

Revised Concept Note for the development of “Voluntary guidelines for Sustainable Soil Management”

I. BACKGROUND

At its 24th session of 29 September to 3 October 2014, the FAO Committee on Agriculture (COAG): *“noted the proposal for developing a concept note on sustainable management of soil resources with support from the Intergovernmental Technical Panel on Soils, for submission to the next GSP Plenary Assembly and the FAO Council.”* The present concept note has been formulated in response to this expectation. This concept note presents a process that will lead to the development of a document entitled “Voluntary Guidelines for Sustainable Soil Management (VGSSM)”.

It is pertinent to recall that the revised World Soil Charter (WSC), developed under the aegis of the Global Soil Partnership (GSP) and, more particularly, the Intergovernmental Technical Panel on Soils (ITPS) – and which was approved at the June 2015 session of the FAO Conference – already contains carefully drafted principles and guidelines for action by a broad range of stakeholders to implement sound and sustainable management of soil resources. The WSC forms the framework that the VGSSM will be built upon.

In the interest of brevity and ease of reference at policy level, the WSC principles are, necessarily so, quite broad and generic in nature. It is, therefore, recognized that the WSC may be usefully complemented by the preparation of more detailed technical guidelines for the sustainable management of soil resources-

Achieving sustainable management of soil resources will generate large benefits for all. In some contexts, it will be a driver for economic prosperity and, in others, for assuring the provision of ecosystem services that enable life on Earth. The achievement of sustainable development requires that sustainable soil management be practised at all levels. To this end, the availability of sound guidelines constitutes a very important step forward towards the sound implementation of sustainable soil management.

Based on the successful precedent of other voluntary guidelines developed under FAO auspices, the present concept note sets out a process for developing a similar document for sustainable soil management as complementary tool fostering the implementation of the World Soil Charter.

II. SCOPE AND INTENDED USES

The guidelines will be of voluntary nature and will not be of legally-binding character. They will focus on technical aspects and will not include any element of political dimension.

The guidelines will address sustainable management of soils in agriculture and the maintenance or enhancement of the ecosystem services they provide, such as food production, climate regulation, and the regulation of water quality and quantity.

The voluntary guidelines for SSM will be globally relevant rather than specifying actions at the local scale – principle 6 of the WSC clearly indicates that the development of specific measures appropriate for adoption by decision makers requires multi-level, interdisciplinary initiatives by many stakeholders.

The length of the proposed Voluntary Guidelines will be similar to other voluntary guidelines - approximately 30 pages.

Given the focus on global relevance and the suggested page limit, the proposed voluntary guidelines will not provide a comprehensive list of SSM practices for all land use/soil type combinations. The guidelines will, where appropriate, specify situations where particular management practices are required.

The global scope of the proposed guidelines will complement the Status of the World's Soil Resources report, which provides a source of locally-specific examples of soil management and information.

Further locally relevant information on good practices is available from World Overview of Conservation Approaches and Technologies (WOCAT), and other relevant databases.

The proposed guidelines could be used for a variety of purposes, notably:

- to inform and encourage the design and implementation of programmes and projects aimed at the sustainable management and conservation of soil resources, land evaluation, the rehabilitation/restoration of degraded soils as well as sustained ecosystem services provided by soils (Pillar 1 of the GSP);
- to provide technical support for the development and/or activation of strategies, policies, laws and regulations pertaining to soil governance (Pillar 2 of GSP);
- to assist in the framing of investment decisions for the responsible use of soils (Pillar 2 of the GSP);
- to support awareness-building, advocacy, and capacity development(Pillar 2 of the GSP);
- to contribute to the design of training programmes, targeted at the range of actors engaged in agriculture, forestry and other land uses, and the development of educational curricula, from elementary schools to universities, to provide basic knowledge of the importance of soils and of SSM principles and practices for different soils and contexts (Pillar 2 of the GSP).
- To promote soil-relevant programmes and research (Pillar 3 of the GSP)
- To inform the development of indicators to monitor and map the status of soil resources and the implementation of SSM (Pillars 4 and 5 of the GSP).

Thus, the guidelines will be, as far as possible, an easily accessed and readily understood document that informs decision-making at higher levels and encourages implementation of SSM at local levels. The primary goal is to ensure these guidelines are solidly based on established scientific principles, internationally accepted management recommendations and are fully reflective of best management practices and approaches.

III. DEFINITION OF SUSTAINABLE SOIL MANAGEMENT (SSM)

The definition of sustainable soil management, that will form the basis of the VGSSM, is drawn from the WSC: sustainable soil management is a set of activities that maintain or enhance the supporting, provisioning, regulating, and cultural services provided by soil without significantly impairing either the soil functions that enable those services or biodiversity. Soils that have previously experienced significant impairment of soil functions or biodiversity should, wherever possible, be restored through the application of sustainable rehabilitation measures.

The criteria for determining whether a soil is functioning effectively and being managed sustainably can be generally stated as follows:

- Leakage of nutrients (e.g. by leaching, gaseous emissions, erosion etc.) is low.
- Biological production (e.g. crops, trees, fodder etc.) is high, relative to the potential limits set by climate and additional water sources (e.g. irrigation), where appropriate.
- Levels of biodiversity within and above the soil are relatively high.
- Soil organic carbon stores are maintained or increased.
- Rainfall and supplementary water are efficiently captured and held within the root zone.
- Rates of soil erosion and deposition are low, with only small quantities being transferred out of the system.
- Contaminants are not introduced into the landscape and existing contaminants are remediated if they are at levels that cause harm.

Soils that meet these criteria will be inherently resilient to environmental change and minimize off-site impacts of agriculture.

Sustainable soil management, as defined above, will be especially relevant to the achievement of Sustainable Development Goals 2.4 and 15.3.

Goal 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality.

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.3 By 2030, combat desertification, and restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation neutral world.

Goal 2 recognizes that food security and nutrition requires establishment of effective sustainable agricultural production, which, in turn, is impossible without maintenance of soil quality. The latter can be provided only under sustainable soil management practices that would ensure stable or increasing production from arable lands, pastures and agroforestry systems.

Both extensive and intensive agricultural production can lead to soil degradation due to various processes. Combating soil degradation requires introduction of sustainable soil management systems that reflects the challenges of the Goal 15.

IV. MAIN SOURCES OF REFERENCE

It is clear that the guidelines should take account at least of the following important sources of reference:

- the updated World Soil Charter¹,
- the agreed Plans of action and their Implementation Plans for the five pillars² of the GSP,
- the identified thrusts of the Healthy Soils Facility³,
- the Sustainable Development Goals, where specifically mentioning soils and land resources⁴,
- relevant key documents and technical publications from FAO and other UN agencies,
- well documented sound SSM and agro-ecological principles and practices⁵,
- Status of the World's Soil Resources Report (to be published by the Intergovernmental Panel on Soils and FAO in December 2015),
- input received from reports of Regional Soil Partnerships workshops.

V. PROCESS AND TIMELINES

In order to ensure a broad-based consultative process, especially since the guidelines are expected to embody an inclusive framework for worldwide application (in various natural, rural and urban environments), the drafting process will involve a two-stage process.

The Intergovernmental Technical Panel on Soils will provide a zero-order draft of the voluntary guidelines for SSM focused on technical elements. This zero-order draft will provide the scientific basis for SSM and will be drawn in large part from the Status of the World's Soil Resources report. This draft will also take into account inputs received to date from Regional Soil Partnerships.

This will be followed by a second stage that will involve abroad consultation process to develop the voluntary guidelines involving all stakeholders organized by the Secretariat. Progress is, however, dependent on the availability of additional extra-budgetary resources.

Timelines for this Concept Note:

- 1) The draft concept note was initially drafted by the GSP Secretariat and was then submitted to the ITPS third working session for its review and endorsement.
- 2) ITPS members reviewed the draft and after a significant discussion and revision, endorsed it.
- 3) The concept note was submitted to the third GSP Plenary Assembly (June 2015). The Assembly generally supported the concept note but some members made suggestions for improvement and asked that the GSP Secretariat and ITPS further review and revise the document in accordance with the comments.
- 4) The ITPS reviewed and revised the concept note at its September 2015 fourth working session.

¹http://www.fao.org/fileadmin/user_upload/GSP/docs/plenary_assembly_II/WSC_EndorsedPA.pdf

² Pillar 1 - Promote sustainable management of soil resources for soil protection, conservation and sustainable productivity.

Pillar 2 - Encourage investment, technical cooperation, policy, education awareness and extension in soil.

Pillar 3 - Promote targeted soil research and development focusing on identified gaps and priorities and synergies with related productive, environmental and social development actions.

Pillar 4 - Enhance the quantity and quality of soil data and information: data collection (generation), analysis, validation, reporting, monitoring and integration with other disciplines.

Pillar 5 - Harmonization of methods, measurements and indicators for the sustainable management and protection of soil resources.

³PGM/MUL/2014-2018-GSP.

⁴<https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals>

⁵International symposium on agro-ecology for food security and nutrition, Rome, 2014
<http://www.fao.org/about/meetings/afns/en/>

- 5) The revised concept note will be circulated for an email consultation with members prior to its submission to the FAO Council.

Timelines for development of Voluntary Guidelines for Sustainable Soil Management

(Subject to endorsement of the concept note):

- 6) The Secretariat will collect and solicit inputs from Regional Soil Partnerships (including outcome of regional workshops held in 2015) for consideration by the ITPS (completed by end of December 2015).
- 7) The Secretariat will establish an Open-Ended Working Group via an open call (December 2015).
- 8) The ITPS will meet (December 2015-January 2016) and develop a zero-order draft (completed by January 2016).
- 9) The Secretariat will develop an e-consultation process to review the zero draft (completed by February 2016).
- 10) The ITPS will produce the first draft of the Voluntary Guidelines based on inputs received from the email consultation (completed by end of March 2016).
- 11) Meeting of the Open-Ended Working Group to review and finalize the VGSSM (completed by end of April 2016).
- 12) Submission to the fourth GSP Plenary Assembly (23-25 May 2016) for consideration and endorsement.
- 13) If endorsed, submission of the VGSSM to the 25th session of COAG (26-30 September 2016) and to the 155th session of the FAO Council (5-9 December 2016).

VI. BUDGET

The process for developing the VGSSM will require a significant amount of resources (both, in-kind and financial) as per the table below:

ITEM	ESTIMATED COST (USD)
Three ITPS working sessions	100,000
Consultation process (email consultations and Open Ended Working Group meeting)	150,000
Secretariat costs for facilitating the process	80,000
Diffusion and printing	100,000
TOTAL	430,000

VII. DRAFT STRUCTURE FOR THE VOLUNTARY GUIDELINES FOR SUSTAINABLE SOIL MANAGEMENT

1. Introduction
 - i. Objectives, justification, process, and scope.
2. Scientific Basis for Sustainable Soil Management
 - i. Soil functions and ecosystem services
 - ii. Management impacts on soil functions
3. Guidance on Sustainable Soil Management Practices (*illustrative examples*)

Tier 1: Major categories of management practices

 - i. Control of Soil Erosion
 - ii. Maintenance or enhancement of soil organic carbon
 - iii. Maintenance or enhancement of soil biodiversity
 - iv. Maintenance or enhancement of soil physical properties
 - v. Maintenance or enhancement of soil chemical properties

- vi. Balancing nutrients
 - vii. Integrative case studies of sustainable soil management
- Tier 2: *Where appropriate, management practices will be further stratified by:*
- viii. Scale and intensity of agriculture
 - ix. Type of production: crops, livestock, forest, etc.
 - x. Soil and climatic conditions
4. Implementation of the Guidelines
 - i. Communication , outreach, advocacy, promotion, monitoring and evaluation
 5. Glossary