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Glossary

Active subsidiarity: A principle that endeavors, in a multilevel governance system and in situations in which problem-solving requires the cooperation between different levels, to promote both the greatest possible unity and the greatest possible diversity. The principle of active subsidiarity is central to contemporary governance.

Actor: An actor is a group of people and institutions endowed with a capacity for collective action that strives to achieve a common project. Actors are social constructs founded on a shared worldview (the "intelligibility threshold"), exchange (the "dialogue threshold"), and an ability to elaborate a common project (the "project threshold").

Bio-socio-technical systems: An approach to understanding society that considers it from three distinct angles, each with its own internal coherence: as a bio-ecological system (emphasizing society's participation in the biosphere); as a social and political system; and as a technical system (emphasizing society's distinct evolutionary dynamic).

Capital: Resources accumulated over time and which are used in production processes. At the conclusion of these processes, capital is either preserved or increased. There are four kinds of capital: tangible, human, intangible, and natural.

Collective living being: Any gathering of individuals and institutions, which may or may not be temporary or permanent, which may or may not have a juridical status or not, and which may or may not possess a shared project, but which does have mechanisms allowing it to regulate itself, react to external events, adapt to the environment, and manage its internal components. These characteristics make it possible to consider it as a kind of living being. When discussing ant colonies, we call these regulatory mechanisms "supraorganisms." We are particularly interested in emerging forms of organization and collective action—alliances, networks, forums—that do not necessarily coalesce into institutions.

Emergent property of a system: In a system composed of a large number of components, the simple rules governing these components and their relationships become properties of the system as a whole. For instance, biodiversity is an emergent property of ecosystems.

Energy efficiency: The ways in which societies take advantage of the energy at their disposal. It is generally characterized as the relationship between gross domestic product and quantity of energy consumed.

Exergy: A term drawn from thermodynamics, which refers to all of a system's potentially usable energy. It includes: the "noble" energy constituted by work (in the sense in which the term is used in physics rather than in the social sciences) and the "less noble" energy consisting of heat. By analogy, exergy can designate the maximum degree of social usefulness that can be extracted from a particular system.

Globalization: A term reserved for economic globalization. It refers to the fact that our existing production and exchange system is organized on a global scale. It is also characterized by an ideology which claims that the elimination of local and national obstacles to trade is collectively beneficial.

Governance: A system that regulates all the ways in which a society undertakes to achieve its goals and to ensure its survival. The most common objectives are social cohesion, peace with foreign societies, equilibrium between society and the environment, individual fulfillment, the protection of the rights and potential of future generations, and economic and human development.

Indicators: Characteristics that are assigned to or that measure given phenomena, particularly social phenomena. Indicators are established according to specific procedures. They make it possible to "form an opinion" about the state of a system. They may include indicators of wellbeing, wealth, human development, governance, etc. These indicators may be based on measurements (as with GNP per capita) or opinion (as with indicators of media credibility). Indicators always have an either implicit or explicit normative content, i.e., they imply a value judgment. Thus the use of GNP per capita as an indicator of national wealth emphasizes material wealth, while indicators of good governance applied to international institutions refer to views about what constitutes good governance. Consequently, indicators must always be viewed critically.

Industrial ecology: The art of analyzing, proposing, and implementing complementarities between human activities, particularly industrial ones, based on material flows, in which one flow's waste becomes another's raw material. This insight is drawn from an analysis of ecosystems, in which the extent of cooperation between components is an indicator of a system's relative "maturity."

Institutional arrangements: A stable configuration of relations between individuals and institutions. The term is used by the Régulation School to show that even among societies that have market economies, different societies follow different models. Institutional arrangements are central to oeconomy. They make it possible to consider the way in which relations are organized between institutions and actors, as well as between the public and private sectors. The search for relevant institutional arrangements is the fourth principle of governance: "to conceive and render operational institutional arrangements the underlying rationality of which leads spontaneously to the achievement of the goals being pursued."

Institutional engineering: The art of institutional arrangements; the art of conceiving arrangements and institutions, the spontaneous rationality of which leads to the achievement of the goals being pursued.

Institutional rationality: The tendencies to which an institution is spontaneously inclined as a result of its conception and metabolism. The idea of "institutional rationality" can be summed up by the saying: "Everything that matters is in the kitchen." When a goal is imposed on an

institution whose rationality pushes it in a different direction, the institutional rationality typically prevails.

Legitimacy: The extent to which authority is exercised in a way that the majority deems satisfactory.

Metabolism: The regulatory system of an organism, an ecosystem, and by extension of a society. On this basis, we speak of "territorial metabolisms."

Norms: Characteristics upon which a large number of individuals and institutions are in agreement. In the case of institutions of normalization, particularly the ISO (International Organization for Standardization), these norms refer to characteristics and specifications, as well as to standards of measurement and even to procedures and management practices. Norms play three essential roles: they shape expectations (offering, for instance, security in commercial transactions); they condense knowledge (as with environmental norms); and they guarantee the interchangeability of objects of different origins (from screwdrivers to computer parts). Norms also have a social function: they can be principles and types of behavior on which a certain consensus exists at a given moment, making other-directed behavior relatively predictable. Norms plays a discrete but fundamental part in economic as well as social life.

Oeconomy: The principles, institutional arrangements, methods, and technical modalities of production or exchange that are elaborated and implemented to ensure that society makes optimal use of the planet's resources and existing technical capacities in a way that maximizes

wellbeing. The term is formed from two Greek words: *oïkos*, meaning "household," and *nomos*, meaning "rule." Throughout the book, "economy" refers to the current system, in which companies, markets, and monetary relation, as well as all the associated procedures and "economic laws," have become so prevalent that they appear to be self-evident (to the point of resembling "laws of nature"). "Oeconomy," however, refers to the future system that we must strive to create. Interdependency on a global scale means that the *oïkos*—the household—now extends across the entire planet. Oeconomy is the branch of governance that organizes the production of exchange and the consumption of goods and services.

"Open-closing": "Open-closing" is a characteristic of all living organisms: they have organs, such as skin, noses, and mouths, which filter external matter and expel internal waste, while offering protection from external intrusion. By analogy, societies have the capacity to fend off efforts to force them to accept external rationalities and to organize imports (such as energy, natural resources, work, culture, information and knowledge, etc.) in accordance with their own needs. This concept is particularly applicable to territories.

Organism: When used to consider human societies, this term is used to refer to different kinds of institutions that are dedicated to achieving particular goals (employers' organisms, organisms for energy control, international organisms). In a different context, organism is understood in a biological sense: microorganism, single-cell organism, genetically modified organism, etc.

Pivotal actor: A pivotal actor is, in any given society, the actor that, without necessarily being more important or powerful than others, organizes around it an entire system of institutions and

actors. It thus plays a predominant role, most importantly by imposing its own rationality on all others.

Resources: The components that enter into a production process and which are consumed or transformed in the course of production. There are three kinds of resources: natural resources (i.e., minerals, biomass, and energy), human labor, and information.

Rules: Norms that have a juridical value. Third parties which determine that the non-observation of a rule has harmed them have recourse to juridical authorities before which they can have their rights validated. A rule is thus binding. There are rules of urbanism, international trade, accounting, etc. Law is the totality of rules.

Strategies for change: The totality of processes and actors that enable a society to steer away from its existing course.

Technical system: The totality of techniques available in a society at a given moment. This totality constitutes a coherence whole facilitating the management of time, materials, and energy.

Territorial ecology: The implementation of the principles of industrial ecology in particular territory. Through this kind of cooperation, one increases the share of exergy used in a territory.

Theory of gaps: A characteristic of social evolution over the long term. In a given society, different sectors evolve at different speeds. Consequently societies that have begun a process of

rapid transformation often possess contradictory traits. Some are the result of recent change, while others, due to their greater inertia, have survived from ancient times. The theory of gaps is summed up by the saying: “Often, we rely on yesterday’s ideas to plan for tomorrow, and last week’s institutions to organize tomorrow’s world.”

NB:

- Pour « *Institutional arrangements* », il s’agit bien du quatrième principe de la gouvernance (et non du troisième, comme c’est écrit dans le texte).
- Notez aussi qu’en anglais « organisme » n’est pas utilisé dans le sens social, mais uniquement dans l’acception biologique. Il serait plus facile de supprimer tout simplement l’entrée « organisme ».