## Conference <u>EuroSoil 2021</u>, Geneva, Switzerland Date: August 23-27, 2021 Abstract:

## A Pluralistic Integral Soil Ethics (PISE) Grounded in Multi-faceted Soil Care

## Sabine Grunwald

Soil degradation and pernicious loss in soil health and quality have been amplified by climate change, population growth, and a pronounced anthropocentric economic growth orientation at global scale. An integrated approach is poised to address soil/environmental and human security negotiating (1) multiple perspectives of people's and soil's needs, (2) the plurality of humanness, soilness, and interconnected human-soil relations, and (3) care that informs soil management. This presentation will provide the core tenets of a pluralistic integral soil ethics (PISE) that undergird our moral attitude of soil care. The concept of care ethics differs profoundly from the anthropogenic resource orientation of sustainability, security, stewardship, ecosystem services, and land degradation neutrality. Care ethic takes a radical stance rooted in biocentrism that expresses the subjective, passionate, and empathic relationship to soils thereby acknowledging soils intrinsic value. Care is also informed by scientific knowledge about soil properties, functions, and services integrated into understanding the complexity of global ecosystem processes. Importantly, soil care ethic views soils as both object and subject concomitantly—an objectified and commodified resource and a precious beautiful living organism that sustains life on this planet.

PISE acknowledges different but equally true moral strands that entail the pillars (1) valuation, (2) soilenvironmental literacy and competency, and (3) personal and collective relations with soils. The first pillar covers the value spectrum of soil ranging from soil centric, biocentric to anthropocentric value attribution rooted in virtue ethics. Soil values are identified across the spectrum from sacrednessnaturalness—care—preservation— conservation—security/sustainability/stewardship health/quality/fertility—production/management/use—valueless (exploitation of soils). Cultures (e.g., indigenous, nature-oriented, and permaculture) that have valued the sacredness and naturalness of soil and the Earth have been marginalized in growth economies and consumption-oriented tech-societies, while corporate farm production objectifies and commodifies soils as a resource to be used and managed to produce food, fiber, and goods to sustain humanity. The second pillar, soil-environmental literacy and competency entail soil data, maps, knowledge, digital technologies, models and know-how to assess possible impact to soils based on consequentialist ethics (including ethical, egoistic, act utilitarianism, and/or rule utilitarianism ethics). The understanding of soils as systems is of critical importance to assess cause-effect relationships and identify possible impacts (e.g., global climate change) causing soil degradation. It is the domain of soil scientists and experts. A Kantian ethic grounded in rationality is undergirding this pillar that addresses issues of sustainability, soil health, and quality—all critically important to sustain finite soil resources. The second pillar aims to quantify and assess functions and how they change. Third, personal and collective relations with soils and the Earth arc from lived, subjective, intimate relations with soils to conceptual, distant, and non-engaged relations with soils. The awareness of soil/nature/Earth in context of the complexity of people's lives and societies needs determine the level of (dis)engagement with soil.