

Sustainable Development : Issues of Scale and Appropriateness*

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지속 가능한 개발 : 규모와 적절성의 문제들*

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Abstract : Defining sustainable development as the challenge of continuously balancing economic, social and ecological values, a European research project sought lessons from experiences of a forty year period to frame criteria of appropriate scale for contextually-sensitive environmental policy. A network of case studies conducted by partner teams in Germany, Ireland, the Netherlands and Sweden examined changes of scale in the territorial, functional and socio-political contexts of life and landscape between 1950-1990. Themes central to the project included landscape transformations, tensions among area- and sector-based ways of life [*genres de vie*], and changing horizons of discretionary reach. With illustrations drawn mainly from the Irish case studies in Tipperary, this lecture outlines some regional differences in response to external-policy and market-driven-influences. Implications for cross-cultural research and the framing of contextually-sensitive environmental policy are outlined, and suggestions made for their modulation through European Union, national, regional, and local levels.

요약 : 유럽의 한 연구 프로젝트는 지속가능한 개발이란 경제적, 사회적 그리고 생태학적인 가치관을 지속적으로 균형이 유지되도록 노력하는 것이라고 정의하면서, 전반적인 상황을 고려하는 환경정책의 적절한 규모의 기준을 세우기 위하여 지난 40년간의 경험으로부터 배우려고 하였다. 독일, 아일랜드, 네덜란드 및 스웨덴 연구팀으로 구성된 이 프로젝트는 1950에서 1990년 사이에 사람들의 사는 방식과 경관이 지역적, 기능적, 사회정치학적인 면에서 어떤 규모로 변화했는지를 조사연구하였다.

그 프로젝트의 중심 주제는, 경관변화, 지역성에 기초를 둔 생활양식과 분야별 (직업)계층에 기초를 둔 생활양식간의 마찰 (긴장), 및 재량을 행사할 수 있는 범위의 변화를 포함한다.

이 강연은 아일랜드의 Tipperary 지역의 사례연구에서 얻어진 사례를 설명함으로써 외부관계정책 및 시장주도에서 생겨나는 영향력을 요약하려 한다.

(이 강연에는) 비교문화적인 연구가 암시하는 점들과 전반적인 상황을 고려하는 환경정책을 입안하는 것이 요약되어있고, 유럽연합의 차원에서부터 개별국가라면 국가내의 지역이나 소지역 차원에 이르기까지 그들을 알맞게 수정수용하도록 하는 제안이 포함되어있다

1. Introduction

Defining "sustainable development" as successful harmonisation of social, economic, and ecological

values, the LLASS project examined processes of change in landscape and life during 1950-90 with starting points in four specific settings: Saarland in Germany, South Tipperary in Ireland, the Amsterdam

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region in the Netherlands, and Skåne in Sweden. Issues of scale and appropriateness were highlighted in analysing differential impacts of both market- and policy-driven developments in each of these regions, also documenting interaction patterns and conflicting interests of the main actors at various scales from local to global. Evaluations of selected policy measures involved not only a scrutiny of their scientific (theoretical) underpinnings, and relation to market forces during 1950-90, but also of their effectiveness in terms of scale *modulation* ("top-down"), and *subsidiarity* ("bottom-up"). Insight from such evaluations were to aid in identifying criteria of appropriate scale for the framing and implementation of contextually-sensitive environmental policy in the future. Ultimately one sought to develop enquiry frameworks which could yield a broader understanding of resource use and its implications at various scales from local to global.

2. Methodology/ Approach

Study site selection was designed to demonstrate the differential impacts of mid-twentieth century developments on a bio-geographically and culturally diverse Europe, incorporating case studies in two of the original EU "central" member states (Germany, Netherlands), one in a later "peripheral" state (Ireland), and one which was then at the threshold of entry (Sweden).

Analytical foci varied in scope: Irish, Swedish and Dutch teams concentrating on micro-regional scale studies of changes in agriculture, while the German team focussed on issues of energy, with Saarland as starting-point, tracing impacts of energy policy from local to transnational scales. The interlinked phases of enquiry at all sites were: (1) *landscape transformations 1950-90* and the ensuing tensions among social, economic, and ecological interests; (2) *Socio-spatial interactions and environmental experiences [genres de vie/ways of life]*, highlighting cultural differences in

the interaction between ways of life and landscape; (3) *Scales of discretionary reach*, clarifying the changing horizons of access to information, political participation, decision-making and discretion over resources. Throughout the project, emphasis was placed on (4) *Dialogue and Communication*, and this was facilitated primarily by the LLASS cross-disciplinary forum, hosted at University College Dublin.

3. Main Results of the Project

1. Landscapes, understood literally as visible artefactual surfaces, have shown little tangible change in some case study sites. In one case (Flevoland, in the Netherlands), an artificially-constructed landscape afforded a *tabula rasa* for the unfolding of planning objectives: initially oriented toward rationalisation of land uses toward maximum productivity, and later for "rustification" as a magnet for suburban occupation. In Saarland, new patterns of living have inserted themselves within traditional landscape forms. In Skåne, where agrarian landscapes had been largely rationalised in 1950, there are efforts to conserve traditional forms and "sites of ecological value", whereas in Tipperary the relative stability of landscape form can be traced to cultural attachment to land and the resilience of kinship structure. Processes underlying this relative stability in landscape patterns include the substitution of new area-based activities for traditional primary activities; urban to rural migration of people seeking alternative ways of life; and capital investment in tourism, heritage conservation and even "frozen" landscapes.

2. Countering such stability, however, there have been several disruptive processes leading, in some cases, to visible landscape changes. These include the widening scales of technology- and market-driven processes in the production, consumption, and distribution of food, energy, and information; increased mobility of capital and higher levels of

network-connectivity in the functional organisation of space; ever-extending spatial scales within which the environmental consequences of sectorally-based *genres de vie* impact on local and distant regions; spatial inequalities within and among regions with respect to discretion over livelihood, social space, and decision-making on environments and resources; and the production of such inequalities through the spatial transfer of negative externalities by non area-based, and non-sustainable *genres de vie*. In Sweden and the Netherlands particularly, road building, drainage and manipulation of water courses, enlargement of fields and removal of hedgerows, unrestricted fertiliser use and intensification of agriculture have produced serious ecological consequences, reducing aesthetic diversity and threatening the ecological integrity of rural landscapes.

3. The pace and magnitude of these scale transformations have varied among the four regions, and differences in response, as well as in attitudes toward sustainable development reflect: geographical location, resource endowment, and phase in regional economic development; national context, economic base, political history and power relations; administrative capacity, planning doctrines, and policy experience; social values and culturally-varying attitudes toward nature and place; levels of education and school programme/ academic discipline; proximity to urban centres

4. A roughly three-phase trend, each one emphasising different “scales” for development, is discernible among the study sites. First, an “economic” phase when postwar reconstruction and modernisation schemes, backed by grant aid, capital investment, and mechanisation led to an overall rise in standards of living. The ever-increasing thresholds of scale required for economic growth precipitated a sharp decline in the number and variety of area-based *genres de vie*. Skåne and Amsterdam were already at this point in 1950. By the late 1960s, ecological concerns were articulated, particularly in Saarland and Sweden, and after the 1973 oil crisis, a second

“ecological” phase witnessed arguments for small scale. Previous policies and practices were altered to accommodate both energy-saving and environmental concerns. The third phase, from the mid-eighties on, could be described as the “sustainability” era, where development is seen to involve not only economic and ecological issues, but social ones as well.

5. Viewed from the vantage point of lived experience on the ground, the challenge of sustainable development is inextricably charged with tensions between area-based and sector-based *genres de vie*, and the interplay of stabilising and innovative elements within each. Developments during 1950-90 have posed radical challenges to earlier bases of **identity**, **order**, and **niche**. Sustainable development, however, demands a negotiation of these within ever extended **scale horizons of discretionary reach**:

5 (a) *perceptual reach*: Perceptions of space and influence, identity with place, and attitudes toward environment varied greatly across cultures. While land may be regarded by many Dutch farmers as a mere commodity or factor of production, it retains strong emotional and symbolic meaning for most Irish farmers. In Skåne attitudes vary from the sense of stewardship of inherited property to exploitation for maximum productivity. Identity and perceptual reach also vary markedly between sector- and area-based *genres de vie*. For actors within large-scale enterprise, e.g., in Germany, identity and knowledge range were far more closely associated with institutional role and status. Decision-makers on transnational energy production were completely unaware of the direct consequences of their decisions on native populations in remote regions. Among diversified farmers who had followed initial European Union and national directives for higher productivity and market orientation, there were serious difficulties later in adapting to policies which emphasised “environmental” considerations. Today one of the most perplexing aspects of perceptual reach for Dutch and Swedish farmers today is the increasing volume of information, laws and regulations, which lead to

the sense of no longer being in charge of their enterprises. Ironically in the 1990s, throughout the Amsterdam region, in Skåne, and Saarland, there is a marked quest for rurality and area-based contexts for living, at least for those with incomes from sectorally-based *genres de vie*. Recent arrivals to rural areas tend to develop a stronger identity with place than some long-term residents now involved in sector-based enterprise, while emigrants often retain their sense of identity with their home areas even if there is no possibility of return.

5 (b) *functional reach*: Market-driven centralisation and specialisation of production and redistribution, particularly of food and fuel-processing, have increased the spatial reach of large-scale and sectorally-based enterprise and have simultaneously curtailed the functional reach of area-based occupations. Trans-national networks have produced social inequalities via the spatial transfer of negative externalities to remote regions. People in primary occupations have lost discretion over livelihood base, e.g., land, labour, infrastructure and “inputs” to agriculture and a drastic decline in employment numbers. Rationalisation of schools, shops, markets, dairy cooperatives and other services, has undermined much of the traditional infra-structure of social life in rural regions; access to such services diminished for those without access to a car. The substitution of machinery for labour has led to outmigration and higher levels of unemployment in both rural and urban settings, and the continued exodus of youth threatens social sustainability in area-based *genres de vie*. In recent years, however, in the more technologically advanced and central sites (Flevoland, Saarland, and Skåne), those who live in rural areas have access to a wider range and quality of goods and services than some urban people do. Employment opportunities for rural women have actually increased in Skåne.

5 (c) *administrative reach*: Democratic participation in decision-making has varied considerably among the four case-study sites, which range from former

imperial/colonial societies to post-colonial ones. Such cultural legacies have stamped the existing administrative framework within which interactions between “bottom-up” and “top-down”, formal and informal initiatives are currently negotiated. The waxing and waning of voluntary initiatives for community development has followed similar courses in all four study sites: a flurry of activity during the late 1950s and early 1960s; a waning during the 1970s and early '80s, and a recent flowering during the 1990s.

Voluntary initiatives for sustaining social vitality within rural regions have been characteristically led by creative individuals with experience of (i) more than one “social reference world”, (ii) life in another area or (iii) a strong commitment to stewardship of inherited property. In many instances, women have assumed catalytic roles and continue to do so. Vital, in most cases, has been the *potential scale* of participation, ranging from locality to nation and beyond.

Organisations which began as “grass-roots” movements and later expanded via networking to European and global levels have greatly aided particular sectors but have often lost touch with people on the ground. The role of newsletters and kinship networks has been vital in sustaining vitality in community associations, while media and informal networks have been critical in shaping negotiations over energy policy across national and regional boundaries.

6. Policy measures on social and environmentally-relevant issues have been most successfully implemented in regions where the problems were first perceived, e.g., post-war regional and urban planning in the Netherlands, pollution-control measures in the Ruhr and Saar region in Germany from the late 1950s, awareness of acidification and transboundary air pollutants in Sweden in the 1960s where parents were influenced by school children (illustrating the role of primary education). Policy initiatives on agrarian development from the late 1940s on were first effective in Sweden especially during wartime in Europe, when

values of self-sufficiency in food and raw materials had particular significance, and also in Ireland where problems of emigration were felt. While initially showing a high level of contextual sensitivity for the region of origin, policies lose this when applied over wider geographical and cultural scales.

7. The scale modulation of environmental policy everywhere poses challenges to democracy: the complexity of issues demands representation from a variety of interest groups; decentralised mechanisms may be most appropriate for wide consultation, but without consensus at higher scales, action can be delayed. Throughout the four study regions, however, there is increased scientific, public, and corporate awareness of problems and at least an incremental improvement of legal, administrative and corporate responses. There has also been a clear improvement of media competence in addressing environmental issues and more successful conflict strategies by impacted groups leading to improved information, participation and mitigation procedures

8. Criteria of appropriate scale for environmental policy should therefore involve:

- * sensitivity to bio-geographical setting and socio-cultural traditions
- * assessments of external costs involved in the production and distribution of products and the consequences for recirculation within the biosphere especially in remote areas
- * administrative capacity to accommodate initiatives from "bottom-up" and "top-down", sectoral and area-based livelihood interests;
- * information arriving "laterally" via existing educational and media channels, on the environmental implications of human activities and technological /developments.

4. Implications

The project as a whole yielded a clear consensus

among the teams on the following observations:

* The primary cause of environmentally unsustainable development is a global economic system which seeks to colonise the entire Earth, without concern for its bio-physical, cultural, and social diversity. This system has been designed and defended by economic theories now historically-outmoded yet still widely-accepted among politicians, influential decision-makers in most fields, including labour unions: at a theoretical level, there is an urgent need for some radical re-questioning from the scientific community. Focus on questions of scale and appropriateness reveal insight on hitherto unexamined costs of externalities, as well as the opportunities and risks of increasing network interconnectivity: vital components for a revised development theory.

[Issues to be addressed at global/scientific level]

* Underlying the currently unsustainable course of developments during 1950-90 is sectoral specialisation in the production of scientific knowledge and policy expertise. Democratically-expressed values of economic growth, social vitality, and ecological integrity are each voiced in distinct modes of discourse, each suggesting a different scale at which success could be achieved. The scale imperatives dictated by conventional economic theory during 1950-90 have set criteria for minimal size of enterprise, but not for maximal thresholds of scale in the production and circulation of products short of a potentially global market. Social and ecological consequences, at the level of lived geography, were regarded as ancillary or welfare footnotes.

A serious approach to these problems must include a firm commitment to identify and critically assess complete "paths" of production-consumption - recycling or dumping of products across national or administrative borders. New frameworks are needed for the analysis and assessment of trans-boundary chain processes.

[Issues to be addressed at trans-national scientific/policy levels]

* At the managerial level, there are enduring tensions between territorial and functional domains of discretionary reach. There is a fundamental contradiction between two strongly espoused principles in EU policy: the principles of subsidiarity on the one hand, and that of market-based maximum economic growth on the other. The inherited political geography of governmental discretion comprises a *mosaic* of territorially-circumscribed domains within which democratic participation and subsidiarity principles could be exercised, while the actual economic geography of enterprise involves

mechanisms of network connectivity which transcend territorial boundaries and increasingly are set by global conditions.

[Issues to be discussed at EU/national/and local scales]

* Postwar material growth, facilitated by applied science and cheap energy, has led to a distancing of relations. On one hand there is a vastly increased volume of new scientific information, delivered in highly specialised form by separate and often conflicting channels; on the other hand, the free market economy demands interaction and interdependency with often unknown and distant places without the ability to assess impacts on life styles and consumption patterns in remote areas.