Chapter 2
The Management of the Socio–Economic System: The Natural Capital Relation as a Foundation of Sustainable Development

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ABSTRACT
The appearance of the concept of sustainable development, although a sort of universal remedy at its beginnings, is becoming increasingly frequently the object of tensions both as objectives but especially as content. Regarding its objectives, the debate is organized around a logic based on the theory of the stakeholders but also on the competing logic that mobilizes an ethics of responsibility as teleological principle. Consequently, the meanings and implicitly the programmes of sustainable development are also the object of certain controversies and remain susceptible of being solved by a process of normalization of their contents. However, this dynamics of normalization itself is the bearer of certain “perverse effects”, already noticed in the accountancy standards domain and, under these circumstances, this dynamics of normalization cannot pretend to be the solution for regulating these controversies. The problem are mainly the weak doctrinal points characterizing Sustainable Development today, obviously, by comparison to what it wanted to be.

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INTRODUCTION: THE RELATION BETWEEN THE NATURAL CAPITAL (NC) AND THE SOCIO-ECONOMIC SYSTEM (SES)

The identification and description of the natural or seminatural environment dominated or created by the human species have changed and evolved from the conceptual model that used to define the environment as a set of factors (air, water, soil, flora, fauna, human settlements), to the recent model, which considers that the environment has a hierarchic spatio-temporal organization, namely, in other words, the environment is a functional hierarchy of systems.

Consequently, ecological systems become:

- Organized units, elements of the hierarchy;
- Self-regulable systems, able to maintain themselves;
- Systems supporting life;
- Systems with a co-linear dynamics, and different carrying and productive capacities, depending on their disturbance degree.

The ecological hierarchy contains two main hierarchic lines of ecological systems highlighting a dichotomy in their spatio-temporal development and representing the central element of the so-called “ecological crisis”.

Schematically, here are the 2 lines:

1. Natural and seminatural systems, maintaining themselves and providing a large array of resources and services
2. Ecological systems dominated by man, which depend to different extents on auxiliary energy and matter inputs (e.g.: agrosystems, intensive fisheries, etc.) and man-made systems (urban ecosystems, farms, industrial complexes) which are totally dependent on auxiliary energy and matter inputs coming from the first category – natural and seminatural systems (Allan, D., 1994).

Natural and seminatural ecological systems assure:

1. Renewable resources
2. Series of services beneficial to the social-human system

The most important services assured by the natural and seminatural ecological systems are:

- Control of the climatic composition of the atmosphere, of the radiant energy flow and implicitly climate control
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