

Sustainability: Importance of social networks in the decision-making processes.

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Abstract: The involvement of state organisms and local communities in the processes of development is nowadays a priority supported by the perspective that decisions should be taken as close as possible to the affected citizens (the subsidiary principle), as well as by the principles of local participation and decentralisation.

Keywords: Social Networks; Governance, Sustainability, Participation, DPSIR

Nowadays, the concept of sustainable development has inscribed in itself the linkages of economy and environment because the societies base their growth in the extraction, transformation and consumption of natural resources. Therefore, sustainable development demands an integrated and interactive approach that allows for the understanding of the complex relationship between society and nature in respect of human rights, and assuming that environment is one vital dimension of the future of the human kind (Lourenço, 2001).

Sustainable development is being seen as the basis for a genuine balance between economic growth and environmental values. However, to achieve the goals of sustainable development it is comprehensible that “...*economic growth must remain a legitimate objective of national governments and the world community...*” (Pearce & Warford, 1993). Nevertheless, it is clear now that the former models to pursuit economic growth, which don't give the adequate consideration to the environment, are unlikely to be sustainable. In fact it is important, at the same time man develops technology, which can enlarge the limits of the carrying capacity of ecosystems, to reduce, by means of effective policies, the patterns of consumption and to adapt practices of conservation of natural resources (Bartelmus, 1999).

The idea of sustainable development “...*emphasizes the diversity of societal paths of*

development, depending on their particular cultural or political as well as their ecological starting points...” (Becker, 1997). In any case, the concept of sustainable development cannot avoid the inherent ambiguity of the term development that means a model of society, i.e., the generalization of the patterns of society built by the western countries (Lourenço, 2001).

For this reason, and without rejecting the concept of sustainable development, some authors suggest the use of sustainability, as a concept, because it travels with rather less “political baggage” (Paelke, 1999). As Nelson Lourenço (2001) states, the idea of sustainable development represents a positive and unarguable theoretical and conceptual leap and a valuable contribution to the analysis of economic growth and development, insofar as:

- It introduces the idea of strong and complex relationship between economic growth and environment, drawing attention to the need for conciliate the conflicts between the environmental, economic and social dimensions of sustainability.
- Unlike the Club of Rome Declaration, it asserts that “zero” economic growth can be as harmful to the environment and uncontrolled economic growth.
- It introduces the idea that the fight against poverty, and for social justice and quality of life are essential aims in order to ensure

POLICIES AND TOOLS FOR SUSTAINABLE WATER MANAGEMENT IN THE EU

VIU, Venice International University, Island of San Servolo, Venice

November 21st-23rd, 2002

sustainability in environmental, economic and social terms.

- It asserts the idea that sustainability is not a linear process and cannot be gauged against a single and universal development model.

Even if it is not easy to apply these principles, the environmental, economic and social costs resulting from the degradation of natural resources reveal to us that the application of these principles should not be seen as impossible either.

1. SUSTAINABILITY AND GOVERNANCE

In a context of economic globalisation it is clear that the linkages of economy and environment, as well as the environmental impacts, are not limited by the boundaries of nation states. Therefore, it is assumed that to correct and solve the environmental problems it is necessary, not only, to correct the economic distortions associated to the inequity of the distribution of benefits resulting from the uses of natural resources, but also to achieve better processes to engage individuals and institutions, at global and local level, in governing themselves. Nowadays the systems that society has developed for governing itself, which are generally based in the nation state, become increasingly complex, and it seems necessary to discuss the basic structures of governance, in order to manage the conflicting and changing economic, social and environmental requirements of modern governance systems. Moreover, individuals, households and communities are seeking greater control over their own destinies, while the boundaries between the public and private spheres are continually shifting.

In the definition of UNDP (1997), governance is “...*the exercise of political, economic and administrative authority in the management of a country's affairs at all levels. Governance is a neutral concept comprising the complex mechanisms, processes, relationships and institutions through which citizens and groups articulate their interests, exercise their rights and obligations and mediate their differences...*”. According with Smouts (1998), governance is neither a system of rules nor an activity; it is a process based on compromise, which involves both private and public actors. This process is not necessarily formalised, and is generally based on an on-going interaction. But good governance depends on the legitimacy of the political system and on the respect shown by the people for its institutions. It also depends on the capacity of such institutions to respond to problems, and to achieve social consensus through agreements and compromise.

Governance arises as a key issue to the implementation of sustainable development. However, the creation of appropriate institutions to promote socio-economic equity and environmental sustainability it is till today one great challenge. These new institutions should be able, by the participation of all legitimate stakeholders, to allocate rights and enforce responsibilities for environmental management at the appropriate level: local, national, regional or global. Governance refers also to the indispensable promotion of constructive interactions among the different levels of governing. Also the increasing transboundary impacts of environmental degradation imply the recognition of the need for cross-national cooperation.

Rosenau (1995) points out that a myriad of governance systems can be found at various levels. Thus, the increasing interest to study not only transnational corporations with global reach, but also transnational environmental groups, with global worries (Young, 1997). The study of the dynamics of global environmental governance concentrates on institutions that arise, and that can be potentially created, to address transboundary environmental challenges.

2. DPSIR APPROACH TO UNDERSTAND THE CAUSES, IMPACTS AND RESPONSES TO ENVIRONMENTAL PROBLEMS

The DPSIR (Driving forces, Pressures, State, Impact, Response) framework, developed by the European Environment Agency after the OECD's Pressure-State-Response framework, is being suggested as an advantageous method to understand the environmental inter-linkages, highlighting the connection between the causes of environmental problems, their impacts and the society's response to them, in an integrated way. This framework aims at analysing the cause-effect relationship between interacting components of complex social, economic and environmental systems and at organising the information flow between its parts. It structures the environmental information in five groups connected by two types of links: a direct causal chain (Drivers, Pressures, State, Impact, Responses); links between the Responses and their targets (Drivers, Pressures, State and Impacts).

According to the DPSIR framework, social and economic activities (driving forces) are in the root of emissions and discharges of pollutants or are consuming natural resources (pressures). As a consequence, the life conditions and quality of the environment (state) change, which leads to environmental effects (impacts) on the ecosystems.

POLICIES AND TOOLS FOR SUSTAINABLE WATER MANAGEMENT IN THE EU

VIU, Venice International University, Island of San Servolo, Venice

November 21st-23rd, 2002

These impacts may bring forth various forms of societal measures (responses) that feed back on the driving forces, or directly on the state or the impacts, through adaptation or curative action. Responses should be fast, as their aim is to change socio-economic systems in order to reduce the pressures causing negative environmental changes. They should demonstrate the efforts of society (e.g. Government, institutions, politicians, decision-makers) to prevent or to reduce the negative effects of state changes. For that reason, and in the frame of DPSIR, the responses must be connected with the networks of social actors present in the territory.

3. LOCAL PARTICIPATION AND SOCIAL NETWORKS

According to Cernea (1985), participation has to do with giving people power to mobilise their own capacities, be social actors instead of passive subjects, manage resources, make decisions and control the activities that affect their lives. This type of co-management requires power sharing between government agencies and citizens with a stake in the common pool of resources and territory. It emphasizes a bottom-up rather than top-down process of participation and implies user groups playing an active role in decision-making. The local communities of stakeholders should play a central role in identifying resources, defining development priorities, choosing and adapting technologies and implementing management practices.

The participation of local communities involves the different stakeholders present in the region, and therefore applies to an integrated, multi-level and multi-disciplinary approach. The participation in the management of territory and natural resources is justified by the benefits to local communities resulting from the proximity of the local stakeholders to the resources, which could ensure a more adequate use; the expected increase of resource flows to rural populations, which can contribute to alleviate poverty, diversify benefits and achieve a more equitable income distribution; the flexibility of the process, which can ensure a better adaptation to the context of uncertainty and change (Brown, 1999). However, integrating local people in the decision-making processes is not always a successful process. They may participate in the decision-making process but they must also benefit directly from the funds generated by the decisions (Cater, 1992).

The community of individuals and organisations among whom exchanges take place is based on shared norms of trustworthy behaviour. In fact, "...people belong not only to groups but to

networks as well, the groups being the reflection of the structural relationships that tie the individuals together..." (Degenne & Forsé, 1994). A basic assumption of the relationships formed to provide a network is that the social actors in a network are mutually dependent upon resources controlled by each other, and that there are benefits to be gained by pooling their resources. In a relatively static way, networks can be defined as: "...systems of social actors that propagate among themselves information and resources across structures with strong connectivity with the objective of making common a variety of their internal environment. Aside from this, it is observed that the interactions with the external environment of the network arise from structures with a lesser degree of connectivity..." (Lemieux, 1999).

In the decision-making process, networks function as an essential tool in terms of transmission of normative systems, which will regulate the decision and allow for identification of existing problems and potentialities, evaluation of the validity strengthen of proposals for intervention, and also understanding interactions and conflicts among the various social actors, whether individual or collective.

Local networks are integrated into larger networks (regional, national, and even international). Nevertheless, the networks that are established within the context of the decision-making process are relatively centralized. Thus, it can be observed that the transfer of resources and information follows a chain, somewhat hierarchical, which encourages top-down communication and makes the reverse more difficult. It is therefore noted that horizontal communication among the various levels of the network is of lesser importance, although not absent. This fact indicates that we are not in the presence of a *perfect network* in which all the actors are at the same time transmitters and receptors of equal importance.

There is also a need to understand in what way the national and supranational normative frameworks influence the behaviour of the network. They are restrictions that are imposed in general from the highest levels of the social network and to which the lowest levels must adapt. Nonetheless, depending on the needs, expectations and conflicts of the local actors, protest movements are sometimes generated, encouraging certain decisions and opposing to others. The flow of influence of these external factors has a direction opposite from that of the normative framework: bottom-up, instead of top-down.

The way societies organise themselves and establish rules to govern their actions will play a major role in determining whether they move

POLICIES AND TOOLS FOR SUSTAINABLE WATER MANAGEMENT IN THE EU

VIU, Venice International University, Island of San Servolo, Venice

November 21st-23rd, 2002

toward more sustainable paths. But good governance requires reforming decision-making processes to increase opportunities for public participation, including a wide variety of activities ranging from consultation hearings as part of an environmental impact assessment, to co-management of natural resources. Therefore it requires public debate and problem-solving capacity (Risse, 2002).

Decades of human pressure on natural resources resulted in a new approach to development, which also points to the future but, contrarily to prior approaches, "...to a bleak future of scarcities rather than a bright future of progress..." (Sachs, 2000). Development is only possible when economic fairness, social equity and environmental sustainability are guaranteed. To find solutions to these problems is one of the main challenges of our society.

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