COUNCIL OF EUROPE

EUROPEAN SOIL CHARTER

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1. Soil is one of humanity's most precious assets. It allows plants, animals and man to live on the earth's surface

Soil is a living and dynamic medium which supports plant and animal life. It is vital to man's existence as a source of food and raw materials. It is a fundamental part of the biosphere and, together with vegetation and climate, helps to regulate the circulation and affects the quality of water.

Soil is an entity in itself. As it contains traces of the evolution of the earth and its living creatures, and is the basic element of the landscape, its scientific and cultural interest must be taken into consideration.

2. Soil is a limited resource which is easily destroyed

Soil is a thin layer covering part of the earth's surface. Its use is limited by climate and topography. It forms slowly by physical, physico-chemical, and biological processes but it can be quickly destroyed by careless action. Its productive capacity can be improved by careful management over years or decades but once it is diminished or destroyed reconstitution of the soil may take centuries.

3. Industrial society uses land for agriculture as well as for industrial and other purposes. A regional planning policy must be conceived in terms of the properties of the soil and the needs of today's and tomorrow's society

Soil may be put to many uses and it is generally exploited according to economic and social necessity. But the use made of it must depend on its properties, its fertility and the socio-economic services which it is capable of providing for the world of today and tomorrow. These properties thus govern the suitability of land for farming, forestry and other uses. Destruction of soil, in particular for purely economic reasons based on considerations of short-term yield, must be avoided.

Marginal lands raise special problems and special opportunities for soil conservation because properly managed they have great potential as nature reserves, re-afforestation areas, protection zones against soil erosion and avalanches, reservoirs and regulators of water systems and as recreation zones.

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4. Farmers and foresters must apply methods that preserve the quality of the soil

Machinery and modern techniques permit considerable increases in yields, but, if used indiscriminately, they may disrupt the natural balance of the soil, altering its physical, chemical and biological characteristics. The destruction of organic matter in the soil by inappropriate methods of cultivation and the misuse of heavy machinery are important factors in impairing soil structure and hence the yield of arable crops. The soil structure of grassland may be similarly damaged by intensive stocking.

Forestry should put appropriate emphasis on methods for improved exploitation which will prevent soil deterioration.

Methods of tillage and harvesting should conserve and improve the properties of the soil. The introduction of new techniques on a wide scale should be undertaken only after its possible disadvantages have been studied.

5. Soil must be protected against erosion

Soil is exposed to the weather; it is eroded by water, wind, snow and ice. Careless human activity speeds up the process of erosion by damaging the soil's structure and its normal resistance to erosive action.

In all situations, suitable physical and biological methods must be applied to protect the soil against accelerated erosion. Special measures must be taken in areas liable to floods and avalanches.

6. Soil must be protected against pollution

Certain chemical fertilisers and pesticides, used without discernment or control, may accumulate in cultivated land and may thus contribute to the pollution of soil, groundwater, water courses, and air.

If industry or agriculture discharges toxic residues or organic wastes that could endanger the land and water, those responsible must provide for adequate treatment of water or the disposal of wastes in suitable places, as well as for the restoration of the dumping areas after use.

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7. Urban development must be planned so that it causes as little damage as possible to adjoining areas

Towns obliterate the soil upon which they stand and affect neighbouring areas as a result of providing the infrastructure necessary to urban life (roads, water supplies, etc.) and by producing growing quantities of waste which must be disposed of.

Urban development must be concentrated and so planned that it avoids as far as possible taking over good soil and harming or polluting soil in farmland and forest, in nature reserves and recreational areas.

8. In civil engineering projects, the effects on adjacent land must be assessed during planning, so that adequate protective measures can be reckoned in the cost

Operations such as the building of dams, bridges, roads, canals, factories or houses may have a more or less permanent influence on surrounding land, both close at hand and at a distance. Often they alter natural drainage and watertables. Such repercussions must be assessed so that suitable measures are taken to counteract damage.

Costs of measures to protect the surrounding area must be calculated at the planning stage and, if the installation is temporary, costs of restoration must be included in the budget.

9. An inventory of soil resources is indispensable

For effective land planning and management and to permit the establishment of a genuine policy of conservation and improvement, the properties of the different types of soil, their capabilities and distribution, must be known. Each country must make an inventory, as detailed as necessary, of its soil resources.

Soil maps, supplemented as appropriate by special maps on land-use, geology, real and potential hydrogeology of soils, soil capability, vegetation, hydrology, and the like, are necessary for this purpose. The production of such maps by specialised agencies working together is a basic necessity in each country. These maps should be prepared in such a way as to permit comparison at international level.

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10. Further research and interdisciplinary collaboration are required to ensure wise use and conservation of the soil

Research on soil and its use must be supported to the full. On it depend the perfecting of conservation techniques in agriculture and forestry, the elaboration of standards for the application of chemical fertilisers, the development of substitutes for toxic pesticides, and methods of suppressing pollution.

Scientific research is essential to prevent the consequences of the wrong use of the soil in any human activity. Because of the complexity of the problems involved, such research must form part of the work of multidisciplinary centres. International exchange of information and co-ordination must also be encouraged.

11. Soil conservation must be taught at all levels and be kept to an ever-increasing extent in the public eye

Increasing publicity, adapted to national and local requirements, must be given to the need for conservation of the quality of the soil and the methods by which this aim can be achieved. Authorities should strive to ensure that the information given to the public by the mass media is scientifically correct.

Soil conservation principles must be fully included in teaching programmes at all levels as an element of environmental education as such: at primary, secondary and university levels. Techniques of soil conservation must be taught in faculties, engineering, agricultural and forestry schools and to adults in rural communities.

12. Governments and those in authority must purposefully plan and administer soil resources

Soil is an essential but limited resource. Therefore, its use must be planned rationally which means that the competent planning authorities must not only consider immediate needs but also ensure long-term conservation of the soil while increasing or at least maintaining its productive capacity.

A proper policy of soil conservation is therefore needed, which implies an appropriate administrative structure necessarily centralised, and properly co-ordinated at the regional level. Appropriate legislation is also required to allow the planned apportionment of land for different uses in regional and national development, to control techniques of land-use which might cause deterioration or pollution of the environment, to protect the soil against the inroads of natural and human hazards and where necessary to restore it.

States which accept the principles set out above should undertake to devote the necessary funds to their implementation and promote a genuine soil conservation policy.