

SOILS FOR LIFE

THE OUTCOME PAPER OF THE FIRST GLOBAL SOIL WEEK
18-22 NOVEMBER 2012, BERLIN, GERMANY

This Outcome Paper is a synopsis of core outcomes of the first Global Soil Week “Soils for Life”. The Global Soil Week as an interactive global process counted on the participation of more than 400 participants from more than 60 countries. The Global Soil Week is a contribution to the Global Soil Partnership. It is an on-going process emphasising the role of soil as a finite and vital resource for sustainable development and human well-being. The first Global Soil Week 2012 provided a platform to present a comprehensive assessment of all soil-related challenges to sustainable development, aiming at an integrated response to these challenges. The key objectives were:

- (i) To foster the exchange of knowledge and experiences on sustainable soil management between scientists, decision-makers, and practitioners on an equal footing;
- (ii) To set an ‘Agenda for Action’ to improve the sustainable management of soil and its restoration for sustainable development, and
- (iii) To outline ways in which the Global Soil Week can contribute to implementing this agenda.

SOIL-RELATED CHALLENGES TO SUSTAINABLE DEVELOPMENT

Soils – the basis of our life – are under increasing pressure. Production of more food, often combined with unsustainable land management practices, growing environmental pollution, mining, rapidly growing urbanisation and the needs for climate change adaptation and mitigation – all these human activities are using soils. The problem is that that they are done very often in an unsustainable way and without clear international governance. Due to these various demands on soils fertile soils are getting destroyed and are becoming more and more scarce.

Current global political debates such as those on countering climate change and achieving food security and alleviation of poverty often disregard or underestimate the pivotal role of soils in achieving these aims. Worldwide over 24 billion tons of soils are lost on croplands to erosion every year – that is more than 3 tons of soil for every person on the planet. This is a loss to sustainable economic development. If soils are managed responsibly, then soils can act as carbon sinks and help to combat climate change, as they store about 4,000 billion tons of carbon.

Without secure rights, the necessary investments in soil fertility are unlikely to be taken. These investments are crucial; moreover, the costs of inaction are significantly higher than the costs of investing in soil conservation. At the same time, it is reported that investors leased or bought 83.2 million hectares in so called developing countries between 2001-2010 alone. Often, this has had severe social implications. The First Global Soil Week highlighted the need for clear rules and regulations for such investments. For the majority of poor people in the Global South, secure rights to natural resources are a distant reality. Such social inadequacies create an inequitable access to fertile soil and land resources and contribute to impoverishment.

This shows that protecting soils is not only an ecological problem, but a serious development challenge. Choices have to be made between competing soil functions, and therefore between competing land uses. It is time that we conscientiously concern ourselves and give global attention to soil and land management. Soils are essential to meet our key development targets.

RESPONDING TO THE CHALLENGES

AN OVERVIEW OF KEY THEMATIC THREADS

At the first Global Soil Week 2012, a comprehensive assessment of all soil-related challenges to sustainable development and four key thematic threads were identified as responses to soil-related challenges. They include: Soil and Land Degradation Policy; Governance of Soil and Land Resources; Sustainable Land Management; and Making Science Accountable. The thematic threads integrated 23 relevant topics of different platform and dialogue sessions. An overview of discussions and recommendations follows here.

GLOBAL RESPONSES TO SOIL AND LAND DEGRADATION

Soil and land degradation jeopardize globally relevant soil ecosystem services, such as food production. Although soil and land degradation is frequently associated with desertification in arid regions, it is a global phenomenon. Processes such as erosion, loss of soil organic matter or land and soil loss from urban expansion affect both the Global North and South. Although soils are locally owned and managed, globally relevant soil functions call for a coordinated global approach to soil protection. Key to success is a blend of soft and hard law instruments. The goal of a 'land degradation neutral world' needs to be made operational and implemented. Therefore, a 'zero net land and soil degradation' target is called for. In any case, land and soil degradation in threatened ecosystems should not be accepted.

Soil policy has to be an integrated approach considering environmental, social and economic aspects. It should form part of global endeavours towards food security which are embedded in Sustainable Development Goal on food security that emphasize the link between development and environment. Connections can then be established to the post-2015 Millennium Development agenda of the United Nations. This requires an improved science-policy interface on soil issues and the involvement of civil society organizations.

The economics of land degradation provide one perspective to inform policy making. A pragmatic approach for assessing economics of land and soil degradation is to begin with easy-to-understand productivity losses, related market value losses, as well as other non-market value (social, cultural) factors that are on-site and off-site effects of degradation. Partnerships for successful economic actions against land degradation were formed and will be followed up and revisited in the 2nd Global Soil Week.

GOVERNANCE OF SOIL AND LAND RESOURCES

Soil-related challenges to sustainable development are interconnected with rapidly increasing scarcities of other natural resources like water and forests. Governance approaches need to take this nexus into account, balance competing demands, and address increasing global competition for soil and other natural resources. Responsible governance is not just about effective soil management, but also to contribute to economic development and social equity.

An estimated 2 billion people live on the world's common pool resources. Access to these resources needs to be protected and guaranteed for those groups whose survival depends on them. The failure of States to secure individual and collective tenure rights to land and other natural resources has led to the dispossessions of indigenous people, women and other groups in many countries. This increases livelihood vulnerability and undermines traditional collective resource management practices.

The first Global Soil Week participants provided advice for effective land administration institutions (be they formal or informal), governance by democratic and representative institutions, and addressing the 'equity' dimension. Likewise, there is need to identify mechanisms and instruments that promote improved accountability in large-scale land based investments. A paradigm shift towards pro-poor responsible governance and legal and political empowerment is essential to implement appropriate binding frameworks for securing access to land and soil resources. This calls for strategic approaches that are conscious of the power imbalances involved in land and soil governance. The successful negotiation of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Forest and Fisheries in the Context of National Food Security created a political momentum in this regard.



Go-public kick-off panel of the first Global Soil Week, 19 November 2012, held at Scandic hotel, Berlin

SUSTAINABLE LAND MANAGEMENT

In order to achieve a “land and soil degradation neutral world,” sustainable land management practices are pivotal. This implies including ‘quality’ and ‘quantity’ of soils in land-use planning and management. Adequate consideration in spatial planning must be given immediately to constraining impacts on the environment with the aim of achieving zero-net impact on relevant soil functions, such as water cycle and local climate effects. Strong economic incentives with appropriate regulatory instruments are key to limiting land grabbing and promoting soil regeneration. For minimal impact, better understanding of ways to reduce soil use and soil damage is essential, for example on virtual soils used for urban consumption. Considering the often negative impact of agro-industrial bio-energy production based on annual crops and its CO₂ footprint, the practice of woody biomass production systems in agro-forestry or energy forests was regarded as an alternative approach, particularly for degraded or less fertile land.

Soil health is dependent on availability of nutrients. Currently, the lack of available nutrients is critical in limiting sustainable agricultural production. On the other hand, excess availability often threatens other ecosystems and ecosystem services. For example, attention to the critical importance of sustainable management of phosphate was called for. Participants agreed that building on existing partnership networks is important to adopt a smarter management of the world’s nitrogen cycle that meets the future needs of food production. There is an urgent need to draw up a list of measurement, recording and verification systems to better address soil carbon and its potential for smallholder carbon projects in different global vulnerable regions. Taking a step forward, the participants requested a critical evaluation to assess if rewards for soil carbon are sufficient incentives for smallholders to manage their land in a sustainable way. Sustainable land management practices exist and need to be applied on a broader scale.

SCIENCE-POLICY INTERFACE

Participants encouraged building a strategic partnership for integrated soil research. This strategic partnership needs to build on a truly interdisciplinary approach. Addressing soil-related challenges to sustainable development requires natural and social science for understanding land and soil degradation processes and identifying adequate responses to them. Accountable integrated soil research interacts with decision takers in Government, civil society and business on an equal footing. The continuation of a pattern of scientists speaking paternalistically to policy makers and other stakeholders is not an option.

Pooling of available resources and targeted networking is essential to address the major challenges with a strong scientific basis. Obtaining a comprehensive knowledge of the research structures and resources available in the various countries is a first essential step in this regard. There is also a greater need to join forces to implement state-of-the-art remote sensing tools. These need to be supplemented by efforts to standardize and assure the quality of soil related data. This information needs to be available globally on an open access basis. These are important steps, as these technologies generate insights that are crucial to implement sustainable soil management and related governance regimes.

ZERO NET SOIL AND LAND DEGRADATION AND GLOBAL FOOD SECURITY

One in eight inhabitants of our globe suffers from hunger. Soils are the basis for more than 90% of the world food production. Global food security will remain out of reach unless we ensure that soils are managed and restored according to principles of ecosystem resilience. The Global Soil Week supports the Global Soil Partnership of FAO and partners and calls for urgent action at global, regional and local level. It reiterates the importance of the Rio+20 goal of a “land-degradation neutral world” and acknowledges the urgent development needs of the Global South. The fight against land and soil degradation needs to contribute and support goals to attain global food security and to reduce poverty. We need to protect and restore soils for sustainable development of present and future generations.



Global Soil Week Dinner & Soil-Smart Cooking Event “Cook it Green”
In Photo: Prof. Dr. Klaus Töpfer with star chef Sarah Wiener

THE GLOBAL SOIL WEEK: AN INVITATION TO TEAM UP

The Global Soil Week is a platform and a process. As a platform it showcases successful soil management strategies and contributes to an exchange on how to take them further. This exchange will not automatically transform existing knowledge into social action. It requires continued exchange between scientists and decision takers to arrive at this goal. That is why the first Global Soil Week is the beginning of a process, not its end.

The Global Soil Forum of the Institute for Advanced Sustainability Studies (IASS) offers its services in facilitating follow up actions to the Global Soil Week 2012. These activities shall ensure the continuity between the Global Soil Week 2012 and the next Global Soil Week. The Global Soil Week is a contribution to the Global Soil Partnership. This emphasises our intention to continue to work in partnership and jointly construct an inclusive process towards sustainable soil management. The Global Soil Week is also a partnership product. These joint forces are pivotal to put soils and their sustainable management on the political agenda, globally and nationally. Therefore, we would like to invite others to become part of this endeavour.

We are looking forward to welcome you to the next Global Soil Week!

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