

SUSTAINABLE AGRICULTURE AND SOIL CONSERVATION
(SoCo Project)



Policy Seminar - Brussels
Summary Report

Final report (July 2009)



Policy seminar summary report

The SoCo policy seminar was held on 28 May 2009 in Brussels; the agenda is included in Annex 1. The seminar was jointly organised by the Joint Research Centre and DG Agriculture and Rural Development, and gathered 115 stakeholders: farmers, actors affected by soil degradation, policy makers, policy implementing institutions and relevant NGOs. The list of participants is included in Annex 2. Its aim was to disseminate the results of the SoCo project, while inviting stakeholders to a critical appreciation of what had been achieved with the project. As such, the seminar formed an important element of the dissemination phase of the SoCo project. The following sections provide a summary of the presentations and discussions.

1 Opening

Welcome address (M.A. Benítez Salas, DG AGRI)

Maria Angeles Benítez Salas recalled the importance of soil, its functions and the need of taking care of this resource. In this respect she referred to 'El día de la tierra' (Day of the earth) celebrated in several countries of South America in honour of the goddess of the earth.

Presentation: Pilot Project: Sustainable Agriculture and Soil Conservation ('SoCo Project') (M. Scheele, DG AGRI)

Martin Scheele introduced the project, initiated by the European Parliament, within a policy context of increasing concerns about soil conservation problems, climate change, the need to assess economic and social consequences of policies and revision and development of the political framework. He then outlined the project's overall objectives, and its administrative and organisational structure (work packages).

2 Session 1: Soil degradation processes – agricultural perspective

Presentation: SoCo: European overview on soil degradation processes related to agriculture (E. Rusco, L. Montanarella and B. Maréchal, JRC/IES)

Ezio Rusco outlined the main effects of agriculture on soils and elaborated on the factors leading to soil erosion, declining soil organic matter, compaction and salinisation/sodification, the soil degradation processes that the SoCo project focussed on. For each of them he described how the soil degradation risk was assessed. He concluded that soil degradation processes are strictly linked to the different types of soil, environmental conditions and management systems. Therefore, it is difficult, if not impossible, to identify soil conservation practices without linking practices to the local context. In addition, it is crucial to apply management systems that consider all soil degradation processes at a particular site. Finally, a soil monitoring system that evaluates the magnitude of the soil degradation processes needs to be established as a first priority.

Presentation: Identifying soil degradation processes (T. Stuczyński, Institute of Soil Science and Plant Cultivation State Research Institute, Poland)



Tomasz Stuczyński introduced the main elements of the proposed Soil Framework Directive, among which the risk area identification of soil degradation processes. He gave examples of such area delineation (by means of models or empirical data) in Poland for: organic matter decline, water erosion, compaction, contamination and acidification. He also presented examples of soil quality aspects (e.g. land suitability for crops, soil organic matter content) related to land use change (LUMOCAP analysis at cluster level, *i.e.* the EU regions grouped into five clusters). He concluded that spatial assessment of a number of soil degradation processes is possible using existing soil data and implementing proper models. Nevertheless, harmonised soil databases need to be developed to facilitate EU-wide soil assessment and protection strategies.

Presentation: How to adapt European agriculture to the challenges of a changing world? A dynamic from farmers for citizens. How can a European policy help? (J. F. Sarreau, APAD, France)

Within the context of so-called new needs, such as population growth, climate change, market volatility and the evolution of the European and international policies, Jean-François Sarreau advocated that conservation agriculture (CA) provides all the elements of the sustainable farming system required. CA is characterised by a permanently high production of biomass and applies the concept of ecological intensification¹ (e.g. no-tillage results among others in a higher earthworm population and improved organic matter preservation). Sarreau subsequently indicated the elements needed for support and promotion of the transition towards CA: financial support during the conversion period, training and technical support services, and references and scientific knowledge in CA. In order to provide these to farmers, he suggested joined efforts from European policy, research institutions, farmer organisations and suppliers.

Presentation: Effective agricultural soil policy tailored to local-level conditions (M. Kibblewhite, Cranfield University, UK)

In order to improve the current condition of soil resources as well as providing protection from further degradation, Mark Kibblewhite explored possible measures that positively influence soil protection practices. However, soil protection needs vary significantly, depending on local conditions (soil type, land use, climate and production system). In order to integrate responses to all the types of soil degradation but detail each one sufficiently to make it (cost-)effective while being feasible and practical, he suggested a tiered (Member State > region > farm) risk assessment, based on geo-climatic conditions at all levels (clustering similar zones) and production activities (including land use and soil management) at the farm level. This assessment can then be used to define risk management measures that match the locally identified degradation risks. To successfully assess the performance of this approach, a common monitoring of soil conditions is needed; the ENVASSO² project identified suitable indicators that are applicable and operational at farm level.

¹ The intensive agriculture model, based on massive use of pesticides, chemical fertilisers, water and fossil fuels, is now being questioned. However, if nine billion human beings by the year 2050 are to be fed, more needs to be produced. In order to anticipate future changes, a new concept has been developed: ecological intensification. The idea is to make use of the ecological processes available within ecosystems to produce more. It is an approach that goes hand-in-hand with conservation. The aim is to reduce pollution, make better use of scarce resources such as water, or contribute to conserving biodiversity so as to rebuild the ecological services agriculture can provide to society. Source: CIRAD (2003-2008): *Agricultural intensification: what if the answers lay in nature?* Available at: <http://www.cirad.fr/en/actualite/communiqu.php?id=772>; accessed 5 June 2009.

² The ENVASSO project: www.envasso.com



Discussion

Stakeholders recalled the fact that soil is a complex system and stressed its biological function. They suggested including soil biological indicators in the soil monitoring systems that had been called for in several presentations. They criticised that soil organic matter had been presented and evaluated only in terms of quantity, whereas the quality (stability and different fractions) also matters. With respect to more intensive forms of agriculture, the audience called for integration of more knowledge into agriculture, more resource efficiency (as opposed to simply using more inputs), and increased farmer participation (mentioning a successful Swiss experience).

3 **Session 2: Adequate farming practices relevant for soil conservation**

Presentation: SoCo: Review of soil-friendly farming systems and practices (P. Prosperi and J.M. Terres, JRC/IES)

Paolo Prosperi informed the audience on the two farming systems (conservation agriculture and organic farming) and ten technical measures that SoCo identified as most suitable for soil conservation. The technical measures were subdivided in cropping practices (ridge tillage, intercropping, subsoiling, contour farming, grasslands, cover crops and crop rotation – the latter two also covered under conservation agriculture) and landscape infrastructure elements (agroforestry, buffers and terraces). The speaker elaborated on aspects of environmental and economic performance of the mentioned systems and practices. He also pointed to current gaps in reliable statistics on distribution of systems and practices (which will partly be filled by Eurostat's 'Survey on agriculture production methods' to be launched in 2011). Overall, the speaker said that each system or practice presents its benefits and drawbacks; some solutions are however more suited to specific soil, crop or other local conditions, which is also reflected in their uptake. The effects of such solutions on other environmental parameters (beyond soil) are complex. Conservation agriculture is a promising sustainable farming system, although it requires initial investments in knowledge and equipment, fine-tuning to avoid excessive use of chemicals and yield reductions, and a conversion period before stability is reached. Finally, the speaker emphasised that SoCo focussed on some of the available technical solutions, but that many others are available.

Presentation: Conservation agriculture: A farmers' perspective (UK) (A.J. Bullock, UK)

Jim Bullock, a farmer who has applied conservation agriculture (CA) on his farm since 1995, emphasised that CA is like a jigsaw: one has to use all the pieces (from soil structure to machinery) to get the benefits. Although his initial motive was reducing costs (which has gained even more weight in today's volatile markets), CA turned out to have many other beneficial effects: machinery costs were reduced by 30-40 %, fuel consumption was halved, use of pesticides and fertilisers was reduced, habitats for flora and fauna (e.g. birds) were improved, crop yields were maintained and soil quality (e.g. biological activity, organic matter, porosity) improved. However, these results are only achieved with time and even in later years, yields and/or soil quality can fall back. During the transition (first two to three years) from ploughing to direct seeding/no-tillage, proper understanding of crop rotation and varieties, crop residue management, soil type, structure and fertility, weed and pest control, and cultivation systems, is often missing. For example, no data are available on the vigour of the rooting system of different crop varieties, even though roots are particularly important in



CA as they provide stabilisation, needed after loosening the soil. Crop residues improve the soil fertility and workability, but can nevertheless have negative effects if badly managed. The speaker flagged that further research is needed in the areas of: machinery selection, cover crops, fertiliser placement, residue management and crop varieties. In this sense, he made a plea to machinery manufacturers for the possibility to adapt machines to local conditions. In response to lacking structures of research and knowledge transfer, Bullock set up trial plots on his own farm and founded the No-Till Alliance in the UK, sharing experience among c. 230 participants.

Presentation: Conservation Agriculture: Its deliverables for an effective Soil Conservation and comments on the SoCo findings (G. Basch, ECAF)

Referring to the eight soil degradation processes defined in the Soil Thematic Strategy (erosion, organic matter decline, compaction, soil biodiversity decline, landslides and floods, contamination, salinisation and sealing), Gottlieb Basch elaborated upon the first five in addressing their direct link with agricultural land use and farming practices. He advocated soil management as being the key to soil conservation. Conservation agriculture (CA) in particular promotes soil protection by causing no or minimum soil disturbance, using cover crops or continuous cover residues, and adopting crop rotation. By combining natural conditions and agricultural production, it responds to the CAP objectives of protecting abiotic and biotic natural resources and landscape, while maintaining profitability and competitiveness. On behalf of ECAF, the speaker subsequently commented on the findings of the SoCo EU-wide stock-taking on soil degradation processes, soil-friendly farming practices and soil-relevant policies. At the level of policies he suggested to strengthen mechanisms at Member State level to promote conservation agriculture, among which:

- effective knowledge and technology transfer using scientific and practical expertise from a range of climatic regions across Europe,
- extension of programmes for conservation agriculture under the existing agri-environmental measures,
- establishment of long-term research projects with continuous conservation agriculture systems at the farm and through research experiments,
- strengthening of farm extension services with specialised conservation agriculture advisers skilled in 'farmer-to-farmer' knowledge transfer (multiplier effect)
- establishment of a market for carbon credit trading based on soil carbon sequestration.

Presentation: Soil Conservation Agriculture practices and Farming System adapted to local condition (Marche Region, Italy) (M. Tiberi and G. Ciabocco, ASSAM, Italy)

Mauro Tiberi introduced a number of concepts that were used in the SoCo case study in the Marche region. For example, the concept of 'land' is broader than soil and also includes geology, morphology, climate, hydrology, and vegetation and fauna. The concept 'management system' encompasses the complex of components that allow evaluating the management of the cultivated lands over time. In this system biophysical factors (*e.g.* crops, soil and climate) interact with each other, and are subject to socio-cultural factors (*e.g.* policies). The concept 'farm management system' goes beyond the meaning of the productive cycle of a single crop and concerns the whole farm management over a long period and within a precise area (land unit). The speaker illustrated these concepts with examples from the Marche region. He concluded that:

- soil conservation can only be achieved through a deep knowledge of the soil itself and the delicate balances that maintain its many functions;



- the concept of 'territoriality' is to be taken into consideration in the development of measures and policies in the area;
- conservation agriculture cannot be interpreted as a series of separate practices (minimum tillage, direct seeding, reduced tillage, cover crops, *etc.*) but must be analysed in relation to the concept of 'territoriality' and adapted to the characteristics and quality of the soil;
- the environmental conditions formulated in Pillar 1 of the CAP provide an important element for environmental protection, while with Pillar 2, the concept of 'territoriality' is fully respected;
- the effectiveness of policies and measures implemented should be determined through a monitoring network.

Discussion

Stakeholders commented that more data are needed to decide whether and when policy change is needed. They criticised that SoCo had focussed on two main farming systems (conservation agriculture and organic farming) while ignoring another important system: integrated farming, claiming that the latter also represents a holistic approach and is very resource-efficient. Participants agreed that long-term trials in conservation agriculture (CA) are needed and saw potential in combining elements from organic farming and conservation agriculture to optimise farming systems. Farmers' associations emphasised that on top of farmers' networks, a proper communication between policy and farmers is also needed.

4 Session 3: Keynote addresses

Keynote address (Member of the European Parliament S. Le Foll)

Stéphane Le Foll congratulated the SoCo project team on the valuable output produced. For him, soil conservation has to be seen in the context of what is at stake for EU agriculture at the beginning of the 21st century. Agriculture, in particular EU agriculture, faces two (somewhat contradictory) constraints: first, food will have to be provided in sufficient quantity and diversity for a rising world population (nine billion by 2050) with an increasing standard of living, and second, the future of the planet will have to be taken care of while not jeopardising its natural resources at the medium and long term. These challenges imply a need for combining economic and environmental development. He expressed the hope that Europe would be spearheading this novel way of sustainable production and emphasised that agriculture is at the heart of it. Scientific evidence and farmers' experience will have to be linked to address this need. Le Foll continued that the SoCo results provide a good starting point in this respect. It is essential to spread the information gathered and, in addition, to further investigate the links between agricultural production and environmental protection.

Le Foll reminded that there are only two years left to think about the new Common Agricultural Policy (CAP) after 2013. In his view, the new CAP has to build on strong societal support and evolve in response to the present-day challenges, while at the same time enabling farmers to obtain sufficient income. So, it has to consider both the economic feasibility and environmental sustainability of farming and incorporate what happens at regional and local level. Farmers will play a vital role in this process of integrating production capacity with respect for ecosystems. Such a development would not only lead to a more dynamic CAP, but also to a common food policy. Le Foll subsequently pointed at today's wide range of directives focussing on separate issues: water, pesticide use, soil, *etc.* However, he commented that the system has to be managed in a holistic way. The question of sustainability has to result in an analysis of farming systems and ecosystems that takes the



interactions between all environmental domains (air, water, soil, biodiversity, *etc.*) into account. He believed conservation agriculture is promising in providing a suitable response to the food provision and environmental challenges and can serve as a model for future agriculture in Europe. He concluded by stressing once more the importance of communicating (technical) knowledge to a wide audience. In this respect, discussion forums where all actors meet and exchange such information are essential.

Keynote address (Deputy Director-General DG AGRI L. Dormal-Marino)

Loretta Dormal-Marino indicated that the topic soil conservation has recently come to the foreground, including in media and politics. She considered this evolution significant, as soil conservation is fundamental in addressing the challenges and perspectives Le Foll proposed. The increasing awareness among citizens will facilitate politicians to intervene and define measures for soil conservation. Subsequently, she emphasised that research is an essential feed for policy design. Within the sequence: farmers' observation – research – policy design – communication – training of farmers, also the last element is crucial. In this respect, she referred to the EC's White Paper on adapting to climate change (April 2009), where attention is paid to examining the capacity of the Farm Advisory System to reinforce training, knowledge and adoption of new technologies that facilitate adaptation. She repeated that win-win measures (also mentioned by Le Foll) are important to address several problems and needs at the same time. Such measures are particularly valuable in the light of the challenge to deepen sectoral knowledge in order to formulate approaches that transcend the (agricultural) sector.

At the policy level, the proposed Soil Framework Directive has the potential to become a good and convincing legislative instrument, given that it proposes a synergy of measures. Dormal-Marino admitted that certain past CAP instruments induced soil degradation. Currently however, the CAP also contains conservation instruments, such as cross compliance and rural development measures. Rural development policy in particular provides instruments that can be very effective in addressing soil degradation. However, measures are not always implemented as they should or are not reaching their potential (environmental quality) level. The Directorate General for Agriculture and Rural Development's Common Monitoring and Evaluation Framework helps to identify which measures deliver the expected results (by means of indicators). Parallel, Dormal-Marino also valued the SoCo study in providing indications as to which measures are to be further developed and targeted on the one hand, or to be abandoned on the other hand. She stressed that the SoCo findings have to be seen in conjunction with other findings.

Presentation: Main results and recommendations of the SoCo Project, including presentation of the fact sheets (S.H. Gay and G. Louwagie, JRC/IPTS)

Referring to the presentations on soil degradation processes (session 1) and farming practices and systems (session 2), this presentation added the policy settings and case study findings to draw the conclusions of the 'Sustainable agriculture and Soil Conservation' (SoCo) project. The intervention logic was used to derive a framework for analysing policies relevant to soil quality. Environmental quality levels were introduced, defining a reference level as the compulsory level obtained through mandatory measures, and a target level as the level to aim for through voluntary incentive-based measures.

Soil protection is not a specific objective of any EU legislation but features in some legislation as a secondary objective. Currently, the most important EU environmental



directives with respect to soil quality are the Nitrates Directive and the Water Framework Directive. The proposed Soil Framework Directive is still under discussion in the Council. Cross compliance, a horizontal tool for both pillars of the Common Agricultural Policy (CAP) and compulsory since 2005, plays an important role in soil protection, conservation and/or improvement. The statutory management requirements (SMRs) create synergies between the Direct Payments Scheme and the need to ensure compliance with a number of relevant EU environmental directives, including the Nitrates Directive. The requirement to keep agricultural land in good agricultural and environmental condition (GAEC) specifically targets protection against soil erosion, maintenance or improvement of soil organic matter, and maintenance of a good soil structure. Under rural development policy (Pillar 2), a wide range of measures is potentially relevant to soil protection, conservation and/or improvement. Member States or regions are obliged to spread their rural development funding across three thematic axes: (1) competitiveness; (2) environment and land management; and (3) economic diversity and quality of life. 'LEADER' is a horizontal axis supplementing the three thematic axes. The axes contain measures which offer Member States the possibility of supporting actions to reduce or prevent soil degradation on agricultural land. Some of the most important, among which agri-environment measures, are in Axis 2.

SoCo established a classification of soil conservation practices and related policy measures. It provides a schematic representation of the (expected) effects of farming systems (organic and conservation agriculture) and farming practices on soil degradation processes and related environmental issues, as well as indicating which policy measures encourage the adoption of such practices. In order to further explore these links at a sufficiently detailed level of analysis, a case study approach was applied. To respond to the diversity of European regions, ten case studies were carried out in Belgium, Bulgaria, the Czech Republic, Denmark, France, Germany, Greece, Italy, Spain and the United Kingdom between spring and summer 2008. The case studies showed that farmers are aware of challenges but do not regard them as pressing. The adoption of soil-friendly farming practices is impeded by technical factors, shortage of information, economic factors or not appropriately targeted policy measures. Overall stakeholders saw a mix of policy measures as the way forward, although they considered more coordination, targeting, technical support and stronger monitoring as priorities.

The SoCo project concluded that the existing suite of policy measures, including mechanisms for advice and support, is generally adequate, but more attention should be paid to the effectiveness of implementation and the relative weight given to different types of instruments. Cross compliance, for example, clearly contributed to establishing a common reference level for sustainable soil management across the EU, and rural development measures form an important instrument for assisting farmers' transition to higher levels of soil quality. In addition, information and advice are essential to support any changes in farming practices. In line with these findings the SoCo project recommended that the existing role for rural development policy to address soil conservation needs and challenges should at least be continued into the future, that the Soil Framework Directive should be adopted to provide the essential targeted EU-wide policy framework while leaving enough flexibility to allow for regional implementation, that soil conservation objectives should also be included more explicitly in the Rural Development Strategic Guidelines and that proper investment in indicators and monitoring would allow better future evaluation of the impact of any soil conservation measures adopted.



The project website: <http://soco.jrc.ec.europa.eu/> is the main communication tool where all reports and presentations of the regional and policy workshops are made available to the public. Two main reports of the SoCo project are available: 'Addressing soil degradation in EU agriculture: relevant processes, practices and policies' and 'Final report on the SoCo project', along with the single case study reports. Ten fact sheets were produced based on the SoCo findings and are available in all EU languages.

5 Session 4: Existing legislation and policy instruments

Presentation: Policy instruments and implementation: SoCo case studies (overview) (J. Schuler, K. Helming (ZALF) and Katrin Prager (HUB), Germany)

Johannes Schuler presented the analytical framework which formed the basis of the SoCo case studies. The ten case study regions in Belgium, Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Italy, Spain and the United Kingdom were introduced. Covering the most significant soil conservation issues and reaching a territorial balance were the main selection criteria. Information was collected through a literature review, a template for experts to evaluate farming practices, and semi-structured interviews with three groups of stakeholders: farmers, administration and government, and non-governmental and other stakeholders. The results were presented to a wider public in regional workshops to discuss and widen the scope. In each case study the extent of soil degradation problems and the differences in farming systems were observed and described. Selected policies for each case study were analysed in detail. The presentation offered among others examples on land consolidation in the Czech Republic, the agri-environment measure on erosion in Belgium and water user associations in Bulgaria.

The case studies illustrated that overall; the existing suite of policy measures is diverse and reflects regional conditions. However, there is a lack of: robust monitoring of soil degradation, outcome orientation of incentive measures, flexibility regarding local specificities, specific advice and knowledge support, and coordination between relevant policies.

Presentation: La préservation des sols agricoles dans la politique du Ministère de l'agriculture et de la pêche française (D. Rat, Ministère de l'Agriculture et de la Pêche, France)

Didier Rat presented the French policy response to soil quality against the background of the following context. The soil is an interface between the bio-, atmo-, litho- and hydrosphere and is subject to conflicts of use. Despite the fact that soils are omnipresent, a global policy for soils is absent in France, but public action to preserve the environment exists. Until the mid 1990s environmental objectives were covered in thematic laws (on e.g. nature, water, air and waste). Since the 2000s public debate and access to information has grown, culminating in 2005 in the Environment charter. This charter incorporates individual rights and obligations regarding the environment and sustainable development in the French Constitution.

In order to respond to the knowledge gap on soils, the French Ministry launched the information system 'GIS Sol'³. It represents a strong commitment to long-term sustainable soil

³ See: www.gissol.fr



management and sets itself to build up a national information system on the French soils and the evolution of their qualities by means of the following programmes:

- 'Inventaire, Gestion et Conservation des Sols': a multi-scale programme on soil mapping and characterising soils, with the target to cover the whole territory by 2011 at a scale of 1:250 000;
- 'Réseau de Mesure de la Qualité des Sols': a monitoring grid to measure soil quality, with currently over 2 200 sites;
- 'Base de Données des Analyses de Terre': a database with soil analytical data, containing around 1 300 000 analyses over the period 1990-2006. The data collection is perennial and ongoing.

The speaker closed by giving an overview of legislation and regulations (such as the Rural code and the Environment charter), non-legislative tools (such as the Codes of good agricultural practice), other tools (such as organic farming or integrated farming) and research programmes that contribute to soil quality in France.

Presentation: Success in implementing policies for sustainable agriculture and soil conservation. (D. Baldock, IEEP, UK)

This presentation developed aspects of successful policies, starting with the different factors influencing farmers' decision making on land management. David Baldock emphasised that there should be a clear scientific, agronomic and economic understanding of the interrelationships between farming practices and soil conditions. This needs to be adapted to the local conditions.

Following success stories for the different types of policy measures were elaborated. In West Flanders information and demonstration projects are implemented to show best practices to motivate and assist farmers to adapt such farming practices. The implementation of the Nitrates Directive was accompanied by targeted advice based on farm-level data in the Land Parcel Information Service (LPIS) in the Czech Republic. Also in Denmark the implementation of the Nitrates Directive resulted in a change of farm management; here it resulted in a strict regulation on fertiliser use. Cross compliance resulted throughout the EU in many requirements on soil management. It seems that cross compliance is most effective when the rules are easy to monitor, well targeted, readily understood by farmers and there is a support in the wider rural community. In the Guadalentín basin (Spain) focus of agri-environment measures has been on soil management priorities. In England the Catchment Sensitive Farming Scheme focussed on specific catchments with water pollution and/or soil management problems. This scheme combines information provision, tailored advice and incentive payments on a local scale.

Overall, following success factors have shown to be important:

- information, advice, consciousness-raising and sustained institutional effort are essential;
- measures should reflect the appropriate scale of intervention: some should be localised, others more generic;
- there is a clear role for regulation, cross compliance and incentives working together;
- stakeholder involvement, particularly by farming organisations, is important;
- several measures can address other priorities, e.g. reducing water pollution and improving carbon management; and
- it is helpful to involve stakeholders from outside agriculture too.



Discussion

Several participants voiced their concern of too many mandatory measures (*e.g.* cross compliance) and emphasised that the voluntary incentive-based measures in the framework of Rural Development Programmes are more adequate and should be used more. Although, it was also mentioned that taxpayers should not pay for everything and land users have a responsibility to provide environmental public goods at their own expenses (mandatory measures). With rising commodity prices, incentives provided via Rural Development Programmes might have to be increased to obtain the same results. Some concern was voiced concerning end-of-the-pipe measures, referring to the example of high nitrogen and phosphate contents as a result of intensive animal farming. Stakeholders raised the importance of the local level, and the regional specificity of conditions and policy implementation. The general need for more research, advice and support was also expressed. Several participants were critical of the Soil Framework Directive, while others pointed at the usefulness of an overall EU-wide frame for soil protection.

6 Closing

The rapporteurs Tomas Ratering, Stefan Bojnec, David Baldock and Pierre Dupraz summarised sessions one to four respectively. The four presentations wrapped up the content of the SoCo policy seminar in a concise manner.

Martin Scheele closed the meeting with some final remarks. The rich presentations and the overall SoCo project aimed at stimulating discussion and a further open debate on the topic. He stated that, in the long run there will be more demand for agricultural commodities, but also serious constraints (climate change, land demand, *etc.*); in short, to produce more with less will be the global challenge for agriculture. In general, it is in the self-interest of farmers to care for their own soils, but problems (will) occur and need to be analysed and addressed. There should be a balance between mandatory and incentive-based measures, as environmental protection is expensive and has to be paid for; the balance between measures allocates the responsibility. Advice and information is the basis for all measures and is needed to improve the general knowledge base.



Annex 1: Agenda SoCo policy seminar in Brussels, 28 May 2009

Agenda

Plenary Session - Opening

- Opening remarks by the Chair (M.A. Benítez Salas)
- [SoCo project: background and objectives](#) (M. Scheele)

Session 1: Soil degradation processes - agricultural perspective

- [SoCo: European overview on soil degradation processes related to agriculture](#) (E. Rusco, L. Montanarella, B. Maréchal)
- [Identifying soil degradation processes](#) (T. Stuczynski)
- [How to adapt European agriculture to the challenges of a changing world?](#) (J. F. Sarreau)
- [Effective agricultural soil policy tailored to local-level conditions](#) (M. Kibblewhite)

Session 2: Adequate Farming practices relevant for soil conservation

- [SoCo: Review of farming systems and practices](#) (P. Prospero, J.M. Terres)
- [Conservation agriculture: A farmer's perspective \(UK\)](#) (A.J. Bullock)
- [Conservation agriculture: its deliverables for an effective Soil Conservation and comments on the SoCo findings](#) (G. Basch)
- [Soil conservation agricultural practices and farming systems adapted to local conditions \(Italy\)](#) (M. Tiberi, G. Ciabocco)

Session 3: Keynote addresses

- Keynote address by Deputy DG L. Dormal-Marino
- Keynote address by MEP S. Le Foll
- [Main results and recommendations of the SoCo Project](#) (S.H. Gay, G. Louwagie)

Session 4: Existing legislation and policy instruments (including case-study results and national implementation

- [Policy instruments and implementation: SoCo case studies](#) (J. Schuler, K. Helming, K. Prager)
- [La préservation des sols agricoles dans la politique du Ministère de l'Agriculture](#) (D. Rat)
- [Success stories in implementing policies](#) (D. Baldock, T. Cooper)

Plenary Session - Closing / Presentation of main findings by each Session Rapporteur

- [Session 1](#) (T. Ratering)
- [Session 2](#) (S. Bojnec)
- [Session 4](#) (P. Dupraz)



Annex 2: List of participants, SoCo policy seminar

No	Family name	First name	Organisation
1	Ampe	Carole	European Association for Rural Development Institutions (AEIAR)
2	Andugar	Antonia	COPA-COGECA
3	Arapis	Gerassimos	EEB / ELLINIKI ETAIRIA
4	Baecke	Joris	European Council of Young Farmers (CEJA)
5	Baldock	David	Institute for European Environmental Policy (IEEP)
6	Basch	Gottlieb	European Conservation Agriculture Federation (ECAAF)
7	Beckers	Eléonore	Faculté universitaire des Sciences agronomiques de Gembloux
8	Benitez Salas	Maria Angeles	European Commission
9	Bidoglio	Giovanni	European Commission
10	Bojnec	Stefan	University of Primorska
11	Brunner	Ariel	EEB / Birdlife International
12	Bullock	A. Jim	Techniques de Cultures Simplifiées
13	Burgeois	Xavier	Agribrussels
14	Cerdà	Artemi	European Geosciences Union (EGU)
15	Chamayou	Damien	Euromontana
16	Charles	Joke	Belgium
17	Choplin	Gérard	European Farmers Coordination (CPE)
18	Ciabocco	Giovanni	Agenzia per i Servizi nel Settore Agroalim. delle Marche (ASSAM)
19	Cinti	Stefano	DG AGRI, H.3
20	Constantinescu	Mihai	Romania
21	Contiero	Marco	Greenpeace
22	Costa	Christalla	Cyprus
23	Crews	Lisa	European Environmental Bureau
24	Dawans	Céline	Assembly of European Regions (AER)
25	De Jong	Johan	The Netherlands
26	De Nolf	Philipe	BE-VI Ministry for Agriculture
27	De Wit	Nikolaas	European Commission
28	Deppold	Anton	Germany (Bay. Staatsministerium f. Ernährg, LW u. Forsten)
29	Deprez	Sarah	Provinciaal Centrum voor Milieuonderzoek
30	D'Haene	Karoline	Instituut voor Landbouw- en Visserijonderzoek (ILVO)
31	Döhne	Katja	COPA-COGECA
32	Dormal-Marino	Loretta	European Commission
33	Dumez	Linn	European Environmental Bureau
34	Dupeux	Delphine	European Landowners' Association (ELO)



No	Family name	First name	Organisation
35	Dupraz	Pierre	INRA Rennes
36	El-mechali	David	France
37	Epperlein	Jana	European Conservation Agriculture Federation (ECAAF)
38	Fernández Sanz	María	Spain
39	Fons-Esteve	Jaume	European Topic Centre on Land Use and Spatial Information
40	Frattarelli	Antonio	Italy
41	Fuentes Merino	Maria	DG AGRI, H.4
42	Gay	S. Hubertus	European Commission
43	González de Canales	Felipe	Rurality Environment Development (RED, RuralEurope)
44	González Sánchez	Emilio J.	European Conservation Agriculture Federation (ECAAF)
45	Gruner	Bernd	Europ. Liaison Comm. for Agric. and Agri-Food Trade (CELCAA)
46	Guitton	Marie	Euromontana
47	Gusmerotti	Natalia	COPA-COGECA
48	Gustafson	Gustaf	Confederation of European Forest Owners (CEPF)
49	Hahn	Albert	Council of European Municipalities (CEMR)
50	Hegymegi	Peter	Hungary
51	Helming	Katharina	ZALF
52	Henrard	Gregory	Belgium
53	Hoffmann	Poul	Denmark
54	Hrustel Majcen	Marta	Slovenia
55	Innamorati	Angelo	DG AGRI, H.1
56	Ivarsson	Kjell	COPA-COGECA
57	Kassis	Azza	European Commission
58	Kibblewhite	Marc	Cranfield University
59	Köllig	Antje	EP
60	Krause	Patrick	EEB / Scottish Crofting Foundation
61	Laczó	Ferenc	EEB / Center for Environmental Studies
62	Lafiandra	Stefano	Italy
63	Le Foll	Stéphane	European Parliament
64	Legg	Wilfrid	Organisation for Economic Co-op. and Development (OECD)
65	Leys	Annemie	Flemish Department of Agriculture and Fisheries
66	L'Her	René	European Commission
67	Lorenzen	Hans Martin	Prepare - Partnership for Rural Europe
68	Louwagie	Geertrui	European Commission
69	Loyau	Jacques	European Parliament
70	Maertens	Ellen	Belgium
71	Maetens	Willem	Katholieke Universiteit Leuven



No	Family name	First name	Organisation
72	Marcheggiani	Ernesto	Università Politecnica delle Marche
73	Marmo	Luca	DG ENV, B.1
74	Martinho	Rui	Portugal
75	McEvoy	Oliver	Ireland
76	Moeskops	Bram	Ghent University, Dept. Soil Management
77	Moreale	Adelmo	European Commission
78	Naik	Aarun	COPA-COGECA
79	Olazábal	Claudia	European Commission
80	Papeians	Christian	Belgium
81	Pina	Ana	Portugal
82	Prosperi	Paolo	European Commission
83	Rass	Gerard	European Conservation Agriculture Federation (ECAAF)
84	Rat	Didier	MAP - Ministère d'Agriculture et de la Pêche
85	Ratinger	Tomas	ÚZEI (Institute of Agricultural Economics and Information)
86	Ratter	Drew	Euromontana
87	Reinl	Anton	COPA-COGECA
88	Robles	José F.	COPA-COGECA
89	Rocha	Ana	European Landowners' Association (ELO)
90	Rosière	Charlotte	Faculté universitaire des Sciences agronomiques de Gembloux
91	Rouyer	Nicolas	DG ENV, D.2
92	Runge	Tania	COPA-COGECA
93	Rusco	Ezio	European Commission
94	Sarreau	Jean-François	European Conservation Agriculture Federation (ECAAF)
95	Scheele	Martin	European Commission
96	Schmid	Otto	IFOAM
97	Schmider	Friedhelm	European Crop Protection Association (ECPA)
98	Schmidt	Monika	European Commission
99	Schreiber	Robby	Europ. Initiative for Sustainable Development in Agriculture (EISA)
100	Schuler	Johannes	ZALF
101	Ségard	Matthieu	Europ. Liaison Comm. for Agric. and Agri-Food Trade (CELCAA)
102	Senesi	Nicola	European Confederation of Soil Science Societies (ECSSS)
103	Slabe	Anamarija	European Environmental Bureau
104	Stancu	Catalina	Romania
105	Stroe	Elena	European Commission
106	Stuczynski	Tomas	Institute of Soil Science and Plant Cultivation
107	Sukkel	Wijnand	IFOAM
108	Swerts	Martien	Belgium (Flemish Governm.: Envir., Nature and Energy Departm.)



No	Family name	First name	Organisation
109	Tiberi	Mauro	Agenzia per i Servizi nel Settore Agroalim. delle Marche (ASSAM)
110	Tóth	Gergely	European Commission
111	Tropea	Francesco	DG AGRI, H.1
112	Vermang	Jan	Ghent University
113	Wirth	Matthias	Austria (Lebensministerium, Less Favoured Areas, APTII/7)
114	Ywema	Peter Erik	Confederation of the Food and Drink Industries in the EU (CIAA)
115	Zewen	Christian	Luxembourg