

Interdependence in Social and territorial planning theories and sustainable development principles

By:

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Abstract

This paper intends to deal with interdependence relationships between social and planning theories and the environment principles in a context of a sustainable development. Within any community, people through their activities interact with the physical environment, giving to each region its characteristics and specificity. Then, the management of the activities and the environment needs regulations because the socially unsatisfactory outcomes of the development process give rise to need of intervention of government. This intervention is enabled through the objectives and the implementation of development planning which, in a context of sustainable development, will have to incorporate social and economic and natural environment requirements. Both the management and the planning are closely interrelated in functional terms and complementary. Moreover, the environmental assessment will contribute to the improvement of the planning assessment by integrating the output into development planning and the development control decisions. All this requires a systemic approach to deal with some regional problems of development and of environmental protection. But potential conflicts between the objectives of management and planning or between development and environment principles, can occur.

Introduction

From many years, the development process in Europe is justified by some policies of intervention and/or non-intervention more or less pushed and encouraging. More recently and increasingly, with the environmental preoccupations, those policies are changing their course and in a dialectic manner. In order to understand the impacts on populations, their areas and to adapt intervention policies to new recompositions in a context of sustainability, different poles of knowledge that have to gain in synergy are call upon their services.

1. Problematic: context of environmental protection and of sustainability

From Rome treaty, one of the main objectives of the Common Agricultural Program was to increase the agricultural productivity; this gained of one socio-structural policy coordinating the structures of adaptive and modernising process: agricultural professional training, production techniques, farm sizing, regroupings of lands,...In support of this agricultural policy, are the market and price policy to improve farm income. But if the call of those policies is accepted with the following productivist development pattern, nevertheless, today people are at a double spewing out of this acquired value from a recent past. The causes are that, on the one hand, the adoption of those behaviours is at the starting point the environmental damages and problems, where the made policies are in conflict with the farm space, the ecological patrimony, water resources, etc. On the other hand, against the success of the productivity increasing, one of the former problems faced by the Common Agricultural Program is to reduce the structural agricultural surplus, to emend areas' imbalances generated by the productivist logic, in realising restrictive measure: arable lands freezing, extensification support, subsidies policy emended by the policy of quotas and price

decrease, support policy to fragile areas. In other words, is the policy of development limitation. This is clearly stated by the European directive 797/85 and where the problem of the form of valorisation of territorial management for the environmental protection becomes an object of social debate that commit a multiplicity of social actors. There, one should determine the contribution of the different actors, the modalities of negotiation of the formulated objectives.

It is in the same context and in order to understand the marginalization process in rural areas we realize that Mormont (1997) indicated that one of the basic characteristics of farm lands is “they will become in most parts multi-functional” because until now, farmers had for the use of farm land at their own, as kind of monopoly. “That monopoly is ended” he stipulated. European Directive of “Nitrates” “will impose restrictions” on farm practices and farm lands. In addition, with the development of leisure and tourism, rural areas will gain other activities and functions. Those new functions, inevitably, not only will create problems to farmers, but also will constitute some opportunities of rural development and to the renewal of European agriculture (Mormont, 1997).

Indeed, the noticing is everywhere generalised as Lankhorst and al (1994) indicated it: “The increase in infrastructure and of the urban sprawl...are causing fragmentation of landscape and a loss of habitats. The historically strong relationships between the biotic site conditions, the biodiversity in plant and in animal species and the manmade landscape is weakening. Consequently, the possibilities to experience the full range of the continuum of culture versus nature in the landscape are decreasing. Furthermore the ongoing processes of acidification, eutrophication, contamination and the sinking water table (due to water management for farming and drink water pumping) are threatening the present environmental and nature qualities. The drastic decline of the diversity of species expresses the deterioration of the environmental conditions”.

All those situations of the environment degradation and remedying policies demand a comprehensive approach and condition the land use planning process. It is to that we turn here.

2. Theoretical background of social, economic and planning of land use

2.1 Social theories

2.1.1 How do the environment is perceived?

The environment gaining values

The environment has many dimensions: physical, economic, social, cultural and institutional. This environment surrounds us continuously throughout our lives. “We cannot be separated from it. It is a direct result of the impact of human social, economic, and cultural values upon non-human ecosystematic landscapes”(Eckbo, 1975). At any given and place, the landscape expresses directly the values that have shaped human development, modification, change, or replacement of the original nature.

- These values begin with the fundamental needs for food, shelter, and clothing;
- They expand with the growth of technical and cultural concepts, which make possible the improvement, refinement, and enrichment of those commodities;
- They expand also with the development of surplus and mass production and the resultant opportunities for trade and the exploitation of labour and markets;
- And they expand still further with the growth of family, group, regional, national, and international community consciousness and cultural aspirations.
- New environmental developments express directly the values and aspirations of those who produce them. As those developments age, they gradually become elements of local cultural

history. Newer developments express newer values which may be more or less different from those which preceded them, depending on the rate of cultural development.

- That “Culture embodies the inspirations and aspirations of local, regional, and national communities, and the direct, more or less refined and styled expression of their philosophical attitudes toward landscape-environmental qualities. The physical landscape, wherever it has been so changed by people as to make that change visually apparent, is a direct cultural expression, even as are the various arts and sciences” (Eckbo, 1975:34).

People's activities require institutions (organizations style of management), ranging from highly centralized direction to considerable freedom for initiative, innovation or self-management. People engaged in these activities have a physical environment, both natural and man-made, with their institutions for their organization and management. The physical environment and activities will interact. Correspondingly, the management of the activities and environment will interact with government. Good housing will help good family living. The absence of schools and communities centres will stultify education and recreation (Lichfield, 1996). All these influences will affect the way of life and thereby people's perception of the quality of that life (Perloff, 1969). They are concerned not simply with what they do but how they do it. “In this a critical factor is the way in which that life is managed and governed : the greater the degree of self-management, the greater the likelihood of people responding quickly to external changes and adopting solutions that suit their own perception of their needs and values. A high quality of life gives people, whether as individuals, families or groups, the opportunity to fulfil themselves as human beings. For this they need not only an appropriate standard of life but also appropriate management of their environment in all spheres (social, economic, institutional, cultural, physical) and appropriate administration by government” (Lichfield, 1996:2-3). It is through this interaction of the man-made fabric and human activities that cities, towns and villages change, grow and decline, through what is known as the *development process*.

Rural change process as a social representation

As Ilbery (1998) states, rural change is multidimensional and the countryside in developed market economies can no longer be viewed as being on the margins of economic, social and political change... The countryside is increasingly an area of consumption as well as production and the switch away from a productivist philosophy means that farmers and other primary producers are looking for new ways of generating income. In reference to Cloke and Milbourne (1992:360), “there is no longer one single rural space, but rather a multiplicity of social spaces that overlap the same geographical area”; and they assume that traditionally, rural spaces were defined in terms of what were seen as distinctive rural functions. Other see that *rural* as a social representation of reality, or a mental construct. That *mental construct* focuses on how the rural is experienced by those individuals who integrate visions of rurality into their everyday lives (Hoggart et al., 1995). From the four approaches identified by Halfacree (1993)¹ in defining rural (descriptive, a locality, socio-cultural, social representation) the two too later could gain here attention.

In fact, the *socio-cultural* dimension assumes that population density in some way affects behaviour and attitudes. For Pahl (1966) there was no simple dichotomy between urban and rural; indeed, there are (increasingly) urban aspects of rural society which distort any clear relationship between place and society. Rural as *social representation* relates to lay discourses of rurality and “the words and concepts understood and used by people in everyday talk” (Halfacree, 1993; Jones, 1995). In this approach, attention turns to how the rural is perceived; it is a social construct because the emphasis is placed on how the occupants of rural spaces construct themselves.

Pierce (1996) sees the social construction of rurality as having a major impact on research questions, policy processes and the sustainability of rural environment. It is at local scale where the

¹ See Ilbery, B. 1998, p.2.

dominant meanings of rural are negotiated and where the differences between individuals and groups are highlighted (Litle and Austin, 1996).

For Postman and Weingartner (1969), we do our perceptions from the things around us. We create them ourselves by filtering our encounters with what is out there through our nervous systems. “*What we perceive is largely a function of our previous experiences, assumptions, and purposes*”. We are unlikely to alter our perceptions until and unless we are frustrated in our attempts to do something based on them. “*The meaning of a perception is lies in how it causes us to act*”. Perception conceived as the making of meanings becomes less static, and more oriented toward process, change, and unique individuality. People relate to their environments through *continuing reciprocal transactions*, which can continue to produce new meanings.

2.1.2 The changing nature of areas, a process without government intervention

Lichfield (1996) analysed the adaptation of the space through development process without government intervention, as *life-cycle*. He stated that the built environment typically comes into existence on open land which is used for some form of agriculture, or perhaps of some transition between agriculture and urban use. The earlier use is displaced so that the vacant land becomes a development site. Duration construction, natural or man-made resources are destroyed, and environmental nuisance will arise (in noise, water, air). On completion of construction, the first life-cycle of the built fabric starts, with a use associated with the purpose for which it was designed (dwellings, manufacturings, retailings, etc.). More over, he argued, change in human activities will tend in the first instance to be accommodated within the existing fabric adapted as appropriate through refurbishment or other kinds of renewal, perhaps for a brief time and perhaps over a long period. At that time the physical stock reflects the then-current demands on it. But, it may not do so later, following changes in location of activities or in means of accessibility of people to physical stock.

Eventually the interaction cannot be quantitatively and/or qualitatively accommodated in the existing or adapted human urban fabric, giving rise for the new physical stock on open land, either infill within the urban fabric or on its edge, which we call new urbanization. The adaptation of the current stock and the new development are in competition with each other in satisfying the common need for the matching of the fabric to contemporary requirements. The competition is not even, for the provision of new stock on open land is generally easier than renewal, in time, complexity and more profitable use of resources. Lichfield (1996).

Over this life, the use and the conditions of the fabric, as a whole or in its separate parts, or within parts, do not remain constant. Maintenance and renovation lengthens physical life, but after a certain point, before its reaches exhaustion, the fabric becomes obsolescent. Then some form of renewal (in form of rehabilitation or remodelling) is carried out, enabling the fabric to enter a new stage of life. This process will be repeated, once or more, before the degree of obsolescence in such that reconstruction, redevelopment or abandonment takes place. This is *beginning of a second life-cycle on the original site* (Lichfield, 1996).

As Lichfield (1996) highlights it, from this description of the physical development process, it is apparent that they are many parts of actors space or actor networks involved: there might be the original landowner or any subsequent purchaser of the land; the public or private providers of infrastructure; the private or public developers of various kinds who undertakes the process; the buildings industry, including firms, labour, those supplying the material, and those producing them; the institutions lending finance; the ultimate occupiers, whatever the tenure; and the ultimate consumers of the services provided, e.g. shoppers via retailers. And all these parts are supported by an array of professionals: the town planners, economists, surveyors, valuers, financial analysts, architects, engineers, quantity surveyors; lawyers, estate agents, and so on (Esher & Llewelyn-

Davies, 1968; Fabrick & O'Rourke, 1982; Knox, 1989)².

It is almost in the same words that Ilbery (1998) analysed the rural change. For him, in rural areas case, those areas are dynamic and constantly changing in response to a wide range of social, economic, environmental and political factors. But in addition, he shows the influence of the national and international on the local area. He sees economically that rural areas are no longer dominated in employment terms by farmers and landowners. Agriculture is being restructured and farmers are having to adjust to national and international processes of change which are reducing the importance of the previously dominant productivist ethos. This adjustment often takes the form of generating new sources of income from non-agricultural activities, either on or off the farm (Bateman and ray, 1994; Ilbery et al., 1996).

Indeed, rural areas are now important elements of international economic arenas and among the leading investment frontiers (Clout, 1993). (New uses of rural space as recreation, tourism, environmental conservation and retailing, are creating different power relationships and a range of development trajectories in the countryside; Murdoch and Marsden, 1994)³.

Many of these economic transformations in rural areas are related to social changes associated with the in-migration of particular groups of people (Ilbery, 1998). "*Processes of rural change and class formation are inextricably bound together*" (Murdoch and Marsden, 1994: 231). Once installed, the service classes exert a strong influence over the social and physical nature of the rural. They dominate the housing market, pushing up prices and thus excluding many original families, who are driven into key settlements and urban areas. The villages become gentrified and the service classes gain increasingly control over local development and protect what they perceive to be their rural idyll, which is not usually related to agriculture. *Indeed, they may be conflict between the different fractions of the service class.* Different social groups occupy distinct spaces in villages and other social groups who may wish to move into rural areas, such as New Age travellers and ethnic minorities, are not made welcome. Also, Mormont (1990) has highlighted the changing relationship between society and space in the countryside. *The increasingly mobility of people, goods and information has helped to erode local communities and open up the countryside to new uses.* This in turn has led to the creation of new power relationships and "actor networks" which are likely to be dominated by external rather than internal linkages (Munton, 1995; Murdoch and Marsden, 1995).

2.1.3 Theories of rural deprivation

Furuseth (1998:241) identified that there two very different conceptual theories that have been advanced for explaining deprivation in rural area (the case of rural Britain): the sociological and the planning explanation.

The first, *the sociological explanation*, "explains rural deprivation in the context of the process of rural repopulation marked by the replacement of the traditional farming community with a new community of non-agricultural ex-urbanities, often retirees and commuting workers. The newcomers are generally affluent and cause a reallocation of political and economic power and social status. Customary social relations are disrupted and low income, low status members of the community are further marginalized. This social shift leads to changes in service provision, local economic structure and general social amenities. Resources-related deprivation among the rural working class and the is exacerbated by the higher living expenses driven by increased costs of living and higher tax rates. Concurrently, the change in community structure leads to deepening qualitative deprivation, altering traditional social relations and subordinating disadvantaged populations. The sense of knowing one's place in the community and belonging to the community is diminished". For the rural underclass, geographic isolation and lack of access to economic and educational resources are fundamental barriers to improvement. Consequently, the best chance for escaping the rural underclass is migration. As Ducan (1992: 131) observes, 'the poor only move up

² Lichfield, 1996

³ see Ilbery, 1998, p.4.

by moving out.

The second, *the planning explanation* is “an alternative theory of rural deprivation is posited in work by Moseley (1979) and Shaw (1979). Labelled a planning theory of deprivation, it draws heavily on locational theory”. “Relative geographical isolation imposes economic and social costs on immobile populations. Differential accessibility leads to intracommunity deprivation or broader place-based deprivation”. And “in this context, deprivation is conditioned by decision making processes beyond the local level. Government planning schemes and locational decisions by private firms which affect employment and service provision can enhance and reduce the opportunity for betterment. It follows, therefore, that planning authorities using their control over development patterns and infrastructure possess the opportunity to distribute resources equally and to steer private capital investment. This would create enhanced accessibility, increased rural opportunity and diminished deprivation”. In reference to Moseley (1979), Shaw (1979) and McLaughlin (1986) Furuseth (1998) arguments that state planning organizations can operate in reverse, causing a “planned deprivation”. Increasingly, rural services are pulled back as decision-making processes are focused upon collective resource demands and the higher costs of providing rural services. The most geographical isolated rural communities and politically impotent rural populations receive the least consideration and become more inaccessible. Rural land-use planning processes and environmental conservation are seen as contributing to the problem, not simply because they ignore the distributional equity questions, but because they support the hegemonic control of the property-owning class against the needs of the poor and the disadvantaged (Furuseth, 1998).

2.2 Economic theories

2.2.1 Economic value of lands

Prior to the time, land was valued primarily as a factor of production. Wild, undeveloped land had little no value of it itself. Land became useful as it became productive of food, fiber, and minerals, or as it was prepared to accommodate homes and the structures of industry and commerce. The question facing the economist was “*what is the value of the contribution to the productivity of our economy?*” (Whaley, 1975:39). The amount of this contribution was determined by two quality of land: its *fertility* (or richness in the case of mineral-bearing land) and, its *location*.

The roots of the theory of land value based on its fertility are found in the works of Ricardo, who explained increasing increments of land value, which he called rent, on the basis of relating the fertility of various parcels of land. The greater productivity of the more fertile land generated additional profits (rent), which were taken as the value of land (Whaley, 1975).

He also indicated that it is in a similar manner the location theorists attributed value to land on the basis of increased profits that resulted from locational advantages. Reduced transportation cost associated to the owner. Thus the measure of land value was the additional profit generated because of preferred locations. The early location theorists attempted to explain land use on the assumption that activities would take place so that the combination of uses would maximize the profits generated from the land. Von Thünen is the pioneer of that locational theory.

Despite the basic understanding enabled by those theories on how lands gained values, not only have these efforts been of little avail in the forecasting of land values or locations of particular land uses; they have the additional shortcoming of treating only the private costs and benefits associated with land use and ignoring the substantial social costs and benefits resulting from particular uses of the land

2.2.2 The post-productivism

Theories of the development of contemporary rural space are those they term for the “*post-productivism countryside*” (Marsden; 1998). In fact, since the early 1980s it has become

increasingly clear that rural areas, have been caught up in a much more and complicated national and international political economy: a period of social and economic restructuring which has become highly diverse and fragmented (Marsden et al., 1990; Marsden et al; 1993). The central organizing frameworks established in postwar times, themselves based upon national strategies for urban as well as rural (and urban) restructuring process which has been the both economically and socially driven. Rural space becomes a highly elastic phenomenon, constructed out of combinations and layers of social, political and economics relations, traversing different physical space at any time (Mormont, 1990). It is differentially tied to the regional and international economy as much as traditional forms of national regulation (Lowe et al, 1993).

Theorizing about contemporary rural change, requires a consideration of differentially uneven development; and a key theoretical question Marsden (1998) ask is what are *the different spatial expressions of this new rural differentiation, and are their common factors which are actively making rural space different?*

➤ ***The nature of rural differentiation through theoretical development by typologies which attempt to capture the nature of rural change.***

The ideal types which characterize the range of expected outcomes from the key economic, social and political processes shaping the countryside have to incorporate combinations of local, regional and distant relationships, and they have to consider how these relationships become established in space. In addition, they are associated with the social and economic *reaction to* as well as the *articulation of* economic change (⁴Marsden, 1998:17). In British case, four types characterize the British countryside:

- The ***preserved countryside***. The areas are characterized by established preservationist and antidevelopment interests and local decision - making. Farmers are now seeing the benefits of diversification in serving the local demand from ex-urban groups. Rural change is there a highly contested process, articulated by different middle-class consumption interests who use the local political system to protect their environmental positional goods (Hirsch, 1978). These areas have also been subject to high levels of economic growth and development (Murdoch and Marden, 1994
- The ***contested countryside***. Here farmers (as landowners) and development interests may still political dominant and are thus able to push development proposals associated with the agricultural diversification and small industrial schemes. *These developments are increasingly opposed by the recent waves of incomers who adopt the positions that are in the preserved countryside.* Thus, the development process is marked by increasing conflict between old and new groups (Ward et al., 1995); Flynn and Lowe, 1994).
- The ***paternalistic countryside*** refers to areas where large private estates and farms still dominate and the development process is decisively shaped by established landowners and farmers. Many of the large estate owners and farmers may be facing falling farm incomes and are thus searching for new sources of income.
- The ***clientelist countryside*** is likely to be found in upland rural areas where agriculture and it associated political institutions still hold sway, but where farming can be sustained only by state subsidy, such as less favoured areas' per capita payments and welfare transfers. Processes of rural development are dominated by farming, landowning, local capital and state agencies, usually working in close corporatist relationships. Farmers will depend on system of direct agricultural and agri-environmental support.

The typology is an attempt to characterize the processes of uneven rural change as driven by different sets of internal and external powerful interests. These in turn tend to 'create their spaces' by shaping rurality in different directions (Marsden, 1998). The relationships and dependencies between the provision of jobs and the provision of consumption spaces for amenity come into stark

⁴ Marsden, 1998, 17.

relief (Munton, 1995)

➤ *Parameters of contemporary rural space*

We need to consider the nature and the quality of economic power *relations*. It is the context of raising of the *social economy* characterized by (Marsden, 1998). He identified the following parameters.

- ***Deregulation and reregulation.*** The political economy of the 1980s and 1990s has been dominated by the attempts of government to deregulate markets relations and to reduce state burdens by privatizing former state assets. These processes have served to provide different competitive advantages and disadvantages to rural spaces. On the one hand, the agricultural corporatism which had dominated thinking on rural development over the postwar periode has been undermined by the need to reduce financial subsidy, to eliminate marketing boards and wages boards to encourage 'free trade' (Marsden, 1998). On the other hand, in term of non-agricultural restructuring, early attempts to deregulate the planning system were vouchsafed by the rural middle-classes keen to protect their increasingly positional grip on large chunks of Middle England.
- ***Arenas of commoditization and social resistance.*** *Commoditization* describes a concept that is central the understanding of contemporary rural restructuring. The complex process of socially exploiting resources (labour, increasingly land, nature and the built form of the countryside) through the extension of the marketized commodity form has its more recent origins in the sociology of the agriculture literature, marxist interpretation. Commoditization represents a variety of social and political processes by which commodity values are constructed and attributed to, in this case, *rural and agricultural objects, artefacts and people*. It poses two questions about the complexity and diversity of contemporary rural space:
- ***Networks and actor spaces.*** A focus upon network construction and mediation begins to provide a way of breaking down the inevitable rigidities in conceiving rural space as derived from its physical composition or its strictly interne or externe definition alone (Marsden, 1998). This begins to collapse not only the exogenous and endogenous dichotomy but also the macro-micro problem. For Murdoch and Marsden (1995:372), "*It is through associations, and the ability they give certain actors to 'act at a distance', that actors-in-contexts, as we prefer 'actor spaces' are tied together*".

2.3 Planning theories

As opposed to changes without government, will be the planning system, the transformation with government intervention, where Lichfield (1996) asked some questions:

- *Why intervene?*

Changes in the urban and the regional system as just described come about through, in essence the "*regulated market process*", namely that interplay between entrepreneurial agencies (private and public) in the market subject to governmental regulation. "*That is of non-plan planning*" (Myrdal, 1960:3-4). However, the result of such "non-plan planning" leaves much to be desired in terms of the ends of society, as opposed to those of operators prevailing in the unregulated market. It is the socially unsatisfactory outcome of this process which has given rise to the perceived need of intervention of government, be it at the simplest level (coordination of utility infrastructure) or at the more complex urban and regional planning). Thus, Consolidation within the planning system is gaining. The struggle for this consolidation continues at two levels. The first is one of *logic*: how can you plan land use and development and yet respect the natural environment? The second is *institutional*: when government enacts legislation that crosses departmental boundaries (Lichfield, 1996).

- *How intervene?*

The case for government intervention through planning can be robustly made. But since the market does plan, and does deliver goods and services with great efficiency despite the recognized limitations (Myrdal, 1960), and since man in the century finds difficulties in planning (Osborn, 1959) *it does not follow that any plan is better than no plan*. Thus, to ensure an improvement over what otherwise would happen, the critical test is to devise forms of planning intervention that can be clearly justified in terms of the need of intervention, the cost of planning, the impact on individual freedoms, and the bureaucratic implications. How the change is to be managed, that demonstrably improves upon the product of the market, is a central theme of debate between *theorists and practitioners*, between *politicians and managers*, and between *professionals and the public* (Lichfield, 1996).

3. Interdependence and Conflicts

3.1 Relationship between management and planning

As Lichfield (1996) stated it, not only are management and planning closely interrelated in *functional terms*, but also in their *approach to the task in hand*. This is in practice makes for strength in the planning and management process, since each can be taken as *complementary*, and each uses a "*planning process*" reminiscent to the other. *Management* looks in the main to managers, accountants and administrators. *The tactics of their day-to-day management are clearly helped by having regard to objectives, and these become meaningful if translated into policies, strategies and plans which have regard to longer broader view*.

3.2 Interdependence in social, economic, planning and environmental theories

The economist has been involved in the public-land-use planning process in several ways. As economies of regions started making substantial shifts in response to the greater mobility of the population, regional analysis developed as sub-discipline within economics (Whaley, 1975).

- The major thrust of the regional analysts was the study of interactions among economic sectors of a community or larger region so that predictions could be made regarding the impact of a change in one sector on the remainder of the economy. The goal of these predictions was to determine the prospective economic welfare of a region, generally expressed in terms of regional income or employment. But Although the techniques of regional analyst have added measurably to the sophistication of land-use planning and have advanced our ability to deal with the secondary impacts of community development, they have still left *a major gap in dealing with the intangible, nonpecuniary social impacts of land use*.
- A second major role of the economist in planning land use has been as *the project level.*, like analysis and the refinement of cost-benefit analysis as a decision making tool for large investments in dams and other water management projects. In these endeavours more than any other, the economist has had to face head on the dilemma of measuring intangible benefits and costs (Whaley, 1975).

3.3 Conflicts in economic and ecological objectives and planning mediation

As Whaley (1975) brings out, just as the economist of the 1950s suggested decision-making based on a singular criterion of maximizing profit, the ecologist-planner of the early 1970s seems all too comfortable with his singular criterion of minimizing impact to the physical environment. Just as the economist calculated total benefits and often ignored the distribution of those benefits, the ecologist-planner calculates the impact on the environment, but ignores the impacts of proposed land-use controls on land values and construction costs. Just as the economist ignored the intangible costs and benefits because his analytical tools were not refined, the ecologist-planner assumes that society in general shares his value system because his analytical tools are also not

sufficiently refined. (Whaley, 1975).

It is apparent that there are potential conflicts between the objectives of management and planning, not least in the fact that each is studied, taught and practised by different academic and professional skills; in universities the management and planning schools tend to be distinct, with distinct academic strengths. But the conflicts can be readily reconciled in practice. This was achieved in one study, jointly carried out by planners and managers, where the relationship between development planning and operational planning was presented (Lichfield, 1996).

The role of the planner is to combine the attitudes of the economist and the ecologist to suggest the optimum use of land, by balancing “what it is we want” and the “limits and opportunities imposed and bequeathed to us by nature” MacKaye (1962). Balancing these apparently conflicting objectives poses an insolvable dilemma if we attempt to satisfy all man’s wants while maintaining an unimpaired landscape. The dilemma has a hypothetical solution if we try to allocate land so as to maximize the differences between total costs and total benefits, including social and intangible values. We should recognize that man’s demand upon the land is infinite, and whatever use is made of the land extracts a cost in terms of changing its from its natural states (Whaley, 1975).

The major dilemma in combining the talents of the various disciplines concerned with assessing changes in landscape values is that each speciality has developed its own measurement devices, and there may be little or no comparability between. The different units of measurement lead to inestimable difficulties in comparing gains in one sector with losses in another resulting from a change in land use. These drastically measuring rods also are the major cause of lack of interdisciplinary coordination in land use planning (Whaley, 1975).

4. Sustainable land use planning and Environment assessment

4.1 Sustainable land use planning

Sustainable land use planning refers to the planning, the reconstruction and the management of land in order to service better our future generations (van Lier, 1994:xv), but also and first to service us. The incorporation of the notion of sustainability requires new approaches.

1. How can that sustainability be achieved?
2. What role can land use planning play and how can it be incorporated in the existing land use planning methods?

There is a need to transfer knowledge and understanding about planning for the future uses of land in rural areas, and particularly rural lands which are most susceptible to dynamic forces such as socio-economic developments, technology, and metropolitan influences. The motives to incorporate the notion of sustainability in land use planning are damages and losses in the sphere of abiotic, biotic and anthropogenic factors are given to underline the need for sustainable land use planning (van Lier, 1994). He identified that two most dimensions are important, when using the concept of land use planning (van Lier, 1994:1):

1. The first is related to studies and policies mainly aimed to decide what activity place and where (it divides the often scarce room between the several potential users with, as a main objective, an attempt to make an optimal use of land; it is often called physical planning or land use plans).
2. The second dimension refers to the actual changing of the land uses and of the physical conditions for the planned land uses. In most cases this type of land use planning follows the physical planning. It is responsible to carry through the planned land uses as determined in the physical planning and often to improve the physical conditions for the planned land uses (land reallocation projects also known as land consolidation. These types of projects are found especially in regions that have been in use for many centuries (old cultures). In more recent times, the protection of landscape and nature (ecosystems) became important. Also the use of

the land for outdoor recreation and tourism was included in land reallocation plans. The terms multi-functional and integrated were born. Above all however, a new term showed up: *sustainability*.

The notion of *sustainability* stresses the important fact that development should take place in a way in which our natural resources are not exploited but used in a manner that guarantee continuous use in the future times. Sustainability (in reference Brundtland Commission), is an important new societal goal for land use planning in rural areas. For the strong relationship between social and economic development and the availability and access to natural resources in the countryside, often a distinction in sustainability is made in: environmental, economic and social sustainability. However, it is often a paradox where resource (environmental) sustainability is to be achieved at the cost of socio-economic sustainability, the question arises how economic losses can be compensated (van Lier, 1994:2-3).

Sustainable land use planning can be defined as “instruments to set land use policies, to implements these policies for the right location of the various land uses and for the improvement of the spatial and physical conditions for the rural areas for an optimal use and protection of the natural resources on the long term while meeting the needs and aspirations of the present generations”. The optimal use and protection refer to the environmental sustainability (protection of the natural resources) while meeting the needs of present generations refers to the socio-economic sustainability (van Lier, 1994:10).

4.2 Some requirements

The object of environmental protection is to safeguard, conserve and develop mankind’s living space, and this as far as it is ecological relevant.

As emerges from the global environmental damage, large scale changes are caused in mankind’s living and not only the damage, but also, the environmental protection will bring about far-reaching changes. *Environmental pollution and environmental protection measures are at the same time always spatial relevant and are therefore also an object of spatial planning*. Spatial planning thus has the same living space as its object. It is just a cross-sectorial by nature as environmental protection, in that it covers all spatial relevant state-sector planning and thus environmental protection. For spatial planning, at all levels, global to local, the important task in environmental protection constitute a great challenge. Seen in this way, the following requirements are to be met:

- There exists the need for co-ordination *between environmental protection and spatial planning*.
- *Strategic planning* (directory plan) has to be an instrument to prevent environmental impacts.
- *Land use planning*, the localization and dimensioning of utilization, has to realize the standards of strategic planning. (Schmid, 1994:17)

- ***Need for co-ordination between environmental protection and spatial planning***

Spatial planning is mainly oriented towards the development of spatial structures. The aim is the economic use of land, the orderly settlement of the land and the permanent safeguarding and maintenance of the basic conditions of life. Spatial planning covers all activities of man in its spatial aspect and co-ordinates the space-related measures with regard to a spatial structure to be aimed for. Thus spatial planning, from the point of view of environmental protection, serves to prevent environmental pollution. Environmental protection must be based on the planning instruments (Schmid, 1994:17-18).

To realize the link between *spatial planning and environmental protection* requires planning concepts and methods, which make it possible to determine and evaluate of land use demand on natural resources, as well as any associated effects on other land use demands. The instrument assuring this linkage may be termed *ecological planning*. The *ecological planning* is an *interdisciplinary planning*., which make use of the instruments for spatial planning as well as for environmental protection. The *Ecological planning* has to guarantee the connection between *environmental impact assessment, the plan directory, as well as the land use plan*. Their functions

are:

- **Responsive ecological planning.** *Ecological planning shall help decision making by solving land use conflicts and by minimizing effects on the ecosystem base.* Responsive Ecological planning is to be integrated into the continuous planning process of spatial planning and is designed to avoid and minimize environmental impact through spatial planning measures. It functions primarily at the level of land use planning and include environmental impact assessment. Strategic ecological planning is designed not only to avoid and minimize, but to actively, in a sense of a forecast, promote spatial structures, which in the end lead to an ecological enhancement of space. It shall delimit areas for improvement and indicates opportunities for action. Ecological planning then may be understood to mean pragmatic attempts and methods, which make it possible to establish and evaluate the effects of land use claims on the ecosystems. It reinforces land use planning in its capacity as cause and effect-related planning by linking spatial planning and environmental protection (Schmid, 1992; 1994 :19)
- **Strategic planning as prevention.** *Ecological planning shall serve as an instrument to ensure ecological obligations and/or to regain ecological stability and to reconstruct landscape.* As regards the environment, strategic planning has principally the objection to create spatial structures as a prerequisite for more environment-friendly settlements, traffic and economic structures. ... The margin for action is essentially limited, on one hand by the protection targets set in politics, through spatial ecological standards, and on the other through the actual environmental damages as a result of the uses itself.

It is the need to *co-ordinate environmental protection and spatial planning to overcome environmental problems* that has led to the reorientation of spatial planning.

At the level of strategic planning, spatial planning has the spatial prerequisites to enable a corresponding environmentally oriented structural adjustment process. Especially, strategic planning possesses a control and a co-ordination function for land use planning. For this part, land use planning has to orientate itself to strategic planning, in order to establish a suitable ecological land use pattern. In this way, land use planning must address the following questions:

- the designation and planning of land uses has to carry out with less emphasis on the amount and more emphasis on the effects.
- Built up areas are to be densified and the opportunities created for new uses.
- Mixed land uses are to be encouraged while taking into account the cause-effect relationship (Schmid, 1994:22).

4.3 The place of the Environmental assessment

Identification of environmental elements

The first step in this process of landscape assessment is the identification of our living environment to be included in our analysis of land-use change: think of natural characteristics of the landscape, and the social, cultural and economic components. This oversight, of course, brings us full circle to our starting proposition that what is needed for *adequate land-use planning is a means of integrating the array of disciplinary concerns into the planning process.*

Evaluation of current and proposed conditions

To evaluate changes in land uses it is necessary to compare the impacts of alternative land uses against each other and against current land use. It is for purposes of these comparisons that some methods of indexing becomes essential. The indexing would give a composite rating of the environmental quality of present land uses. It is important to note that this composite has no meaning except as comparison to alternative land uses in the same region or community under consideration.

Conclusion: social construction of the plan

To take all stakes (social, economic, environmental,...) into account, and as postulated by (Bramsnaes, 1996), the environmental management in agriculture or in other use, the land use planning must be shaped as a comprehensive planning that, in order to function as a mean of regulation, must coordinate the issues of landscape management and agricultural production. It has to be take off from the local topography and local conditions, subsequently to develop local potentials. It should be debated whether planning could have larger potentials as a coordinating tool for environmental regulation. As also she states, “a rural process necessarily must differ from the traditional top-down planning process, where plans are made for future inhabitants”. In fact, “in rural areas there are already making their living, and they have the most intimate of local nature and social development. Therefore a rural planning process must be tailored as a dialogue between the overall environmental and landscape intentions and the local ambitions for production and social development. The top-down approach must be supplemented with a bottom-up process”. There, the planning parameters will have to include basic environmental data on the natural topography and the ecosystems, in order to include evaluation of the vulnerability and potentials of nature to production and landscape management.

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