Ladies and gentlemen,

Mr. Callaba apologises for not being able to attend this conference today and asked me to present his contribution, which is entitled:

**Soil Protection at Community Level**

The Commission is about to prepare a Communication on soil, as a starting point for a soil thematic strategy as mentioned in the 6th Environment Action Programme. This communication is a Commission initiative in response to the need for the protection of soil as a vital resource that is increasingly under pressure. A draft of the Communication is about to be downloaded on the internet: [http://www.europa.eu.int/comm/environment/agriculture/index.htm](http://www.europa.eu.int/comm/environment/agriculture/index.htm).

This communication has the following objectives:

- To identify soil relevant features for policy making purposes
- To describe the multiple functions of soils
- To identify the main threats on soils
- To present an overview of Community policy relevant for soil
- To present the state of play on soil information and monitoring in the EU and identify data gaps.
- To establish the policy frame for Community actions for soil protection.

From a policy perspective there are several soil **features** that must be carefully considered in order to develop a soil protection initiative. We should mention:

- its natural variability
- the fact that it is in principle a non-renewable resource,
- its capacity to store substances,
- the fact that soil supports a large proportion of terrestrial biodiversity.
- and, as a component of land, soil submitted to property rights.

In consequence any policy initiative would need to have a strong local component; it would have to focus on principles of prevention, precaution and anticipation, and it needs to ensure protection of soil biodiversity and take environmental liability into account.

Soil performs a number of vital **functions**:

- food and other biomass production
- storing, filtering and transformation of substances
- habitat and gene pool
physical and cultural environment for mankind
source of raw materials.

Most of these can be performed simultaneously if balances are respected. In this sense soil is a multifunctional medium.

A central part of the Community communication deals with the identification of the threats to soil, which lead to degradation processes, and threaten soil functions. The Communication describes the eight following threats:

- erosion
- contamination (local and diffuse)
- sealing
- compaction
- loss of organic matter
- decline in biodiversity
- salinisation
- hydrogeological risks (floods and landslides)

Erosion is a natural geological phenomenon resulting from the removal of soil particles by water or wind.
Contamination is caused by the occurrence of contaminants in soils above certain levels
Sealing is the covering of soil for housing, roads or other infrastructure
Compaction is the deterioration of soil structure (loss of soil features) by mechanical pressure,
An unbalance between soil organic matter built-up and destruction, rates is leading to a net loss of soil organic matter
A drop of forms of life living in soil, both in quantity as in variety
Salinisation is the accumulation in soils of soluble salts of sodium, magnesium and calcium
Hydrogeological risks includes floods and landslides related to soil and land management

In candidate countries, the threats to soil are essential similar to those in the Community.

From the analysis of these threats, the following conclusions clearly arise:

1. Soil degradation processes are largely driven by human activities.
2. There is sound scientific evidence that all degradation processes are taking place in the EU.
3. There is no evidence of any reverse trend.
4. There is a lack of policy relevant information on the extent and the significance of the degradation processes but this should not prevent taking action to limit them.

Soil degradation constitutes not only a major EU wide, but a world-wide problem. In response, several international initiatives and conventions, summarised here, have been adopted to address them partially or from holistic perspective, starting from 1992 until today.
Although an explicit Community policy focused on soil protection does not exist at this stage, the existence of cross links between other Community policies and soil protection is obvious: Agricultural, Regional, Environmental, Research and Transport policies are the most important to consider.

In the context of the Common Agricultural Policy, the Rural Development Plans promote, through Good Farming Practices, several soil conservation measures such as tillage following contour lines in steep slope areas, the ban on burning cereal stubble in soils with low soil organic matter content, and the definition of carrying capacities to avoid overgrazing.
Also under this policy, agri-environmental measures provide economical incentives for the improvements in soil condition by promoting no tillage or winter cover, maintenance of terraces, and the reduction of pesticides and fertilisers.

Recently introduced (2000) environmental protection requirements in relation to directly supported agricultural sectors provide a significant opportunity to deliver soil protection.

The Regional Policy is supporting several programs through Structural Funds, such as INTERREG and URBAN. They support soil protection in several ways with investments to combat erosion, plant forest, prevent floods and rehabilitate contaminated and derelict land.

Finally environmental policies regarding water quality, air quality, waste policy such as on the use of sewage sludge and waste management, as well as some general legislation such as on Environmental Impact assessment and habitats provide partial protection of the soil against contamination.

**Soil surveys and soil monitoring** systems exist in all EU countries for a long time. A wide variety of soil maps of different scales and national monitoring systems focused on different soil parameters are in place. However, they deliver data that are not always comparable. At EU scale, the only existing monitoring system that collects soil information is the forest monitoring scheme, although it considers a limited number of soil parameters and is restricted to forest areas.

**The way forward**: towards a thematic strategy on soil protection

Taking into account the existence of several articles in the Treaty which address protection of the environment and sustainable growth, the multifunctional nature of soil at risk and the global consequences of soil problems, the need for a EU-wide approach for soil protection is clear.

It should be based on the principles of prevention, anticipation and precaution and contain a strong local element.

A Community information and monitoring system on soil threats will be needed to build a European soil policy. But even in the absence of perfect data, actions are needed to tackle the threats. As Europe enters the area of soil protection, existing policies need to be examined for their effects on soil and proposals made to adjust these policies where appropriate.