Sustainable Soil Management in Europe

Plan of actions of the Pillar 1

European Soil Partnership

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GLOBAL SOIL PARTNERSHIP

Levels and partners of the ESP-P1

- **Levels**:
  - ✓ First tier - GSP Secretariat and **global level**
  - ✓ Second tier - European Soil Partnerships and **regional level**
  - ✓ Third tier - ESP partners at national and **local level**
- **Partners** should include universities, civil institutions, research centres, soil science societies, governmental organizations, non-governmental organizations, private companies, UN agencies, industrial companies, farmer associations, donors and others.
- **Whom is intended:** governments, institutions and any other stakeholders at various levels that are **involved or interested in soil issues**

European Soil Partnership

European Soil Partnership includes:

- **Europe and Eurasia** working in close coordination with the **FAO Regional Office**,

Ad-hoc steering committee:

- **Jes Weigelt** (chair of the ESP)
- facilitated by the GSP Secretariat (FAO): **Ronald Vargas**

ESP– P1: **Jaroslava Sobocka**

EASP – P1: **Pavel Krasilnikov** (?)

The goal of the Pillar One

Promote sustainable management of soil resources for soil protection, conservation and sustainable productivity in Europe

What is a goal?

To establish an interactive and consultative process with relevant regional institutions, national soils entities, interested and active stakeholders to provide practical challenges facing current management of soil resources in the Europe

Initiation of Pillar One

- **“Managing Living Soils” workshop** held in Rome, Italy during December 2012 which focused on the global and regional status, challenges and priorities for sustainable soil management.
- **Global Soils Week in Berlin**, Germany, during October 2013 discussion session: discuss the structure of the plan of action and its main content (Berlin communiqué)
- **Second ITPS meeting**, (7-11 April 2014, Rome), Plan of Actions – Pillar 1 was submitted to ITPS and endorsed at GSP Plenary assembly in July 2014 (chair **Liesl Wiese**)
- **First plenary assembly** of the ESP in Ispra 21-22 May 2014 the work on the Plan of Actions P1-ESP started!

Items for the ESP-P1 establishment

- **Working group for Pillar 1** – Ispra 21-22 May 2014 calling for all partners to be involved in GSP for works on Pillar One
- **Terms of reference** of ESP (by FAO?)
- **Plan of Actions in Europe** focusing on regional issues (prior endorsement to check by FAO)
- **Content of the PoA** has to have a structure guidelines (glossary, definitions, implementing etc.) and includes significant recommendations
- **Road map**: strategy and time-bound dates
- **Communication and outreach** strategy

Information resources for ESP-P1

- "Managing Living Soils",5-7 December 2012, FAO Headquarters, Rome, Italy, Workshop Report
- ITPS/1/2013 First Meeting of the Intergovernmental Technical Panel on Soils, 22– 26 July 2013, FAO Headquarters, Rome, Italy
- ITPS/2/2014 Second Meeting of the Intergovernmental Technical Panel on Soils, 22– 26 July 2013, FAO Headquarters, Rome, Italy
- Wiese, L. *et al.* Draft Plan of Action for Pillar One of the Global Soil Partnership, 31 March 2014

All documents available on GSP website

Staff of the working group

- **Chair:** Jaroslava Sobocká

- **Members:** Violette Geissen, Pandi Zdruli, Borut Vrscaj, José Luis Rubio, Carmelo Dazzi, Bozena Smerczak, Sideris Theocharopoulos, Elena Havlicek, Thórunn Petursdóttir, Tamas Szegi, Peter Weisskopf, Rastislav Skalský

- **Secretariat ESP:** Jes Weigelt
- **Secretariat GSP FAO:** Ronald Vargas

Relation to other pillars

PILLAR ONE IS OVERARCHING PILLAR strongly linked with:

- **Pillar 2** Encourage investment, technical cooperation, policy, education awareness and extension in soil
- **Pillar 5** Harmonization of methods, measurements and indicators for sustainable management and protection of soil resources

and relying to ativities of:

- **Pillars 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.

Threats endagering soil resources in Europe

Soil/land degradation

8 main threats to soil were identified: erosion, local and diffuse contamination, loss of organic matter, loss of biodiversity, compaction and other physical soil deterioration, salinisation, floods and landslides, and

Land take/soil sealing (total degradation of the soil and land = soil loses its functions)

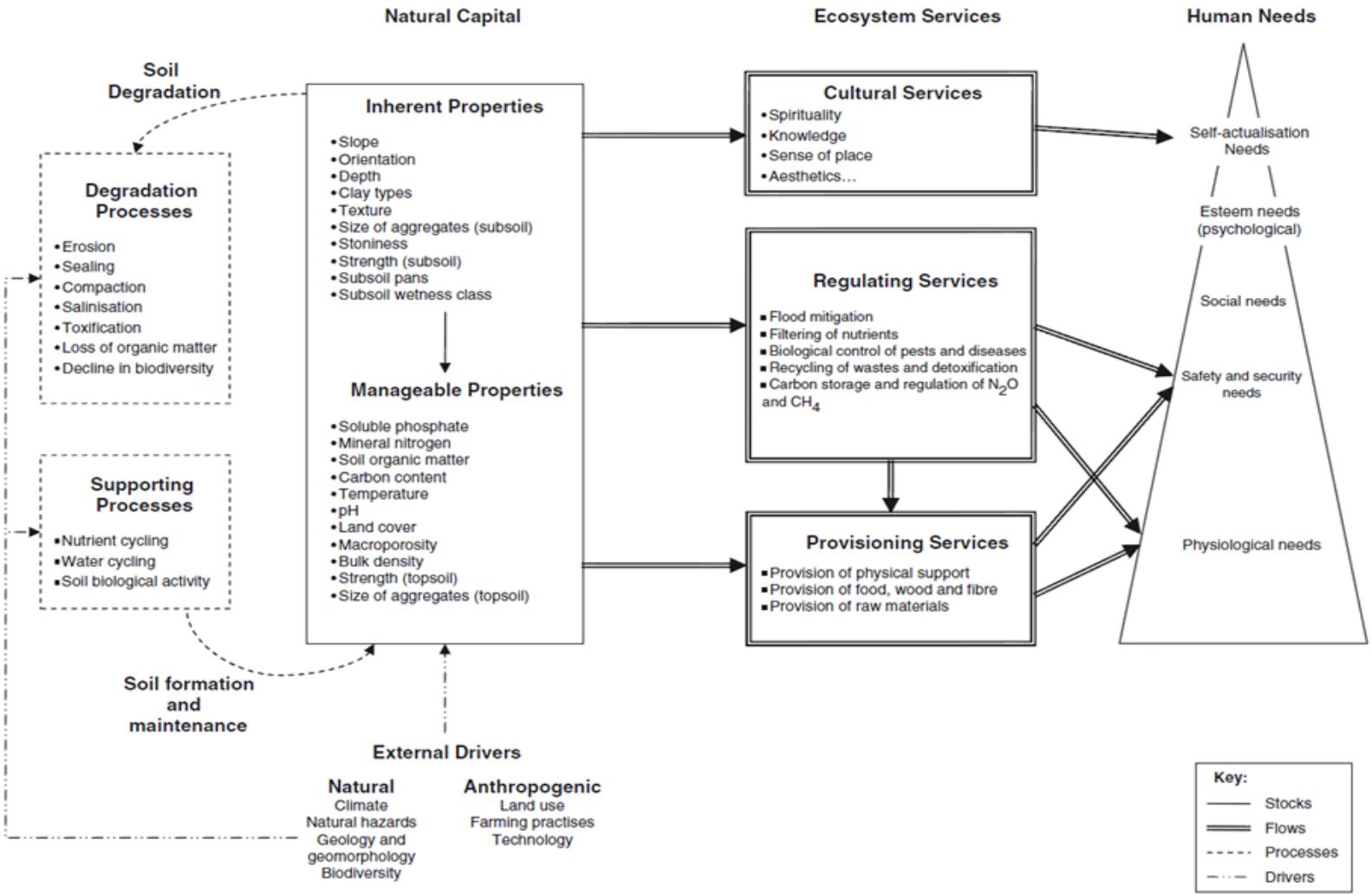
Global threats (impacts of climate change, loss of biodiversity, food security, droughts and desertification, etc.)

Soil functions in Europe

Soil functions refer to the seven key functions of soil in the global ecosystem as:

- Biomass production, including in agriculture and forestry;
- Storing, filtering and transforming nutrients, substances, and water;
- Biodiversity pool, such as habitats, species and genes;
- Physical and cultural environment for humans and human activities;
- Source of raw materials;
- Acting as carbon pool;
- Archive of geological and archaeological heritage.

Ecosystem services of soils



What is the European Region

EUROPEAN REGION IS REGION NOT FACING HUNGER AND NOT FACING MALNUTRITION GENERALLY

- **Food security** is provided by a set of political, economic and legislative measures (commonly in the EU member states, and also candidate states), and non-EU member states

- **Soil functions and ecosystem services** are key issues which soil science and its inter-disciplinary research **can offer for the SSM**

- **Appropriate sustainable soil management practices and systems** need to be developed to restore and maintain soil functions and ecosystem services (e.g. WOCAT system)

Sustainable soil management

Sustainable soil management defined in the **World Soil Charter** should be promoted and implemented in all land uses.

Challenges associated with SSM implementation should be assessed and addressed accordingly:

- economic
- technical
- social
- political
- financial
- investment
- organizational
- partnership net

Significant political and legislation tools

- COPA-COGECA documents available on website
  - ERDF (European Regional Development Fund),
  - CAP (Common Agriculture Policy)

- EC-JRC (IES) documents available on website
  - COM(2002)179 final: Towards a Thematic Strategy for Soil Protection
  - ESDAC

- EEA other documents available on website
  - Water directive
  - EIA/SEA directive

Significant political and legislation tools

- **Waste Framework Directive** (WFD) 2008/98/EC is a key element in preventing soil contamination and requires that waste be disposed of without endangering the soil.
- **Sewage Sludge Directive** (SSD) (86/278/EEC) regulates the use of sewage sludge in agriculture in such a way as to prevent harmful effects on soil
- **Landfill Directive, the Incineration Directive and the Urban Wastewater Directive** are specific waste legislation may contribute to the prevention of soil contamination
- **Water Framework Directive** (WFD) (2000/60/EC) sets standards for preventing the contamination of surface and groundwater by the leakage of hazardous substances or excessive nutrients from soils.
- **Nitrates Directive** (ND) (91/676/EEC) needs to apply good farming practices in all areas and on action programmes in nitrate-vulnerable zones. It includes provisions to improve soil conditions, such as winter cover crops and adjusted soil management in areas with steep slopes.
- **EIA/SEA Directive** (85/337/EEC) requires assessment of environmental impacts of projects or strategies and plans with view to identifying measures to avoid, mitigate or offset negative impacts on environment

Recommendation 1

- Appropriate sustainable soil management practices and systems should be identified for all land uses at regional and national levels using existing knowledge, adapted according to site characteristics and land user needs, taking cost-benefit analyses and social impacts into account.
- These practices and systems should be implemented at appropriate levels to restore and maintain soil functions and ecosystem services in Europe across multiple scales

Recommendation 2

- In light of the primary importance of food security, sustainable agricultural production should be supported by balanced soil fertility management using a range of cropping practices, organic materials/fertilizers, weed and integrated pest management practices, and appropriate agro-physical management practices without causing other negative environmental impacts.

Recommendation 3

- All barriers preventing the implementation or adoption of sustainable soil management practices and systems should be evaluated and policy and technical solutions proposed to create an appropriate environment for sustainable soil management.

Recommendation 4

- A cheap and state of the art monitoring system should be developed to measure the evolution of soil quality in long term and to assess the results of implementation of sustainable soil management practices and systems in different areas of Europe.

Recommendation 5

- The ESP should facilitate the **development of a capacity building strategy amongst all stakeholders** to promote an integrated approach to adoption of sustainable soil management goals in Europe.

Linking ESP with existing initiatives

Global

- Rio Conventions and their relevant panels
  - CBD - Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)
  - UNCCD - Committee on Science and Technology (CST) and Science Policy Interface (SPI)
- iii. UNFCCC - Intergovernmental Panel on Climate Change (IPCC)
- Millennium Development Goals (MDGs)
- Post-2015 Development Agenda
- Sustainable Development Goals (SDGs)
- Global Water Partnership (GWP)
- Global Partnership on Nutrient Management
- Consortium of International Agricultural Research Centres (CGIAR)
- International Union of Soil Sciences (IUSS)
- Others to be identified

Linking ESP with existing initiatives

European

- Common Agricultural Policy (CAP EU members)
- COPA-COGECA – European farmers – European Agri-cooperatives
- Directorate general for Agriculture and Rural Development EU (DG AGRI)
- Directorate general for the Environment EU (DG ENVI)
- European Confederation of Soil Science Societies (ECSSS)
- European Society for Soil Conservation (ESSC)
- European Environmental Agency (EEA)
- European Network for Rural Development (ENRD)
- European Regional Development Fund (ERDF)
- Eurasian Soil Partnership (EASP)
- European Soil partnership (ESP)
- Global Soil Week (GSW)
- Joint Research Centre – Institute for Environment and Sustainability (JRC IES)
- Monitoring Agricultural Resources Unit Mission (MARS)
- Soil Conservation and Protection in Europe (SCAPE)

What to do next

- Develop a **consistent plan of actions** covering sustainable soil management practices, knowledge and adoption, ecosystem services provision, as well as required policy and institutional support.
- **Identify the main areas for action towards sustainable soil management** through a process encompassing the main challenges and priorities in European countries and areas.
- Promote **better coordination of existing work** on sustainable soil management and initiate new activities via mobilisation of resources and effective partnerships.
- Consider the **different ground-level user needs** in terms of sustainable soil management across all scales, in:
  - Agricultural land
  - Forest land
  - Natural and semi-natural land
  - Urban, industrial, traffic, mining and military areas

What should be the next actions

There is a need to place soils highly on the agenda at European level, i.e. – suggested actions:

- Appropriate soil policy framework as tool for common approach of European countries
- Implementation of cross-cutting issue in a number of policy areas: environmental policy, agricultural policy, spatial planning, etc.
- Set of conservation agro-technical, forestry measures and improved technologies (low capital and low carbon soil management developing, best practices respecting innovative research & development achievements)
- Set of available and harmonized data to be used for application of sustainable soil management

Other suggested actions

- High soil diversity implies to **implement protection and management strategies at local levels**, i.e. **local communities** need to be placed in the SSM
- **Technology investment supporting** using various available resources (financial, knowledge, etc.)
- Knowledge transfer use and **science-policy-farmer/user** gaps overcome
- **Integrating approach** of stakeholders to the sustainable soil management
- **Urban areas soils quality and awareness** facing healthy living conditions of urban population

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- ANNEX I

Ecosystem services (level 1)	Ecosystem services (level 2)	Soil functions	Functional soil part	Requirement GSP P1	Relevance / Comments

The target group

- Land users, land users' organizations and other land uses including herders;
- Non-agricultural land users
- Community leaders and local authorities;
- Extension services (Government, NGOs, private sector) and technical sectors;
- Various educational services;
- Technical advisors;
- Various industries (i.e. food, mining, commodity traders, retailers and others);
- Business sectors;
- Agricultural consumers;
- Research and Academia;
- Primary and Secondary Schools (students and teachers);
- Civil society (including consumers);
- Policy makers and planners;
- International Union of Soil Sciences (IUSS);
- Non agrarian sectors – through leveraging the service benefits of soil of interest to the various groups including urban populations.

Thank you for your attention!

2015
International
Year of Soils