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Open letter: contribution to soil conference proposing steps toward the implementation of a new agricultural model geared in the interest of human and environmental health through the safeguard of biodiversity

Dear Mr President,

First of all, we congratulate you for having taken the initiative to organize a high-level conference starting today in Tallin on "Soil for sustainable food production and ecosystem services" as part of your Presidency.

Secondly, we welcome the lines on conference homepage¹ mentioning that: Plants need soil to grow and fertile soils are the basis for agricultural production and with that, they are also the foundation for the nutrition of mankind. Soils are also one of the biggest biodiversity reservoirs with approximately a third of the world's flora and fauna living there! The microorganisms living in soils are, for example, necessary in the production of medications—almost all antibiotics come from soils. We furthermore welcome that, speaking about 'sustainable use of agricultural soils', you also mention the importance of 'regulations on crop rotation and the use of glyphosate, the requirement to keep the land under a green cover during winter, using suitable agro-techniques to hinder erosion, keeping peatlands and areas with eroded soils as grasslands, etc.'.

We know that much has been done; however, much still remains to be done.

We believe that it's time for EU to come closer in achieving a land degradation-neutral world. Ever more publications point to pesticides as an important cause of loss of soil biodiversity and fertility. Recently, **glyphosate** was shown to kill soil beneficial bacteria that are necessary to protect plants from pathogens and to help them grow². In the same way, insecticides such as **neonicotinoids** have been shown to have a negative impact on earthworms at field-realistic concentrations (increase in mortality, decrease in reproduction...).

1 https://www.eu2017.ee/news/insights/three-square-kilometres-soil-destroyed-every-day-europe

² "Glyphosate-Induced Specific and Widespread Perturbations in the Metabolome of Soil Pseudomonas Species," https://www.frontiersin.org/articles/10.3389/fenvs.2017.00034/full

We are aware that the Estonian presidency favors technological progress, but functional biodiversity and technological progress are complementary approaches, for instance:

- Combining crop rotation and analytical tools (meta-analysis, modeling and simulation) will help in progressing increased understanding and design of crop rotations in order to improve agro-ecosystem health and thus reduce diseases.
- New technology can support efficient ancestral and <u>empirical practices</u>, for example the University of Milan is carrying out laboratory tests in order to assess if the exudates of the roots of some herbs have an allelopathic effect to inhibit the germination of rice seeds.

European people don't want glyphosate, as the 1.4 million signatures of the European Citizens' Initiative (ECI) to ban glyphosate has strongly demonstrated. This is a tangible proof that European citizens are ever more concerned with the health impact and environmental sustainability of the agrichemical-dependent EU agricultural model. For this reason, they are pushing EU institutions to start taking steps toward the implementation of a new agricultural model geared in the interest of human and environmental health through the safeguard of biodiversity.

We hope that this soil conference will spark of a debate on how the Common Agricultural Policy of tomorrow can achieve a land degradation-neutral world, looking into:

- Ensuring a sustainable food production systems and implement resilient agricultural practices that help maintain ecosystems, and progressively improve land and soil quality soil fertility and good soil conditions, starting with crop rotation.
- Encouraging transition towards low impact farming building on the fact that Farm Advisory Services must already now inform farmers about uptake of alternatives techniques but very little is so far being done on this matter.

 Steps forward would be to include and enforce the Sustainable Use Directive -SUDP (and the Water Framework Directive) into cross-compliance; building on the greening of the CAP and the fact that Ecological Focus Areas are now pesticide-free to encourage farmers to start applying good agronomic practices again, while using the many alternatives already on the market through agri-environmental measures, EIPs without forgetting the importance of starting to ensure that conventional farmers start learning from the experiences in organic agriculture.
- <u>Using new technologies in order to restore and give strength to traditional practices</u> like the crop rotation, because there is no opposition between 'old' and 'new' and true progress is one that can get the best from good practices of the past.

Unhealthy soil is not only bad for EU citizens, but also for EU farmers, and we hope that the soil conference starting today in Tallin will put the soil health back on the EU agenda.

Sincerely yours,

Francois Veillerette, PAN Europe