discharge of nutrients into the environment;
49. Calls on the Commission to facilitate an annual conference with the participation of Member States and relevant stakeholders, giving them a critical role through issue-based dialogues;
50. Acknowledges the important role of healthy soil, as the largest terrestrial carbon sink, in capturing and storing carbon, particularly in combination with the co-benefits of wetlands, and nature-based solutions, which must facilitate the achievement of the 2030 climate targets as well as the Union's objective of climate neutrality by 2050 at the latest; stresses that the new soil strategy should ensure that the contribution of soils to climate mitigation and adaptation is coherent with the rest of the EU climate policy architecture; calls on the Member States, therefore, to strengthen the restoration and sustainable use of soil as a tool for climate policy in their national energy and climate plans (NECPs) and in particular in measures applying to the agricultural and land use, land-use change and forestry (LULUCF) sectors, and to preserve, restore and enhance carbon sinks (especially in areas with carbon-rich soils, such as grasslands and peatlands), in addition to taking action seeking to promote the sustainable use of soil in agricultural policy and to reduce agricultural emissions; believes that measures to increase carbon sequestration in soils should be supported; welcomes, particularly, the

¹ European Environment Agency, *The European environment – state and outlook 2020*, 2019.

Commission's announcement of a carbon farming initiative and encourages the Commission to explore several options;

51. Believes that unsustainable practices leading to soil organic carbon losses and contributing to climate change must be prevented; regrets that estimates related to carbon content are limited to upper soil horizons and calls on the Member States and the Commission to generate relevant carbon content data in lower soil layers, which would improve the understanding of overall soil potential for carbon content retention and increase;
52. Calls on the Commission to set, in the upcoming revision of the LULUCF regulation, a target date for all agricultural soils to be net carbon sinks, in line with the EU's 2050 climate neutrality objectives;
53. Emphasises that carbon farming can bring multiple benefits: climate change mitigation, improved soil production capacity and resilience, increased biodiversity and reduced run-off of nutrients; calls for the enhancing of capacity building, networking and knowledge transfer to speed up carbon sequestration and increase the amount of carbon stored in soil, and thus to provide solutions to the climate challenge;
54. Stresses that unsustainable land use releases soil carbon into the atmosphere after centuries or millennia of having been part of the soil ecosystem;
55. Calls on the Commission and the Member States to ensure that the multifunctional role of soil is adequately addressed in research, to scale up soil-specific research innovation and funding and to adjust relevant existing funding programmes to facilitate such research projects, in order to reflect the specific characteristics of soil in related research; welcomes in this regard the launch of the Horizon Europe mission for soil health and food; calls for a strengthened role for the EU Soil Observatory and European Soil Data Centre and for the allocation of adequate funding to fulfil their mission and achieve the objectives of the new soil strategy; calls, furthermore, on the Commission and Member States to build taxonomic expertise of soil biodiversity and knowledge on the consequences of soil conditions for ecosystem interactions; underlines the interdependence between soils and water and calls for dedicated support for research on the positive role that healthy soils play in further reducing diffuse pollution into water;
56. Calls on the Commission and the Member States to provide sufficient financial support and incentives to promote soil protection, its sustainable management, conservation and restoration, and innovation and research via the common agricultural policy, cohesion policy, Horizon Europe and other available financial instruments; encourages the Commission and the Member States to identify areas subject to erosion and of low organic carbon and areas subject to compaction which could benefit from targeted funding;
57. Calls on the Commission and the Member States to ensure adequate levels of human resources and the financial sustainability of agencies involved in work related to the soil thematic strategy; highlights that a sufficient level of qualified staff is a precondition for the successful implementation of Union policies; calls on the Commission, therefore, to secure adequate staffing levels, particularly for the Directorate-General for Environment;

58. Calls on the Commission and the Member States to introduce measures for harmonised and integrated data collection, a comprehensive monitoring system, and the exchange of information and best practices on soil protection, its sustainable management and restoration across the Union, as well as maximising the synergies between existing monitoring systems and CAP tools;
59. Considers that these measures should be the baseline conditions for eligibility for Union or national funding;
60. Considers that Member States should draw up and publish soil condition reports at regular intervals of no longer than five years; considers that all soil data collected should be made publically available online;
61. Supports initiatives aiming to improve public awareness and understanding of the positive impact of soil functions and protection, including those linked to sustainable soil management, protection and restoration, public health and environmental sustainability; stresses that public awareness and understanding of soil functions is key to the success of the new soil strategy and to ensuring the participation of citizens, first and foremost of landowners, farmers, and foresters, as primary actors of soil management; calls for greater engagement with the general public on soil health and the environmental emergency and for support for community initiatives for the protection and sustainable use of soil; expresses its support for World Soils Day and urges further action to raise awareness in this regard;
62. Stresses that environmental risks covered in the upcoming mandatory human-rights and environmental due diligence legislation should include soil degradation based on the objectives and targets of the new EU soil strategy;
63. Calls on the Commission, as a global leader in the field of environment, to include in the new EU soil strategy the protection and sustainable use of soil in all relevant aspects of its external policy, and in particular fully to take into account this aspect when concluding relevant international agreements and when reviewing existing ones;
64. Calls on the Commission to include soil protection in the trade and sustainable development chapters of trade agreements, taking measures to address imported soil degradation from these countries, including degradation caused by biofuels with highly negative environmental impacts, and to refrain from exporting soil degradation; calls on the Commission to ensure that products imported from third countries to the EU comply with the same environmental and sustainable land use standards;
65. Understands the importance of cooperation at all levels to effectively address all soil threats; calls on the Member States, therefore, to lead by example and to consider initiating a soil convention within the UN;
66. Expresses its support for ‘Caring for Soil is Caring for Life’, the Horizon mission proposed by the Soil Health and Food Mission Board, with its goal of ensuring that 75 % of soils are healthy by 2030 for healthy food, people, nature and climate;
67. Recommends the development of new green forestry and agroforestry areas, especially in urban regions, to counterbalance the negative impacts of the current high level of soil sealing in European cities;

68. Instructs its President to forward this resolution to the Council, the Commission and the governments and parliaments of the Member States.