

WORLD SOIL CHARTER



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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FOREWORD

Man's demand for food from the natural resources that sustain his existence has increased enormously in recent years. FAO's projection in "Agriculture: Toward 2000" reveals that 50 percent more food will have to be grown by the end of this century just to meet present nutritional levels; yet additional supplies will be needed to conquer famine and malnutrition. However, the ability of land to produce food is limited. The limits of production are set by soil and climatic conditions and by the management applied. Any "mining" of land beyond these limits results in decreased productivity.

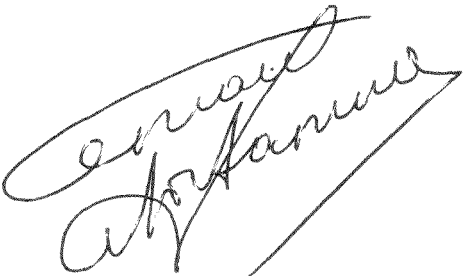
For a number of developing and developed countries alike, land degradation has emerged as one of the major constraints to the further expansion of agriculture both across the land surface as well as in terms of higher yields per unit/area. In certain developing countries this loss of land is taking place at an alarming rate. It results in decreasing levels of self-sufficiency and hence in increased dependence on supplies from outside. If remedial measures are not taken, 20 percent of the productive capacity of land in developing countries may be lost by the end of this century.

Conscious of this situation, the 21st Session of the FAO Conference, in November 1981, adopted the World Soil Charter. The Charter establishes a set of principles for the optimum use of the world's land resources, for the improvement of their productivity, and for their conservation for future generations.

The World Soil Charter calls for a commitment on the part of governments, international organizations and land users in general to manage the land for long-term advantage rather than for short-term expediency. Special attention is called to the need for land-use policies which create the incentives for people to participate in soil conservation work, taking into account both the technical and socio-economic elements of effective land use.

In compliance with the World Soil Charter, FAO is pursuing an active programme on soil management and conservation, including those activities which are basic for the promotion of optimum land use: land resources inventories, assessment of degradation hazards, evaluation of production capacity, improvement of soil fertility, combating desertification, land reclamation, integrated land-use planning, training and institution building. In doing so, FAO is cooperating closely with national institutions, organizations in the UN system, UNDP, UNEP, Unesco, WHO and WMO, which are, from different angles, involved in the promotion of effective land use, and with other international organizations dealing with conservation issues.

I commend the World Soil Charter to all decision-makers and users of the land as a means to ensure good stewardship of the world's land resources on which the survival of mankind depends.



EDOUARD SAOUMA
Director-General

WORLD SOIL CHARTER

THE CONFERENCE,

Recalling Resolution VI of the World Food Conference (Rome, 1974), by which the Food and Agriculture Organization was urged to establish a World Soil Charter as a basis for an international cooperation toward the most rational use of the world's soil resources,

Realizing that land resources are limited and that of the total land area of the world only a small percentage is currently used to feed the world population which is likely to reach six billion by the end of the century,

Recalling further the Programme of Action as adopted by the World Conference on Agrarian Reform and Rural Development (Rome, 1979), which called for "an efficient use of land... with due regard for ecological balance and environmental protection," and the Plan of Action of the UN Conference on Desertification (Nairobi, 1977) to combat land degradation and desertification,

Concurring that the food requirements of mankind including the eradication of malnutrition can be met by:

- the intensification of food-crop production including multiple cropping, wherever this can be safely accomplished,
- the bringing into cultivation of new lands, wherever conditions for sustained cropping prevail, with a view to meeting food production requirements,
- the establishment and better utilization of grasslands and forests,

Sharing the concern caused by the dangers of soil degradation resulting from misuse of land and inappropriate measures for intensifying production, particularly in areas which are exposed to water and wind erosion, or salinity and alkalinity,

Noting the research carried out by FAO in conjunction with Unesco, UNEP, WMO, and other competent international organizations, and in consultation with the governments concerned, with a view to assessing the lands that can still be brought into cultivation, taking proper account of permanent vegetation cover for the protection of catchment areas and of land required for forestry, grazing and other uses, with particular reference to the hazards of irreversible soil degradation as well as the order of magnitude of costs and inputs required,

Recognizing that decisive progress toward intensified assistance in the improvement of productivity and conservation of soils can be achieved by the adoption and implementa-

tion of appropriate principles and guidelines for action at the national and international levels,

Having noted the conclusions and recommendations adopted by the Committee on Agriculture at its Sixth Session and by the Council at its 79th Session,

1. Hereby adopts the World Soil Charter;
2. Recommends to the United Nations and international organizations concerned to give effect, within their respective spheres of competence, to the Principles and Guidelines set forth below.

PRINCIPLES

1. Among the major resources available to man is land, comprising soil, water and associated plants and animals: the use of these resources should not cause their degradation or destruction because man's existence depends on their continued productivity.
2. Recognizing the paramount importance of land resources for the survival and welfare of people and economic independence of countries, and also the rapidly increasing need for more food production, it is imperative to give high priority to promoting optimum land use, to maintaining and improving soil productivity and to conserving soil resources.
3. Soil degradation means partial or total loss of productivity from the soil, either quantitatively, qualitatively, or both, as a result of such processes as soil erosion by water or wind, salinization, waterlogging, depletion of plant nutrients, deterioration of soil structure, desertification and pollution. In addition, significant areas of soil are lost daily to non-agricultural uses. These developments are alarming in the light of the urgent need for increasing production of food, fibres and wood.
4. Soil degradation directly affects agriculture and forestry by diminishing yields and upsetting water regimes, but other sectors of the economy and the environment as a whole, including industry and commerce, are often seriously affected as well through, for example, floods or the silting up of rivers, dams and ports.
5. It is a major responsibility of governments that land-use programmes include measures toward the best possible use of the land, ensuring long-term maintenance and improvement of its productivity, and avoiding losses of productive soil. The land users themselves should be involved, thereby ensuring that all resources available are utilized in the most rational way.
6. The provision of proper incentives at farm level and a sound technical, institutional and legal framework are basic conditions to achieve good land use.

7. Assistance given to farmers and other land users should be of a practical service-oriented nature and should encourage the adoption of measures of good land husbandry.
8. Certain land-tenure structures may constitute an obstacle to the adoption of sound soil management and conservation measures on farms. Ways and means should be pursued to overcome such obstacles with respect to the rights, duties and responsibilities of land owners, tenants and land users alike, in accordance with the recommendations of the World Conference on Agrarian Reform and Rural Development (Rome, 1979).
9. Land users and the broad public should be well informed of the need and the means of improving soil productivity and conservation. Particular emphasis should be placed on education and extension programmes and training of agricultural staff at all levels.
10. In order to ensure optimum land use, it is important that a country's land resources be assessed in terms of their suitability at different levels of inputs for different types of land use, including agriculture, grazing and forestry.
11. Land having the potential for a wide range of uses should be kept in flexible forms of use so that future options for other potential uses are not denied for a long period of time or forever. The use of land for non-agricultural purposes should be organized in such a way as to avoid, as much as possible, the occupation or permanent degradation of good-quality soils.
12. Decisions about the use and management of land and its resources should favour the long-term advantage rather than the short-term expedience that may lead to exploitation, degradation and possible destruction of soil resources.
13. Land conservation measures should be included in land development at the planning stage and the costs included in development planning budgets.

GUIDELINES FOR ACTION

Acceptance of these Principles would require the following action:

By governments

- i. Develop a policy for wise land use according to land suitability for different types of utilization and the needs of the country.
- ii. Incorporate principles of rational land use and management and conservation of soil resources into appropriate resource legislation.

- iii. Develop an institutional framework for monitoring and supervising soil management and soil conservation, and for coordination between organizations involved in the use of the countries' land resources in order to ensure the most rational choice among possible alternatives.
- iv. Assess both new lands and the lands already being used for their suitability for different uses and the likely hazards of degradation. Provide decision makers with alternative land uses which both satisfy communities' aspirations and use the land according to its capabilities.
- v. Implement education, training and extension programmes at all levels in soil management and conservation.
- vi. Disseminate as widely as possible information and knowledge about soil erosion and methods of controlling it both at the farm level and at the scale of entire watersheds, stressing the importance of soil resources for the benefit of people and development.
- vii. Establish links between local government administrations and land users for the implementation of the soils policy and emphasize the need to put proven soil conservation techniques into practice, and to integrate appropriate measures in forestry and agriculture for the protection of the environment.
- viii. Strive to create socio-economic and institutional conditions favourable to rational land resource management and conservation. These conditions will include providing security of land tenure and adequate financial incentives (e.g., subsidies, taxation relief, credit) to the land user. Give encouragement particularly to groups willing to work in cooperation with each other and with their government to achieve appropriate land use, soil conservation and improvement.
- ix. Conduct research programmes which will provide sound scientific backing to practical soil improvements and soil conservation work in the field, and which give due consideration to prevailing socio-economic conditions.

By international organizations

- i. Continue and intensify efforts to create awareness and encourage cooperation among all sectors of the international community, by assisting where required to mount publicity campaigns, conduct seminars and conferences and to provide suitable technical publications.
- ii. Assist governments, especially of developing countries, on request, to establish appropriate legislation, institutions and procedures to enable them to mount,

- implement and monitor appropriate land-use and soil-conservation programmes.
- iii. Promote cooperation between governments in adopting sound land-use practices, particularly in the large international watersheds.
 - iv. Pay particular attention to the needs of agricultural development projects which include the conservation and improvement of soil resources, the provision of inputs and incentives at the level of the farm and of the watershed, and the establishment of the necessary institutional structures as the major components.
 - v. Support research programmes relevant to soil conservation, not only of a technical nature but also research into social and economic issues which are linked to the whole question of soil conservation and land resource management.
 - vi. Ensure the storage, compilation and dissemination of experience and information related to soil conservation programmes and of the results obtained in different agro-ecological regions of the world.

POSSIBILITIES FOR FOLLOW-UP

The guidelines for action contained in the World Soil Charter call for a follow-up in different fields of land development and conservation:

Assessment of land resources and land-use planning

- soil survey and land evaluation
- assessment of soil degradation and desertification
- assessment of land-use potential according to an agro-ecological approach
- evaluation of population supporting capacities
- planning of optimal land use
- training in the above fields of work

Soil management and fertilizers

- maintain and improve soil fertility
- promote the efficient use of fertilizers
- promote the use of organic manures, biogas and nitrogen fixing practices
- assessment and elimination of micro-nutrient deficiencies
- soil and plant testing
- promotion of integrated plant nutrition systems
- improvement of tillage practices
- improvement of production in shifting cultivation areas
- training in the above fields of work

Conservation and reclamation of land resources

- soil conservation and watershed management
- soil conservation legislation and soil conservation policies
- reclamation of saline and alkaline lands
- combating desertification
- developing soil conservation services
- training in the above fields of work

FAO extends its cooperation for follow-up activities related to these Guidelines for action.
Inquiries can be addressed to:

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