

European Summer School on Earth System Governance

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Abstract:

“TOWARDS A SUSTAINABLE HUMAN DEVELOPMENT APPROACH -Building on the human-scale development paradigm-”

Central to general policy making and sustainable development strategies implementation, the need to introduce evaluation procedures reaching beyond technical ‘achievement’ indicators, allow us to evaluate substantial questions respecting the coherence between different actors, their subjective aims, values, aspirations and specific development dynamics pursued.

Considering the above, some questions may arise: Are policies and actual development strategies coherent with peoples aspirations and their different cultural contexts? Are they increasing their collective well-being at a local level? Are they increasing the system’s stability and sustainability by generating more harmonious social relations and networks as well as synergetic interactions between humans and their environment?. Standard evaluation procedures tend to focus on more ‘performance’-driven questions which, although important, do not manage to help answering fundamental questions about meaning and sense. We should be thus concerned not only how but fundamentally why are certain policies and development strategies chosen in detriment of others.

The Human-Scale Development approach developed by Manfred Max-Neef and colleagues in the 1980s’ presented some powerful insights and tools which might contribute to find stronger interdependence between actors, actions and spaces for well-being flourishing and achievement. Unlike standard economic theory and most development approaches, H-SD theory works under a `systemic philosophy of realization of human needs´ implicating them between one another. Needs operate as potentialities or deprivations, always depending on the particular context in which individuals and collectivities live. A new adaptation of the H-SD methodology is introduced in this work in order to put forward innovative uses and multidimensional frameworks for better well-being and human development appraisals.

TOWARDS A SUSTAINABLE HUMAN DEVELOPMENT APPROACH

-Building on the human-scale development paradigm-

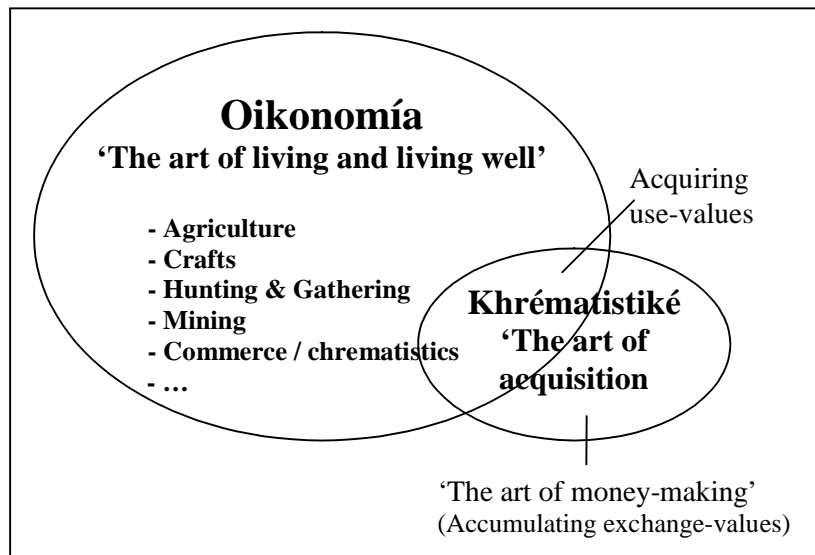
INTRODUCTION

What is the economy all about?

Aristotle (1967) in the introductory chapter of his *Politics* distinguished between *oikonomía* ('the art of household management') and *chrematistics* (*chrēmatistiké*, 'the art of acquisition')¹. Going one step further, he made a distinction between two different kinds of chrematistics: one subordinated to a use-value logic and thus the *oikonomia* (providing households with the necessary use-values which were not provided internally, in exchange for those they produced in excess) and another form, which Aristotle rightly saw as secondary from a logical and historical point of view, concerned with the 'art of money-making' – accumulation of exchange-values by means of commerce.

Aristotle's *oikonomy* – centred on the reproduction of use-values – encompassed by all those 'instruments' which are available to households in order to acquire different use-values to 'live and live well'. Its practice and study included, among others, agriculture, crafts, hunting & gathering, mining and even warfare - as a way to provide slaves with households. It was, thus, a systemic, multidimensional conception of the economic process, which would as well include the discussion of meaning and value, of ethics and aesthetics, as an integral part of this '*art of living and living well*'. *Chrematistics* – '*the art of acquisition*' - was seen as an integral part of the *oikonomy* too, but only as far as it remained subordinated to the latter's use-value logic.

Notwithstanding, once the 'art of money-making' as an end in itself was established (whereby the accumulation of exchange-values, of money, is dissociated from the wider objectives of the *oikonomy*, this kind of *chrematistics* was no longer instrumental to the latter being considered external to it by Aristotle (Figure 1).



¹ We used the more commonly used translations of both terms. Particularly, we use 'art' for what Aristotle used to refer to as *tékhne*, that is: a certain kind of skill won by experience, which does not dissociates technical expertise from ethics and aesthetics. It means craftsmanship in a sense which has greatly been lost in our modern times and thereby defies translation. Once 'technical' in modern times acquired an instrumental connotation, we rather stick to the notion of 'art' which is closer to the Greek meaning.

Figure 1. *Oikonomía* and *chrēmatistiké*

In line with Aristotle's view, Adam Smith defined the main study object of the new Political Economy Science he was establishing in the title of his seminal work *An Inquiry into the Nature and Causes of the Wealth of Nations*. Economics was thus defined as the study of both the origins of human wealth and the way this wealth was socially distributed – hence *Political Economy*. Of course, this should still be the main focus of any economic inquiry, since what we wish to obtain from the economic system is not an increase in economic activity *per se* but the means to achieve an objective external to it: the (re)production of human existence and welfare. Chrematistics appears here as a means-to-an-end, a subordinated part of complex system's dynamic once the reproduction and distribution of wealth results from wider ecological, personal, social, political, cultural and institutional development dialectics whereby human societies try to achieve '*the art of living and living well*' (Stahel, 2005).

It is from this broader systemic perspective that chrematistics appears as just a part of a wider dialectics, that we can understand Georgescu-Roegen's proposition that there is an "*economy of life at all levels*" (Georgescu-Roegen 1971,4). All living systems tap energy and materials from their environment in order to maintain their *autopoiesis* (i.e.) their self-(re)creation process, although none does so within the context of a highly developed self-reflective culture and language, encompassing a myriad of exosomatic tools, cultural and personal values and institutional settings as we humans do. Thereby, for us humans the means for sustaining and reproducing our life implies not only a biophysical dimension, but also a self-reflective cultural and technical one. Notwithstanding, our socioeconomic processes as an extension of a biological life processes, remains thus a means to an end: the culturally defined and physically realized (re)creation of human welfare.

Considered from this perspective, we see that a chrematistics centred, free-market based development process is just one among different historical forms by which this objective has and may be pursued. In fact, as Polanyi (1944) showed, it is only in our modern times that the idea of a free-market based institutional setting ordering the social and economic life emerged. The chrematistic, exchange-value centred, logic ceased to be secondary to the wider *oikonomic* use-value logic, to become its master.

As has been argued in more detail elsewhere (Stahel 2005), although Smith, and modern economics in general, equated 'wealth' to use-value – and thus the proper study object of modern economics should be the '*Inquiry into the Nature and Causes of Use-Value*' – modern economics would restrain its gaze to inquire about the nature and causes of exchange-values and how they translate into prices, rent, wages and profits. Within modern neoclassic economics the inquiry scope of economics was further reduced to the chrematistic dimension of the economic process once the classic distinction between exchange-value and prices by the British Political and Marxists economics was no longer kept. Thereby, focusing solely on the chrematistic, monetary and measurable dimension of the economic process, the political, personal, institutional and cultural dimensions of the economic development process were eluded in favour of more abstract, model-building based approach to the economic process. Not only with respect to nature which, as Georgescu-Roegen mentions, it appears as a one way ..., but with respect to the sociocultural dimension as well, the economic process has been depicted as a purely chrematistic process happening in a social and ecological void.

At the methodological level, this allowed to establish, economics in line with the mechanistic paradigm of Newtonian physics than hegemonic, which would shape not only modern economics but modern science as a whole. More fundamentally, by relegating the social, political, cultural and psychological dimensions to the realm of 'normative economics' (in opposition to the supposedly more scientific 'positive economics'), Classical Political Economic was barren from its political dimension.

Notwithstanding, as Polanyi suggested in his analysis of modern history, the debates and struggles around the widening or not of the realm covered by the free-market based ordering of the economic, social and ecological life are the crucial element shaping modern history. Reducing the free-market debate to a technical question in terms of 'economic efficiency' based on different abstract models' outcomes under different initial hypothesis has, thus, a strong ideological and political aspect. It excludes the bulk of humanity (and lastly those affected by the widening of the realm covered by the chrematistic market logic) by excluding this central political debate from the public arena, confining it to the academic and institutional walls of professional economists and politicians, to the expert meetings inside the WTO, IMF, WB, economic ministries and, lastly, the academic walls of modern economics.

By leaving the social, political and ecological dimensions out of its inquiry field, the reduction of economics to the chrematistic dimension allowed to align modern economics methodological practice to the free-market based and exchange-value centred modern capitalistic economic process (Marx, Polanyi,) which, in turn, it helps to legitimize by means of its abstract theoretical models. Behind economics' hermetic and abstract jargon and accepted methodological procedures, lies the political question about the benefits or not of the widening of free-trade and market based ordering of the development process .By naming this new science economics instead of chrematistics – which would be its proper name – and by narrowly defining its methodology and study object, it excludes the bulk of humanity from the discussions about how and where to orient the development practices by presenting the free-market not as an institutional setting orienting modern life, but as a technical questions of achieving 'higher economic efficiency' by means of the 'art of acquiring money' and not by means of the 'art of living well'.

From this perspective, we can see that generating theoretical models whose legitimacy is derived mostly from following narrowly defined methodological rules and not from actually observed historical reality (where all kind of cultural, ecological, political and historical aspects are depicted as noisy 'external' aspects which do not allow a contrasted empirical observation), economics becomes normative by asserting that economic efficiency would emerge as predicted in the models if only its assumption of free-market and rational mechanistic and chrematistic human behaviour were allowed to happen (Stahel, ?).

This reduction of economics as chrematistics is reflected in the very way it shaped the modern idea of development which, more and more, has been reduced to its chrematistic aspect and to a point of being confounded with economic growth. In the same way, as Sachs pointed out, measuring wealth in chrematistic terms (reduced to monetary income and GNP like indicators) allowed to divide the world between 'rich' and 'poor', 'developed', 'developing' and 'under-developed' countries. It also has grouped the manifold and diverse human societies by means of a single chrematistic yardstick, throughout the 'development era' of the second half of the XX century (Sachs,1999?). Consequently, by this process different and autonomous ways of organizing the social, economic and cultural development dynamics have been abandoned and replaced by a linear, chrematistic development concept and the modern economic growth race.

Although hegemonic, this way of conceiving oikonomics as chrematistics, and to look at development from a mostly chrematistic perspective has been severely criticized from its inception up to our days. With the recent 'sustainability crisis', critiques have gained new importance as more and more people become aware that the development process has to be seen through its multiple, interdependent and interrelated economic, cultural, social, political and environmental dimensions. Development processes emerge not as simple economic growth, but as a complex dynamic system whose sustainability and thus our modern civilization is now being jeopardized.

This particular view reintroduces not only 'nature' (i.e. the considerations of the material and ecological base of any development process) but 'people, and their cultural meanings and values back to the development agenda. It leads us to consider, in line with Aristotle's conception, both the material and the sociocultural dimensions of the development process from an ethical and aesthetical perspective, as means of achieving the art of living and living well. It leads us to consider chrematistics and economic growth as a subordinated aspect of the wider *oikonomic process*.

One fundamental early contribution to this re-conception of the development notion from a systemic and humanistic perspective, aiming to 'put the economy at the service of people and not people at the service of the economy' (Max-Neef 1992a) has been made by the Chilean economist Manfred Max-Neef and his colleagues in the 1980s, giving rise to the Human-Scale development approach (H-SD). Central to this paradigm is a systemic re-conceptualization of human needs, placing these needs and their potential in the centre of any development strategy. It meant, thus, a recovery of the *oikonomy* in the original sense discussed above – as a means to achieving a higher wellbeing - and no longer as simple chrematistics. This theory presents a very wide outlook: "one in which the economic sphere represents another component of human society in connection to politics, culture, ecology, sociology, psychology and anthropology" (Cruz 2006, 61). For this reason – as well for its theoretical and practical importance, having found important applications at both levels around the world in the last decades - in this paper we will try to build on the H-SD, proposing some methodological features which may be added to the original proposal and suggesting innovative ways of enhancing its scope and applications, while presenting it as a very important theoretical and practical tool to enhance *oikonomics* which, as said before, should not be confounded with present *economics* conceptions.

The Human-Scale Development Approach

Before entering into the main objective of this paper, we will do a very brief description of the H-SD main aspects, suggesting to interested readers to find in the original writings of Max-Neef, his colleagues, followers and practitioners a more detailed and in depth discussion of this paradigm².

The H-SD notion appeared for the first time in an article published by the Dag Hammarskjöld Foundation (DHF) in 1986 by Max-Neef, Elizalde and Hopenhayn. In line with Aristotle's conception that the *oikonomy* has to deal not just with living, but more fundamentally with the art of living well, Max-Neef and colleagues suggested that the best development process will be the one that enables improvement in people's quality of life, allowing people and communities to be coherent with themselves (1998a). The axis of this fundamental thought is that H-SD concentrates on, and is sustained by the satisfaction of **fundamental human needs** and the generation of growing levels of **self-reliance**; as well as by the construction of "**organic articulations** of people with nature and technology, of global processes with local activity, of the personal with the social, of planning with autonomy, and of civil society with the State" (Max-Neef 1992b,197).

The most relevant and key insights of this approach are briefly outlined below:

- Development refers to people and not to objects. This approach entails a *theory of human needs for development*, one that goes beyond economic rationality and comprehends the human being as a whole:

² Recommended reading: Max-Neef et al. 1986; 1992 and 1998 a & b. See complete references at end.

- The best development process will be one that raises people's quality of life. "This depends directly on the possibilities available to that person to satisfy his/her fundamental basic needs" (Max-Neef 1998a,40).
- Human **needs** are **finite**. They are **few** and can be **classified**:
 - "Needs are the same in all cultures and historical periods" (Max-Neef 1998a,42; Elizalde 2003b). What changes through time and between cultures is the form and/or the means used to satisfy needs.
- Every system of needs is either satisfied, or not, by generating different types of satisfiers. **Satisfiers**, whether of an individual or collective nature, mean all the things that, by representing forms of **being, having, doing, and interacting**³, contribute to the realisation of HN (Max-Neef 1998a). Complementariness and compensation are essential elements of their characteristics. What is culturally determined are satisfiers and not needs.
 - Satisfiers, are not only economic means. These might generate goods (commodities) that change according to historical moments and contexts. Satisfiers, unlike needs, are less static (Max-Neef 1998a) they are modified by the rhythm of history and are diversified according to different cultures and circumstances. Overall, they define the prevailing mode that a culture or a society ascribes to a need. These may include: "organizational structures, political systems, social practices, subjective conditions, norms, values, spaces, contexts, behaviours and attitudes; all of which are in a permanent state of tension between consolidation and change" (Max-Neef 1992b,201).
- Traded goods and services represent one particular kind of satisfier among many others. As for Aristotle's *oikonomy* not all satisfiers (i.e. use-values) are traded or obtained through the market, having thus an exchange-value associated.
- Finally, any unsatisfied, or not adequately satisfied human need, reveals a form of human poverty.
 - From the H-SD perspective, we should rather be talking not of poverty in singular, but of poverties in plural. Every person, culture or society may be rich in certain aspects of life, and poor in others, depending on different circumstances and on how their different fundamental human needs are being satisfied.⁴

This clear distinction between human needs (common to all humans) and satisfiers (the particular means by which different societies and cultures aim to attend these needs) is probably the most important asset to the development debate and constitutes by itself, the cornerstone of the H-SD approach. Accordingly, Max-Neef and colleagues described that humanity has been developing certain needs that have

³ BEING- registers attributes, personal or collective expressed as nouns. HAVING- registers institutions, norms, mechanisms, tools (no material sense) that can be expressed in one or more words. DOING- registers actions, personal or collective that can be expressed like verbs and INTERACTING-registers locations and *milieus* (as times and spaces) Max-Neef 1992b,207).

⁴ Within this approach the poverty concept changes: Basic human needs exist according to a pre-systemic threshold from where deprivation of any of the listed needs will cause shattering in the whole needs system and therefore human well-being (Max-Neef 1998a and Elizalde 2003b).

acquired a universal character in terms of historical transcendence. “These needs are those of **subsistence, protection, affection, understanding, participation, leisure, creation, identity, and freedom** -the need for transcendence is sometimes also included-“ (1998a, 41).

From the above, these series of needs, maintain their character throughout time and can be identified as *socio-universal needs*, meaning that their fulfilment is always desirable for all, and their deterrence, undesirable for all as well. In the most pressing of ways, needs reveal human being’s essence shared by all human beings as sentient, social and self-reflective beings.

This common human nature becomes palpable through needs in their twofold existential condition: as deprivation and potential. “Deprivation reflects the physiological aspect, ‘something which is lacking is acutely felt’. However, to the degree that needs engage, motivate and mobilize people, they are potential and eventually may become a resource. For example, the need to participate is potential for participation; the need for affection is potential for affection, and so on” (Max-Neef 1992b: 201).

Additionally, the satisfaction or dissatisfaction of human needs can often be expressed in terms of feelings or emotions, yielding positive or negative feelings (Jakson et al. 2004). If a particular need like e.g. the need for subsistence is not satisfied because of a lack of food, the negative feeling will be hunger, arousing the drive to eat and this drive will result in a motivation to use that opportunity, hence the double existential character of needs. To illustrate Table 1 below demonstrates a possible categorisation of feelings according to Max-Neef’s typology of needs .

Table 1 Classification of positive and negative feelings (Adapted from Jackson et al. 2004).

Basic need	Satisfaction of needs: positive feelings (no need for change)	Dissatisfaction of needs: negative feelings (potential for action to fulfil the experienced need)
Subsistence	satiated, replete	hungry
Protection	safe	in danger, anxiety
Affection	love/being loved	hate/indifference
Understanding	intellectual well-being, smart, clever, insightful, conscious	intellectual frustration, dumb, stupid, ignorance/being ignorant
Participation	belonging, related, involved	lonesome, isolated, forsaken
Leisure	playful, relaxed	boredom/bored, weary, stressed
Creation	creative, inspired	uninspired
Identity	self-assured, confident, positive self-image	uncertain, insecure, negative self-image
Freedom	free, independent	entangled, chained, bounded, captured, tied

Crucial to H-SD conception of needs is the idea that people have multiple and interdependent needs that interact and interrelate in a systemic way and there is no two-way correspondence between needs and satisfiers. A satisfier can contribute simultaneously to the satisfaction of various needs; or conversely, a need can require various satisfiers to be met (Max-Neef 1998a, 42). Lastly, satisfiers are not neutral, they present various characteristics and are identified for analytical purposes in five types: violating or destructive satisfiers, pseudo-satisfiers, inhibiting satisfiers, singular, and synergic satisfiers. (See table 2). Satisfieres are modified by the rhythm of history and are diversified according to different cultures and circumstances. Economic goods

as well, are objects related to particular historical moments, but represent only one type of satisfier among a vast range.

Table 2. Satisfier characterization (Max-Neef 1992b,208-210)

TYPE	DESCRIPTION
Synergetic satisfier	Are those which, by the way in which they satisfy a given need, stimulate and contribute to the simultaneous satisfaction of other needs
Singular satisfier	These aim to the satisfaction of a single need, therefore neutral as regards the satisfaction of other needs.
Destructive satisfier	Elements of paradoxical effect. Applied under the pretext of satisfying a given need, they not only annihilate the possibility of its satisfaction, but they also render the adequate satisfaction of other needs impossible. (Sometimes specially related to the need of protection).
Inhibiting satisfier	Are those which by the way in which they satisfy (generally over-satisfy) a given need seriously impair the possibility of satisfying other needs
Pseudo-satisfier satisfier	These are elements which stimulate a false sensation of satisfying a given need. Though they lack the aggressiveness of destructive, they may, on occasion, annul, in the medium term, the possibility of satisfying the need they were originally aimed at.

In any case, both concepts (needs and satisfiers) interrelate within a matrix according to existential and axiological characteristics, where a larger description of their conceptual structure is explained (see Table 3). Reviewing the matrix itself is illustrative and provides only an example of the multiple relations of elements that can be named and listed as satisfiers.

The needs and satisfiers matrix represents a fundamental tool of the H-SD and can be used for multiple purposes. It has been used in a wide array of usually participatory exercises, as a diagnosis, planning, assessment and evaluation tool. By filling out the different boxes of the matrix and by writing down the main satisfiers used to fulfil given needs as well as classifying those available satisfiers by their nature, the essence of different communities, cultures and societies may be highlighted. It does so from a systemic perspective, in line with our own conception of the *oikonomic* process as complex dynamic whole in which different social and ecological dimensions are interrelated. The matrix presents, thus, potentials and shortcomings of different development strategies and models. Moreover, as we suggest further below, this methodology can be enhanced and adapted in order to serve as a powerful development policy appraisal tool, as, a very interesting planning tool from the H-SD paradigm perspective.

Table 3. Matrix of Needs and Satisfiers (Max Max-Neef 1992b,206-7).

Needs according to existential characteristics Needs according to axiological characteristics	BEING (personal or collective attributes)	HAVING (institutions, norms, tools)	DOING (personal or collective actions)	INTERACTING (spaces or atmospheres)
SUBSISTENCE	1/ Physical health, mental health, equilibrium, sense of humour, adaptability	2/ Food, shelter, work	3/ Feed, procreate, rest, work	4/ Living environment, social setting
PROTECTION	5/Care, adaptability, autonomy, equilibrium, solidarity	6/ Insurance systems, savings, social security, health systems, rights, family, work	7/ Co-operate, prevent, plan, take care of, cure, help	8/ Living space, social environment, dwelling
AFFECTION	9/ Self esteem, solidarity, respect, tolerance, generosity, receptiveness, passion, determination, sensuality, sense of humour	10/ Friendships, partners, family, partnerships, relationships with nature	11/ Make love, caress, express emotions, share, take care of, cultivate, appreciate	12/ Privacy, intimacy, home, spaces of togetherness
UNDERSTANDING	13/ Critical conscience, receptiveness, curiosity, astonishment, discipline intuition, rationality	14/ Literature, teachers, method, educational and communication policies	15/ Investigate, study, educate, experiment, analyse, meditate, interpret	16/ Settings of formative interaction, schools, universities, academies groups, communities, family
PARTICIPATION	17/ Adaptability, receptiveness, solidarity, willingness, determination, dedication, respect, passion, sense of humour	18/ Rights, responsibilities, duties, privileges, work	19/ Become affiliated, cooperate, propose, share, dissent, obey, interact, agree on, express opinions	20/ Settings of participative interaction, parties, associations, churches, communities, neighbourhoods, family
LEISURE	21/ Curiosity, receptiveness, imagination, recklessness, sense of humour, lack of worry, tranquillity, sensuality	22/ Games, spectacles, clubs, parties, peace of mind	23/ Day-dream, brood, dream recall old times, give way to fantasies, remember, relax, have fun, play	24/ Privacy, intimacy, spaces of closeness, free time, surroundings, landscapes
CREATION	25/ Passion, determination, intuition, imagination, boldness, rationality, autonomy, inventiveness, curiosity	26/ Abilities, skills, method, work	27/ Work, invent, build, design compose, interpret	28/ Productive and feedback settings, workshops, cultural groups, audiences, spaces for expression, temporal freedom
IDENTITY	29/ Sense of belonging, consistency, differentiation, self-esteem, assertiveness	30/ Symbols, language, religions, habits, customs, reference groups, roles, groups, sexuality, values, norms, historic memory, work	31/ Commit oneself, integrate oneself, confront, decide on, get to know oneself, recognize oneself, actualize oneself, grow	32/ Social rhythms, every day settings, setting which one belongs to, maturation stages
FREEDOM	33/Autonomy, self-esteem, determination, passion, assertiveness, open mindedness, boldness, rebelliousness, tolerance	34/ Equal rights	35/ Dissent, choose, be different from, run risks, develop awareness, commit oneself, disobey, meditate	36/ Temporal/special plasticity

The human needs matrix represents a fundamental tool assessing different development strategies as well as helping different communities to gain self-awareness about their preferences in a given set of satisfiers and moreover the way these interrelate and affect each other systemically. By classifying and identifying satisfiers by the way each one affects the different dimensions of wellbeing, it helps to highlight the way specific social and cultural settings enhance or inhibit personal freedom, autonomy and wellbeing. Overall it allows to highlight peoples coherence between aspirations, practices and believes, as well as their structural adjustment to the social and natural environment in which and by means of which the development process unfolds.

Situational and Propositional matrixes: Contributing to H-SD original work.

As a way of enhancing this systemic methodology and simultaneously, enlarge its scope this paper presents a methodological extension of the H-SD traditional methodology. The aim is to propose an innovative tool for development-policy assessment and development planning practice, consisting basically, on the

elaboration of a 'Propositional Matrix' alongside the traditional 'Situational Matrix', as well as new numerical and graphical ways of presenting the final results. It must be noted that in this paper the extension will be introduced theoretically as a methodological contribution to the H-SD paradigm were results come from an hypothetic case study conducted through a desk review. As in the case of the original H-SD research and practices done so far, accuracy of the evaluation outcomes of this particular framework will depend mostly on information availability and extended participation with the interested stakeholders and communities.

As a first step, following H-SD's original methodology, a matrix relating fundamental human needs and the satisfiers chosen to attend them can be generated, according to the general methodology explained above. This matrix, which we will term "**Situational Matrix**"⁵, is built indicating most significant constrains and other concrete situations faced by the interested community. It will highlight as well positive and negative aspects of a given development model revealing difficulties, underestimation of dimensions, "problematic situation", potentials and 'overestimated dimensions'. In this sense the resulting needs/satisfiers matrix is like a picture of a given situation, showing how particular development patterns and strategies are enhancing or repressing people's wellbeing and potentials, as well as providing a picture of the ecological dimension of this particular development model by reflecting people's relation to their environment.

In addition to the extensive ways the results are presented within the original matrix methodology (quoting the main satisfiers which characterize given development models and patterns and classifying them according to their nature within the wider needs system), a synthetic numerical and graphical representation of the results is here proposed, indicating the degree of satisfaction of given needs at their different dimensions within the matrix. This way of presenting the results, by synthesizing the global result in numerical indicators, does not aim to reduce any dimension numerically, but only to complement the main results by providing a synthetic indicator. The idea of numerical and/or graphical representations is solely to help visualize in a synthetic way the main aspects of a given development pattern and should not mislead us into representing the numerical results as a 'precise' or 'objective' representation of reality. It has to be taken as what it actually is: an approximation to the complex, multidimensional development process and a complementary way of representing it within the broader H-SD methodology.

Assuming that all dimensions (Being-Having-Doing-Interacting) have equal weight and importance in order to satisfy a given fundamental need, an average indicator of the overall level of satisfaction of these needs may be calculated by taking the mean value of the degree of satisfaction observed for each need at these different dimension, each representing a 25% proportional part out of 100%.

Another improvement to the original H-SD methodology is the inclusion of a trend indicator. In this way, the "situational matrix" may be complemented by indicating expected positive or negative trends within a situation. Depending on the trends observed and/or experienced, the satisfaction of human needs could **improve** or **deteriorate** slightly or significantly, and will be expressed as follows inside each box within the matrix:

⁵ **Situational** means: the way in which something is positioned vis-à-vis its surroundings. The place in which something is situated; a location. It reveals position or status with regard to conditions and circumstances. Or the combination of circumstances at a given moment; a state of affairs. A critical, problematic, or striking set of circumstances (The FreeDictionary 2006).

slightly improve (+→) significantly improve (++→) remain unchanged (←→)
 slightly deteriorate (←-) significantly deteriorate (←- -)

This way of representing should help to get a more dynamic picture of the development dynamics. Thereby, even when a need fulfilment might be relatively achieved, the trend might indicate that either the mechanism, the strategies, the spaces and/or the incentives to enhance these satisfiers are actually pointing to a worsening or bettering of the situation, complementing the static picture given by the situational matrix. Adding a dynamic description of tendencies may be most important once it helps to identify aspects and dimensions which need to be given priority attention in order to reverse negative trends as well as enhancing those aspects and dimensions where a positive trend is already being observed. As a tool for policy appraisal, this methodology can be of great help by identifying those negative collateral aspects that the “strategy or policy” is aiming to improve as well as those positive aspects on which a successful development strategy could be build on.

Table 4. Sample Situational Matrix with numerical outcomes (Cruz 2006,165)

Needs according to existential characteristics	BEING (Personal/collective attributes)	HAVING (Institutions, norms, mechanism, tools)	DOING (Personal/collective actions)	INTERACTING (Spaces and environments)
axiological characteristics				
EXAMPLE OF VALUES				
Need “X”	% (←- -)	% (+→)	% (+→)	% (+→)
Fulfilment: total %	0/6= 0%	1/6=~33%	5/6=~83%	6/6= 100%
PROTECTION				
	People is not safe from displacement , cannot define livelihoods autonomously (displaced people not able to fish & harvest -relocation at infertile lands)	No institution to watch human security for community (food, work, housing, health and education threatened)	Family cohesion is strong, but still they search coherence with their cultural values to protect their identity.	No safe vital surroundings in resettlements (e.g) teenage pregnancy, drug use and prostitution.
Fulfilment : 33.25%	%17 (+→)	%33 (+→)	%83 (+→)	%0 (+→)

Technical Notes:

- Coloured Squares inside each box indicate proportion of fulfilment of the need
- Numbers expressed below each square indicate percentage of need fulfilment respectively according to and approximate proportion i.e [0/6, 1/6, 2/6, 3/6,etc...] Each column has equal value representing 25% of a total 100%.
- Arrows [(←- -)(+→)] indicate positive, negative or unintelligible trends
- The example below was taken from a case study in Brazil, assessing anti-racist policies and land property. Note how regardless of the low fulfilment of the need in some dimensions, the trend is although positive. This is due to existent information affirming changing patterns in many of these problematic situations. New laws and programs to support an action, participation, institutions being created, and so forth are all different types of satisfiers.

Elaborating the Propositional matrix

The next step, in order to turn the identified deprivations into potentialities, consists in generating what we termed a 'propositional matrix'. Following the same principles as for the situational matrix, the aim of this matrix is to provide a future picture or expected outcome of a given set of policies and/or development strategies. By helping to visualise these expected future outcomes, the propositional matrix may be used as a proposed policy assessment and planning tool. It may as well help local communities to explore where given development trends and/or proposed actions are leading, helping them to (re)orient their development pattern in a sustainable way.

In this propositional matrix, each square within the matrix will define one or more constructive or propositional satisfiers⁶ (therefore the name) identified in a given development strategy or plan, which may as well be being proposed by an external authority at the local, national or international level or by the local community themselves. In both cases, the aim is to facilitate the interested parties a way of assessing these policies or plans from a systemic, H-SD perspective. Depending on the contribution of the identified satisfiers to the holistic performance of the strategy or policy, these satisfiers will obtain a certain value responding to their contribution in fulfilling a given need. Thereby, information on the "potential achievement" of different proposed satisfiers can be obtained, helping to better establish an effective and holistic development strategy.

In this way, H-SD original methodology is expanded and may be used as a powerful evaluation tool, as well by the local community as by planners and general development agencies. By following H-SD approach, it helps to assess different policies and strategies in an integrated and holistic way.

In the same way as for the situational matrix, proposed satisfiers shown in the propositional matrix are classified as *singular*, *synergetic*, *destructive*, *inhibiting* or as *pseudo-satisfiers*, according to the way in which they fulfill human needs as shown in Table 5. In this logic, the **more** synergetic actions contained, the **best** chances the policy and /or the development strategy proposing this particular satisfier has to accomplish holistic outcomes. Notwithstanding, unless as for the situational matrix where an actual situation is being evaluated, in the case of the propositional matrix we are talking about expected future outcomes. This means that in order to evaluate different satisfiers, indirect information, desk reviews, benchmarking, knowledge gained from other experiences (as well in spatial, as in temporal terms), etc. will have to play an important role in order to get the needed information and insights in order to assess them. In both cases, participatory methodologies as those usually associated to H-SD practices, and the inclusion of an 'expanded peer community' as proposed by the post-normal science (Funtowicz, Ravetz,) will, in most cases, positively and definitively improve the evaluation outcomes as well as the resulting development strategies.

Once all satisfiers have been described and evaluated through both matrixes, these should be characterized as exogenous or endogenous. "Exogenous satisfiers", being all those that often are imposed, induced, ritualized or institutionalized (categorized as top-down satisfiers), whereas "Endogenous satisfiers" reveal choice aspects derived as a reflexive course within the community motivating bottom-up and

⁶ A **propositional** attitude is a relational mental state connecting a person to a proposition. They are often assumed to be the simplest components of thought and can express meanings or content that can be true or false. In being a type of attitude they imply a person can have different mental postures towards a proposition, for example, believing, desiring or hoping and therefore imply intentionality. Propositional attitudes are meant to reflect the world, some others to influence it (FreeDictionary 2006).

integrative processes (Max-Neef 1998a). Particular emphasis on the second category, is something H-SD is keen on achieving once they not only improve the evaluation outcomes and the effectiveness of the resulting policies and strategies, but are by themselves synergetic satisfiers of important human needs by enhancing participation, creation, identity, freedom, understanding and last but not least, the need for affection by the participants.

Table 5. Description of satisfiers characterization (Cruz 2006,169)

PROTECTION				
	S- autonomous self-defining	S- develop housing, education and health legislation to favour Quilombos. (promotion of customary law mechanisms)	S- Community advocating and campaigning <i>(should be in the right direction)</i>	S- special social re-adaptation programmes for the youngest <i>(difficult target group)</i>
	Fulfilment : 83.25% 5/6= ~83%	6/6= 100%	5/6= ~83%	4/6= ~67%
	Endogenous / Synergetic	Exogenous & Endogenous / Synergetic	Endogenous / Pseudo-satisfier	Endogenous / Singular
<p>All Synergetic satisfiers contribute to overall well-being and self-reliance of the person as they satisfy simultaneously other needs (e.g. affection, freedom, participation) In case were Pseudo-satisfier if campaigning last too long real actions for change will never come. They need compromise from government and institutions as well.</p>				

Technical Notes:

- Characterization of satisfiers is described in the second line of squares (these are classified according the Human-Scale Development description)
- Third line depicts reasons and other relevant notes explaining why satisfiers are classified as such.
- Example taken from case study. Evaluation of Human Development Policies from Brazil’s Human Development Report on Racism 2005.

Interpretative Analysis

Once the matrixes have been created following the exposed methodology, a series of charts can be generated, supplying additional information to support a larger analyses regarding the policy/strategy assessed as well as the development dynamics observed. These are particularly useful to identify characteristics (deprivations and potentialities) of needs and satisfiers in a synthetic and graphical way. The tables below are only a few examples of the type of interpretative charts that could be drawn demonstrating contrasted scenarios.

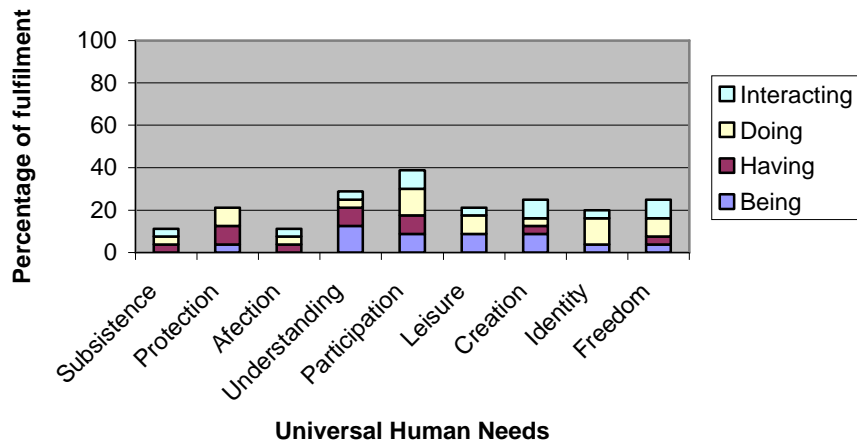


Figure 2. Situational Matrix (Cruz 2007,176)

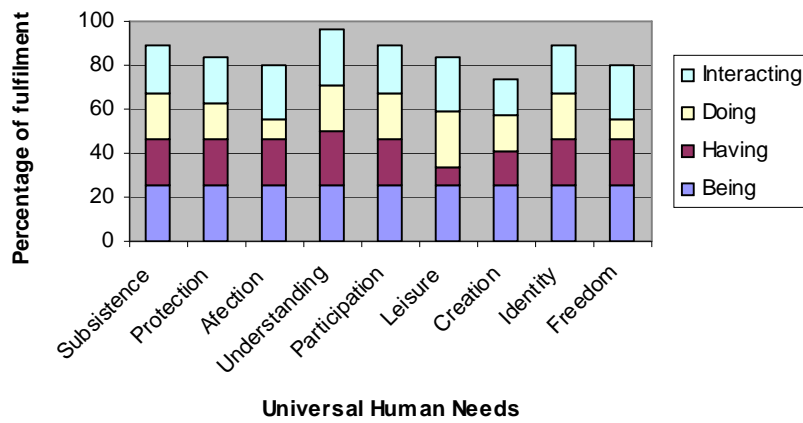


Figure 3. Propositional Matrix (Cruz 2007,176)

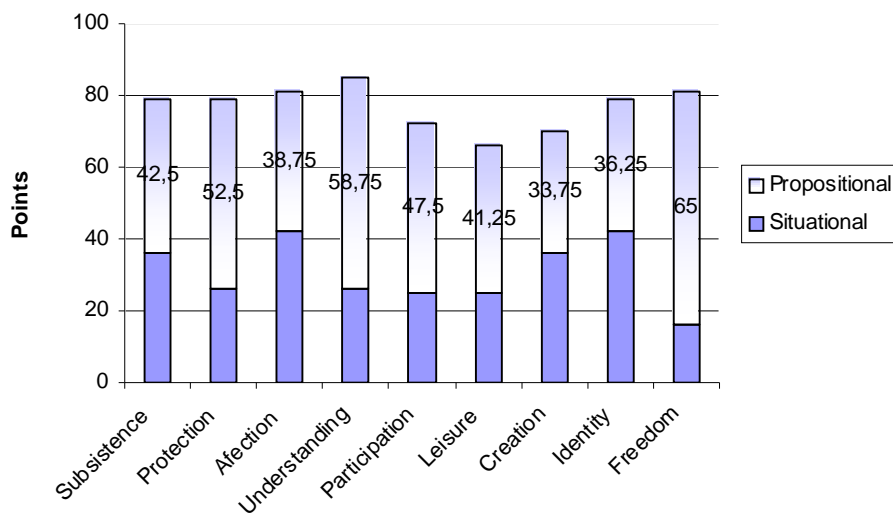


Figure 4. Estimated improvement in percentage points

(comparing both matrixes) (Cruz 2007 p.180)

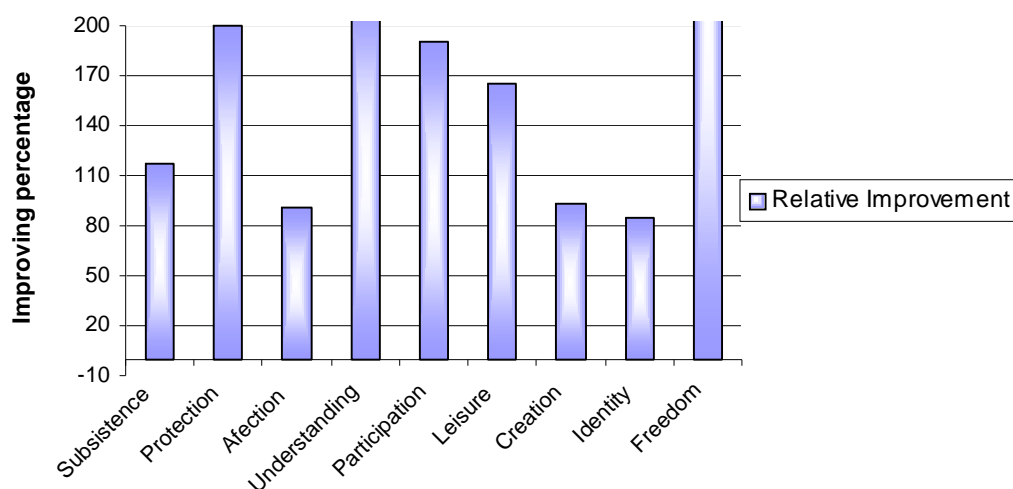


Figure 5. Estimated relative improvement (in Propositional Matrix). (Cruz, 2007 181)

Calculation of the *estimated* and *relative* improvement in percentage points can be obtained by taking the ratio between the values found comparatively in the propositional and the situational matrixes. Other possibilities consist on representing separately the contribution of the different dimensions fulfilling different needs, highlighting thus deprivations and potentialities in terms of these different dimensions. Moreover, improvements and/or worsening of given dimensions and/or trends may be calculated by repeating the evaluation at different time periods. This could be done by comparing the situational matrix at time t and the situational matrix at time $t+n$. In the same way, present policy outcomes and development strategies effectiveness may be assessed by comparing the outcomes of the situational matrix at time $(t+n)$ and the expected results which had been estimated in the propositional matrix for $(t+n)$ at time t . Differences in these results may give important feedbacks not only on the estimation procedures used to establish the propositional matrix, but about the way different development policies and strategies have been implemented, helping to review them if needed.

As it has been repeatedly said, all these numerical and graphical outcomes have a didactical purpose, helping to visualize and better grade the different dimensions of the studied development dynamics. They should not be misread as precise results, being just a complementary tool to the overall evaluation practices.

Concluding Remarks

The main core of this proposed extension of the H-SD methodology is our interest in putting forward a new and creative evaluation tool. The aim is to help/assist institutions working with policy-making processes related to development and social issues as well as the communities entailed by enhancing and complementing the H-SD originally proposed method. Tackling policies and development issues in holistic and systemic views implies long and certainly complex valuations and processes which, ideally, should be as inclusive and participatory as possible in order to improve the available information, commitment and effectiveness of the proposed changes. We have, so far, simply shown the methodological aspects of these procedures in line with

the ones proposed by the H-SD. The purpose of this work centres on the **demonstration of the use** of a particular **evaluation tool** since, once again, more accurate outcomes could only take place when the exercise is conducted in a real context and through multifaceted participatory appraisals. In this regard, we hope that our contribution enhances holistic assessment practices and expands the H-SD methodology applications to a wider field.

Indeed some other examples could be drawn depending on the case study assessment. So far, two different evaluations have been conducted (on Brazil and Nepal HD policies) through desk reviews giving wide evidence on how Human Development Policy evaluations could benefit from this exercise (Cruz 2006,2007 forthcoming). Yet our intention is to communicate the attributes of this application to extend the usage of this method to other fields of study and other policy-making processes.

Manfred Max-Neef has defined himself as a converted economist - calling himself a *barefoot economist* -. This was due to the gave up of many of his ideas when he perceived how “economics, originally the offspring of moral philosophy, lost a good deal of its human dimension to see it replaced by fancy theories and technical trivialities” (1992a, 20) His writings recall on the dismal individualism and apathy that human beings were entering into in the middle of the so-called development era where the inevitable demobilisation and the continuous search for answers lead humanity into what has been named as ‘the crisis of utopia’⁷ utopia meaning, “not only the search for a society that is possible, but for a society that is, from a humanistic perspective, desirable” (1992a,54). In face of that crisis, he advocates for a systemic view of the economic process, much in the line of Aristotle’s original view of the *oikonomy* and hardly at ease within the narrow chrematistic limits in which modern economics has been confined.

The H-SD approach represents an important attempt to tackle development issues from a humanistic and systemic perspective. It is considered an important contribution to rethink mainstream development strategies and approaches, situating once again ethical and esthetical issues at the centre of the development debate. It aims at looking for ways to enlarge well-being and human development dimensions by revealing how human beings establish their relations with their social and natural environments as sentient and self-reflective beings, continuously re-enacting their biological, social, cultural and spiritual needs in a systemic multidimensional way. If people develop themselves, according to the relations maintained within their environment, they achieve interaction at an *optimum* dimension but also at a *critical* one. According to Max-Neef (1992a) the former, ‘humanizes’ as the latter, ‘alienates’. In the first, people are able to achieve a sense of identity and integration, acknowledging the effects of whatever she or he does and decides. Within the *optimum* dimension, development of people is possible and a dynamic equilibrium takes place. People feel responsible for the consequences of their actions within their environment, and this can only happen if the dimension of this environment remains within a human scale. On this dimension, people can only choose to endorse their individual integrity and resigns to letting others act and decide for them. But within the *critical* dimension, development of objects takes place where consequently people become affected of large dimensions and are no longer able to identify their own needs. Therefore “they participate less and less allowing themselves to be led more and more” (Max-Neef 1992a,133).

Embracing the H-SD principles and methodology, ours, is a modest attempt to complement it by putting forward some additional tools which may help to represent and understand better the complex and multilayer reality within this systemic and humanistic perspective. The development of *Situational* and *Propositional* matrixes intend to give a constructive and dynamic picture revealing changes between one and

⁷ The fact that human beings are inevitably losing the ability to dream and imagine.

the other; emphasizing the existent potentialities within a given strategy as well as areas where deprivations on certain dimensions (relevant to human well-being) have been undermined.

The main core of the here presented methodology is to put forward alternative and creative evaluation tools which might help and assist institutions working with well-being strategies and other related development and policy-making processes, as well as interested people and communities alike. Policy and development strategy evaluation implies a complex endeavour to identify either synergetic as well as destructive initiatives, enhancing or hindering certain policies from having a positive impact in the short or long term. Consequently, the method aims to be a user-friendly tool where a series of instruments help policy-makers and interested people alike visualize and understand well-being attainment as a multidimensional aspect of life. Due to its systemic, multidimensional and often contradictory character, development strategies have always been difficult to operationalize and furthermore to apply in policy-making issues.

Human action is political in the sense of choosing between different actions according to our values and preferences and contrasting them with the expected outcomes of those actions. As stated by Stahel et al "it is the way the political power is distributed and how the generation and distribution of information (and thus values) within a given society happens which, at the end, will determinate the individual's capacity to shape and participate, according to his own aesthetical and ethical sense, in the sociocultural dynamics of the society." (Stahel et al. 2005,78). In this sense, the evaluation tool here exposed is intended to assist this action by providing information about different development realities and strategies within a humanistic and systemic framework reaching beyond the narrow common chrematistic framework and aiming to recover the *oikonomy* as the art of living and living well from the modern economics' grips.

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