



# **Evaluation in Planning**

## **Evolution and Prospects**

*Edited by*

**E.R. Alexander**

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# Evaluation in Planning

## Evolution and Prospects

*Contributions in honour of Nathaniel Lichfield*

*Edited by*

E. R. ALEXANDER

*University of Wisconsin-Milwaukee, USA  
and APD, Tel-Aviv, Israel*

ASHGATE

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## PREFACE

# Evaluation, Between Past and Future

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This book deals with ideas and practices that have been deeply influential on the careers of many people, including myself, and which are still current among and influential on new generations of planners. Much of the intellectual and professional apparatus that the world's planners can use in building new ways forward comes from the lifetime work of Nathaniel Lichfield. In recognition of Nat's significant contributions of ideas and exemplary practice, this book offers an overview of the evolution of theory and practice of evaluation in planning, a sampler of current best practice, and some directions for the future.

### **THE PAST: WHERE HAVE WE COME FROM?**

The story begins with the post-Second World War political culture of Keynesian economics, welfare-oriented social policy and its counterparts in urban and regional planning-modernisation, efficiency and egalitarianism (albeit, sometimes rather paternalistic).

In this phase the economist, planner, engineer and surveyor Nathaniel Lichfield was a campaigner and innovator:

- for planning,
- for rationality,
- for informed public decisions,
- for reconciliation of efficiency with equity, and for a kind of “peace process” between plan and market.

Not revolutionary, but part of trying to forge the “historic compromise” between capital and labour, grappling systematically with the issues of externality and public good which have always been the essence of spatial planning and development.

Conflict, however, was not just between capital and labour, but also involves land, because of the integral role of land in everything to do about efficiency and equity in urban development. Land is so often a major barrier both to efficiency and to equity, and land ownership rights embody spillovers and relational dimensions.

In our local British context Nat's work also started as a quest for peaceful coexistence between the RICS and the RTPI, between the culture of landed property and the culture of a public interest, of efficiency and of redistribution. In this period, up to perhaps the mid 1970s, Nat's contribution and all his developments in Cost Benefit Analysis, and the Planning Balance Sheet, were the leading edge of progressive planning. His ideas on planned development and evaluation in planning (see the bibliography of his publications below) were highly influential and stimulated practices followed by local and national practitioners in the UK and in an increasing number of other countries around the world.

Then came the breakdown of that post-war compromise, attacked from two directions: by capital for what was seen as its draining effects on profitability, and by many citizens for its paternalism or for its unquestioned pursuit of modernisation. Rational comprehensive planning came to grief both from the right (at the hands of the Thatchers and Reagans) and from the left and others, at the hands of conservationists and bottom-up action by communities in Covent Garden, Napoli and elsewhere.

We entered a long dark period in which financial accountancy triumphed over rationality, over informed democracy and over transparency in decisions. During the 1980s and well into the 1990s the orthodoxy of governments, reflected in the dominant behaviour of many professionals, pushed financial viability issues to the fore, comprehensive planning, social costs and consistency to the background.

## THE PRESENT

Out of that period, however, have come some contradictory tendencies, so that many people find it hard to know which way we are going, and what we can do about it in planning, land policy, evaluation and public decision-making.

*On the positive side* we have:

- Some backlash against unbridled capitalism – at one scale the challenges in Seattle, Davos and Porto Alegre; at the other extreme Agenda 21, the green movement in localities and – at least in some countries – citizen groups empowering themselves a bit faster than their governments would like.
- Within the state orthodoxy of European and North American government we have the whole Environmental Impact movement, which has its positive sides – although it sometimes seems just another free lunch for consultants, after which honour is satisfied and their report is shelved.
- We also have the Freedom of Information Act in the USA, the Human Rights laws in the EU and some moves towards audits and transparency, which look like a boost for some aspects of democracy in decision making.

On the other hand there are at least two strongly *negative factors* we have to contend with. One is the awesome power of deregulated market capitalism in the world, somewhat muted and regulated in Europe, less so elsewhere. The other is

the extraordinary fragmentation of government structures, budgeting systems and decision-making afflicting our public life, at least in Europe.

Gone are the days when public authorities could plan around dependable revenue flows from above, or predictable relationships with local citizens, land-owners and developers. They must now compete and bid for resources – juggling their objectives and priorities to match the flavour of the month in London, Brussels or Paris. And in their local operations they are bargaining ad-hoc deals on local developments with every significant project that comes up.

In this context, what are the prospects for systematic planning, coherent development of evaluation criteria and consistent evaluations? These are some of the issues that we confront in our work, though the list certainly omits misses some crucial ones.

## THE FUTURE

### What are the pointers for the future?

- Urban planning (a shorthand to include regional planning, rural as well as urban areas) is fundamentally a social process, not a purely technical one. That is to say it is a process in which people interact, pursue interests and seek compromises and agreements.
- Involving concepts of individual, group and collective interests, the public interest and debates about them, planning can and should form part of a process in which we all, as citizens, become better informed about possible futures and about each other. It should be part of an adult and self-governing society, with transparent procedures.
- Planning can and should be part of the whole way societies manage themselves, allocate resources, check, monitor and assess what is going on and then reconsider their options.
- In this context there are (or should be) evaluation processes within all stages of action. We may be at a point where we can concentrate on the relationship between ex-ante evaluation, continuing evaluation of activity and ex-post evaluation and on increasing clarity in the mapping of impacts and distributional patterns of outcomes.
- We are unlikely to re-enter a world of comprehensive integrated plans, cascading down from centre to locality, and with predictable implementation mechanisms. Patchy progress towards devolution in governance systems, alongside continuing concentration of power in the private sector will pull in opposite directions.
- In this context we should prioritise the search for transparent techniques which seek to reconcile conflicting sets of objectives and priorities in urban planning and management, some coming “down”, others coming “up”. And if they cannot be reconciled then our planning practices as a whole – and



evaluation methods within them – should at least aim to illuminate and clarify democratic debates.

- Finally, land. Many theorists and practitioners seem to be making progress in modifying the worst effects of land ownership upon planning – notably through tackling environmental externalities: internalising them through law or taxation. This is all highly valuable. It may, however, leave unresolved the acute problem in big cities whereby the land and property markets transmit and exacerbate inequalities through competition for scarce space.

## **THIS BOOK**

Much of the intellectual and professional apparatus, which the world's planners can use in building new ways forward, comes from the lifetime work of Nathaniel Lichfield. The idea for this book came to me in recognition of the evident need to celebrate Nat's work on the occasion of his eighty-fifth birthday. Accordingly I organized an international seminar at the Bartlett School in University College London – where Nat taught generations of students – in February 2001. Leading exponents and followers of his work in evaluation and planning presented and discussed papers at a three-day workshop that enabled production of this book. These papers were updated and finalised to form the chapters below, together with some contributed by authors who could not take part in the London meeting. The division of the book into two sections, History and Theory, and Applications in Practice, reflects Ernest R. Alexander's editorial stimulus and guidance. Its structure is intended to at once respond to and integrate the diversity of the contributions, which mark where we have got to and show some of the ways in which we are going.

# Introduction

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## Chapter 1

# Evolution and Status: Where is Planning-Evaluation Today and How Did It Get Here?

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### ANTECEDENTS

Evaluation is not something new: it has always been an intrinsic part of decision making. Whenever a reasoning actor undertakes a particular course of action, some consideration and assessment of the possible consequences, however intuitive it may be, is an inevitable preliminary to the commitment.

This applies to any decision even in its simplest go-no-go form: Should Nguyen sail his boat out shrimp-fishing this windy morning? Should Maria take the promotion to District Manager she has been offered, with its transfer to Reykjavik? Should the Kungs order the \$1000 “Home Cinema” they saw on the Internet? Should the Branch Manager of the Universal Bank denounce the trader who has just lost \$5 billion of the bank’s assets? Should the squadron commander order a helicopter to rocket the village from which insurgents attacked his army’s convoy? Should the Finance Minister approve the proposed agreement with the IMF that the Governor of the national bank has sent over for her signature?

Over time commercial investors, entrepreneurs, businesses and managers developed more sophisticated tools to help them make informed decisions. These enabled them to evaluate the potential profitability of a prospective project, the simple criterion for any market enterprise. But basing public investments solely on their potential for raising revenue is clearly poor judgment. Indeed, through many centuries – from the pyramids of Pharaoh through Mayan temples and even the Roman roads – profitability was not even a relevant public investment consideration.

More recently state authorities came to include the money they could make among prospective projects’ significant benefits, as Baron Haussman did in promoting his Paris boulevard plan (Saalman, 1971). But even then, and still today, public officials recognize that there is more to considering whether to implement a particular plan

or project than just its fiscal impact and the direct revenues it could generate for the treasury.

While public investment analysis was not even in its infancy – it was still unimaginable – city planning was a mature activity, if not in the form we know today. Contrary to myths of the “organic” or “spontaneous” city, significant parts of towns and cities in the world’s higher cultures and civilizations (for example, the palace and temple complexes that were the core of Bronze Age, Classic, and Pre-Columbian cities) were planned, and sometimes entire urban settlements (e.g. some Greek and Hellenistic cities, Cambodian, Chinese and Japanese capitals, European Baroque capitals, and colonial capital cities) and even regional settlement systems (the Indus River civilization’s cities, the Roman “castrum” settlements, the medieval French “bastides” of Languedoc, the Spanish colonial settlements of Latin America) were designed and built from plans.

But none of this planning involved any evaluation, in the sense we understand it today. Indeed, this was quite a different form of planning than the complex of activities involved in city planning as we know it. Traditional city planning, in its broadest sense, might begin with settlement location (sometimes involving pseudo-sciences such as geomancy), continued with the architectural and urban design of the complex, quarter or city and elements of its infrastructure, included the organization and institutionalization of their construction and maintenance, and sometimes even regulation and administration of cities’ operation (for example, the regulation of building heights and chariot traffic in Imperial Rome) (Alexander, 1992: 15-20).

In more advanced cultures (e.g. Rome and the European Renaissance) many of these planning-related activities were quite formalized and systematized, with textbooks of architectural design and engineering construction, handbooks for administration, etc. But the model of the rational planning process that subsumes all the modern planning and design professions and “decision sciences” was still in the distant future, and its closest predecessor, Patrick Geddes’ prescribed system for planning cities and regional development – “Survey, analyze, plan” (Stephen, 2004) only emerged in the early twentieth century.

The kind of evaluation included in traditional city planning was part of a design process that still persists today, which designer-architect-planners apply to shape appliances, structures, buildings and cities. This process does not involve any formal evaluation of alternatives, but a relatively intuitive assessment of the merits and flaws of emerging design options, selections or modifications as they arise. Here evaluation is an integral, if informal, element of an abductive design process, which we are just beginning to understand (Coyne et al., 1990).

In spite of (perhaps well-founded) claims for the effectiveness of design-based planning to cope intuitively (rather than rationally-systematically) with the challenges of complexity, twentieth century planning ideas about best practice looked for something better. Progressive adoption of the prescribed (if idealized) rational planning process raised the need for more systematic evaluation methods to enable the kind of deliberate choice between designed alternatives that the rational planning

model demands. We shall see how the responses evolved to these needs for rational alternatives' evaluation and for the systematic assessment of public investments.

## **PUBLIC INVESTMENT AND BENEFIT-COST ANALYSIS**

Systematic public investment analysis began to develop in the nineteenth century, in step with emerging political economics and the formulation of classic economic theory. The French economist Dupuis was probably the first to articulate the principles of Benefit-Cost Analysis (BCA) in 1844, as a way to ensure that the allocation of public investments would maximize total social benefit. BCA was intended to be the public sector equivalent of the private sector's "discipline of the market", which could evaluate prospective enterprises on the basis of their potential profit. Dupuis' proposed public investment analysis suggested "willingness to pay" as the counterpart for market prices and profits to measure beneficiaries' utility. In this simulation of market economics, the net social benefit of a public project is the same as classic Marshallian consumer surplus (Brown and Campbell, 2003: 171-173).

BCA was first applied in public investment analysis in evaluating large-scale public engineering projects (dams and other flood-control projects) funded under the US (1936) Flood Control Act – among the "New Deal" program's public works projects (Marglin, 1967: 17). From then on, public investment analysis methods (BCA expressing net social benefit in the benefit/cost ratio, and related approaches using net present value and internal rate of return as criteria) were widely and increasingly used to evaluate public projects and plans.

During its long period of refinement and application, BCA has been subject to a great deal of criticism. Many of the critiques are associated with BCA's roots in classic utilitarianism (see Chapters 2 and 4 below), which ignores the distributional aspects of social utility. BCA also shares with utilitarianism the premises of traditional liberalism, which at the same time makes the autonomous individual the ultimate repository of moral value and assumes the intrinsic identity and equality of all persons.

As a result, while it is quite a useful tool for appraising the total aggregated social value of a project (quantified in terms of money), BCA gives no answers to other equally important questions asked in project- or plan-evaluation. These include the question of who gets what and who pays, and the proposal's impacts in terms of distributional equity. The important modifications of BCA, such as the Planning Balance Sheet (see below) were developed primarily to address this shortcoming, and to add to BCA's index of aggregate social utility some indicators to enable assessment of distributional impacts.

Other objections focused on what is the obverse of BCA's major merit: its aggregation of all a project's costs and benefits (direct and indirect) in terms of market (or "shadow") prices and money. This gives BCA the huge advantage of offering decision makers a relatively scientific and presumably accurate quantified

estimate of the absolute social value of a public undertaking, on which they can base an informed decision whether to commit public resources to the project or not.

Critics, however, questioned the scientific validity and accuracy of BCA, proving that often the quantified estimates of benefits and costs are in fact based on tenuous assumptions. This is the case in BCA of complex strategic public plans and projects that involve significant indirect and intangible benefits and costs; for example, the intangible human cost of relocation in an urban clearance and revitalization project, the value of a life saved through the accident reduction potential of a new highway, or the civic benefit gained (in addition to the economic and quantifiable benefit of the individual beneficiary's lifetime income increment) by the educational attainments promoted by an early childhood reading program. Development programs aimed at poverty reduction are a case in point (Chapter 7 below).

One response to this problem was the modification of BCA to turn it into a different, though related, evaluation method: Cost-Effectiveness Analysis (CEA) (Levin and McEwan, 2000). CEA is only peripherally relevant to our discussion of evaluation in planning, which focuses on *a priori* evaluation of plans and project alternatives, because it is primarily a tool for *ex-post* program evaluation. Nevertheless, what it does is of interest, because its proponents found a way of overcoming some of the shortcomings of BCA, but only by giving up some of BCA's advantages.

In CEA the undertaking's costs are assessed, computed and monetarized just as in BCA, but benefits are expressed differently. CEA's measure of benefits is an effectiveness indicator, which is specifically developed to reflect the proposal's goal attainment. Creating a good effectiveness index is more of a craft than a science: CEA demands a quantitative index that at the same time clearly reflects the project's actual goal and draws on feasibly obtainable output or impact data. Thus, the effectiveness of an early breast cancer diagnosis program might be measured by years of remission per participant, or the success of a program to reduce toxic emissions by the percentage in reduction of risk of pollution-related disease or deaths.

Today CEA is well accepted as a valid method for quantified *a priori* comparison of alternative public investments in goal-related programs, for example, alternative programs in health such as, say, technology and training for early diagnosis of breast cancer vs. advanced technology and training for operative treatment. It can also substitute for BCA in giving a better *ex-post* evaluation of program effectiveness, for example, assessing the effectiveness of a job placement program by cost per job placement rather than trying to monetarize the aggregate social utility of the program's impacts.

But the usefulness of the last exercise depends on the evaluator's assigning an intuitive value to the index: creating a long-term job at a cost of a few thousand dollars is probably effective, but is a job costing \$20,000 still a success? Its failure to provide an absolute measure of social value, as BCA purports to do, limits the usefulness of CEA as an evaluation tool, as does the need to identify a single common goal for comparing programs. That is also why CEA cannot be the alternative to BCA that its critics were seeking, to evaluate complex public plans and projects. For

that, we will have to follow another path that leads through planning, not program evaluation.

## EVALUATION CONTEXTS AND METHODS

This review began with evaluation in general, as intrinsic to all decision-making, and proceeded to discuss methods that developed to evaluate public undertakings. Its range up to this point has been wide, from a *a priori* appraisal of any kind of public investment, to the *ex post facto* assessment of public program effectiveness. But our concern here is with evaluation in planning, implying a more focused approach. What does “in planning” mean? Two dimensions can define the relevant settings: time and object. The time dimension distinguishes between evaluation before, during, or after the undertaking. The other dimension defines the object: evaluation of what?

### The timing of evaluation

In the time dimension we can distinguish between three kinds of evaluation, which also differ in their purpose. *A priori* evaluation means estimating the projected future impacts of a planned undertaking before its implementation. Often such evaluation involves comparing feasible alternatives in a relatively early stage of planning, to select the best one for detailing and elaboration. Evaluation before deciding to commit resources provides information on a project’s estimated value so as to enable better decisions. *A priori* evaluation is our prime concern in considering evaluation in planning.

Evaluation in progress<sup>1</sup> is done simultaneously with project or program implementation. It is intended to monitor implementation and assess conformance to predetermined goals, which may include quantified performance objectives and interim deadlines. There are a variety of tools for this kind of evaluation, which is primarily for the purpose of program or project management<sup>2</sup>. As a management tool, in-progress evaluation is not relevant to our discussion of planning-evaluation.

Evaluation *ex post facto* involves measuring or assessing the impacts and effects of the subject undertaking – policy, plan, program or project – to evaluate its outcomes. This kind of evaluation usually begins upon completion or later, to allow time to observe relevant impacts. Evaluation here often includes systematic analysis of relations between inputs, outputs and impacts to explain the observed results. Many of the planning-evaluation methods discussed here are applied in *ex post* evaluation, with the difference that the information inputs are based on measured or

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1 Sometimes the terms “*in itinere*” and “in process” are used.

2 For program administration such evaluation is part of the MBO and PBM (Management by Objectives and Performance Based Management) methods, and it is part of tools for complex project and construction management (e.g. PERT) (Mercer, 1991; PBM, 2004; Modell, 1996).



assessed reality, rather than the estimates or projections of an expected future that feed into a *a priori* evaluation.

The purpose of *ex post* evaluation is to learn from experience: its findings may be useful lessons for similar undertakings in the future. *Ex post* evaluation is a wide field of considerable intrinsic interest, but less relevant to us when applied (as it usually is) in program evaluation<sup>3</sup>. Therefore, we are focusing here on a *a priori* evaluation, to avoid extending our range beyond our capacity.

The only aspect of *ex post* evaluation that is exempt from this exclusion is plan-evaluation, i.e. the assessment of completed plans (see Faludi here). Plan evaluation is included for two reasons: one based on what it is, the other on what it is not. First, plan-evaluation is important for its potential to contribute knowledge. In planning theory this includes criteria for planning based on plan-assessment – what is a “good” plan or a “bad” plan? (Alexander and Faludi, 1989); for planning practice it involves assessing plan-performance (Mastop 1997) and substantive plan evaluation<sup>4</sup>. Second, plan-evaluation is not program evaluation, which is outside our domain. In fact, plan-evaluation is closely associated with planned development, the context of most plans and one of the objects of our concern.

### The object of evaluation

What are the objects of evaluation that we have in mind when we refer to evaluation in planning? We can arrive at an intuitive delimitation by a process of elimination. Planning-evaluation in the sense used here does not include program evaluation, in the way that term is understood and applied in an extensive literature, that is, in progress and *ex post* evaluation of public (state or local government, or other public agencies and NGOs) programs and services.

Program evaluation is usually applied in public policy fields such as defence, health, education, housing, economic development and social welfare. It may be used to assess a specific program, activity or service (for example, the US Section 8 program of subsidized housing for the elderly) or as part of a policy analysis in a broader field (such as the British GIA program in the context of urban revitalization and housing policy). That is not included under evaluation in planning as discussed here.

Planning-evaluation as understood here, then, means a *a priori* evaluation applied in spatial planning. The objects of evaluation in planning include neighbourhood, city and regional plans, and strategic developmental and infrastructure projects at the multinational, national, regional and local scale. For our discussion, all these

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3 See below; program evaluation has an extensive literature (Rossi, Freeman and Upsey, 1999).

4 Here substantive plan evaluation means assessing a plan’s quality and acceptability before adoption, in the course of technical-professional, administrative or judicial review; this is an important challenge on which more later – see “Conclusions”, Chapter 14 below.

plans can be subsumed under planned development, which differs from what we call strategic projects.

## **PLANNED DEVELOPMENT<sup>5</sup>**

It is in the context of planned development that the evolution of planning-evaluation from BCA began. Planned development refers to the government-led spatial planning that emerged at the turn of the twentieth century, first in Europe and North America and soon spreading throughout the world. Planned development supplemented the previous site-based planning and urban design that determined the form of traditional cities and towns, with the growth of state intervention in the processes of urbanization and development.

Reacting to the perceived negative impacts of uncontrolled urban development through the course of the Industrial Revolution in developed countries, governments took powers to regulate and control piecemeal development. Under planned development government enforces standards to ensure a level of quality that would be absent otherwise, while settlements continue their market-led growth. Planned development, then, is a fusion of state planning and developer-initiated site and project plans responding to consumer demand.

From his background in Land Surveying and urban economics, Nathaniel Lichfield (1956) analyzed planned development practice in the UK. In discussing the role of planning-evaluation, Lichfield highlighted the contrast between private costs and benefits, which are accounted for in market transactions, and social ones that are not. Public planners and officials needed a way to assess these, for which BCA (because of its limitations mentioned above) was inadequate. This was the origin of the Planning Balance Sheet, Lichfield's modification of BCA for application to planned development (Lichfield, 1956: 263 ff., 1960), later elaborated and applied as Planning Balance Sheet Analysis (PBSA) (Lichfield, 1970, 1985).

In essence, PBSA is a form of impact analysis: it is a method for analyzing and displaying the repercussions of the subject plan or project, or what Lichfield called its "implications" (1956: 243). In PBSA these implications were envisaged (in economic terms) as project externalities, to be assessed in the process of project appraisal; later they became the central focus of attention in what Lichfield (1977, 1985) called Community Impact Evaluation (CIE).

The development of CIE also reflected two other influences. One was the emergence of another plan and project evaluation method: Environmental Impact Assessment (EIA) and its Environmental Impact Statement (EIS)<sup>6</sup>. The other was the spread of new ideas about planning, which downplayed the role of scientific analysis and prescribed a much more interactive style of planning (see Chapter 3 below). For plan-evaluation, these implied that evaluation methods, too, should be developed as interactive rather than analytic tools. In CIE, Lichfield envisaged

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5 This section draws on Lichfield (2003).

6 More on EIA and EIS under Strategic Projects below.

evaluation not simply as a discrete stage in the planning process, but as an interactive process driving the whole planning effort, with special relevance for development control (Lichfield, 1996).

Lichfield's contributions to evaluation theory and practice were influential in Europe, but evaluation of planned development during the 1970s and 1980s in the US took a somewhat different course. In the US, too, BCA was the evaluation method of choice for assessing development projects, and there, too, planners and other consultants analyzing prospective project impacts were sensitive to BCA's limitations. But their concerns were very different from their British counterparts'. While Lichfield and his colleagues worried that BCA neglected distributional and social impacts, the Americans saw BCA's focus on projects' broader socio-economic impacts as a flaw.

Rapid suburbanization and urban expansion made US planners and local government officials aware of the potential costs of growth, in terms of financing services for new developments. While BCA could show a project's long-term effects on the socio-economic community, it was incapable of reflecting the direct fiscal impact on local government and other public service agencies<sup>7</sup>. Responding to this need, a modified form of BCA was developed: Fiscal Impact Analysis (Burchell and Listokin, 1982), which enjoyed great popularity and widespread application.

### **Strategic projects**

Strategic projects are major public undertakings: large-scale land developments (urban extensions and new communities), regional development projects (settlement, economic development, environmental and flood control), major infrastructure nodes and facilities (harbors, airports, terminals, power stations) and networks: urban mass transit, highways, railways, energy and telecommunications. BCA was and continues to be the prevailing method for evaluating major strategic public projects, but competing evaluation methods have been developed to overcome BCA's acknowledged limitations.

Hill's (1968) "Goals Achievement Matrix" (GAM) was perhaps the first of what would become a family of related evaluation methods: Multi-Criteria Evaluation (MCE)<sup>8</sup>. The GAM owed a great deal to Lichfield's PBS which preceded it, but elaborated and quantified the PBS format of impact assessment to produce a numerical index that reflected the relative utility of the subject alternative. Another significant modification of PBSA was the introduction of goals or objectives into the evaluation matrix, to derive measurable criteria for assessing performance. This

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<sup>7</sup> However, this question had already been addressed previously in Britain, using a modified form of BCA called Financial Investment Appraisal (Lichfield, Kettle and Whitbread, 1973: 49-50).

<sup>8</sup> This is the term used in the plan-evaluation literature, for the family of evaluation methods that is also called Multi-Objective Decision Making or Multiple Criteria Decision Analysis.

became a common feature of many MCE methods that were developed later, such as the Analytic Hierarchy Process (Saaty, 1980).

In the 1970s and 80s rising environmental awareness, which began in the US and spread throughout the world, stimulated laws and regulations requiring the inclusion of environmental impacts among planning and project decision considerations. A plan- and project-evaluation method was developed to meet these demands: Environmental Impact Assessment (EIA), which was usually designed to produce an Environmental Impact Statement (EIS) in a legally mandated format (Wood, 1995). PBSA was clearly an influential predecessor to these expansions of impact assessment, which included EIA and later Social Impact Assessment (Finsterbusch, 1985).

Meanwhile the array of MCE methods grew with the development and application of a variety of formal (usually computerized) plan-evaluation tools<sup>9</sup>. These differ in several ways. One is their relative level of computational complexity, from simple arithmetic to multiple mathematical functions. Another is the amount and kinds of data they demand; these are associated with their information sources (subjective assessment or empirical data) and degree of interactivity. Finally, they offer different approaches to prioritizing goals or criteria, ranging from paired comparison between possible objectives to tradeoff functions between conflicting goals<sup>10</sup>.

## EVOLUTION OF EVALUATION METHODS

Much as in the life sciences, theories of evolution in planning-evaluation are related to systems of classification. Several classifications have been suggested, which we can apply to the evaluation methods reviewed here. Interestingly, all these converge with the rough time sequence of these methods' development and adoption, to offer a plausible model of the evolution of evaluation methods in planning.

Guba and Lincoln (1989) developed one classification; intended more for program evaluation, it is quite useful for planning evaluation as well. Their system divides evaluation approaches into four "generations" that represent progress from empirical positivism to post-positivist interaction (Khakee, 2003: 342-343). The first "generation", characterized by reliance on scientific measurement, is completely positivist. Of our evaluation methods, BCA, FIA and CEA clearly fall into this category.

The second "generation", trying to advance beyond simple positivism, combines empirical measurement with some assessment of goals-achievement; this applies to GAM and MCE methods. The third "generation", in reaction to the second, looked for objective and value-free ways of assessment; we can recognize this in the

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9 For a review of some of these, see Janssen (1992).

10 Tradeoff functions between goals and criteria are a central feature of Keeney and Raiffa's (1976) MCE model, which evolved into another form of MCE: goal programming (Ignizio, 1985; Caballero et al, 1998). This is not included here because it is rather esoteric and more used in operations research than in planning-evaluation practice.

various methods of impact analysis: PBSA, EIA, and Social Impact Analysis. The fourth “generation” transcends raw empiricism into post-positive intersubjective interaction. CIA probably comes closest of the methods reviewed here to entering this “generation”, though some empirical dross still clings to its edges.

Another classification groups evaluation methods by their degree of aggregation, distinguishing between “highly aggregated”, “intermediate”, and “highly disaggregated” approaches (Söderbaum, 1998). Highly aggregated methods sum up their assessment of all the impacts in one quantitative measure of a single objective function, for example, a benefit-cost ratio or net present value to measure economic efficiency. Intermediate methods also use a single quantitative indicator to convey an alternative’s overall utility, but it is a composite reflecting different dimensions of value or achievement. Highly disaggregated methods are intrinsically multi-dimensional: they make no pretence of showing a project’s overall value. Rather, assessment and display of different impacts on affected parties or stakeholders is intended to stimulate interactive discourse and consensus (Khakee, 2003: 344-345).

The first class includes BCA and FIA, while CEA and all the MCE methods make up the second. PBSA is also “intermediate” in terms of its aggregation, combining investment analysis criteria with disaggregated impact analysis. The “highly disaggregated” approaches are the various forms of impact analysis, ranging from EIA to CIA.

Several other classifications draw their categories from planning theory, relating evaluation methods in planning to various planning models or paradigms. These include deliberative (rational) planning, interactive (communicative) planning, coordinative planning, and planning as frame-setting. The planning models or paradigms, in turn, and the evaluation methods associated with them, are linked to different kinds of rationality: instrumental, substantive and communicative rationality (Alexander, 1998a; Khakee, 2003: 346-347; see Chapter 3 below).

Rational planning is primarily associated with instrumental and substantive rationality, while interactive planning (or communicative practice) draws mainly on communicative rationality. But examination in more depth reveals that all planning models involve a varying mix of several kinds of rationality (Alexander, 2000). Consequently no classification provides a simple match between planning-evaluation methods, planning models, and kinds of rationality.

The developmental sequence of the planning evaluation methods reviewed above tempts us to infer an evolutionary parallel with progress from “lower” to “higher” forms of rationality. Thus, the earliest systematic planning evaluation approach to public investment analysis, BCA, is clearly associated with instrumental rationality, providing a clear quantitative index to measure aggregate performance to a single objective function. But this also holds for some later modifications of BCA: CEA and FIA, which only differ in their measured objectives.

Other planning evaluation methods that followed BCA were a more radical transformation, in reaction to BCA’s simple instrumental rationality. Lichfield’s PBSA recognized the complexity and multidimensionality of plan and project alternatives, which could not be summed in a single monetary value. This recognition

abandons instrumental rationality in an implied aspiration to substantive rationality: relating means to multiple values. In the GAM and following MCE methods the link with substantive rationality is explicit. Just as substantive rationality prescribes, these methods not only assess impacts in relation to multiple objectives, but include valuing or prioritizing the goals themselves.

CIA and other forms of Impact Analysis go a step further, introducing communicative rationality to the planning evaluation process. This is the meaning of their retreat from the attempt to aggregate the social value of a projected undertaking (as perceived by relevant decision makers or stakeholders) in a single numerical index. Rather, the producers of evaluation methods such as the CIA, EIA and SIA view them as a framework for recursive interaction between planner-analysts, stakeholders, and decision makers, to reach a consensus on the preferred course of action.

This evolutionary model, which associates the succession of evaluation methods with advances in rationality, seems a plausible account of how evaluation methods developed in planning. But in depth examination reveals its appealing image of unimpeded progress as an illusion, exposing the intrinsic fallacy of the metaphor of evolution applied to evaluation in planning.

The dimension missing from the above account of evaluation methods' development is the distinction between theory and practice. Making this distinction, we realize that advances in evaluation theory do not necessarily parallel developments in practice. Much of this review really described the succession of prescriptive models in evaluation theory. The review gave less attention to their diffusion as operational models, and said little about these methods' adoption and application in practice.

Partly, that is because there is little to say: there are no systematic surveys of evaluation applications<sup>11</sup>. But a great deal of anecdotal evidence suggests the absence of any such parallel<sup>12</sup>; rather, there is an "emerging gap between evaluation research and practice" (Khakee, 2003: 340). Informed observation suggests that instrumental rationality is alive and well. BCA in some form or another is still the prevailing evaluation method for most strategic projects, from Trans-European TGV links in the Netherlands to World Bank funded high dams in Nepal. More advanced applications, using some of the Impact Analysis approaches (Chapters 11 and 12 below), MCE methods (Chapters 9 and 10 below) or CIA (Chapter 13 below) are rare.

The fallacy in applying the evolutionary metaphor to evaluation in planning is the absence of one of the essential aspects of evolution. In biological evolution, natural

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11 That is, to the best of my knowledge. Such research would have considerable interest; it could be done by surveying practitioners on what methods they use, or by a "literature search" of publications to identify the applications that they report. The only evidence I can think of, which has an indirect bearing on the application of evaluation methods, are surveys of practitioners that explored the relationship between methods taught and those used in practice (Contant and Forkenbrook, 1986; Kaufmann and Simons, 1995; Ozawa and Selzer, 1999).

12 For Israel see Alexander (1998b), for Sweden see Khakee (2003).

selection results from the emergence of new species through adaptive mutation and the extinction of old ones that failed to cope with changed environments. In planning, we have witnessed the birth of new evaluation methods, which can perhaps be attributed to some intentional adaptation to perceived needs, but old ones do not become extinct. In planning practice, if not so much in prescriptive theory, all the evaluation methods that have ever “evolved” are still in use today, and those we think the most “primitive” are the ones enjoying the most widespread application.

This flaw in our “evolutionary” view of evaluation in planning raises one of the dilemmas confronting us today: how to bridge the apparent gap between evaluation theory and practice. We have seen how some have advanced evaluation theory and practice by adapting and transforming old evaluation methods into new ones. It remains to be seen whether we want to make some old methods extinct (if we can) and why we should want to. Perhaps the fundamental flaw in the evolutionary metaphor is its intrinsic attribute of progress: perhaps all planning evaluation methods are equal and each has its appropriate use and place.

This conclusion would imply a radically different approach to remedying the gap between evaluation theory and practice. It would encourage us to pay less attention to criticizing, modifying, and transforming the wealth of already sophisticated methods that we have, and more to developing a useful model of contingent application. Such a model might facilitate the development and institutionalization (which is already in progress) of complex multi-method evaluation systems, and would help practitioners find the best evaluation methods to apply for their specific purposes.

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PART 1  
History and Theory

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# Evolution of Theory and Practice

Evaluation in planning, as we have seen, is not static. The evaluation theories, methods and practices that prevail today are a stage in a constantly unfolding process broadly described in Chapter 1. The next two chapters offer some more focused insights into specific aspects of the evolution of evaluation theory and practice from their modern origins in nineteenth century economic theory and public investment analysis practice.

Chapter 2 highlights Nathaniel Lichfield's role in this process, in particular his contribution to the normative underpinnings of planning and evaluation. Planning theory and practice in general were based on the rational model, with "classic" utilitarianism as its moral foundation. Utilitarianism was also the ethical premise of public investment analysis before Lichfield's critique and innovative methods. *Stefano Moroni* gives us a detailed breakdown of the transformation that led to the retreat from utilitarianism and opened the door to other normative values.

Moroni's account opens with an in-depth analysis of the utilitarian paradigm and its logical-philosophic elements, tracing its influence on planning and evaluation. He identifies three valid criticisms of utilitarianism: its reductionism, its neglect of distribution and equity, and its tendency toward authoritarianism. Lichfield's work incorporated these and responded to them: PBS incorporated some elements and discarded others; its successor, CIE, almost abandons utilitarianism but for its rational bias and the consequentialism reflected in its concern with impacts. In retrospect, Lichfield's positive critique of BCA, though sympathetic to its utilitarian premises, effected more radical change than other critiques from outside.

In linking evaluation to its underlying principles, these two chapters are complementary. *Alexander* in Chapter 3 takes a wider perspective than Moroni's (which focuses on utilitarianism and classic rationality), relating the evolution of evaluation approaches to a broader concept of reason where rationality takes several forms. Rational planning is linked to Weberian rationality, instrumental or substantive, and evaluation is critical for rational choice. But different evaluation methods subsume different forms of rationality.

Traditional quantified methods (e.g. BCA and CEA) reflect simple instrumental rationality; this is an advantage and a limitation. Bounded rationality (incrementalism and satisficing) rejects systematic evaluation, but is compatible both with BCA and interactive evaluation. Substantive rationality demands consideration of goals as well as means; this is clearly articulated in MCE methods. Strategic rationality generates "scenario" methods that frame alternative contingencies, and formal strategic games to project contingent consequences. Communicative rationality prescribes interactive evaluation, for which CIE and many MCE methods are appropriate, enabling the use of evaluation in planning discourse. Understanding the relation between evaluation methods and different forms of rationality enhances the institutional design of planning-evaluation processes, a topic to which we will return.

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## Chapter 2

# The Ethics behind Evaluation: Lichfield's Approach and Utilitarianism

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*Whereas the literature on evaluation as a method and tool is very rich, the literature on the nature of choice to be made in planning, and the logic behind it, is not (Lichfield, 1988b: 13).*

### **INTRODUCTION: ETHICAL PRESUPPOSITIONS OF THE EVALUATIVE METHODS**

Whether implicitly or explicitly, any evaluation technique tends to presuppose an ethical outlook (House, 1980). Open discussions on the ethical foundations of evaluation techniques will foster a more aware and critical application of them; and meanwhile, the work of evaluators may shed new light on the advantages and drawbacks of the ethical theories themselves.

It is undoubtedly the utilitarian ethical outlook that has exerted the strongest influence on the evolution of evaluation methods. For this reason it seems worthwhile to reassess Lichfield's approach to evaluation confronting it with the utilitarian tradition.

My discussion is organized as follows<sup>1</sup>: the first section points up the basic features of utilitarianism and stresses the influence it has had in the fields of planning and evaluation; the second section draws on Lichfield's approach to illustrate how a constructive distance can be taken from utilitarianism; and, in the final section, I draw my conclusions, highlighting the innovations inherent to Lichfield's contribution, and urge deepening the debate over ethical underpinnings of the evaluation techniques.

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1 This chapter is a revised and up-dated version of Moroni (1994).

## THE UTILITARIAN PARADIGM AND ITS INFLUENCE IN THE PLANNING AND EVALUATION FIELDS

### The utilitarian perspective

Utilitarianism is probably the most widespread and influential moral and political philosophy. The original formulation of utilitarianism is usually traced back to the works of Bentham (1789). However, an important foretaste of Bentham's outlook can be found in the works of Beccaria (1764). Other fundamental contributions to the evolution of this programme were later developed by Mill (1861) and Sidgwick (1874). Among the more interesting contemporary reformulations of the utilitarian perspective are Smart (1973), Harsanyi (1977), Brandt (1979), Singer (1979), and Hare (1981).

Briefly, the utilitarian outlook is composed of a set of characteristic elements (or components), which are combined in a coherent structure<sup>2</sup>. These are outlined below, with special reference to contemporary versions of utilitarianism<sup>3</sup> (that is, the more sophisticated formulations that go by the name of preference utilitarianism)<sup>4</sup>.

First and foremost, utilitarianism accepts the following set of *meta-ethical* and/or *meta-theoretical* basic assumptions:

- A1 *anti-relativism*: ethical relativism is erroneous; practical reason exists: inter-subjective rational discussion about values is possible,
- A2 *anti-idealism*: there are no value sources independent from sentient beings,
- A3 *anti-intuitionism*: moral judgements should not be based on intuitive approaches but on a rational, thorough, candid and communicable analysis of the situation at hand,
- A4 *teleology*: an ethical theory must be constructed starting from a conception of (non-moral) good, from which only later a conception of (moral) right is developed; in other words, the good is defined separately and prior to the right,
- A5 *monism*: an ethical theory must envisage a single principle or criterion of choice or action.

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2 On utilitarianism in general, see, for instance, the excellent works by Plamenatz (1949); Lyons (1965); Quinton (1973); Miller and Williams (1982); Sen and Williams (1982).

3 It is anything but simple to single out the various constituent elements of utilitarianism (as for all ethical theories). The list that follows is by no means exhaustive (among the missing elements are for instance the *meta-meta-rules* for combining the various elements consistently); furthermore, it is possible that some entries in the list partly overlap with others. It does, however, offer a framework of sorts to facilitate the ensuing discussion.

4 As we will see, in this case utility is defined as the satisfaction of preferences; at any rate, it is enough to identify utility with the achievement of pleasure to obtain the classical version of utilitarianism, i.e. hedonism (which comes from the Greek word *hedone*, meaning pleasure).

At a lower level (and bearing in mind the assumptions laid out above) is another set of fundamental and even more specific *ethical* assumptions, namely:

- B1 *reductionism*: aspirations, ideals, needs, expectations, claims and so on, all belong to the same plane – or level – and can all be represented (interpreted) as someone’s personal preferences,
- B2 *uni-dimensionality*: the satisfaction of different preferences can be converted to a single dimension or scale of measurement (that is, utility); in other words, everything is commensurable,
- B3 *welfarism*: satisfaction of different preferences in terms of utility is the only aspect that counts in judging the goodness or rightness of an action or decision,
- B4 *consumer sovereignty* (or the principle of preference autonomy): each of us is the best judge of his or her own welfare,
- B5 *equal consideration of preferences*: each person’s preferences should be given equal weight,
- B6 *consequentialism*: in our judgements of the goodness or rightness of actions or decisions we must consider (only and specifically) the state of affairs they produce, or the results that derive from them,
- B7 *sum-ranking*: when we evaluate the consequences of an action or decision on the basis of its utility, we have to take note of the overall sum of individual utilities in question.

Underlying the preceding set of assumptions is a further group of *quasi-descriptive* assumptions, which are more often implicit than explicit:

- D1 the individual is perfectly represented (described) by his preferences,
- D2 the individual has a set of coherently formulated preferences; this means that his preferences fulfil a series of logical axioms such as connectedness, transitivity, continuity and reflexivity (for an idea of the kinds of conditions required, note that transitivity, for example, demands that if an individual prefers  $x$  to  $y$ , and  $y$  to  $z$ , then he prefers  $x$  to  $z$ ),
- D3 the rational behaviour of an individual consists in maximizing his utility; in the case of decisions taken under conditions of certainty, we have the maximization of simple utility (D3a); in the case of decisions taken under conditions of risk, we have the maximization of expected utility calculated on the basis of objective probability (D3b); in the case of decisions taken under conditions of uncertainty, we have the maximization of expected utility calculated on the basis of subjective probability (D3c),
- D4 society is represented by the sum of its individual members and therefore by the overall set of their preferences.

By combining all the above elements we obtain the fundamental utilitarian ethical principle, namely:



- P *everything that maximizes collective utility is right*; two different versions are possible: we can consider either the total utility, or the average utility; but the two versions are practically identical, bar in some exceptional instances.

An important feature of the principle thus obtained is the propensity for *optimization*: in other words, a choice enacted on the basis of that criterion is – at least in theory – the optimal choice for a given situation.

A further differentiation is possible regarding the field of application (F) of the principle of choice; this gives us:

- F1 *act-utilitarianism*, where P is applied to single actions,  
 F2 *generalized utilitarianism*, where P is applied to a class of similar actions,  
 F3 *rule-utilitarianism*, where P is applied to rules and practices<sup>5</sup>.

### Utilitarianism in planning and in the evaluation field

Utilitarianism is without doubt the most influential ethical theory in the field of urban and regional planning<sup>6</sup>. While it might be said – at least in part – that utilitarianism has lost some of the academic backing it enjoyed some decades ago<sup>7</sup>, it nonetheless remains deeply rooted in today's practices, and underlies the mentality of many public officers and planners<sup>8</sup>. The success of utilitarianism in the field of planning may largely be traced back to the fact that, among the various ethical theories available, it is at first noticeable as the one closest to the traditional technical and scientific mentality. Within the utilitarian framework, moral issues can in fact be rationally and conclusively determined by calculation.

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5 Actually, the distinction between F1, F2, and F3 is not as clear-cut as it might seem at first; it is, however, sufficiently clear for the limited scope of the present discussion.

6 “The principles which for the most part dominate modern planning ... are to be found in a single book: Jeremy Bentham’s *Principles of Morals and Legislation*” (Allison, 1975: 74). “Utilitarian reasoning in planning arguments is the most familiar and generally has occupied the highest status in the planning discipline in the post World War II era” (Goldstein, 1984: 305). “The dominant method for making decisions used in public administration and planning ... is utilitarianism” (Sillince, 1986: 121). “Many planners and public officials ... depend heavily on the utilitarian paradigm” (Beatley, 1988: 209).

7 This is also due to Rawls’s attempt in the 1970s to construe a strong alternative ethical programme to utilitarianism (Rawls, 1971).

8 As Hall (1992: 33) writes, commenting on his work as special adviser to the Department of the Environment: “Since working for government, the point that has impressed me most is how deeply the thought-ways of economics, and in particular the Benthamite or utilitarian approach to decision-making, have ingrained themselves in the behaviour of both ministers and officials”.

Among evaluation techniques, the one closest to philosophical utilitarianism is evidently traditional *cost-benefit analysis*<sup>9</sup>. Utilitarianism and cost-benefit analysis are certainly not “the same thing”, as the former is an ethical theory, and the latter an evaluation technique. Nonetheless, if utilitarianism aims to express concrete judgements on specific cases, it is forced to entail a procedure that is identical to classical cost-benefit analysis; at the same time, cost-benefit analysis presupposes a set of basic assumptions of a typically utilitarian nature (it is undoubtedly not classifiable as a ‘neutral’ technique; nor can it be considered a technique requiring merely a minimum moral commitment<sup>10</sup>). So, even though utilitarianism and cost-benefit analysis are not “the same thing”, they have strong and undeniable links.

We might say that cost-benefit analysis admits (be it explicitly or implicitly, as basic elements or as operative elements) all the points used above to illustrate the nature of *preference utilitarianism*, in particular A1, A2, A3, A4, A5, B1, B2, B3, B4, B5, B6, B7, D1, D2, D3, D4. The general principle behind this analysis is undoubtedly P (applied according to F1 and with a clear propensity for optimizing).

Certain well-known examples of orthodox cost-benefit analysis applied in the area of urban and regional planning include Foster and Beesley (1963) for the London Underground; the analyses of Rothenberg (1967) and Mao (1966) on urban renewal; the inquiry of the Roskill Commission into the site of the third London airport (Commission on the Third London Airport, 1969–1970, 1971)<sup>11</sup>. The Roskill Report, to which I will return in greater detail, is perhaps one of the most evident cases of the link between traditional utilitarianism and cost-benefit analysis; Hall referred to the Roskill Commission’s Report as “the apotheosis” of utilitarianism: “perhaps, the grandest attempt yet made anywhere in the world to realize Jeremy Bentham’s ideal of the felicific calculus” (Hall, 1970: 308).

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9 Henceforth I use the term “cost-benefit analysis” in a somewhat restricted sense, in reference only to traditional forms of cost-benefit analysis. Here is pertinent to point out that Lichfield on occasions uses the term in this way, but on other occasions differently. In the earlier writings, for example, it is used also for his adaptation of the traditional cost-benefit analysis, i.e. PBSA (see Lichfield, 1960, 1964, 1965, 1969). Subsequently, he has introduced the more general concept of the “cost-benefit family of methods” to indicate that there are methodological relationships between an array of methods which aim at evaluating costs and benefits for different kinds of decision taker or stakeholder; in this latter perspective, PBSA/CIE is a particular method within the family (see Lichfield, 1996).

10 As Kelman (1985: 234) observes: “Like the Moliere character who spoke prose without knowing it, economists advocating the use of cost-benefit analysis for public decisions are philosophers without knowing it: the answer given by cost-benefit analysis, that actions should be undertaken so as to maximize net benefits, represents one of the classic answers given by moral philosophers. This is the doctrine of utilitarianism”. See also MacIntyre (1985).

11 A detailed analysis of the application of cost-benefit analysis in the urban and regional planning field can be found in Schofield (1987). Lichfield’s own contributions to this area are of particular interest (starting with Lichfield, 1970).

### **Three criticisms of utilitarianism**

Among the criticisms directed against utilitarianism I shall concentrate on those that more closely concern the argument discussed here.

One of the primary criticisms of utilitarianism focuses on the hypothesis that utility is a single quantifiable universal denominator. On the one hand, this idea underestimates the substantial diversity and incommensurability among varieties of experiences, emotions, events, etc., and, on the other, it excludes from the public attention all those elements that are not easily quantifiable in these terms. This criticism is levelled primarily at B2 of utilitarianism<sup>12</sup>.

A second fundamental criticism of utilitarianism concerns the well-known question of the indifference of its public choice criterion to the way in which the advantages and drawbacks are shared out. The component under attack here is notably B7<sup>13</sup>. The point is that utilitarianism leaves us without any parameter to assess the existing state of distribution of spatial and environmental assets and values, and without any criteria that enable us to compare it with a new distribution scheme proposed by a plan; nor are we in a position to claim that a proposed distribution scheme is any better or worse than that favoured by a rival plan. Given that one of the crucial features of urban and regional planning is its strong distributive effect, it is a serious handicap to be without a principle for evaluating alternative distribution schemes for spatial assets<sup>14</sup>.

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12 For an incisive reiteration of this criticism, see Taylor (1982). It is interesting to note that a philosopher of such outspoken anti-utilitarian persuasion as Williams (1972: 96) includes, among his examples for showing the inviability of reducing everything to merely quantitative terms, those problems that urban planning deals with: one of the things Williams singles out is, for example, the difficulty of making quantitative assessments of “the value of preserving an ancient part of a town”.

13 A recent and most convincing reiteration of this traditional objection can be found in Rawls (1971: 26-27).

14 A simple hypothetical example will illustrate the problem. Let us imagine that society is composed of three individuals (or groups), A, B and C, and that we are faced with two alternative feasible schemes. Suppose that Plan K affords a utility amount of 70 (irrespective of the unit of measure) to A, 15 to B, and 5 to C. Whereas Plan Z allots an equal amount of 30 to all three. The utilitarian criterion considers the two plans identical in ethical terms – the overall utility afforded is in fact the same – despite the patent diversity of the two schemes. The purely utilitarian approach would even favour a plan that ensured a greater overall utility, despite the ills of a distribution that penalized underprivileged strata of the community even further. Think, for example, of the damages suffered by low-income people through the numerous housing redevelopment and highway construction schemes of the 1950s and 1960s (schemes that tore through the neighbourhoods in which they lived and worked): the loss of homes and jobs of people in lower income brackets was justified by the increase in collective utility that such development operations brought to the community as a whole (Taylor, 1980: 163-164; McConnell, 1981: 148, 174; Ross, 1991: 56).

A third criticism of utilitarianism is of its tendency to encourage “centralisation” of public choices, and some degree of “authoritarianism”<sup>15</sup>. This criticism, however, should not be taken too decisively, as often mistakenly happens. It should be moderated to say that utilitarianism seems too trusting of the abilities of those who claim to assume the point of view of the “impartial sympathetic observer”, taking a solitary and purportedly enlightened standpoint in their assessments of social utility. One could say at this point, that utilitarianism implicates a propensity for a sort of simplistic top-down decision-making. In this case the objection focuses less on a single element of utilitarianism, as on a particular combination of some constituent elements.

I think that these three criticisms are particularly convincing<sup>16</sup>.

## LICHFIELD’S APPROACH AND THE UTILITARIAN PHILOSOPHY

### Planning Balance Sheet Analysis and Community Impact Evaluation

I now come to Lichfield’s contribution to the evaluation debate, with particular emphasis on the way he has made it possible to supersede the standard utilitarian outlook. What I mean to point out here is that Lichfield convincingly (albeit often implicitly) discredited some of the features of utilitarianism, and was often well ahead of the ensuing wave of similar critiques. This happened principally through his pioneering objections to classical cost-benefit analysis.

#### *Planning Balance Sheet Analysis: First steps away from utilitarianism and traditional cost-benefit analysis*

The objection to cost-benefit analysis tabled by Lichfield was twofold. Objections of this kind – today more widely accepted – had already been propounded by Lichfield in the 1950s and 1960s, that is, when a certain type of economic mentality was dominant and almost universally accepted):

- in the first place, cost-benefit analysis unwisely claimed to reduce all the elements to a single (monetary) metric,
- in the second, traditional cost-benefit analysis failed to take the distributive aspects into account.

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<sup>15</sup> For a review of objections of this kind see, for instance, Caillé (1988).

<sup>16</sup> Another recurring criticism – albeit not immediately relevant to the present discussion – is that utilitarianism fails to give due weight to the *rights* of the individual, i.e. it does not recognize their intrinsic, autonomous value. For more on this question, see for instance Dworkin (1977). Those who are interested in the possible replies of the utilitarians on this and the other criticisms mentioned above should read the excellent contributions from Hare (1981, 1989a, 1989b), Allison (1990) and Barrow (1991). Although this is not the place for discussion on the counter-defence of the utilitarians, they are well worth considering.

Unlike traditional cost-benefit analysis, Lichfield's Planning Balance Sheet Analysis (PBSA) aims to account both for elements that are not measurable in monetary terms and also for distribution between sectors of the benefits and costs (see, for example, Lichfield, 1956, 1960, 1964, 1968). PBSA can therefore be considered an example of implicit criticism of certain aspects of utilitarianism (and one is reminded of the first two criticisms mentioned previously). The various case studies to which Lichfield applied his PBSA (see, for example, Lichfield, 1965, 1969, 1971) can be fruitfully reinterpreted as concrete and tangible examples of the practical need to break out of some of the limits of utilitarianism.

It is interesting to briefly recall here, for example, Lichfield's criticism in the early 1970s of the Roskill Commission's inquiry into the site for the third London airport (Lichfield, 1971)<sup>17</sup>. This was made in the light of PBSA. In this case, one can clearly observe, as noted above, that Lichfield's objections to a certain evaluation approach are never simply destructive; in this respect I would like to consider his elaborate discussion of the Roskill Commission's work as a paradigm of Lichfield's brand of constructive criticism of cost-benefit analysis and utilitarianism. Many critics were particularly outspoken against the Roskill Commission's findings, while suggesting that techniques of the kind employed by the team should be completely abandoned; however, they proposed nothing in their place. Instead, Lichfield's idea was that the Roskill Commission's work had by no means demonstrated that certain evaluation techniques were *in themselves* inappropriate for tackling planning issues; the Roskill case merely showed that the particular use that the Commission made of those techniques was to some extent unsuitable, and could be improved<sup>18</sup>.

Lichfield's first criticism of the Roskill Commission's work was that its preoccupation with reaching a single final monetary figure led it to omit from the analysis all those elements that were not so easily quantifiable in monetary terms (Lichfield, 1971: 166ff.). In this way the non-measurable elements were excluded from public attention, and hence from the public debate itself<sup>19</sup>. Still using his PBSA as a yardstick, Lichfield showed several interesting ways by which it was possible

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17 For a more ample critical reading of the Roskill Commission's inquiry, and hence not just of the final cost-benefit analysis, see Lichfield, Kettle and Whitbread (1975). See also Lichfield (1980).

18 As Lichfield (1971: 158) wrote: the Roskill Commission "can be said at one and the same time to have advanced the use of cost-benefit analysis by splendid example, and to have retarded its use among the doubters". It is this which Lichfield hoped to redress, "...by showing that the Commission was at fault not in using the methodology for the purpose of decision-making in planning, but in their mis-use of it". Thus, Lichfield concluded, "I will hope to convey that the way to better decision-making in urban and regional planning is by better use of cost-benefit analysis, or rather planning balance sheet analysis".

19 "By choosing to deal with the measured and non-measured elements separately ... the Commission has laid itself open to the justifiable criticism ... that it places importance on the items which have been measured in money terms, and ignores those others which cannot be so measured and which may nonetheless be of great importance ... to the decision" (Lichfield, 1971: 168).

to include this type of data in the analysis (Lichfield, 1971: 168ff., tables 9-10). The basic idea was that the analysis was to serve as a framework for all the various publicly significant issues of a problem, and not just for certain issues decided *ad hoc* (170); as Lichfield significantly observes, such an approach furnishes a framework that is not only more general but is also less “suspect” (169).

Lichfield’s second criticism of the Roskill Commission’s work concerned its single-minded application of an *efficiency criterion*. In its assessment of the four sites under study, the Commission had taken into consideration the costs alone for a set of elements; the aggregate measurement of the costs of the different elements considered indicate the site where it would have been least disadvantageous to locate the new airport (as is well known, the choice fell on Cublington in Buckinghamshire; while Foulness in Essex turned out to be the most costly). Lichfield felt this was insufficient; it was essential also to assess the way in which costs (and also benefits) were distributed among the various sectors of the population affected, adopting an *equity criterion* (Lichfield, 1971:161)<sup>20</sup>.

For this reason, he proposed reappraising the data from which the Roskill Commission based its analysis, this time from the viewpoint of PBSA. Costs and benefits were thereby broken up among the various affected sectors. Initially the division was made between *producer-operators* (British Airports Authority, airline operators, highway authorities, public transport authorities) and *consumers* (air passengers, freight shippers, displaced residents, un-displaced residents). This subdivision was later made more complex (Lichfield 1971:160, 162, tables 2-3; 164ff., tables 5-8). It is enough to compare the somewhat thin final table of costs produced by the Roskill Commission (Commission on the Third London Airport, 1971: 119) to the complex subdivided tables proposed by Lichfield to realize how the distributive aspects are completely overlooked in traditional cost-benefit analysis; by contrast, Lichfield’s PBSA affords an immediate and clear illustration of the distributive effects which, given that the question concerns public decision-making, would seem to be a fundamental requisite. Lichfield’s tables (created from the same data adopted by the Roskill Commission) offer an excellent visual exemplification of the traditional objection to the aggregative element of utilitarianism.

In conclusion, Lichfield’s analysis according to his PBSA demonstrated, among other things, that the Cublington site was not so favourable as the Roskill Commission made out; meanwhile, Foulness turned out not to be such an improbable choice after all. In other words, by reshuffling the data Lichfield produced a quite different reading of the situation.

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20 The problem arises “since the decision to build the Airport at any one of the four locations would involve a redistribution of income and wealth from that which would occur without the Airport, and furthermore each of the four locations would result in a different redistribution of income and wealth” (Lichfield, 1971: 161).

*Community Impact Evaluation: Further steps away from utilitarianism and traditional cost-benefit analysis*

Lichfield's subsequent transition from PBSA to Community Impact Evaluation (CIE) marked a stage further in the development of his ideas.

Compared to PBSA, the new method introduced various improvements and refinements, such as: the distinction (and relationships) between *analysis* and *evaluation* were clarified and expounded further; the question of impacts also became clearer, and was treated in a more sophisticated and transparent way; certain features which in PBSA risked remaining hidden were brought into the open and made more comprehensible; the entire procedure becomes more flexible and adaptable to the specifics of the case (Lichfield, 1988a, 1988b, 1990a, 1994, 1996; Lichfield and Choudhury, 1993).

Lichfield's criticisms of cost-benefit analysis become even more precise and convincing in the light of the developments introduced by CIE (Lichfield, 1994: 73-74; 1996: 54-55, 140-143). But here I would like to focus on a third criticism that comes to light in the development of Lichfield's approach.

As regards the general argument discussed in this chapter, an element of special relevance is Lichfield's attempt to construct an assessment procedure that can also be applied for increasing and improving the democratic tenor of the planning process, of participation and public debate around it (Lichfield, 1988b: 25-27; 1990a: 88; 1990b: 194-195; 1996: 193-200; 2003: 62-63). The object seems to be to make the entire evaluation process more open, transparent, dynamic and interactive with respect to PBSA (and, of course, regarding classical methods of cost-benefit analysis).

Two of Lichfield's observations on this count are particularly relevant.

In the first place, his idea that evaluation must be integrated as much as possible into the planning process itself, and not constitute a mere separate and independent test (see Lichfield, 1994); with CIE it is clearer that evaluation should not be considered as a *discrete step* – within the broader procedure of constructing and discussing the plan – but as an *ongoing process in fieri*.

In the second place, there was the idea to press for greater communicability between the various methods of evaluation within the sphere and in the light of the CIE, where Lichfield focused on the “cost-benefit family” and on “nesting” (Lichfield, 1994: 69-74; 1996: 168-169).

It might be stated, therefore, that the outlook and hope of CIE is not so much to offer a technique for simply taking *public decisions*, as to provide a procedure for principally fostering *public discussion*<sup>21</sup>. In other words, CIE is not simply a *decisional device*, but is, first of all, a *resource for decision*. This direction is undoubtedly a promising one, but has received scant attention compared with more

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21 “CIE is not only a method for aiding choice, but also a dynamic tool which can be used from its initial formulation as a basis for community discussion, and the modification of a preferred project option” (Lichfield, 1988b: 27).

traditional approaches<sup>22</sup>. In any event, it is important to note that Lichfield does not fall into the common trap of embracing a generic and unlimited participatory or negotiative approach to planning; instead he insists on the possibility of using evaluation techniques such as CIE to *structure* and *orient* participation and bargaining, in a profitable way<sup>23</sup> (Lichfield, 1994: 66-67, 74).

CIE, therefore, tends to reiterate *also* the third of the recurring criticisms of utilitarianism (and certain forms of cost-benefit analysis), mentioned earlier. In this case too the application examples help provide a clearer and more tangible idea of the critique (Lichfield, 1996).

### Affinities and differences with the utilitarian tradition

To sum up, although there are evident analogies between Lichfield's approach and utilitarianism, it does not seem that the former can be completely reduced to the latter or that the two overlap entirely: on the one hand, the prerequisites behind PBSA and CIE are not entirely utilitarian; on the other, both PBSA and CIE are only partially similar to the operative methods necessary for putting utilitarianism into practice.

Lichfield initially saw PBSA as an adaptation of cost-benefit analysis (due to his background in economics), and thus his method originally had marked affinities with utilitarianism. These affinities, however, waned progressively as he developed PBSA and then CIE. However, he did not reject utilitarianism entirely. By contrast, Lichfield was evidently more selective in his rejection of orthodox utilitarianism, and worked some of its features into his own methods. In sum, Lichfield aimed to:

- discard the aspects of utilitarianism that were more patently negative or debatable when transferred to the urban and regional planning field,

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22 On this subject, it is worth quoting the following observations by Miller (1990) in full; after noting the emphasis that has always been given to the technical aspects of evaluation, Miller (1990: 119) writes: "...considerably less attention has been given to how planning evaluation may be designed and applied in a manner that will encourage and facilitate its use by people involved in decision-making processes". The principal purpose of evaluation in this latter perspective, "is to improve the quality of decision-making by helping to structure the dialogue of decision-making in a non-distortive manner; by identifying and developing information from all important sources, especially affected parties; and by helping to achieve agreement, if not consensus, on both a course of action and a commitment to implement the decision". Evaluation applied in this way can be viewed, "as a 'full disclosure' process to facilitate ... better-informed and more widely supported decisions".

23 See Lichfield (1979: 13): "for the dialogue to be more effective it needs to be *structured*, with the public being presented with the *right questions* at the *right time*, so that they can offer relevant views in a way which is meaningful for the process ... With all our veneration for democracy and wish to involve the people, it still does not follow that the concepts of Athens or New England are necessarily the concepts for resolving conflict in a contemporary city" (my italics).



- take a more complex approach to the other aspects which, though not entirely discardable, were worth considering and incorporating into planning theory and practice in a less reductive, more critical way; these elements had to be partially revised and adjusted,
- maintain and develop the more positive features of traditional utilitarianism, or at least those that seem more interesting for planning evaluation<sup>24</sup>.

Let us take a closer look at the elements of utilitarianism that Lichfield evidently rejected (either explicitly or implicitly). There can be little doubt that Lichfield's evaluation approach discards the practice of *sum-ranking* (B7) and *uni-dimensionality* (B2). This was already clear with his PBSA, and became even more evident with CIE. Consequently, even if Lichfield often maintains that evaluation must be grounded in the principle that the collective welfare of a given community must be advanced by local government decisions<sup>25</sup>, the affinity between this principle and the utilitarian principle of *maximizing the total amount of utility* (P) is only approximate (and more in form than in substance). When it is a question of clarifying the contents of the rules of the more preferable collective choices, or a question of their practical application, the differences immediately come to light: such as the importance Lichfield attributes to the problem of *equity* (and not only to *efficiency*)<sup>26</sup>. Also as regards the *propensity for optimization*, Lichfield's approach seems to take a quite different slant. Despite the fact that both PBSA and CIE attempt to suggest the preferable course of action in certain contexts, they do not presuppose (even ideally) that the course indicated is the optimal one for the case in hand. Both PBSA and CIE seem instead to aim more for a *satisficing* outcome<sup>27</sup>, than for an optimal one<sup>28</sup>. One can also notice how

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24 As one can see, the present comparison of utilitarianism with Lichfield's approach is restricted to but a part of the components of utilitarianism listed at the start of this chapter. This is due to the fact that Lichfield proposes first of all an evaluation technique, and not a comprehensive ethical outlook; hence the comparison is necessarily partial (particularly as regards the more general elements of utilitarianism). For the same reason, for those elements dealt with directly here, the comparison can only be taken to a certain depth.

25 "The end objects of any urban and regional planning is to advance the welfare of the community that is affected" (Lichfield, 1988b: 13). See also Lichfield (1994: 55-56; 1996: 59).

26 Lichfield (1988a: 253-255) stresses that the problem of *equity* has not been explored as much as the question of *efficiency*, to the point that there is still no entirely trustworthy criterion for assessing equity. Despite this, Lichfield nonetheless considers distributive equity a fundamental issue, and believes it is important to seek out useful and convincing criteria of equity.

27 In the sense expounded in Simon (1983).

28 As Lichfield (1970: 163) notes: "In a PBSA there is every endeavour to measure what can be measured; but there is also the recognition that the time resources for such full measurement are not normally available". This aspect seems to become more evident in his CIE; in fact Lichfield (1990a: 91) proposes simplified versions of CIE that allow for satisfactory results despite limited time and resources. In brief, "the conclusions and recommendations

Lichfield's approach seems to steer clear of the tendency for "top-down decision-making" which (at least implicitly) utilitarianism appears to involve.

Then come those features which Lichfield does not discard outright, but accepts critically (particularly in his CIE). As for *welfarism* (B3), I believe Lichfield remains an advocate, inasmuch as the fulfilment of given preferences remain the point of departure and overall scope of planning and evaluation, but does so in a more qualified way than utilitarianism as shown, for example, by his comments on "social decision" (Lichfield, 1994: 70 and 1996: 175, 196). One might say that Lichfield felt that, although it was evidently a vital element, welfarism was far from being the "full story". Hence, however important, individual preferences were neither sacred nor untouchable. In brief, CIE "...has room for the decision-taker introducing overriding social preference" (Lichfield, 1996: 191). If I am not mistaken, this means that the utilitarian concept of equality – as equal consideration of preferences (B5) – is also not entirely nor uncritically accepted in Lichfield's approach<sup>29</sup>.

This brings us to the aspects of utilitarianism which Lichfield holds firmly onto: in the first place, *consequentialism* (B6). With regard to consequentialism, Lichfield's transition to the CIE method actually entailed a vital refinement and evolution of this feature (Lichfield, 1988a: 250-252; 1994: 67-68; 1996: 61-82, 120-138). The CIE led to a more precise and operative concept of *impacts* by distinguishing them from *effects*. The latter are objectively measurable physical outputs of projects, plans or policies, whereas the former are the repercussions of those effects on the people's well-being. This linkage can be worked out rigorously by means of a new concept in terms of the "impact chain"<sup>30</sup>.

Among the various positive aspects of utilitarianism that Lichfield hangs on to and tries to develop, is also *anti-intuitionism* (A3), that is, the attempt to base our decisions (particularly public decisions) on a clear, rigorous analysis of the components of the situation, so that choices are aware, well-informed and transparent. It is interesting to note that Bentham himself insisted on this factor, defending utilitarianism's attempts to spotlight and clarify reasons behind a given decision, instead of the more woolly and intuitive methods propounded by other ethical perspectives. The

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from CIE cannot aim at *optimizing*, and must be content with *satisficing* and *second best solutions*" (Lichfield, 1996: 171).

29 This last point requires a brief explanation to avoid any misunderstandings. I am obviously not claiming that Lichfield rules out equality entirely, but simply that he does not seem altogether happy with that particular brand of equality that utilitarianism proposes. The point is in fact that ethical theories all presuppose some form of equality (Nagel, 1979); but the different concepts of equality do not completely overlap, and are not acceptable to the same degree (one could, for instance, replace the notion of equality as *equal consideration of preferences* with an idea of equality as an *equal share of resources*; on this point, see, for example, Kymlicka, 1990: 35-44). This issue deserves a more in-depth study, especially given the fact that the notion of equality is one of the concepts that is usually considered self-evidently positive; for this reason it is often used in the fields of planning and evaluation in a critical fashion.

30 This idea was anticipated in Lichfield and Marinov (1977).

revolutionary vein of utilitarianism on this issue is largely intact, and continues to pose a significant challenge for other ethical approaches, as it poses a challenge to all those who criticize the systematic use of evaluation techniques in urban and regional planning in favour of more intuitive, immediate approaches.

## **FINAL REMARKS: BEYOND CLASSICAL UTILITARIANISM**

A first general conclusion that can be drawn from the above discussion is that we must pay greater attention to the values that lie behind the evaluation techniques that we employ<sup>31</sup>. While these techniques become increasingly sophisticated, there is still no real systematic discussion around the suppositions upon which they are based<sup>32</sup>. Given that utilitarianism is without doubt the moral conception that had the greatest impact on evaluation methods in the field of planning, we need, for instance, to undertake more in-depth discussions and comparisons on the benefits and limits of this influential tradition.

The point is that utilitarianism has been a dominant outlook for so long in planning that we tend to take for granted many utilitarian assumptions, which have become deeply rooted in our way of thinking, without asking ourselves what their origins are or querying the pros and cons involved. At a more general level, it seems quite indispensable at this point, and not simply for planning theory, but more so for planning practice<sup>33</sup>, to carry out a direct, critical and explicit comparison with the themes and problems of moral and political philosophy<sup>34</sup>.

A second more specific conclusion regards Lichfield's contribution to the evaluation field. I believe it is crucial that we credit Lichfield with his pioneering grasp of the limits to the standard form of utilitarianism (together with certain limits

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31 As noted by Rauschmayer (2001: 65): "The choice of the method of decision analysis depends on the decision about the normative foundation of the analysis. Consequently, deeper insights are necessary into the different arguments in ethics". The central point, to quote Lynch (1981: 1), is that, "when values lie unexamined, they are dangerous".

32 As noted earlier by Nash, Pearce and Stanley (1975: 83): "Although 'project evaluation' in one form or another is widely practiced throughout both developed and underdeveloped countries, surprisingly little attention has been paid to the underlying philosophies involved".

33 It would be hard to better MacIntyre's (1985: 216) brilliant outline of the question: "The practical world of business and government is haunted by unrecognized theoretical ghosts. One of the tasks of moral philosophy is to help us to recognize and ... exorcise such ghosts. For so long as philosophical theories in fact inform and guide the actions of men who take themselves to be hard-headed, pragmatically oriented, free of theory ..., such theories enjoy an undeserved power. Being unrecognized they go uncriticized. At the same time the illusion is encouraged that philosophy is an irrelevant, abstract subject ... The truth is, however, that all nontrivial activity presupposes some philosophical point of view and that not to recognize this is to make oneself the ready victim of bad or at very least inadequate philosophy". See also Snare (1992: 1-2).

34 A very clear synthetic defence of this view can be found in Beatley (1987).

to traditional cost-benefit analysis) and with having laid the basis for a viable working alternative<sup>35</sup>. The interesting aspect of Lichfield's critique is that it nonetheless stems from a basically sympathetic attitude to utilitarianism and orthodox cost-benefit analysis. One might say that Lichfield's criticisms are voiced from "within" this last tradition of thinking. For this very reason, Lichfield's critique is always a positive one; in other words, it is not simply a case of outright censure, as it was for a great many other theorists preoccupied exclusively with demonstrating the limits of utilitarianism and of cost-benefit analysis (often trapped by the pitfalls of bias and preconception), without putting forward a viable alternative.

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35 For further discussion on this issue, see Chapter 4 below.

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## Chapter 3

# Evaluations and Rationalities: Reasoning with Values in Planning

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### INTRODUCTION: RATIONALITY AND EVALUATION

Planning always has been and always will be associated with rationality, in spite of some expressions to the contrary<sup>1</sup>. That is because rationality, correctly understood, means the application of reason to purposeful action, and it is impossible to think of planning that, in this sense, is not rational. Reason here has two different but related meanings, both relevant. One has to do with having reasons for deciding on what action to take: rationality as the logic linking means to ends. The other relates to accountability: rationality in the sense of giving reasons for intended decisions or action taken.

The evolution of planning as a systematic activity coincided with the emergence and formalization of what we now call “classic” rationality (though, paradoxically, it is synonymous with modernity). This form of rationality is originally identified with the European Enlightenment and its adoption of Descartes’ concept of universal reason in its revolt against obscurantist tradition. Responding to critiques of transcendental reason as divorced from any real social context, Weber modified Cartesian thought to describe rationality in three forms: instrumental-, substantive-, and value-rationality.

Weberian rationality is essentially the rationality behind what we understand today as the rational model of planning. What many discussions refer to as rationality is in fact a stereotype of Weberian instrumental rationality, as it has been formalized in utilitarian models of rational choice. The rational planning or decision-making model is what practitioners of the “decision sciences” have learned and practice. These include various kinds of planners (for example, urban or town and country planners, regional transportation, and environmental planners), managers, administrators, and policy analysts.

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<sup>1</sup> These are usually based on fundamental misunderstanding of rationality and its various forms, which I have tried to correct (Alexander, 2000a).



Evaluation is an integral part of the rational decision-making process, which is usually described as an iterative and recursive sequence of interacting stages. Beginning with problem diagnosis coupled with goal identification, this process continues through its “design” stage of developing alternative strategies or possible courses of action, and culminates in the selection of the preferred alternative through a process of systematic evaluation (Alexander, 1992: 74-86). Clearly, rationality and evaluation are inextricably linked: rational decision-making is impossible without evaluation of alternatives.

Evaluation links means to ends to enable rational choice, telling decision-makers what their reasons are for choosing a particular course of action. These reasons also make them accountable for their choices. The association between evaluation and rationality as giving reasons (versus having them) is just as significant as the link between evaluation and the means-ends logic of rational choice. It is important for collective decisions, which demand a common language for actors to communicate their particular reasons for their preferences, and for reaching a common consensus on their intended action. In the public realm, too, rationality is important in accounting for actions taken. Evaluation can communicate the reasons for decisions in an intelligible way that enables and facilitates open democratic debate.

Rationality comes in diverse forms, reflecting its different aspects as revealed above. Various ways of systematic evaluation subsume different kinds of rationality. The forms rationality takes in different evaluation methods deserve attention, because the kinds of rationality reflected in evaluation have theoretical and practical consequences. These associations and their implications follow.

## EVALUATION METHODS AND THEIR RATIONALITIES

We can trace the evolution of evaluation methods through their related forms of rationality, from the simplest to the most complex<sup>2</sup>. The simplest rationality is the form that reductionist stereotypes often attribute to rationality as a whole: instrumental rationality. *Instrumental rationality* is the logic of choosing the best means to achieve a clearly predefined or given goal. *Substantive rationality* is more complex. Subsuming instrumental rationality, it also demands consideration of goals themselves, including selecting between objectives and assigning their respective priorities. Both these forms of (Weberian) rationality premise an autonomous individual and focus on his reasoning for decision.

Other more complex forms of rationality give the decision an assumed context. Various kinds of *bounded rationality* have been described, such as satisficing, disjointed incrementalism, and pragmatic rationality. What they all have in common is a set of assumptions about reality. Each type of bounded rationality includes different assumptions about individual behaviour and interaction or the decision-maker’s societal setting, that force her to modify the formal classic rational ideal.

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<sup>2</sup> For a more extended review of the forms of rationality that are relevant for planning, see Alexander (2000a: 243-247).

*Strategic rationality* relaxes the assumption of the autonomous decision maker, making her interdependent with other intentional actors in settings that can sometimes be formalized as interactive games.

Another set of rationalities is more concerned with statements: giving reasons for action. This set reflects different aspects (from categorical ethics to situational analysis) of communicative rationality. *Communicative rationality* responds to critiques that attributed conventional rationality to objectively knowing actors. Based on the realization that knowledge is not transcendental, empirical, or individual, but a social construct, communicative rationality shifts the focus from decision-making to social interaction.

Rather than evaluating alternative actions in terms of the decision-maker's aspirations or goals, as conventional rationality prescribes, communicative rationality assesses the interaction concerned. Its criteria do not address actions and their consequences; they evaluate the quality of communication. Normatively, communicative rationality does not deal, as the previous forms of rationality do, with making good individual decisions; it focuses the actor on reaching the right collective consensus.

How do the evaluation methods we know reflect these various forms of rationality? And what difference does it make (if any) whether one method (say, Benefit-Cost Analysis) or another (for example, Environmental Impact Assessment) is based on instrumental or communicative rationality? Under the headings of each form of rationality described here, these questions are addressed below.

### **Instrumental rationality**

In spite of appearances to the contrary, traditional evaluation methods (with all their quantification and methodological sophistication) reflect simple instrumental rationality. Here I mean the methods, such as Benefit-Cost Analysis (BCA) included under what is sometimes called Investment Analysis. These estimate the (monetarized) direct and indirect costs and benefits attributable to the investment in a possible course of action, and apply various evaluation criteria: benefit-cost ratio, net present value (NPV), internal rate of return (IRR), etc.

Investment analysis has the virtue of offering the decision-maker a simple and intuitively understandable "bottom line", but it can do so because it essentially evaluates achievement of a single clearly articulated goal: maximizing economic efficiency. Any departure from this elegant simplicity (which also gives investment analysis the virtue of relative transparency) burdens these evaluation approaches with complications with which they cannot cope.

For example, BCA evaluation of life-saving investments (for example in health programs, or worker-safety regulations) involves estimating the value of a human life. This is often done (in fact, there is a whole literature on this topic) but it creates a problem that in the context of this method is irresolvable. If the evaluation is to be logically consistent, it can only value a life in terms of its efficient social investment

or human capital potential. Any other form of assessment confuses the issue, because it implies another goal: saving lives (for their own sake, not just for their value as human capital), and instrumental rationality cannot deal with multiple (and perhaps conflicting) goals.

Another evaluation method, Cost-Effectiveness Analysis (CEA), was developed to solve another problem recognized in investment analysis evaluations. This is the difficulty of valuing intangibles and converting them into money. Though this might look like the same problem discussed above in the example of valuing human life, it is not, because it does not necessarily raise the issue of multiple goals. It is a simpler problem, based on the difficulty of reliably estimating the value of an intangible such as travel time (which dogs almost all evaluations of transportation projects) and the sensitivity of the evaluation's conclusions to the possible range of such estimates.

CEA is identical to investment analysis in applying instrumental rationality to evaluate alternatives' performance in achieving a single, given, goal. The only difference is that CEA avoids the problem of monetarizing intangibles, which arises when the goal is maximizing overall economic efficiency. It does that by substituting the direct common objective that the alternative projects under consideration are intended to attain, and expressing that objective in a quantifiable effectiveness index or criterion.

This makes CEA a useful tool for evaluating alternative programs with similar outputs related to an identical ultimate goal. There are many such programs, for example alternative investments in health or safety programs designed to save life or prolong it, transportation investments intended to reduce travel time, or education programs that aim to improve students' attainment of measurable performance standards which serve as a surrogate for the investment's broader educational purpose. What they all have in common is that their evaluation can be structured as an exercise in instrumental rationality.

There have been attempts to override this intrinsic limit that instrumental rationality places on these methods, which reduces them to evaluating alternatives on only one goal. One way has been to include other objectives but model them as *a priori* constraints that delimit the decision space available for specifying alternative proposals, rather than introducing them as additional goals. This is a spurious avoidance of these methods' shortcomings, because it does not change their essential reliance on instrumental rationality. The sequential introduction of multiple objectives or goals, which is implicit in this approach, avoids consideration of their respective importance or priorities, which is essential to transform instrumental rationality into higher forms of reason.

The simplicity of instrumental rationality is its great advantage: it is what enables the development of evaluation methods that are at once quantifiable, transparent, and give decision-makers a ranking of alternatives that accurately reflects their performance with respect to the given goal. But its simplicity is also instrumental rationality's greatest defect: it makes instrumentally rational evaluation liable to the accusation of reductionism when it is applied to more complex problems.

This charge holds true more often than not, when these evaluation methods are applied for decision-making in the public realm or to choices that are more complex than they may seem. This is why a decision-making process that applies simple BCA to major public investments is manifestly flawed<sup>3</sup>: such decisions demand a higher logic of reasoning than instrumental rationality, which limits evaluation to a single goal. There are two arguments why it is unreasonable, that is, irrational, to set a single goal, even maximizing economic efficiency, for evaluating public investment decisions that involve major strategic infrastructure, facilities, or complex programs.

One argument accepts the assumption intrinsic in instrumental rationality, of an individual or quasi-individual (that is, a homogenous social unit – such as a family, organization, or polity – acting as if it were an individual) decision-maker, but presents the problem, choice or decision situation as too complex to allow its reduction to a single goal. Dimensions of this complexity might include the consequences of alternative choices, and the diversity of affected parties. The other argument denies the validity of the individual decision-maker assumption in such situations. These are really collective decisions, involving multiple decision-makers who often represent various interests with different goals and priorities.

Recognizing instrumental rationality for what it is leads to the conclusion that evaluation methods premised on this form of reasoning are often too reductionist to apply alone in approving or choosing between complex public programs or projects. If their simplicity and transparency is to be used to advantage, evaluation methods such as BCA must be deployed in the context of a more comprehensive and multidimensional evaluation framework which subsumes their instrumental rationality under one of the higher forms of rationality to be discussed below.

### **Bounded rationality**

Unlike instrumental rationality, which is essentially a prescriptive ideal model, bounded rationality is descriptive. The various forms of bounded rationality apply different assumptions about individual and social incentives and behaviour to modify ideal rationality and conform it to real world decision behaviour.

Thus satisficing assumes (realistically) a search process generating some sequential assessment of available options (what one actually does, for example, in buying a used car) rather than the simultaneous evaluation of all possible alternatives demanded for ideal rationality's optimal choice.

Disjointed incrementalism suggests that decision makers limit their range of options, and bases choice on comparison at the margin, without the basic consideration

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3 Yet BCA and other forms of investment analysis are still the evaluation methods of choice for many countries' capital investment decisions. One case known to this author is Israel, where the Finance Ministry relies on a Benefit-Cost Analysis based evaluation protocol to approve or deny capital appropriations for public projects ranging from metropolitan mass transit to water purification installations.

of values and goals that rationality demands but politicians prefer to avoid. Some proponents of disjointed incrementalism have turned into normative advocates, too, premised on “If it’s so, it is good” (Alexander, 1992: 47-49).

Systematic evaluation is associated with ideal prescriptive rationality; as such it is incompatible with bounded rationality<sup>4</sup>. Descriptions of bounded rationality recognize that evaluation occurs, but focus on its differences from ideally rational evaluation. Some see evaluation simply as less formal and systematic, for example, assessing options sequentially instead of comparing them, or comparing a more limited range of alternatives. Others (for example advocates of incrementalism) see evaluation as a much more informal and limited, mainly intuitive, part of an essentially political discursive-interactive process. An example of this kind of evaluation is the way sites were chosen for military base-closings in the responsible Congressional subcommittee. This was in a process of mutual bargaining between members, who tried to retain bases close to their constituencies<sup>5</sup>.

What does bounded rationality imply in terms of evaluation methods? At its extreme, bounded rationality denies the utility of any systematic evaluation methods, suggesting that they are at odds with how decisions are actually made. Incrementalism, describing collective decisions as emerging through mutual adjustment in a kind of political market, leaves little room for evaluation in a decision-making process which it sees as intrinsically interactive. Here, this version of bounded rationality blends into communicative rationality, with implications to which we will return later.

Other implications for evaluation methods can be read into less radical ways of bounding rationality. Incrementalism, for example, also includes a form of evaluation: marginal comparison of a few options that differ only slightly from each other and from the status quo. Depending on the kind of proposals that are the subjects of comparison (for example, whether they are discrete projects, policies or programs) simplified versions of instrumentally rational methods, such as BCA, are quite appropriate and useful for the incremental decision-maker. The difference between instrumental rationality and openly bounded rationality is in the depth of the analysis and the amount of information the latter demands.

The prevalence of bounded rationality, in fact, offers a plausible explanation for the popularity of BCA. BCA, evaluating marginal efficiency, is highly compatible with the kind of marginal comparison incrementalism describes and prescribes. Investment analysis (BCA or other forms) is also the only systematic evaluation method that fits satisficing and its sequential appraisal of options. Its simple “bottom line”, which is transparent and meaningful in absolute terms, is useful to make the

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4 See, for example, Wildavsky’s (1979) discussion of “synoptic planning” versus his version of incrementalism.

5 This system was unworkable, failing to identify enough base closings to make the savings demanded by the Appropriation Committee’s (of which this was a sub-committee) budget cuts. Institutional design modifications made the system more rational (including formal evaluation): sites which were candidates for base closings were evaluated and ranked on a set of criteria agreed in the Subcommittee, to create a list of bases on which the Committee voted (Weimer, 1995: 8).

“go-no-go” decisions satisficing implies, that is deciding whether to implement a particular project based on its benefit-cost ratio or other decision criteria. In bounded rationality terms, the reductionism of BCA and other investment analysis methods is an asset, not a flaw, if they reduce the burden of information and analysis needed for a satisfactory, if not optimal, decision.

### **Substantive rationality**

Critiques of traditional evaluation methods (such as BCA) recognized their shortcomings, reflecting the aspiration to replace instrumental or bounded rationality with substantive rationality<sup>6</sup>. This is also behind the tendency, which began as long ago as Lichfield’s “Planning Balance Sheet” and culminates with his Community Impact Evaluation (Lichfield, 1996), to subsume benefit cost analysis under a more comprehensive evaluation scheme. Sometimes this scheme involves a type of multi-criteria decision analysis framework. Developments in British transportation project appraisal (Nash, 1998) and in the EU’s evaluation in its TEN program (Roy, 1994) illustrate this trend very well.

An impressive array of multi-objective evaluation approaches has been developed over the last three decades (Nijkamp, Rietveld and Voogd, 1990). Today this family of methods, multi-objective decision methods (MODM) is being more and more widely used at increasing levels of sophistication. Many are applied in their computerized formats, for example, EVAMIX (Shefer et al., 1997) and Expert Choice (Saaty, 1994). MODM, which are clearly identified with substantive rationality, are also the object of ongoing efforts at refinement and improvement. This does not seem to confirm any retreat from rationality, as much of the planning theory literature implies. On the contrary, it suggests that the rational paradigm, at least in planning practice, is alive and well (Alexander, 1998: 360, 365-366).

Impact analysis in general (including social impact analysis) and Environmental Impact Assessment (EIA) in particular are other kinds of evaluation that have strong links to substantive rationality. Their multi-dimensional impact presentation demands decision makers’ simultaneous consideration of the proposal under review in terms of several goals, even though these may only be implied, and though (unlike in formal MODM) they are not weighted or prioritized. When impact analyses are structured with clear performance criteria, as is often the case (for example, in the

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6 Another set of decision methods showing the transition between forms of rationality are optimization methods: linear and goal programming. Linear programming (with its single objective function) is the counterpart of investment analysis in reflecting instrumental rationality. Goal programming (which includes trade-off or substitution functions between identified goals) and its multiple objectives correspond to the substantive rationality of multi-criteria evaluation methods. But (though they are also decision support tools, like evaluation methods) I have excluded programming methods from this review because they are really design methods, even if, like all design, they include an element of evaluation too.

Environmental Impact Statements required for much EIA) they come even closer to MODM, though they still lack the quantified aggregation of the latter.

Aspiring to substantive rationality as they do, MODM share some of the problems that have made substantive rationality an unattainable ideal. One of these is the need to clearly identify and articulate goals, a procedural norm that is hard to fulfill and often avoided in practice. Consequently, in the real world we find the kinds of bounded rationality discussed above. Problematic as goal-setting is, the process of prioritizing goals and assigning weights to them that reflect decision-makers' real preferences is no less so. Many MODM approaches acknowledge this and propose various systematic solutions. One is *a priori* weighting of goals by eliciting and aggregating decision makers' preferences.

While this is simple on its face, it involves several issues which are difficult to resolve and even harder to implement. The question of "whose weights?" raises the issue of stakeholder identification and inclusion, and effective participation often makes massive claims on representatives' time. Eliciting and aggregating decision makers' preferences and priorities among competing goals, objectives, and criteria also confront a whole gamut of methodological problems. The extensive literature debating the validity of one MODM, the Analytic Hierarchy Process (Saaty, 1980), illustrates this. Very sophisticated procedures, which demand infeasible levels of active decision-maker involvement, appear more often in academic journals than as actual applications.

There have been several kinds of responses to the difficulties of articulating and deliberating about values and goals, as substantive rationality demands. One (perhaps the most common) is to retreat into some form of bounded rationality. Another is to use MODM more as a decision-preparing than a decision-making tool, focusing the decision-makers' discussion and final choice on the evaluation conclusions resulting from "armchair" applications<sup>7</sup>. Using sensitivity analysis of goal weighting to almost eliminate (in appropriate cases) the need for decision-makers' input, takes this approach of "devaluing evaluation" to its logical conclusion (Alexander, 2001).

An alternative response is not to avoid the interactive problems MODM presents, but rather to embrace its communicative potential. This implies reversing the trend towards increasing methodological sophistication and computational complexity that some MODM have shown, which has also made them opaque to anyone but esoteric experts. In essence, this response involves developing simpler, more transparent MODM, and making the interactions they demand with stakeholders and decision-makers an integral part of their methods and application<sup>8</sup>. In this kind of MODM, substantive rationality merges into communicative rationality, which is discussed below.

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7 MODM applications where the planners, analysts or professional consultant evaluators propose goals and criteria and weights (sometimes contingent) to run the model and provide decision-makers with a ranked evaluation of the alternatives under consideration.

8 These kinds of MODM are more often presented as cases of applications (for example, Lichfield, 1998) than as proposed evaluation methods.

## Strategic rationality

In common with Weberian instrumental and substantive rationality, strategic rationality assumes a goal-oriented self-interested decision-maker<sup>9</sup>. But where these are essentially static and assume a passive context, strategic rationality is dynamic, premising an interactive environment that houses proactive and reactive actors whose intentions and objectives are no less important for the decision-maker than his own.

For evaluation, strategic rationality implies a shift in how consequences of alternative actions are assessed. From predicting likely impacts of the proposed options (as other forms of rationality imply), strategic rationality demands consideration of contingent consequences, that is, presenting the possible outcomes and impacts of each alternative as “If... then” statements. Naturally, identifying and specifying the relevant contingencies demands a degree of attention they never enjoyed before, under the kinds of rationality described above.

Consequently, strategic rationality is linked to the development and use of “Scenarios”. The scenario method frames alternative contingencies and projects the consequences of alternative courses of action under systematically varied assumptions about the state of key variables. Another way of projecting contingent impacts of various policy options, also reflecting strategic rationality, is the modelling and running of computer simulations, perhaps the only way to begin to approach and formally cope with the exponentially expanding complexity of the decision considerations this approach demands.

This direction of development reaches its logical conclusion with the development and use of formal strategic games, which include outcomes as “payoff functions”. Such games (the best known are “War Games”, but they exist in other sectors too) simulate alternative courses of development and players’ interactions in the decision environment, projecting and evaluating (for the decision-maker) each possible strategy’s contingent consequences. Strategic games, then, though it may seem paradoxical to include them here, are the ultimate form of evaluation under strategic rationality.

But the demands that the complexity of strategic rationality makes on analytic resources often pushes formal projection and evaluation approaches up to and perhaps beyond their limits. In response, strategic rationality can also be read to imply a retreat from formal analytic methods, toward informal, intuitive, and interactive situation assessment and evaluation. The logical conclusion of this approach is the identification of strategic rationality with *realpolitik* (Alexander, 2000: 246), where evaluation is a coldly calculating (but informal) Machiavellian confrontation with the possible consequences of contemplated action.

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9 Indeed, in Habermasian terminology all these are included under “strategic action”: self-interested goal-oriented action as contrasted with consensus seeking “communicative action”. Strategic rationality as used here (and generally) has a narrower and more focused meaning.



**Communicative rationality**

All the forms of rationality discussed above assume a self-interested goal-oriented actor, and focus on the decision that commits him to a particular course of action. Communicative rationality goes further than any of them in putting the actor in context, assumes actors seeking consensus (more than to achieve their own goals), and focuses on the interactions leading to decisions, rather than the decision itself. Where evaluation is clearly integral to instrumental and substantive rationality, and recognized as a (formal or informal) part of bounded and strategic rationality, it is difficult to see, at first glance, how evaluation comes into communicative rationality.

A second, deeper, look reveals the relationship, even though it is the reverse of evaluation's link with the other rationalities. There, evaluation is part of and generated by rationality; here, communicative rationality becomes part of evaluation, when interactive evaluation generates or is premised upon communicative rationality. This means, however, that it is only to the extent that evaluation methods are or can be interactive that they can involve communicative rationality. There are significant differences between evaluation methods in their potential for interactive use, not to mention their actual interactive application.

The evaluation methods based on instrumental rationality (investment analysis and CEA) are intrinsically analytic and not interactive, because they are designed for an individual deliberative decision-maker. Consequently, their only communicative potential is as products (the evaluation report and its conclusions) that are messages in a communicative-interactive planning or policymaking process. The implications of this aspect of evaluation are discussed below.

Other evaluation methods have communicative potential in their direct application, indeed some make interactive demands. The scoping stage of impact analysis ideally requires interaction between affected interests to shape the evaluation, and "armchair" exercises in scoping are inherently defective. Some EIA regulations and guidelines recognize this, and the institutional design of some statutory EIA systems gives designated representatives prescribed roles in an interactive scoping of the required EIS.

MODMs are intrinsically interactive in their demands for goal setting and prioritization, and lend themselves well to serving the planning process as a communication facilitating and enhancing tool. In this way, MODM link substantive with communicative rationality. But interactive application of MODM demands commitment from practitioners and resource investment in the planning process, which are rarely forthcoming. This may well be one aspect of the link between evaluation and institutional design, discussed below. For whatever reasons, the communicative potential of MODM is still more often prescribed than realized, and documented cases of effective application from which we can learn are few (Alexander, 1998: 366).

## **RATIONALITIES AROUND EVALUATION**

### **Evaluation as communication**

There is one sense in which communicative rationality relates to all evaluations and to every evaluation method that is used. This is the sense in which the evaluation presented in the context of a planning or policymaking process, an administrative discourse or a political debate is a communication. Depending on the context and format of the relevant interaction, the content of this communication may vary (and this, too, is significant) ranging from a full and detailed presentation of a formal evaluation (including its data base, methods, assumptions, analysis and conclusions) through formal reports at various levels of detail, to the informal presentation of summary conclusions as a basis for recommending some particular action.

Evaluating such communications in the context of their decision-related interactions is the very stuff of communicative rationality: How true is an evaluation? How sincere is its message? Or is it less than revealing, even deliberately manipulative? Does it make a positive contribution to arriving at a democratic consensus among the appropriate and relevant stakeholders? Or is it biased and presented in a way to advance a particular party's interests? These judgments may be important, even critical, to make in the context of a planning process while it is in progress, but planners will be incapable of making them without a sound knowledge of evaluation methods, their potentials and limits.

### **Rationalities of institutional design**

Another sense in which rationalities come to bear is in the institutional design of evaluation processes: Developing, adapting and adopting evaluation methods to apply in a particular context or for given types of decisions, designating the participants and agreeing how the evaluation product will affect the relevant decision. This may be where rationalities are least apparent, but perhaps where it is most important to understand them and appreciate their effects, because no evaluation will be better than the institutional design of the process that produced it.

This kind of institutional design is usually done in an interactive process, which, depending on the size and scope of the subjects of the proposed evaluations, can be intense and very political. An excellent example is the evolution of the process assessing European T-TEN projects, which pitted national transportation agencies and industrial lobbies against environmentalist interests in the arena of EC (later EU) institutions (Richardson, 1997, summarized in Alexander, 1998: 362-364).

Successful involvement in the institutional design of program or project evaluations undoubtedly needs a thorough knowledge and understanding of evaluation methods and how they relate to different forms of rationality. Realizing a proposed institutional design may demand a combination of rationalities. What the appropriate blend of, for example, strategic and communicative rationality should be may depend on the context. Some situations that are more conflict prone

(often depending on the power distribution between the actors, and their respective interests and values) will demand more strategic than communicative rationality. Other situations, more stable, structured and intrinsically tending toward a common equilibrium, will allow more communicative action, and involve less strategic maneuvering. Consensus may be more easily achieved when actors are not widely separated by extreme value differences or incompatible interests.

But we are still far from knowing what is best practice, and in any case institutional design is likely to be more of a craft than a kind of engineering, with success shown in a “goodness of fit” based on a logic of appropriateness more than any scientific or research-based prescriptions (Alexander, 2000b: 166-167). The point of referring to institutional design of evaluations here is not to tell how to do it, which unfortunately we cannot and may never be able to do, but more “consciousness-raising”. An enhanced awareness of the dependence of evaluation on institutional design may persuade reflective planners doing evaluations to take more active roles in structuring the evaluation processes themselves in which they are involved.

## **IMPLICATIONS AND CONCLUSIONS**

The links between evaluation methods and the different forms of rationality are clear. What are the methodological and practical implications? On the methodological side, these links enhance our understanding of an available set of evaluation methods. We can relate the kind of rationality on which an evaluation method is based, and that form of rationality’s premises and assumptions, to each method’s potentials and limits.

For planners or policy analysts designing and executing evaluations, understanding the whole kit of evaluation tools, and knowing which ones to select for a particular purpose, may be more important today than deeper familiarity with one family of methods or more sophisticated quantitative or statistical skills. The above review suggests that it will be a rare case in planning or policy making when good practice will not call for a combination of some methods, in view of the limits of each particular evaluation method.

This suggests another reason why planners have to understand the whole gamut of available methods: to give them the capability to “custom design” complex evaluations, made up of linked combinations of different evaluation methods, for situations that need them. Such understanding, of course, is also essential for addressing the institutional context of an evaluation exercise, and initiating institutional design where necessary – see below. For planning education this means that a course reviewing evaluation methods and giving students a (even limited) “hands-on” capability to apply a few selected methods may be preferable to a two-semester sequence (like some that exist) on investment evaluation and benefit-cost analysis.

Finally, this review highlights the relevance for evaluation of institutional design<sup>10</sup>. Sometimes, the limits of simple evaluation methods applied in isolation demand the development and use of more complex evaluation systems combining several methods. If this is difficult under existing organizational frameworks and routines, their deliberate adaptation to the demands of a complex evaluation approach may require institutional design. This is especially true to the extent that the subject evaluation is of large strategic and recurrent public investments, involving politicized value conflicts.

Introducing communicative rationality to evaluation also frequently invokes institutional design, to realize in practice many existing evaluation methods' theoretical participatory potential (Alexander, 1998: 360-364, 367-369). This suggests that effective evaluation practitioners will not only have to know enough to select, "design" and apply more and less formal evaluation methods; they will also need the capacity to transform or create the policy, plan or project evaluation's institutional setting.

## ACKNOWLEDGEMENT

Nat Lichfield provided the original stimulus for this chapter and its preceding paper (Alexander, 2000a) when we discussed rationality in planning in general and evaluation in particular. This was in a train from a conference in Oxford, in which our common disagreement with the recently popular divorce between rationality and planning, which opened the conversation, demanded answers to the question why this split was impossible.

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10 Institutional design appears in two ways in the context of evaluation, one abstract, the other concrete. The second, practical aspect is the one implied by this review. The first, noted here just for completeness, is the institutional design sometimes necessary to specify the alternatives that are the subject of evaluation (Alexander, 1998: 359, 362, 367).

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# The Normative Context

In their own way, Chapters 2 and 3 also addressed the normative context of planning and evaluation, in the perspective that each adopts to review the evolution of evaluation theory and practice. Moroni focused on changes in attitudes to utilitarianism, Alexander on the succession of forms of rationality – both among the norms that constitute the ethical-philosophic foundations of planning and evaluation. The following three contributions share this perspective. But where the previous chapters were more dynamic, explaining the evolution of evaluation in terms of change in its normative context, the following ones are more normative: analyzing (*Moroni*), prescribing (*Archibugi*) and presenting an exemplary process (*Fusco Girard*).

Each author in this section addresses a different aspect of the normative context of evaluation. Moroni dissects The Public Interest, the normative principle behind utilitarian evaluation and other forms of planning, while Archibugi exposes some normative flaws in current evaluation practice. Fusco Girard's chapter applies the principles of sustainable development to advocate an integrated evaluation framework, bridging between theory and practice to apply his prescriptions in cases from Italy to China. These contributions echo the multiple voices offering normative prescriptions for evaluation, contrasting Archibugi's hierarchical model of strategic planning and rational evaluation (recognizing its limitations) with Fusco Girard's recursive-interactive "integrated evaluation" format.

Chapter 4 analyzes the Public Interest and the arguments against it. Three main critiques are: 1) The Public Interest does not exist as a fact, based on a conflictual and pluralist view of society; 2) It does not exist as an extra-individual value, reflecting a moral individualism; 3) It does not exist as an overriding value, a meta-ethical argument implying value-pluralism. Non-sceptical value-pluralism advocates institutions (e.g. advocacy planning) to promote value-pluralism, while Sceptical value-pluralism (argued by radical post-modern relativists) denies the possibility of applying practical reason in the public realm. Reviewing Lichfield's contributions, Moroni refutes the critiques to propose a form of qualified utilitarianism, stating the need to apply critical practical reason to reconstruct a liberal-egalitarian Public Interest.

In Chapter 5 Archibugi exposes some normative traps, or pitfalls, that beset evaluation practices. These are: 1) Logical indeterminacy – the lack of explicit prior values – but including values risks biased evaluation or partisan assessment: resolving this dilemma involves recursive interaction between planners and politicians. 2) Systemic separation: divergence between value-systems or levels of governance, which demands deliberate efforts at integration. 3) Strategic inconsistency: lack of conformity between goals and objectives, demands institutionalization of strategic

meta-planning systems. 4) Self-referencing: the absence of an exogenous overall strategic planning framework; effective evaluation demands “etero-referencing”. 5) Sub-optimization due to these pitfalls is an intrinsic limitation of rationality, but this does not warrant any compromise with bounded rationality.

Chapter 6 integrates the normative principle of sustainable development with planning and evaluation. Fusco Girard calls for transformation of the dual city’s fragmentation and dehumanization into the “inclusive city”, through the humanization of development strategies. Urban governance can invoke Local Agenda 21 and the Habitat Agenda, deploying evaluation methods that include open public consultation and environmental audits, to produce an environmental action plan. Integrated conservation and rehabilitation including integrated evaluation procedures combine four forms of rationality: economic-instrumental, formal-logical, hermeneutical, and argumentative, on the operational-management, strategic, and meta-strategic levels. Best-practice evaluations based on the Habitat Agenda are presented, involving multicriteria and multigroup methods and CIE, applied in Bali, Seville and Chengdu. Integrated evaluation, combining ecological economics and civil economy in a Habitat Agenda, is illustrated in the case of Scandia (Naples, Italy).

## Chapter 4

# Planning, Evaluation and the Public Interest

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*The fact that governments include values in their decision-taking, and make ordinal comparisons of value, is certainly true (Lichfield, 1996: 184).*

### INTRODUCTION: THE FALL FROM GRACE OF THE CONCEPT OF PUBLIC INTEREST

By tradition, town planning has always taken the public interest as its principal criterion of action<sup>1</sup>. That same criterion has likewise always been the reference point for evaluation<sup>2</sup>. Within this traditional framework, “the public interest provides the justification for governmental intervention” (Chapin and Kaiser, 1979: 483)<sup>3</sup>.

However, today the situation has changed completely. Many doubt the relevance of the public interest as a criterion, both in planning and in evaluation practice. The idea of the public interest has “...come under considerable challenge” (Alterman and

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1 See for example Vasu (1979: 43): “The public interest doctrine has been the edifice of the planning profession’s source of legitimacy ...; this doctrine has been its philosophical justification for the intervention of public authority”. In other words, the notion of the public interest has traditionally provided the *raison d’être* for planning (Hague and McCourt, 1974: 153); it has been for a long time “a defining element of urban planning” (Sandercock and Dovey, 2002: 152). On the centrality of this notion for traditional planning, see also Altshuler (1965: 186), Mazza (1990: 48), Alexander (1992: 129), Campbell and Marshall (2002: 164).

2 See for example House (1980: 146-51).

3 More particularly, a public decision or action “is said to serve *special interests* if it furthers the ends of some part of the public at the expense of the ends of the larger public. It is said to be in the *public interest* if it serves the ends of the whole public rather than those of some sector of the public” (Meyerson and Banfield, 1955: 322). As is well known, “the public interest is a republican idea whose origins reach back to the golden age of Greece ... At other times, it has been called the commonweal, the general welfare, or the public good” (Friedman, 1973: 2; see also McAllister, 1982: 28-30).



MacRae, 1983: 208). It "...has come under severe attack in planning, in academia, and in the world of practical politics" (Klosterman, 1980: 323). The concept is "disdained ... in the views of ... economists, political scientists, politicians, and activists on both the right and left" (Lucy, 1988a: 3)<sup>4</sup>.

It has become almost a commonplace to assert that there is no such thing as the public interest. As pointed out by Barry (1990: 207): "It has become fashionable ... to dismiss the concept of 'the public interest' as devoid of content. Its use as a counter of public debate is said to be fraudulent, since there is no such thing as a public interest".

This chapter will try to establish just in what way it is being asserted that the public interest is non-existent (and how such a thing can effectively be asserted) in the first section; then, we will expound Lichfield's stance on the issue (and explore in what way this affects the evaluation techniques he puts forward); and assess what we can learn from this debate, and consequently consider what direction we can attempt to take.

### **THREE DIFFERENT ARGUMENTS AGAINST THE PUBLIC INTEREST CRITERION**

As stated above, it is common today to say that "the public interest (simply) does not exist" (in other words, it is something like a "phantom" or a "chimera"). But I think this statement can be interpreted in three different ways (usually not clearly demarcated in the debate) that correspond to three very different arguments on the non-existence of the public interest<sup>5</sup>.

The three arguments that need to be clearly distinguished are as follows:

- first: the public interest does not exist as a fact,
- second: the public interest does not exist as an extra-individual value,
- third: the public interest does not exist as an always-overriding value.

As I will attempt to demonstrate here, it is of paramount importance to distinguish these three positions, which involve both the theoretical and practical sides of planning and evaluation.

I am convinced that many misunderstandings in the fields of planning and evaluation arise from mixing and confusing different types of argument and consideration on the idea of the public interest. I am convinced furthermore that we have been too quick in doubting the relevance and practical importance of the public

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4 The shift in the situation and the loss of weight of the traditional notion of the public interest in today's planning practice is epitomized by the observations made by city planning officers such as Kitchen (1991).

5 Under the section "Three different arguments", I reformulate certain ideas that are laid out differently (and in greater detail) in Moroni (2004).

interest concept itself, and that it is worth delving further into the question to find out precisely what issues are at stake.

### **First argument: The public interest does not exist as a fact**

What is the argument and what kind of argument is it? In this first case, the fundamental idea is that the public interest does not exist (as a fact) because, in our contemporary complex societies and cities, there is no possible overlap among the various individual and group interests and desires. The interests and desires of the different individuals and groups that make up contemporary capitalist urban societies are too varied and diverging to possess any real overlapping areas of interest; as a matter of fact, various individual and group interests are often explicitly and directly in conflict. This first kind of argument is simply and clearly an empirical one. In other words, it has something to say about our social world as it is.

Who proposes the argument? This first kind of argument is usually submitted by certain political scientists and sociologists to defend a conflictual interpretation of contemporary society as better than the traditional consensual one (reductive and consolatory). As Taylor (1994: 88) observes, the abandonment of the idea of the public interest was supported “by sociologists wedded to a conflict model of society which held that societies – or at least contemporary capitalist societies – are composed of different groups with different, and very often conflicting, interests”; given such a framework, it seemed “to follow that there was not any ... supervenient interest which all groups (or everybody) in society share in common”<sup>6</sup>.

In the planning literature, this is a position held, for example, by Simmie (1974). Simmie (1974: 125) strongly affirms that in social circumstances characterized by conflict over the aims of different individuals and groups to acquire the scarce resources available, the public interest is a completely inadequate benchmark for planning; in brief: “There is no such thing as *the* public interest. Rather there are a number of different and competing interests”<sup>7</sup>. One thing further needs to be clarified before reaching a conclusion: the authors who propose this argument either make no effort to put forward an alternative normative concept in place of the public interest – inasmuch as they hold that it is simply impossible to propose a normative

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6 For more on the influential political scientists and sociologists who have contributed to affirming this position, see Low (1991: 87-93).

7 See also Gans (1973: 10): “In a pluralistic society, it is difficult to identify communal goals because they generally turn out to be shared by – or beneficial to – only a part of the population. For example, open space is usually thought to be in the public interest, but it does not necessarily benefit those too far away to use it, those who do not wish to use it, or those who want scarce resources applied to a more urgent need, such as housing”. And Ross and Levine (1996: 183): “No ... public interest can easily be ascertained. Different groups have different needs and different views ... What benefits one neighbourhood may work to the disadvantage of another”. Similar ideas are expressed in Ylvisaker (1961: 107), Kiernan (1983: 77), Burton and Murphy (1980: 181-2), Reiner (1990: 67).

viewpoint in this case – or they bring into the picture completely different normative criteria that have nothing at all to do with the notion of the public interest, or similar concepts.

Against whom (and against what idea of the public interest) is the argument directed? This first kind of argument is an argument against those who believe that all individuals and/or social groups do effectively have at least some interests, preferences and desires in common, even if they are often not completely aware of this crucial (but not always immediate) fact. In other words, it is an argument against that conception of the public interest that we can call the “realistic conception of the public interest”, which is clearly implicit in the traditional rational-comprehensive (or synoptic) approach to planning<sup>8</sup>.

What idea of pluralism is presupposed? The idea of pluralism held in this first case is an idea of pluralism (of interests, desires, goals, and so on) as, simply, a fact – a crucial fact that is clearly characteristic of (and strongly accentuated in) today’s fragmented societies and cities. Pluralism here is something we can see and experience, especially in contemporary urban settlements.

### **Second argument: The public interest does not exist as an extra-individual value**

What is the argument and what kind of argument is it? In this case, the fundamental idea is that the public interest does not exist as a supra-individual/extra-individual value, because only individuals (as ends in themselves) should be taken into account when we reflect on the justifiability of government existence and action. We can call this idea that it is only individuals who should directly matter, a “moral (or ‘political’, or ‘normative’, or ‘deontic’...) individualism”. Moral individualism claims, then, that what makes any socio-political set-up desirable and justifiable “is that it constitutes or brings about something that affects people appropriately; something ... that is good *for* people” (Kukathas and Pettit, 1990: 13).

The moral individualist strongly asserts that “it is only individual agents who matter in the design of socio-political institutions” (11). The quick way of qualifying moral individualism, then, is to think of the sort of possibility that it keeps out: it excludes “any appeal to aspects of socio-political arrangements that do not have an impact on individuals in determining which sort of arrangement is best” (12-13)<sup>9</sup>.

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8 As Hudson (1979: 392) observes, rational-comprehensive (or synoptic) planning “largely ignores or avoids issues of conflict by referring to a unitary concept of the public interest”.

9 See also O’Sullivan (1987: 220): moral individualism claims that “the individual agent ought to be the ultimate focus of all moral evaluation or of political values and arrangements”; it amounts to the fundamental assertion that “the well being of individual agents ought never to be sacrificed for the good of some social whole or collectivity” (compare also Johnston, 1994). Moral individualism in this sense is then different and independent from other forms of individualism, for example methodological individualism (in contrast to what is widely held

This particular kind of argument against a certain idea of the public interest is clearly and strictly an ethical one. In other words, it does not concern so much the social reality as it is, as the best way to assess that reality, and act upon it.

Who proposes the argument? This second kind of argument is proposed, in particular, from the point of view of liberal outlooks (see, for example, the strong version of this argument presented in Nozick, 1974: 32-33). I use the term “liberalism” in this chapter, in a somewhat restricted sense to identify a particular family of political perspectives which hold at least six fundamental ideas in common:

1. the idea of “moral individualism” (the aforementioned idea that only individuals should count in the public realm),
2. the idea of “moral universalism” (the idea that any individual should count),
3. the idea of the “priority of right over good” (the idea that our ethical theories must not start from an idea of the non-moral good),
4. the idea of the desirability of “plurality of conceptions of the good” (the idea that we neither need nor want a society in which people share a similar idea of the good life),
5. the idea of the crucial importance of certain “basic individual rights” (the idea that we have to recognize and defend certain individual rights or liberties in order to protect ourselves from others and from the state itself),
6. the idea of the “rule of law” (the idea that the laws must address certain basic requirements, such as generality, stability, publicity).

The various liberal perspectives in this sense can be located on a continuum that ranges from the “libertarian–liberal” (see, for example, Conway, 1995), to the “egalitarian–liberal” (see, for example, the famous Rawls, 1971). In planning literature there are few examples of the libertarian-liberal outlook (see, for example, Sorensen and Day, 1981). Examples of egalitarian-liberal perspectives are more commonly found (I have attempted to develop an outlook of this particular kind in Moroni, 2001).

Against whom (and against what idea of the public interest) is the argument directed? The liberal argument against the idea of the public interest as a supra-individual value is first of all an argument directed against those holistic perspectives that completely refuse and reject moral individualism as defined above; in particular, it is an argument against “transcendental conceptions of the public interest” (I mean those perspectives centred on some overall abstract ideas such as “the essence

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in literature on planning and evaluation). The first one regards moral/political philosophy, while the second regards social methodology (O’Sullivan, 1987: 220-21). Methodological individualism simply states that social events and processes “should be explained by being deduced from (i) principles governing the behaviour of participating individuals and (ii) descriptions of their situations” (Watkins, 1992: 149).

of the state” or “the spirit of history” or “the spirit of progress”<sup>10</sup> and against “communitarian conceptions of the public interest” (I mean those perspectives centred on some idea of the “community” as the first ethical subject we have to take care of and as the guarantor of an indispensable common conception of the good and of the good life)<sup>11</sup>. But it is an argument also against those “aggregative” perspectives that (from a strictly liberal point of view, as I define it here) do not take moral individualism strongly enough. In particular, it is an argument which (to the surprise of some) goes against the “utilitarian conceptions of the public interest”: I am referring to those perspectives centred on an aggregative principle based on the notion of “collective utility” as a sum of the individual utilities<sup>12</sup>. Before concluding, it is important to point out that liberal critics do not *directly* take account of those conceptions I defined above as the “realistic conceptions of the public interest”. In fact, they reject these “realistic conceptions” implicitly; in other words, they consider them simply irrelevant when we discuss matters at an ethical level. It is likewise worth pointing out here that what I have said does not clearly mean that liberals refuse or disregard any idea of the public interest or the common good. Simply, a liberal idea of the state and of politics presupposes a different idea of the public interest<sup>13</sup>. Unfortunately, this is a point that is frequently misunderstood by

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10 For example, those conceptions of the public interest rooted in Hegelian philosophy (for which, see Taylor, 1994: 106-9).

11 In a communitarian society, the public interest or the common good “is conceived of as a substantive conception of the good life which defines the community’s *way of life*”. This idea of the public interest or the common good “rather than adjusting itself to the pattern of people’s preferences, provides a standard by which those preferences are evaluated” (Kymlicka, 1990: 206). Conceptions of the public interest or the common good rooted in communitarian perspectives of this kind are still amply accepted (explicitly or implicitly) in planning theory and practice.

12 On utilitarianism in general, see my other contribution to this volume. On the utilitarian conception of the public interest and its influence in the planning and evaluation fields, see, for instance, Klosterman (1980: 326-8) and Taylor (1994: 103-6). What I said about utilitarianism needs a brief but fundamental clarification. Utilitarians traditionally start with a clearly individualistic claim. In fact, they usually start by saying that individual preferences or interests are what really matters in the public realm. The problem is that the utilitarian aggregative criterion of maximization of total utility (as a simple sum of all the individual utilities and disutilities) disavows the original individualistic claim: the single individual in fact gets completely lost in an aggregative supra-individual calculus (Rawls, 1971: 27; Lukes, 1973: 48). In brief, even though utilitarians have sometimes considered themselves as liberals, their doctrine violates certain basic liberal values. Thus, I prefer to distinguish between liberalism (in the strict sense I adopt here) and utilitarianism. On this last point, see also Harper and Stein (1995: 13-16).

13 See Holmes (1989). See also Kymlicka (1990: 206): there is a common good or a public interest present in liberal conceptions of the state too, “since the policies of a liberal state aim at promoting the interests of the members of the community”; to affirm the neutrality of the (liberal) state, therefore, “is not to reject the idea of a common good, but rather to provide an interpretation of it”. Also Freedman (1991: 97) takes a classical liberal perspective,

many critics of liberalism, who confuse moral individualism with egoistic atomism, and liberalism with anarchy.

What idea of pluralism is presupposed? For liberal perspectives the notion of pluralism that is central and relevant is the idea of “pluralism of conceptions of the good”. The plurality of the conceptions of the good is here not simply a fact, but a highly desirable situation. In this perspective, the role of the “neutral” state then, is to provide some (substantive and not simply procedural) guarantees for all (for example, defending certain individual rights and liberties), and to leave each person free to pursue his/her personal conception of the good life and self-realization (either alone or in the company of others). The fundamental distinction here is between what is in the public domain (“universal right”), and what is not in the public domain (“individual good”).

The liberal idea of the “neutrality” of the state needs some clarification. Two points are fundamental: Firstly, although liberals insist “that legislators should be neutral on the question of what constitutes the good life”, they do not believe “that people in general should be neutral on that question”; the request of neutrality is in fact considered to be specific only to the political realm and morality (Waldron, 1993: 154); secondly, then, the ideal of liberal neutrality is not “the doctrine that legislation should be neutral in relation to *all* moral values”; neutrality is in fact itself a basic and fundamental value: it (inevitably) expresses a normative position, “a doctrine about what legislators ... ought to do” (156–7); in other words, the liberal idea of state neutrality “cannot coherently be justified by any general appeal to moral skepticism” (157)<sup>14</sup>.

### **Third argument: The public interest does not exist as a universal overriding value**

What is the argument, and what kind of argument is it? In this last case, the fundamental idea is that the public interest does not exist as the expression of an always overriding public substantive value, since it is impossible to accept and defend any substantive value as being strictly preferable to any single other. In this perspective, the interests, desires, aims and values of individuals and social groups are simply incommensurable from an ethical point of view. There are no overarching, outstanding, hierarchically pre-eminent values. In other words, we have to accept (and recognize as inescapable for us) some basic kind of value pluralism. This third kind of argument is primarily (even though, in certain perspectives, not exclusively) meta-ethical. That is to say, it concerns whether or not it is actually possible to argue rationally in the field of ethics.

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“stressing individual self-determination and the accountability and limits of state power, may see the ‘public interest’ as the defense of private rights against the superimposition of interests external to, and unwanted by, individuals”.

14 On this, see also Larmore (1996).

Who proposes the argument? There are many authors who accept and defend some kind of value pluralism. But I think value-pluralism can take on different senses depending on two quite different perspectives: I shall call the first one “non-sceptical value-pluralism”, and the second “sceptical value-pluralism”. In the first case, the case of non-sceptical value-pluralism, “practical” (or “axiological”, “substantial”) rationality is not completely disregarded. The fundamental idea is that, notwithstanding the plurality of values and ideals, we can identify and defend certain preferable societal arrangements. An example of this particular kind of (non-sceptical) value-pluralism is Kekes (1993). Kekes believes that there is no value that can always take justifiable precedence over any other value (all values are in fact conditional/relative). But he believes we can defend a certain kind of institutional set-up able to promote pluralism and, on occasion, to help in conflict resolution.

A pioneering formulation of a similar idea of (non-sceptical) value-pluralism in the planning literature is clearly implicit in Davidoff’s (1965) well known article on “plural planning”. In this article Davidoff suggests favouring an institutional set-up and a professional practice to promote collective confrontation and discussion of the many plans and projects representing the various (incommensurable) group interests. A desirable planning mode “is that of a practice which openly invites political and social values to be examined and debated” (331). In other words, he rejects any idea of the public interest as a univocal reference point, and believes in encouraging peaceable and constructive debate between different interests. Planners can help in this direction by becoming advocates of the various social groups: “Where plural planning is practiced, advocacy becomes the means of professional support for competing claims .... Pluralism in support of political contention describes the process; advocacy describes the role performed by the professional in the process” (333); in brief, the advocate planner “would plead for his own and his client’s view of the good society” (333).

Coming now to the second case, the case of sceptical value-pluralism, we can say that the fundamental idea this time is that it is difficult to imagine, specify and defend any societal arrangement as preferable to any single other. We have here a strong scepticism as regards our practical reason, particularly in the public realm. A large group of sceptics proposes an argument of this kind: think, for example, of some radical post-modern relativists<sup>15</sup>. An interesting pioneering example of this kind of strong scepticism in planning literature is the famous thought provoking work by Rittel and Webber (1973)<sup>16</sup>. As is well known, the article deals with the intrinsic impossibility of a (general) theory of planning. Rittel and Webber (1973: 168) write: in a situation “in which a plurality of publics is ... pursuing a diversity of goals, how is the larger society to deal with its wicked problems in a planful way?

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15 “Recently, postmodernists have challenged the universal master narrative that gives voice to the public interest, seeing instead a heterogeneous public with many voices” (Campbell and Fainstein, 1996: 10).

16 As is well known, neither Rittel nor Webber proposed a similar form of radical scepticism. But this kind of scepticism can be clearly found in their famous 1973 article.

... Surely a unitary conception of a unitary 'public welfare' is an anachronistic one". They conclude: "We do not ... have a theory that tells us how to find out what might be considered a societally best state"<sup>17</sup>.

Against whom (and against what idea of the public interest) is the argument proposed? In this third case the argument is obviously against any perspective other than value-pluralism itself. It is, then, an argument against every use of the public interest criterion as a criterion to qualify something (in particular, public decisions and actions) as strictly overriding something else in terms of value. It is, then, an argument also against the above mentioned liberal perspectives. And it is, simultaneously, an argument against the holistic and aggregative conceptions of the public interest but for reasons completely different from those held by liberals. It is plain to see that this is the most radical of the three arguments presented here. It not only impinges on the very idea of the public interest, but on any type of criterion or normative principle that aims to be of public relevance.

What idea of pluralism is presupposed? The idea of pluralism accepted in this third case is the idea of the "plurality of values and ideals", and not the idea of "pluralism of the conceptions of the good" held by liberals – the former idea being clearly more wide ranging and comprehensive than the latter. As Kekes (1993: 199) observes, pluralism accepts the idea "that there is no particular value that, in conflicts with other values, always takes justifiable precedence over them"; while on the contrary, liberalism must recognize "that in cases of conflict the particular values [that] liberals favour do take justifiable precedence over other values". In other words, pluralism "is hospitable to a much wider range of values than those of liberalism" (199). We can add that the idea of pluralism accepted by value-pluralists is also partially different from that considered under the first argument above. In fact, pluralism is not here simply a fact (accentuated in contemporary capitalist societies) but a constitutive and inevitable condition of human existence as such.

## LICHFIELD'S CONTRIBUTION TO THE DEBATE

### The idea of the public interest in Lichfield's approach

As regards Lichfield's work, I think that at least two points are worth considering here: his acceptance of the first two criticisms I mentioned above as well as his rejection of the third criticism and his belief that we need *some* idea of the public interest (see below).

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17 We can recall here also Ferraro's (1996) criticism against any idea of the public interest and of collective rational decisions. Planners, Ferraro observes, still refer to the idea of public interest and of collective rationality (314). But, Ferraro continues, planners "should avoid using expressions such as collective rationality or public good" (314); in fact, "by talking about the public interest as a condition for collective rationality, they cannot avoid errors because there is no knowable object" (315).



### The criticisms accepted

First of all, Lichfield clearly accepts the criticisms against the notions of the public interest as cited above. It is more appropriate to say that he did not simply accept them, but was one of the original pioneering contributors to their formulation. The evaluation techniques he proposes – Planning Balance Sheet Analysis (PBSA) and Community Impact Evaluation (CIE) – clearly reflect this fact.

In brief, Lichfield discards the idea that the public interest is something actually existing as a common area of interest among groups or individuals, and the idea that the public interest is something pertaining to a supra-individual (extra-individual) entity or something equivalent to an aggregated overall figure.

In the first place, Lichfield clearly rejects any kind of realistic/consensual conception of the public interest. He strictly refutes the idea that the public interest is something actually existing as a common area of interest among the groups and individuals that make up our societies. Here is an example of Lichfield's rejection of a consensual view of society and of the idea that planning can operate simultaneously to everyone's benefit: "It cannot be expected that all groups in the community will fare equally well or equally badly; indeed, each individual will experience a diversity of impacts ... From this it follows that any particular choice must have regard to the array of sectors upon whom the impacts will fall and the nature of the benefits and costs to be experienced by them" (Lichfield, 1988b: 14). See also Lichfield (1996: 196): "In planning you cannot please all the people all the time, so that some must suffer for the greater good, in the public interest".

Secondly, Lichfield also clearly rejects any kind of "holistic or aggregative conception of the public interest". Lichfield's insistence on the need to deal exclusively, in evaluation, with "impacts on people", can be recalled here as a clear example of his adoption of some kind of moral individualism and of his rejection of supra-individual or extra-individual holistic concepts of the public interest. Here again is a clear statement: "The impact on the community is the impact on the people in that community" (Lichfield, 1996: 60). And here is an example of Lichfield's rejection of simple aggregative approaches and methods:

The cost-benefit analysis could fall short of planning analysis if it were concerned only with the efficiency criterion for the choice (that is the maximum net benefit derived from the aggregate use of resources and the net benefit itself is derived from measures based on the ex ante distribution of income and wealth in society) and not also with the incidence of the costs and benefits of the different sectors of the community (Lichfield, 1971: 174).

### The criticisms refuted

Notwithstanding all we have said, Lichfield has never followed the fashionable idea that the concept of the public interest is *in itself* meaningless. In particular, I think he

has never accepted the third criticism cited above (particularly the strictly sceptical version of it).

Here is what Lichfield wrote in 1960, after having recognized that there exist some difficulties in taking collective decisions: “However, choice in the public interest must be made if damage to the public interest is to be avoided in the rebuilding and extension of our cities” (Lichfield, 1960: 279). And, suggesting a critical application of economics in planning, Lichfield (1968: 19) wrote: “Economics can help town planning to achieve its long stated objective: decisions on the best use of land in the public interest”.

A similar idea can be found in Lichfield’s subsequent works. Even if he clearly recognizes that there is some uncertainty surrounding the concept of the public interest and that “it is often difficult to detect the *public* on whose behalf the claim is made, and how it is that their *interest* is being advanced” (Lichfield, 1994: 66), he never discarded the concept of the public interest as obsolete or irrelevant (Lichfield, 1994, 1996, 2003). That is to say, he firmly believes that planning should be in the public interest.

Once again, the evaluation techniques he proposes reflect this fact. Lichfield (1994: 66–7) thinks that CIE *is* a tool for helping the decision-makers to make a choice that is in the public interest in a specific circumstance. CIE is in fact built on the following ideas: “planning is carried out *for* the people; it recognizes that people are not homogeneous but must be seen as sectors with conflicting interests in any project proposal or plan; the sectors cannot all be beneficiaries, since some must lose”; planning, therefore, “aims not at a consensus solution but at one which does the maximum good or the least harm. That would serve the public interest”.

### **Towards revised utilitarianism**

Before ending, it is interesting to recall that Lichfield (1996: 189-92) explicitly admits that his CIE presupposes a substantive ethical theory that we can call “qualified-utilitarianism” or “revised-utilitarianism”.

The differences between orthodox utilitarianism and Lichfield’s revised utilitarianism are examined in detail in my previous contribution to this volume. Here I want simply to briefly recapitulate a point that is relevant to the present discussion, that is, Lichfield’s discarding of “sum-ranking”.

The particular version of revised utilitarianism adopted by Lichfield rejects out of hand one of the fundamental elements of utilitarianism, sum-ranking, thus eschewing the criticism against the utilitarian conception of the public interest cited in the second argument above. Lichfield has always opposed an approach to collective decisions which ends up with a single aggregative figure (expressed in quantitative terms). The abandonment of sum-ranking is always accompanied by Lichfield’s advocacy of the importance of paying attention to equity. This clearly and strongly differentiates Lichfield from orthodox utilitarianism. Here is, for example, what Lichfield wrote earlier in 1964:

Since a planning agency is concerned not only with the relation of costs and benefits in its plan (that is: efficiency) but also with who bears the cost and who the benefits (that is equity) the analysis must also pick out the incidence of the costs and benefits ... Since this will particularize the interests which are affected, it will facilitate a definition of the public interest which is being protected (Lichfield, 1964: 165).

And in 1965: “The decision makers need to weight the costs and benefits to a wide range of sectors in the community, often with conflicting objectives, and in doing so must have regard to considerations of equity as between the sectors” (Lichfield, 1965: 131). The central role of equity for planning intervention and for evaluation techniques was constantly underlined in Lichfield’s subsequent work (see for example Lichfield, 1968; 1971; 1996).

After all, we have to recognize that Lichfield does not fully develop a form of revised utilitarianism, but his idea of revising utilitarianism while maintaining some fundamental elements provides a most intriguing challenge. Particularly as this outlook places the focus once more on the concept of the public interest.

## **CONCLUSIONS: THE PUBLIC INTEREST AND A VIABLE IDEA OF PLURALISM**

I too am of the opinion that, in the planning and evaluation fields, we must accept the first two criticisms of certain ideas of the public interest. However, I also believe we have to reject the third kind of criticism of the public interest (Moroni, 2004). In particular, non-sceptical value-pluralism seems to me simply inconsistent and sceptical value-pluralism seems, on the contrary, consistent, but susceptible to criticism.

As regards non-sceptical value-pluralism, I believe we have to recognize that it is self-defeating. To accept some kind of institutional set-up as better than any other (even a societal arrangement simply contributing to the flourishing of pluralism and helping in resolve some conflict situations) is in fact to accept some kind of value or ideal as preferable to others. Distinguishing between “procedural” and “substantive” values and ideals cannot help here: this distinction has in fact little sense in general, and no sense at all in the value-pluralist perspective.

As regards sceptical value-pluralism, I believe it is, on the contrary, consistent, but open to criticism on some grounds. In particular, I think sceptical value-pluralism fails to recognize that we can fruitfully use our practical (axiological, substantive...) rationality even if we can never attain absolute certainty in the ethical field – as happens, actually, in every field of human knowledge and action<sup>18</sup>.

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18 For a detailed discussion of this point, see Moroni, (1995). Other criticisms (from the liberal standpoint) of the various forms of value-pluralism can be found in Conway (1995: 114-19). In more general terms, an interesting discussion on relativism and pluralism can be found in Moser and Carson (2001).

I believe on the contrary that we have to use our practical rationality – obviously in a critical rather than a dogmatic way. In particular, I think we have to look for a convincing moral/political philosophy that is able to throw light on the ethical dilemmas of planning and evaluation. But it is obviously not my intention to develop this kind of philosophical perspective here (for which, see elsewhere in Moroni, 2001).

There are, however, three points I want to stress. Not only do these seem to be relevant to planning theory but also to evaluation techniques.

Firstly, it is not so easy to abandon the concept of the “public interest” as it sometimes seems in contemporary planning and evaluation theory; I fully agree with Barry (1990: 237) when he writes:

The “public interest” is not a meaningless expression; although (like any words in the political lexicon) it may be abused, it has genuine applications too<sup>19</sup>. While we are obviously quite at liberty to abandon the term if we do not like it, the problem remains: in fact, “determining justifiable governmental policy in the face of conflict and diversity is central to the political order” (Flathman, 1966: 13).

Secondly, we can accept some criticisms of certain ideas of the public interest (the first and second.), but firmly reject others (the third) – once we have clearly distinguished among different arguments against the public interest criterion. The point is that it is by no means true that there is a set of criticisms of the public interest which, despite coming from various sources, can be applied cumulatively, fuelling each other in a common attack on the idea of the public interest *per se*; in brief, we have to make a clearer distinction between positions that are only superficially similar.

Finally, we can try to reconstruct an idea of the public interest relevant for planning and evaluation, for example in an egalitarian-liberal perspective (as I am trying to do<sup>20</sup>) or in a not so different qualified/revised utilitarian perspective (as Lichfield suggests). These ideas of the public interest can be perfectly compatible with “conceptions-of-the-good-pluralism” even if they are inevitably incompatible with strong value-pluralism. They are also perfectly compatible with participatory

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<sup>19</sup> See also Klosterman (1980) and Taylor (1994). For some aspects, see also Campbell (2002).

<sup>20</sup> I believe (Moroni, 2004) we can see the public interest (in an egalitarian-liberal perspective) as the interest in social primary goods common to individuals under a veil of ignorance in an original impartial position (for the idea of “social primary goods” as all purpose means for people stipulating for an hypothetical contract in a particular “original position”, see Rawls, 1971). One of the consequences for evaluation approaches of a similar view would be the centrality of a particular list of social primary goods (a list, progressively specified when the veil of ignorance is gradually lifted – as Rawls, 1971: 195-201 suggests – in conformance with the “four-stage sequence”, and organized in a certain kind of hierarchical order). It seems to me that an approach of this kind has some relevant affinities with those approaches to evaluation focused on some idea of “rights”: see for example Linder (1986), and, more recently, Alexander (2002).

and dialogical practices but only if the latter are interpreted as complementary devices to a more fundamental substantive framework (and only if we possess viable methods for structuring confrontation and dialogue – Lichfield’s position on this point is detailed in Chapter 2 above). In outlooks of this type, the notion of the public interest is partly predefined (at least in outline) with regard to the effective contingent social interaction (and I believe it could surely not be otherwise).

In conclusion, I believe, as does Lucy (1988b: 147), that “debate about the public interest is essential to the future of the planning profession”<sup>21</sup>. In other words, the question “Is there a public interest and, if so, how it is recognized?” is still, as De Neufville (1986: 49) writes, one of the main dilemmas in the research agenda of planning theory. The same thing surely applies for evaluation.

In fact I fail to see what purpose evaluation techniques can serve in the public arena, if not to enable choices in the public interest. Basically, if we want to consider evaluation not as a discrete step, external and independent from the planning process, but as an integrated part of it (as Lichfield aptly indicates), then the very idea of pursuing the public interest becomes the unifying factor binding the practices of planning and evaluation.

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21 See also Booth (2002: 169): “There has to be a wider debate on the nature of the public interest ... Unless we have that debate we risk losing sight of the very purpose of town planning”. Compare also with Campbell and Fainstein (1996: 11).

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## Chapter 5

# Pitfalls in Planning and Plan-evaluation

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### INTRODUCTION

My contribution to this book, in honour of a scholar whom I consider as a master in the plan-evaluation field, is a review of a few well known pitfalls, or traps, which are, in my opinion often neglected or forgotten in the usual evaluation practices; and which manifest weaknesses not only in the results of evaluation, but to the credibility and reliability both of evaluation and, ultimately, planning itself.

These pitfalls to which I refer, and which are all logically interrelated, as we will see, could be named as follows: logical indeterminateness; systemic disconnectedness; strategic insubordination; auto-referencing; and; sub-optimization and bounded rationality.

This chapter aims to highlight some of the negative consequences resulting from plan evaluation, which result from the existence of, and the negligence toward such pitfalls; and to discuss how a conscious management of evaluation, if practiced, can help to extend planning practices. This extension depends, on the one hand, on the removal of the pitfalls themselves and, on the other, on the development of a “true” planning science (or planology)<sup>1</sup>.

### LOGICAL INDETERMINATENESS: EVALUATION VERSUS VALUES

The first pitfall, to which I wish to draw attention, is that of logical indeterminateness, where it is stated that the evaluation process could be exempt from values, or “value-free”. This creates a series of misunderstandings which deserve to be discussed and illuminated.

It is usual, in whichever evaluation process, to state that the contents of the evaluation pertain to some “values” which, in turn, correspond to some “value-judgments” by which the evaluation cannot but be influenced. As is well known, the very same methodological reflection of political economy, in its own time and in its own way, assumed a logical “imperative” regarding the “evaluation”, either to state

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1 See Archibugi (1992, 1996b, 2004).

or research the “technical independence” and “neutrality” of the evaluation from values<sup>2</sup>, or to declare the impossibility of such independence and neutrality<sup>3</sup>.

In other words, a grand, main stream of economic thinking<sup>4</sup> (comprising numerous strands) has sought to assert that the concept of “value” in evaluation that concerns us is typically (and implicitly) the “economic”; and that the behaviour of individuals, groups and communities is ruled by an axiomatic logic of utility which explains the behaviour (and therefore studies and codifies it) leaving out the substantive values which determine such utility. An extreme example: the utility for one person could be to acquire goods, that for another person would be to donate them, but both utilities (or choices, or preferences), coming from different values, could be subject to the same behavioural rule, as the “decreasing marginal utility” of the goods<sup>5</sup>. Therefore, these rules are the proper realm of economic science, whatever the good/commodity being exchanged.

Whereas another important stream<sup>6</sup> (which is made up of more numerous individual strands than those of the “main-stream”) contests the possibility that an economic theory can leave out from its formulations certain value premises: but nothing dramatic! It is sufficient – for this stream – to expose values, and a good deal of its economic reflection or findings can be equally well grounded, but on the logical constraint of the assumed premises, and provided that they are not presented as “natural” and “objective” facts (in the way of natural sciences), independent from historical-institutional conditioning.

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2 From the very beginning, economic thinking generally has sought “value-free” assessment, but the author who comes to mind above any other for his specificity of the subject, is Lionel Robbins (1935).

3 In the same way, economic research has always faced challengers of the possibility and even the unavoidability of a value free assessment, and the author who comes to mind above any other for his vastness of the engagement on the subject, is Gunnar Myrdal (1953, 1958, 1972, 1980).

4 As is well known, this stream is usually defined (by its opponents) as *main*, dominant: “mainstream”, and – maybe a little ironic – “orthodox”.

5 According to which: the more the pleasure or need becomes satisfied, the more the utility of this good (and therefore its value) declines. In such cases, the orthodox do not hesitate to assert: if individuals aim to acquire the *good-wealth*, the value of the wealth declines with the growth of the wealth. But I am not sure that the same happens – according to their assertion – if in the place of the *good-wealth*, we introduce other goods of which individuals can feel the utility (pleasure or need): *good-solidarity*, *good-power*, *good-respect* (of themselves), *good-rectitude*, *good-affection*, *good-sociality*, *good-wisdom*, *good-success*, among others. Walter Isard, (1969) consistent with the logic of the neo-classical approach, called these goods “commodities”, i.e. subjects of exchange.

6 This stream is generically named as “heterodox” and we have the feeling that this qualification is not unwelcome by interested people. We all know that in economics different words have been used to oppose this stream to the “mainstream”: “historical school” (namely in Germany, in the nineteenth century) or “institutional economics” (like in the US during the last century), or “evolutionary school” (everywhere after the Second World War). More insights can be found in Hodgson (1994).

However, as stated, both the opposing streams of thinking have something in common: both consider the value (neutral or implicit) as a basis for the evaluation. Even in the more confined area of planning theory and of plan evaluation, it is usual to start on the presupposition that evaluation cannot do anything but:

1. Either, leave out of consideration all values which lead the choices of decision-makers, and confine planners to present an “analysis of facts” or “technical evaluation” which will allow the decision-makers to make decisions on the grounds of values which they pursue; which should imply the effort to build evaluation methods to be “neutral” in respect of the values.
2. Or, on the contrary, to urge decision-makers “to make their values clearly explicit” (in terms of goals) and on the basis of these values, to construct the very same evaluation process. In this case, the planner and/or the evaluator could find themselves being much less neutral, but strong partisans to the point of almost assuming a role of co-decision-taker.

Both routes starting from an analogous presupposition (evaluation depends on the values), involve two risks:

1. a danger of constructing biased evaluation without being aware of it (in the first case),
2. the possibility of supplying partisan evaluations, which could limit the prerogatives of the decision-makers (in the second case).

It seems to me that both risks have been well-perceived. For instance, Nat Lichfield, with his usual clarity states:

...a tidy distinction can be maintained between the politician’s values and the planner’s facts. But whereas it is important in practice constantly to have in mind distinctions between fact, value and value judgment, it is very difficult to avoid overlap in practice. Politicians become aware of the substance of the planning and evaluation process and cannot be constrained in exercising their views; and even where the professional respects the prerogative of the politician on deciding on values, he cannot but reflect his own values in the professional contribution; in a sense he is arguing for a modification of values in the decision-taking when he urges a change in decision through demonstrating the opportunity cost of the politician’s inclinations. And since there is not homogeneity in planner’s values, the argument for change will be diverse. Furthermore, the dialogue on these lines tends to modify the stance of each, as they progressively work over time through the planning and evaluation process (Lichfield, 1996: 198-99).

He thinks then, that the two risks can be avoided in the process of planning when, as we proceed “progressively”, the politician’s modify their “stances” (we might also say, this could be the great educational function of the evaluation process, mainly if it adopts the CIE method). But doesn’t this change of stance also suggest a different

stance of values in the planning process? Or a different concept: that is a concept that could allow us to overcome the possibility of the above evoked risks?

We have seen that, up to now, in an approach of “positivist” analysis, the choices (and preparatory evaluation) are developed on the grounds of values, based on the assumption: evaluation depends on values. But in a programming (or planning, or planological) approach, which is a decisional approach, that is a decision-oriented or action-oriented approach, should we not overturn the assumptions, and should we not test what would happen if we began from the assumption that: values depend on evaluation?

At this point it would be useful to come back briefly to the foundations of a “theory of value”, on which entire generations of scholars, not only of economists, have been engaged and disputing<sup>7</sup>. In fact, to evaluate means to assign value to something. And it is hard to avoid posing the question, in order to be sufficiently critical: what is the value?

Now it has been said, and generally accepted, that value is the property of a thing, but different from its colour or weight. The value of a thing is substantially derived from its ability to satisfy a need or a pleasure. The greater this ability, the greater the value. However – and this is the first step for a reconsideration of how value is posed in the basis of the evaluation – the value is not a fixed and inherent property of a thing. It is rather a variable property, the magnitude of which depends not only on the nature of the things in themselves, but also on whoever evaluates them and on the circumstances under which they are evaluated.

In summary: I think there can be different values according to different goals, in different moments, for different people, under different conditions (for instance, the physical environment within which the evaluator is), and in general terms under the different circumstances (personal, physical, psychological, social and political) of the evaluator – either political or professional – in the moment in which he evaluates<sup>8</sup>.

Then why do we not ask ourselves the question: if value is a variable property, how can this be at the base of the evaluation, and then be a guide to the decision?

The answer is not difficult if we connect it with another important assumption: that decisions and evaluations are never general and universal, and nor could they be. They always represent limited choices and evaluations, which seem to be the best solution in respect of the problems that they face (in the so called “problem solving” approach). In other words, human problems tend to be specific and the decisions

7 I rescue the reader here from exhaustive references. I note one book first, which has been very useful to me as a compendium of the different positions regarding the problem, the book by Hutchinson (1964). Also, for the analysis of the concept of values I have profited largely from K. Baier (1969).

8 We can get a non-conventional vision of the variability of the values in a classical work by Charles Morris (1956). In this work the problems are masterfully discussed: of scales and dimensions of values; of the different determinants of the value, from that which is social, to that which is psychological and biological; and the meeting between western and eastern values (which are often neglected) is also discussed.

that concern them must also be specific. I think that this principle of evaluation specificity must never be forgotten.

Therefore, if value does not exist by itself, but exists only because of the utility that it produces (or the needs and desires which it satisfies), even this utility exists in that context, and in that moment, it is evaluated as such. Neither value nor utility exists without evaluation; moreover, they exist only at that moment of evaluation.

And whereas we are dealing with a decision-oriented evaluation (and not with an evaluation *tout court*), for our purposes the values also acquire concreteness only in the context of a decision. Even when we obtain general consensus about them (and in political life at a general level, such consensus can be obtained easily), people only truly appreciate the values of things and of actions in particular circumstances and situations, when these values can be compared with their practical feasibility and implementation; and this limits their capacity to “value” as such. Whereas values can be appreciated concretely only in the course of the decisional process, their validity depends strongly on the process itself.

In conclusion, how useful value could be as a guide to decisions depends strongly not on the value in itself but on the circumstances and the ways in which decisions are taken.

All of this faces us with the overturning of a dominant paradigm, and of a new appropriate approach to the evaluation: it is not evaluation that depends on the values but rather the values that depend on the evaluation. This rescues the independence of the evaluation process from the trap of subordination to values, which is in turn translated in an indeterminateness of values themselves. In fact, it is not a matter of having to choose between values, but to assess between alternative decisions, from “stances” that may be different according to different circumstances.

This occurs through a re-visitation of the distinction, always required, between the role of the politicians (decision-makers) and the role of the technicians of planning (planners). This distinction operates in a new way; it is not a matter of politicians, as having the power of decision, and technicians, as porters of the power of suggestion. Values, pre-existent or not, in generic and/or ideological terms, emerge in fact only within the evaluation process, of which technicians (planners) are the designers and operational “guardians,” and politicians are the main actors (if you will, having their negotiation and partnership with the stakeholders in this scenario). As the process perfects itself and assumes a more complex importance, the values take the form of their natural trade-off and achieve a kind of “optimality”. It is rather a matter of a permanent interweaving between politician and planner in the evaluation of this kind of optimality.

## SYSTEMIC DISCONNECTEDNESS

The next pitfall is also strictly related to logical indeterminateness and is well represented by the examined relationship between values and evaluations: we have named it “systemic disconnectedness”. This disconnectedness is produced when in an

evaluation process (taking the dependency on values of the evaluation at face value and forgetting the more intimate interweaving between evaluation and “formation of values”) people assume that one can base the evaluation on the assumption of certain values<sup>9</sup> without such values having been “incorporated” in a previous or parallel evaluation process.

The “system” of values, applied in the previous (level) or parallel (sectoral) evaluation process, and the resulting trade-off, obtained in the research of the optimality in that process, can be different from the system of actual processed values. The diversity of the two (or more) value systems, acknowledged by neither of the evaluation processes, can create situations of remarkable inconsistencies between the decisions to which such processes have lead at these two (or more) levels or sectors. This could be named a lack of systemic interconnection of these two (or more) evaluation processes.

Of course, the same lack of inter-connection could occur not only between the two levels or sectors of evaluation and planning but also between two environments, two time periods, two issues which can be integrated in some way and for some reason in a system. The same can be said of the  $n$  environments, time periods, sectors and issues of which any defined social community is composed.

It is necessary, therefore, to try to interconnect the systems in order to make more explicit not only the values but also the evaluation criteria adopted at different scales or sectors of application, without ignoring the necessity to respect some hierarchical criteria, either logical or institutional, where appropriate.

## **STRATEGIC INSUBORDINATION**

The preceding considerations can be presented from another point of view, as another pitfall in evaluation: the lack of “strategic consistency” between the goals and objectives that are assumed as evaluation criteria. Whereas, in the planological and systemic approach<sup>10</sup>, value depends on the evaluations and not the opposite way round, we need to affirm a certain “hierarchy” between evaluations and between the criteria that are used in any evaluation process.

Therefore, it is strongly recommended that any evaluation process, instead of reaching a conflict at the end of the road (which would mean having fallen foul of the pitfalls of “strategic insubordination”, as is the reality of current planning practice), should aim at strategic consistency by coordinating its own hypothesis with the other upper levels of the hierarchy (or at least making such hypothesis explicit, regarding it as the higher level).

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9 If you will, expressed on the spur of the moment by the decision-makers, maybe in a political document of guidelines or general preferences. The well known work of George Chadwick (1971) is a milestone in this analysis.

10 Again I refer to the basic work of George Chadwick (1971) to get a better perspective on this approach. At that time Chadwick based his view (on the contribution of Lichfield) on the relationship between evaluation and the system approach.

The more decision-makers and planners (planners, obviously, are most accountable in this matter) show awareness and willingness to avoid the risk of strategic insubordination, the more they can contribute to the general need to create networks of strategic planning. Within this network, when developed, some conflicts of jurisdiction and/or interest will inevitably exercise their negative roles; but through it the progress of knowledge and of a system of learning-by-doing could also have some unsuspected positive effects<sup>11</sup>.

Certainly, if we could create a national and international planning system, institutionally well established, strategic consistency could be strongly facilitated<sup>12</sup>. Through such a system we could elaborate some guidelines in which the fields and strategic jurisdictional entitlement for each of the scales and levels of the decision-making should be better described; in such a way even the scale and level could also be more easily defined; and more appropriateness could be found for the definition of the criteria/objectives of every imaginable evaluation process.

In the absence of such a system, and of related deontological rules, something of this kind has been attempted with what has been called the “subsidiarity principle”, to regulate in abstract the relationship between different hierarchical levels; moreover to give a ratio to the specification and creation of the hierarchical levels themselves.

This could be undertaken by methodological thinking (in this field we are very backward) exactly as “planning science” (or planology). This could be one of the more useful and significant issues in order to characterize the proper field of planology<sup>13</sup>. Since the American federal administration inaugurated and implemented the “Government Performance and Result Act” (GPRA, 1993), their significant experiences of strategic planning provide a very important contribution to defining ways and means of increasing this form of strategic cooperation in the planning field, and of creating a sort of “universal” planning system. All this would release planners from having to wait for reforms of political institutions to adopt an improved, rational conception of public governance and to begin elaborating it. Also something could be made by theoretical reasoning, being applied to some concrete political cases, on behalf of the planner’s and evaluator’s scientific community. For instance: in fixing the evaluation rules and criteria, what are the boundaries between what the object of individual preferences could be, and what instead the object of community or public preferences must be? And, to remain in the ambit of community or public preferences, what could the margins of autonomy be, regarding

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11 It is now commonplace to state that modern information technologies are ready to facilitate these strategic planning networks. Let me recall that I myself have studied functional relationships between information technology and planning, complaining that information systems have been not been designed with rigorous adherence to the processing of a strategic planning framework, and not just a generic planning data base (see for a beginning of this framework, Archibugi 1978 and 1993).

12 For more details on this topic see another paper of mine (Archibugi, 1998c).

13 Let me refer, for more details, to another paper of mine (Archibugi 1998b) where I have attempted to design a “model” for the general “system” of planning, in order to connect operationally *procedural* and *substantive* planning (in terms of Faludi, 1973).



community preferences according to different levels of sociality, territory, and public administration?

Whereas the evaluation cannot be disassociated, in a correctly conceived planning system, from the objective's preliminary formulation, and cannot help but depend on the evaluation process itself, rather than on general ideologies<sup>14</sup>, the study of how a strategic evaluation system should be articulated by hierarchical levels will become more and more co-essential to an effective development of planning. How can the planner's scientific community neglect making this possible articulation one of its subjects of research, and then of didactic? Moving on, the lack of strategic connection leads to another pitfall of the evaluation: that of self-referencing.

### **SELF-REFERENCING**

Self-referencing is another insidious pitfall of evaluation that is derived directly from the disordered and chaotic system of planning. More than a pitfall, it is an endemic disease of evaluation based on the unequal development assumed by practices of evaluation in respect to that of systemic planning. Self-referencing occurs when the results, performances or effectiveness of a plan, program or design are evaluated with assessment parameters that were not derived from plans, programs or designs of a higher scale and level in a program structure.

Self-referencing represents the consequence of the lack of a logical consistency. Free from any constraints by higher level planning, which define performance objectives and goals, the plan evaluator accepts the parameters of assessment established by the plan itself, at face value, or he suggests them himself. This is the common behaviour of the majority of plan-evaluation experiences that we have implemented everywhere in the history of evaluation. For lack of a more systemic network of multi-level and multi-sector planning, planners and plan evaluators have been reduced, in order to develop evaluation in limited terms, to the planning unit concerned or committing the (professional) task. This is what I call self-referencing evaluation.

In the best case, with the lack of sufficient constraints to use as parameters, conscientious planners and plan evaluators have found ways to simulate by themselves those necessary constraints coming from other levels or sectors. But in this case, surely more advanced and required from a rational point of view, they have, however, created a circumstance in which, on the one hand, conflicting situations are easily avoided, but, on the other hand, the evaluation has been rather a mystification and the final result, from an operational or implementation point of view, has usually been a disaster.

Yet all the great seasons of evaluation-without-planning have been marked by a prevailing self-referencing evaluation, more or less effective at the micro-level but

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14 Which become more and more generic as the societal planning techniques progress.

without making sense at a more general level. And for this reason no trace of this evaluation has been left behind<sup>15</sup>.

The diffusion of the self-referencing evaluation syndrome has created circumstances in which we can hardly perceive the tautology or absurdities of certain evaluations<sup>16</sup>. These past evaluation attempts seem to have had only poor success, and seem well known as failure stories. Their abandonment, or their application only at much reduced scales, without any emphasis, suggests an effort to improve performance only in the ambit of the micro-design.

But this is a mistake. These efforts only had a wrong approach to evaluation, and they discouraged the progressive enlargement of systematic evaluation. However, it is only by such enlargement itself that we can improve the conditions for evaluation to be more effective and significant in the future.

In fact, what we have called self-referencing evaluation can be avoided by applying wherever possible its opposite: hetero-referencing. This means finding all available external references on which to base ongoing evaluations. All this brings us back to the need either for systemic interconnection or for strategic consistency referred to above.

## **SUB-OPTIMIZATION AND BOUNDED RATIONALITY**

Sub-optimization is, in effect, the comprehensive result to which the lack of systemic connection, of hierarchical consistency and so on, leads in the usual evaluation processes, whichever technique is being employed.

A true optimum will never be obtained under optimal, rational conditions, and even under the best conditions that we could forecast (on the basis of the peroration of the previous paragraphs: better or improved systemic connection, hierarchical consistency and so on) a system will never achieve the desired perfection. Therefore our intellectual honesty forces us to recognize that sub-optimization is a permanent or continuing characteristic of any planning or evaluation result.

However, such an acknowledgement and assertion – to be expected at a higher critical level (meta-critical) – should not affect the search for an improved optimality at the operational level. The very risk in reducing our awareness of the need for systemic connection, hierarchical consistency and so on is to effectively abandon the search for optimality on more advanced possible frontiers.

Therefore, the pitfall is not in the awareness of the limits of rationality, but rather in the abandonment of rationality itself, only because we have discovered its limits!

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15 These seasons, for instance, included “cost-benefit analysis” of projects, especially in development policies in the developing countries (on behalf of the World Bank and other United Nations agencies), and “environmental impact assessment”, launched after 1970 in every country, not to speak of many other projects born out of the developing policies in every country, in an effort to carry out developing sectoral and/or territorial policies.

16 Which reminds me of the tale of Baron Von Munchausen who tried to save himself from the river into which he was falling by holding onto his own hair.

Such abandonment is implicit in the concept of bounded rationality: the well-known assertion that, in any decision, there are always limitations or boundaries of time (in decision-making), of resources, of information, of intellectual capabilities and so on. The obvious conclusion: decision-making is always bounded by something. However, this assertion also incorporates another implicit belief. If there were no limitations, the decision could be “rational” or “optimal”; in practice, this decision would be “not bounded”. What would we call it? A “pure”, perfect decision exempt from limitation? At this point, however, we must ask ourselves: is there – in the life of people, in their values, in their actions, in their thinking – anything that is not bounded?

Everywhere, mankind or human society – in whatever decision (as in any thinking) – will be limited in its striving for rationality. What does all this tell us against the “rationality” to which we constantly aspire, or that we try to carry out, according to the cases? What does this obvious fact tell us contrary to the other assertion: that mankind should be in some way searchers and carriers of such rationality?

Even the purest mathematical theorem is subject to the same knowledge limitation, by definition: otherwise there would not be any further knowledge progression of mathematics itself (from which it has spread!). Imagine if we did not take for granted that much of the modeling we elaborate, in order to understand and manage the reality of things in certain ways, or in order to give sense to our actions, was the product of a bounded rationality! If rationality is bound by itself, there is no need to introduce bounded rationality as a limitation of rationality itself.

On the other hand, in which way should or could our limited knowledge limit the search for knowledge itself? Would this mean, perhaps, that knowing the limitations of every human action in respect of goodness, we should not try to be good? Or, knowing the limitation of any aesthetic expression, should we not seek the beautiful?

Indeed, search of the “constrained” optimum or maximum (or minimum) – which is also maximum given the limitations – includes consciousness of the limitations. Thus, it would be of little use to say that we will never know these limitations entirely and, therefore, no optimum will ever be a true or absolute optimum, but will always be relative to the limitations that we could take into account *pro tempore*.

None of this exempts us from the intellectual opportunity or duty to seek that optimum, that maximum (or minimum) given the (obviously acknowledged) limitations. Nor does all this suspend the intellectual utility and task of deepening our understanding of most of the limitations that we do not know, to make the search for this optimum more valid and significant.

Emphasizing the obvious, that is: our rationality is limited, has no heuristic value in my view, and the usefulness of bounded rationality as a positive contribution to planning theory is debatable<sup>17</sup>. Rather than using bounded rationality as an excuse to dismiss rationality and abandon the attempt at optimization, evaluation and planning

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17 See Archibugi (1998a) and (2004: Chapter 6).

practice must follow the postulate that an analysis-, decision-, or action-oriented analysis is fundamentally optimality-oriented.

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## Chapter 6

# Towards Sustainable Planning: Agenda 21, Habitat

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### **TOWARDS DEVELOPING A HUMAN SUSTAINABLE CITY**

Many changes and many paradoxes characterize the current reality. For instance, while everything “globalizes”, the individual’s isolation grows; while material wealth increases, extreme poverty increases too; while science and technology offer incredible opportunities, the risk for humans to become means instead of ends grows steadily. Our age is characterized by continually growing urbanization and, at the same time, by economic/financial globalization leading to a single global market.

This century is increasingly characterized by global competition that often excludes some areas, populations and regions from new development. It creates an increasing level of marginalization and exclusion of contexts that appear economically irrelevant. It is taking place in all our (large) cities, fostering new ghettos – poor quarters of unemployed and homeless people, prisoners of an enlarging circle of poverty (Castells, 1997).

Cities appear suspended between evolution and involution, between development and social/environmental crisis, in a technological over-development and cultural/ethical under development.

The city is becoming more and more internally fragmented, more and more socially atomized, with a dominant diffusion of economic culture into private and public choices. Cities appear more and more to be the sum of many isolated individuals. Each of them is involved in maximization of his/her particular interests, but the sum of these choices is not the “common good”.

The sense of community, of citizenship, is becoming a scarce public good. But this is the most dangerous form of poverty. Citizenship is essential to support any development perspective. The lack of “community” is the most critical problem for cities. In Europe, these problems are emphasized by transnational migration processes (Fusco Girard et al., 2003a).

Cities became realities where social atomization is dominant, where conflicting relations are growing and cooperative ones are breaking down under the pressure of

an instrumental rationality which stresses the “I” dimension in comparison with the “We”, and the “here and now” dimension in comparison with one concerning the future.

The issue of “human sustainable city” development becomes more and more relevant worldwide. In our age, in which for the first time in human history most of the world population lives in cities, the risk is of a world of dehumanizing cities.

While the formal economy becomes globalized and dematerialized, moving towards the large scale, at the same time growth is also evident in the so called “informal economy” in which lower skilled professionals can find jobs. In this sense, the urban economy becomes more and more a “dual” economy, physically demarcating differences between rich areas connected to global networks and poor ones, where millions of people live without dignity.

Let us think for example not only of Cairo or San Paolo, but also of the developed world’s so called “quarters in crisis” (OECD, 1997), where there is an underdevelopment spiral that starts from the lowest income levels. The unemployed have little alternative but to take to criminal activities (for example, drugs, and violent crime) causing insecurity, scholastic flight, scarcity of trade, reinforcing social, physical and economic decay, in a cumulative self-feeding process (Fusco Girard and Forte, 2000). This is the real danger of the coming years and it is a shared concern of sociology, politics, economics, ecology, and philosophy, not only of spatial planning.

The question to ask then: how do we design the new places of “meeting”, as “inclusive public spaces”? That is, new spaces of participation, cooperation, community and hope (Sandercock, 2003)? Is it possible to rebuild social cohesion, to build the sense of community into cities, linking individual freedom with relational values?

The critical point for a more inclusive city is that of introducing new institutions for stimulating, communicating and implementing less individualistic values; orienting choices and real behaviour in a richer way, during a time when economic values triumph both in public and private spaces.

These new institutions would stimulate a new public space that may help in building dialogues and communication among different points of view and cultures, and promote the identification of common values. “Relationality” is the key element of human city development.

Humanizing the city means proposing an image of human life based on relational values among humans, and between them and nature. Such an image expresses relevant values such as freedom, solidarity, equity and justice. These are values that present cities (particularly the large ones) tend to deny and contradict. It is not possible to speak about freedom where sections of society struggle for their daily food, whereas another section is involved in a foolish hyper-consumption. There is no justice if differences and distances between the rich élite and the slums increase within the same city. There is no perspective of human sustainable development without solidarity.

The great challenge of humanization is the construction of the “inclusive city” in which everybody can participate in the new opportunity to rise from the economic, social and political field. The humanization of development strategies, in the context of growing globalization, urbanization and immigration processes is related to an improvement in *urban governance* institutions, so as to:

1. promote relational/civic value, that is to promote behaviour as “citizen”, and not only of consumer,
2. refer to the roots of a community, to its features/identity/singularity/tradition,
3. stimulate new relations between history/memory, and innovation/development.

These institutional tools of new governance are increasingly relevant in our time in which values are increasingly manifold and conflicting, while facts become increasingly uncertain and choices have to be taken in an ever shorter time (Funtowicz and Ravetz, 1993).

## **GOOD URBAN GOVERNANCE AND PARTICIPATORY PROCESSES**

These new governance institutions are characterized by people’s participation in constructing urban choices and enlarging technical ones, such as:

- Local Agenda 21 and Habitat Agenda processes and urban forums (Fusco Girard, 2002),
- participatory budget (Allegretti, 2000),
- social balance sheet (Pruzan and Bogetoft, 1997).

In general, new governance institutions can involve marginalized groups in decision-making processes, allowing them to present their interests, needs, objectives, goods, and values in the public arena.

Local Agenda 21 and Habitat Agenda could be integrated with the “participatory budget” and all the tools that, by stimulating public participation of civil society (associations, third sector, NGO, social economics, and so on), can help urban governance.

Governance does not only refer to the search for increased efficiency/effectiveness in government activity, that is, to the production of significant results; but, more in general, it refers to the relations between those who govern and those who are governed; that is, the condition of a more or less extensive substantial democracy.

It refers to the way with which power is exercised in the allocation of resources for development. It refers to the characteristics of relations between government, the private sector and civil society, and therefore to the way which differences among interests, objectives, or values are composed in space and time, through negotiations, consultations and agreements. It refers, for example, to the way in which ever more



intense conflicts due to different objectives and to growing cultural and ethnic heterogeneity are tackled and solved. The process of participation in the construction of collective choices as a result of decentralization and enhanced autonomy is basic to this idea of governance.

Here participation in the construction of development choices is no more an option, but becomes a new “duty” to compare different scenarios, to deduce shared priority of goals/values, new equity priorities, and constructing social capital. Different *best practices* underline local participation as the best way to cope with the issues of environmental conservation in the framework of a development strategy. One of the most important steps for implementing these participative strategies is the identification of all relevant actors involved in planning impacts, and this should be coordinated in a cooperative strategy. These actors should include actors of the “informal economy” such as NGO’s, voluntary groups, self-help associations, other associations, community trade interests, ethical banks, social enterprise representatives, cooperative enterprise representatives, and representatives of self-production and self-consumption of goods.

Participatory forums are the place of free expression of differences and where it is possible to promote the capacity to harmonize interests; that is, the capacity to make coalitions and foster cooperation in constructing public choices in an interactive process. In participatory processes it could be possible to give joint, common, shared answers to the following questions:

- What to do (which goals and instrumental objectives; which priorities)?
- How to do (which kind of actions and the resources involved)?
- How much to do?
- Where to do (in the historic centre; in new quarters)?
- With whom (third sector; private, public institutions)?
- When to do?

Through participation it is possible to share proposals, to identify new projects, to better control the results, to reduce social exclusion, to produce an action plan.

Participation can help to integrate economic, ecological and social goals; to build trust; to enable communication and cooperative ability; to design a new employment and social pact for the environment; to build common identity and community, which is essential for endogenous development: and thus for self-sustained urban development.

It should be the place where it is possible to build the relationship between the third sector and the other sectors (public and private): where building social capital, cooperative ability, and solidarity indirectly means economic development and employment.

The informal economy offers a way to produce according to organizing principles, which are alternative to the ones of capitalist enterprise, based on equivalents exchange through money. It is connected to the specific physical/spatial context, to the small scale, to face to face relationships, to neighbourhood relationships and to

reciprocity and bonds of trust (as credit sales show) and not to cyberspace and the globalizing economy.

The self-production/self-consumption economy produces for itself and for its survival, recycling raw materials – contributing to waste recycling. But sometimes it can stand out and also, at the same time, satisfy the demands of the poor that would otherwise remain unsatisfied. Also, micro-enterprise is organized according to logics that are different from the capitalist enterprise and from the search for maximum profit, for example the cooperative social enterprise, the ethical bank and volunteer organizations.

In this informal or civil economy (Zamagni, 2003), while specific services are satisfied, relational values are created/produced: that is meta-economic or extra-economic values (for example, the micro-credit supplied by ethical banks satisfies specific economic/financial needs but also produces social capital) (Yunus, 1997).

The challenge to sustainability is, at the end, to reproduce those values at a rate that is at least equivalent to their consumption by the economic capitalist system. Participation open to subjects of the informal or civil economy contributes in this perspective.

As a general rule, it should not be taken for granted that relationships exist between instrumental (or interest-based) and intrinsic (or meta-economic) values, but these should be promoted in new initiatives such as the ethical bank for the supply of micro-credit, non-profit local development associations, micro-enterprises, and so on.

In the Habitat Agenda and Local Agenda 21, forums and integration should be developed between the formal and informal/civil economies; between the economy of production (private economy) and economy of nature, stimulating a new perspective of industrial management.

Industrial ecology in particular studies how nature and living systems work in order to understand how they are organized, so that we can deduce the organizing rules that make an enterprise work and produce income, while integrating production and ecologic protection. It searches for increased profits just by promoting sustainable development principles and practices, through positive sum strategies, that achieve benefits for the entrepreneur and, at the same time, for the natural environment and for society. The new processes of industrial management based on Life Cycle Assessment (also instrumental in the success of industrial ecology), include quantitative and qualitative aspects, in a systemic/complex vision.

## **PARTICIPATIVE PROCESSES AND INTEGRATED EVALUATIONS**

Participation and evaluation processes are strictly linked. Evaluation that takes place in public consultations, open to the citizens, in the construction of a “participation balance sheet” (in the environmental audit, in local forums, and so on), is a social construction of values, independent of willingness to pay. This evaluation helps in

comparing different strategic visions of possible urban futures. Evaluation is linked to the identification of shared priorities, on priorities oriented by social justice.

A prerequisite for the participative forum is an “urban observatory” that can assess all kinds of impacts (economic, social, environmental and so on ) and for comparing the results/effectiveness of a plan/project against examples of best practice. In fact, the evaluative forum can improve participation and then governance.

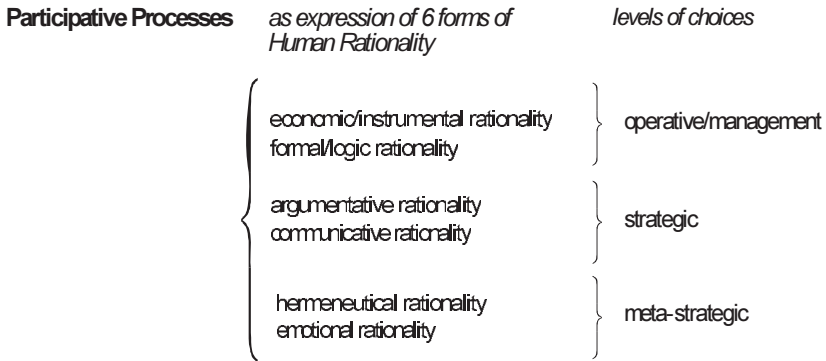
The participative process is characterized by a continuous evaluation process, from strategic evaluation (the choice of goals), to tactical and/or operative evaluation (the choice of means). Participation stimulates the identification of new alternatives, which are not “done”, but socially constructed, forecasting many different impacts, aided by simulation models.

## **PARTICIPATIVE PROCESSES**

Participative processes require integrated evaluations because they link, at the same time, technical and cultural activities. Participative processes involve six different forms of human rationality: economic/instrumental rationality, formal/logic rationality, argumentative rationality, communicative rationality, hermeneutical rationality, emotional rationality:

1. economic/instrumental rationality helps in choosing the best use of disposable resources for maximizing the given objectives,
2. formal/logic rationality, this helps to identify a coherent and a non-contradictory reference structure,
3. argumentative rationality, this helps in choosing the goals of community, deducing and producing new values through public debate,
4. communicative rationality, this is linked to social communication processes,
5. hermeneutical rationality recognizes the existence of implicit and intrinsic values, for example, people should acquire the awareness that all the instrumental values are based on the economy of nature, as ecological economics teaches (Martinez-Alier, 1987). There are some “primary values” (Turner, 1993) or independent of use values, that “support” or sustain use values,
6. an emotional rationality, that recognizes values and meanings as facts, and stimulates connections between human beings and nature. It allows us to feel the “soul” of a site, its intrinsic spiritual value.

In this context, evaluations combine technical and scientific aspects, with judgments of values in an interactive process, through instrumental, formal, emotional, hermeneutical and argumentative rationality (Figure 6.1). The process starts from scientific analysis (looking, for example, into the statistical relation between chemical pollution and health/morbidity), and expresses a technical evaluation now and in the future, and moves from an existing trend to the formulation of a judgment



**Figure 6.1 Participative processes and human rationality**

value on such technical evaluations. This judgment, of whether it is positive that a certain phenomenon will continue into the future, is based on an argumentative rationality (strategic evaluation) and also requires emotional rationality. A certain level of consensus for such evaluations should be achieved, that is, encouraging their wider acceptance. Through a dialogic/communicative/social process it is possible to identify different future scenarios that reflect hermeneutic rationality that combines with argumentative rationality, instrumental rationality and also with formal rationality, because new technical evaluations are necessary.

In this perspective, it is possible to improve the non-bureaucratic approach, which emphasizes the role of learning/education/training, with suitable instruments, to construct negotiations for a positive sum strategy.

## PARTICIPATIVE EVALUATIONS

This evaluation process reflects the six forms of rationality and improves the quality of the new project and its characteristics of integration. "Participative evaluations" become a fundamental instrument to improve urban governance. Human sustainable city development and a good process of evaluation are connected by strong links. In fact, participative processes deeply change the traditionally employed evaluation techniques and stimulate an approach less neutral, more "interactive" and based on experience.

But the most relevant result of a process of integrated, multidimensional and complex evaluations is represented by building new values that are not already "there". This evaluation can be considered as a "learning process", able to steer the full course from the existing values to the new values. From this perspective Local Agenda 21 and Habitat Agenda forums can be considered as a public space expressing the six forms of human rationality, transforming participation in evaluation and choices, and through *ex-post* evaluations.

Starting from the "lessons learned" (*ex-post* evaluations of best practices) it is possible to identify new and good reasons for building shared priorities between

conflicting criteria and how to organize future strategies. Based on the experience of best practices, it should be possible to analyze the processes, the results and the impacts that, at different levels, have characterized the building of a project/plan and its implementation:

1. the spatial/physical distribution of impacts (direct, indirect, quantitative and qualitative) in a dynamic perspective,
2. the distribution of impacts among economic, social, civil and public activities,
3. the distribution of impacts among the different (economic, social and institutional) subjects.

The analytical knowledge of best practice through *ex-post* evaluations opens new spaces for the participation process in a multidimensional perspective. It contributes to re-building public space.

## **PARTICIPATIVE EVALUATIONS AND CITIZENSHIP**

Cultural heritage conservation can stimulate participative processes to produce social, cultural and economic positive-value (Lichfield, 1989). Conservation can be considered as a “starting process” that produces collective memory and common identity – the soul itself of the community.

Recognizing the value of cultural heritage (buildings, artefacts, sites and landscapes) is an important element in broadening participation in urban life. The conservation of cultural heritage ties the past to the present and to the future, linking yesterday, today, and tomorrow. On one hand, it expresses solidarity towards future generations. On the other, it contributes to combining the “I” with “We”, as it enables us to recognize ourselves in a common history, in shared common values, in a common memory. And the common memory, when shared, creates community. If the cultural heritage of a city is not conserved, the social memory fades out as well.

The intentional fixation of a collective memory is an element of resistance against the generalized amnesia of today’s world, and of today’s culture, which is absolutely flattened on instant time. Conservation of cultural heritage should occur in a strongly participative perspective and not – as usual – in a technical and elitist one. It can represent the occasion to build social evaluations and citizenship. Technical evaluations are integrated with citizens evaluations, or “participated evaluations”.

Heritage conservation helps economic development because it improves the attractive capacity of a site for the location of new activities and has a positive influence on new jobs. At the same time, it can contribute to building the intangible conditions of development, if it is able to produce social capital starting from historic/cultural values, by appropriate participation management within the conservation project.

## **INTEGRATING LOCAL AGENDA 21 AND THE HABITAT AGENDA INTO PLANNING PROCESSES**

Local Agenda 21 is going to shift to the Habitat Agenda, linking natural environment conservation to build environment conservation to job creation and to urban planning. The Habitat Agenda provides a useful organizing framework for the implementation of relevant aspects of Local Agenda 21, providing an important instrument for implementing human sustainable city development at the local level. The main goals and principles of the Habitat Agenda are (Fusco Girard, 2002):

1. equitable human settlements where all have equal access to housing, open space, health services and education, among others,
2. the importance of physical conditions and spatial characteristics of villages, towns and cities on the quality of life,
3. citizens' rights and responsibilities,
4. partnerships among all counties and among all sectors within counties,
5. solidarity with disadvantaged and vulnerable groups,
6. increased health care, including services to improve quality of life.

Urban planning offers an excellent vehicle for “browning” Local Agenda 21 and for implementing the three goals of social development: eradication of poverty, creation of productive employment, and social integration, with support – among the others – in the following action areas:

1. ensure equal access to an equitable provision of basic services to the poor, vulnerable and disadvantaged groups,
2. stimulate productive employment opportunities that generate sufficient income to improve people's living conditions,
3. promote crime prevention through social development.

It is important to encourage the formation of new public-private partnerships and provide assistance to small business and micro-enterprises in the formal and informal sectors. To encourage participation it is important to facilitate and protect the formation of independent non-governmental and community organizations and to establish regular consultative mechanisms for involving civil society in decision-making. Local Agenda 21 and the Habitat Agenda can open new spaces in urban planning where reconstructive participation, cooperation, and community, can merge with economic, ecological, and social evaluations.

## **INTEGRATED EVALUATIONS IN PARTICIPATORY PROCESSES: FROM PBS TO CIE**

The participative process of Local Agenda 21 and Habitat Agenda forums can use multi-criteria/multi-group evaluation methods. They enable the analysis of different

typologies of spatial and temporal effects and the distribution of costs and benefits, considering the various stakeholders involved as well as existing conflicts, and constructing coherent mediations. They involve not only urban planners, economists or technicians, but all people.

Benefit-Cost Analysis excludes participation of non-analysts in comparison with multi-criteria methods, which are much more open to a “social evaluation”, where many subjects participate at the same time in the evaluation exercise. Evaluations regarding economic efficiency are well developed (for example, financial analyses, BCA, and real estate analysis); whereas evaluations regarding ecological sustainability have been developing during last decade under the pressure of an environmentalist culture, while spatial evaluations regarding social sustainability and equity have been less studied in depth.

Interest in distributive aspects already emerges clearly in the first applications of Benefit-Cost Analysis in town planning. Planning Balance Sheet (PBS) (Lichfield, 1968, 1970, 1977, 1979, 1989) is a good example of interpretation of BCA on the spatial level. PBS can help in implementing the human sustainable development of the city, by considering the points of view of different actors (third sector, future generations, and so on) and perhaps stimulate coordinated forums.

With PBS we can analyze the “plus” value in certain areas after interventions have caused decreases of other values in other areas. PBS was the first approach really open to the participative process. This technique is in effect the first example of multi-criteria evaluation methods applied to space and territory.

Community Impact Evaluation (CIE) proposed by Lichfield (1996), considering spatial and redistributive impacts in a non-aggregated way, allows one to better assess plans/projects in the perspective of sustainable development. CIE can be seen as a tool for stimulating deliberative/participative democracy and for producing social capital, cooperation, and coordination in a systematic approach: by first increasing citizen involvement, leading to better governance.

During evaluation, CIE recognizes the different social groups in competition with each other (rich/poor, present generation/future generations, direct users/indirect users, potential users/non users, producers/consumers). Use value, optional, bequest, existence value and their variations can be included to compare these points of view when evaluating projects/plans/programs. Evaluations for sustainable development have to consider accuracy over long periods and uncertainty. Besides this, they also have to go beyond the market and consider the effective urban contest, constituted by a plurality of individuals acting out interests, objectives and values that are often conflicting and in any case multidimensional. Each individual has a personal vision of the world, a peculiar perception of values, of time and under specific strategies.

Multi-criteria methods can consider both monetary and non-monetary evaluations. For instance, many opportunity costs, consequent to a choice, can be expressed only in non-monetary terms and have to be compared to the monetary benefits of another option. Various multi-criteria methods enable evaluation on the basis of sustainable development aims (Fusco Girard and Nijkamp, 1997), and in deducing a list of

priorities among different alternative options. CIE is based on a clear multi-criteria approach.

First of all it helps to stimulate and elaborate new solutions, solutions that might, at the same time, achieve several economic, social and environmental objectives, which characterize sustainable development. It also contributes to multiplying the number of “significant” alternatives, in order to reduce trade-off processes and to build new integration. This is characterized by an “and ... and...” logic and starts from the idea that it is not true reality to have decisions characterized by conflict among alternative needs, but that conflicts are due to the alternatives at our disposal, which can be improved through a serious and creative design effort (Zeleny, 1982).

## CIE AND PARTICIPATIVE TOOLS

Multi-criteria evaluation methods open a space of participation for every actor, for researching shared priorities, and also solutions of compromise and cooperation. The evaluative scheme of CIE is open to participative processes of Local Agenda 21 and Habitat Agenda forums, in order to deduce a “shared vision” about what, how, and until which limit to make actions, with whom, for whom, and where.

The participatory Budget is a new institutional tool that helps in stimulating social capital, truth and citizenship. People participate in identifying priorities for the use of public resources. In each area social needs and their intensity are identified. “Evaluation seminars” identify shared priorities of resource use and in particular build in a democratic way priorities characterized by social justice.

These “evaluative seminars” can be better managed using a CIE approach. In order to improve evaluation in Local Agenda 21, Habitat Agenda forums and in evaluative seminars it is useful for CIE to be associated with techniques that simulate results derived from different actions, so that the evaluation of alternatives can become more fruitful. Furthermore, to improve CIE application, it is necessary to provide a “city status report” that accurately describes the current urban status quo, with its several evolutionary dynamic dimensions and features, and pointing out how different urban sub-systems are related.

But CIE is also useful in *ex-post* evaluations. This approach starts from the single actor’s standpoint and through the building of a scale of priorities for each of them deduces what has been done, how it has been done, where it has been done and so on. Best practice stresses how to integrate conflicting objectives: how it is possible to protect the environment and to promote economic growth at the same time; to improve solidarity (through micro-credit, etc.), and to stimulate new economic activities; to improve social quality, and to “attract” new profitable activities.

This knowledge is essential in highlighting that it is possible to react even in strong underdevelopment/poverty conditions. It provides a relational reference point for generating alternative actions/projects for rendering the city more inclusive and sustainable. This also enables us to critically evaluate other experiences and to assess their possible replication in specific realities. Additionally, the knowledge of



best practices enables a critical assessment of the different possible ways to replicate a successful experience, focusing on those conditions necessary and sufficient for success. To this end, it appears necessary to arrange information and assessment on best practice according to the typical CIE scheme, identifying:

1. the community's sectors interested in the project/plan,
2. objectives of each involved sector,
3. quantitative/qualitative, direct, indirect and generated impacts and their distribution in space and time. This analysis not only makes reference to the modification of the living standards of several stakeholders involved, but also to environmental, economic and social context; to greater opportunities opened and to their interactions,
4. costs necessary to put in place the above mentioned impacts in financial/economical, environmental, social terms,
5. priorities for each of the considered sector/subject,
6. common priorities shared by the different sectors, and ways of ordering priorities.

The *ex-post* analysis of economical/financial, social, environmental and cultural impacts should be related to certain initial and final benchmarks.

## **CIE APPROACH AND TERRITORIAL IMPACT ASSESSMENT FOR REDUCING GEOGRAPHICAL/SPATIAL DISPARITIES**

In the European Spatial Development Perspective (ESDP) (European Commission, 1999), it is possible to recognize a clear redistributive goal. The attention to redistributive impacts is linked to the developing of remote, marginal, poor areas and to the resources localized there. We are talking about areas characterized by ecological and/or environmental, historical/cultural values and often also by energy resources: geothermic, water, wind, solar radiation, which potentially play a significant role for sustainable development.

The conservation of these resources, integrated with the use of renewable energies, stimulates processes of economic development connected not only to the tourism function, but also to technological innovation and to the localization of new activities and positive effects on direct, indirect, and induced jobs. The ESDP also proposes a new evaluation instrument to help spatial planning: Territorial Impact Assessment (TIA): that is evaluation of territorial impacts. TIA is useful to improve spatial analysis, that is to reduce territorial differences and disparities between areas, balancing territorial protection with economic development, connecting central parts of the system with peripheral ones.

Large infrastructure projects should be appraised by a TIA, with particular reference to the transport sector, waste management and energy production. TIA for integrated development in protected areas, with high biodiversity (for example,

coastal or mountain areas) is referred to as an instrument that helps balance environmental conservation with development. TIA includes all the aspects of spatial planning, considered under the point of view of different impacts (environmental, social, economic and cultural). For instance, it should be able to consider the impact of a certain plan/project on occupational opportunities, on real estate market, on regional economy, on cultural heritage or on tourism attractors.

A TIA should dedicate particular attention to impacts on social capital: that is, on the capacity of an option to stimulate production of social capital, which is the most important form of capital, on which both quality of life and economic development depend (Fusco Girard et al., 2003b). TIA should examine spatial impacts, in a systemic view. It seems to be a tool to realize the practice of good planning/projecting in a “systemic” way, integrating plan evaluation with evaluation of projects, and recognizing as a basic principle that impacts produced on a certain area depend strictly on the position of the project inside its context, which can determine (or not) some specific stimulus of social aggregation on activities.

TIA can promote sustainable development through improving location choices, enabling the reduction of disparities. It allows for comparison between new values produced and lost values. The integrated evaluations required by TIA can confront alternatives in a complex view, using knowledge coming from different specialist disciplines, in relation to different subjects involved in the decision process, with a process of participation open to all actors.

“Classic” multi-criteria evaluations integrated with scenario analysis, environmental impact evaluation, can become, in the perspective proposed by CIE, a useful instrument in order to elaborate the Territorial Impact Assessment and to make its contents operative in an inter-sectoral perspective, configuring itself as a support to complex decision processes. With TIA, we should be able to analyze modifications between natural environments, built spaces and settled communities.

TIA should also provide a useful frame of reference for achieving sustainability at the local level, offering an integrated evaluation model to support complex decision processes for spatial planning that is oriented towards reducing differences between areas.

## **CONCLUSION**

Good governance is necessary to move towards the human sustainable city. But good governance requires new tools. These tools are all linked to participative processes such as Local Agenda 21 and Habitat Agenda forums, Participatory Budget, Social Balance Sheet. They reduce entropy, reproducing new relational – ethical/cultural – values. Evaluations should become more and more integrated in participative processes to yield innovations in governance. Evaluations for sustainable development are characterized by high uncertainty because they address the medium to long term; so they have to be explicated not only in quantitative terms, but especially qualitatively. These evaluations can not be all expressed in monetary terms, because

they concern the needs of future generations and we cannot foresee their willingness to pay. Besides, evaluations for sustainable development include those related to the comparison of scenarios and the construction of alternative scenarios themselves, considered as the social constructs of valued aims.

Another motivation for non-monetary assessment is the need to grasp the ecological foundation of economic values (de Groot et al., 2000). Economic and ecological evaluations allow a more effective expression of the conflict between development and conservation, highlighting the opportunity costs of each alternative. This conflict involves social relations and different groups in the city with different visions of the world and lists of priorities.

Through Local Agenda 21 and Habitat Agenda forums and Participatory Budget, we stimulate evaluation of alternative scenarios and a space for negotiation and agreement, based on participative processes, with the help of simulations of different impacts. The conflict between objectives and consequent trade-offs helps to rank the priorities of objectives in a transparent way, on the basis of opportunity costs, without claiming to deduce aggregations among different dimensions.

CIE should be considered a general tool for good governance and for *ex-ante* and *ex-post* evaluation of plans/projects, in the perspective of human sustainable development. It is open to all relevant dimensions in quantitative and also qualitative terms, and amenable to integration with other components. It should be linked with specific “social balance sheets”, emphasizing social impacts and interdependences, and the way in which social values are achieved for each subject; Pruzan’s values balance sheet could be considered from this perspective (Pruzan and Bogetoft, 1997).

Environment and energy are domains particularly open to participative processes. CIE should also incorporate a “resources balance sheet” (eco-balance) and an “energy territorial balance sheet” (Fusco Girard and Nijkamp, 2004), including the impacts consequent to energy use, with particular reference to the transport sector and to the building sector, to compare economic, environmental, energy costs and benefits from each alternative. Territorial Impact Assessment could be structured within the CIE perspective.

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# Discussing Methods

This section bridges between the preceding theoretical ones and the next part of this book, which presents practical applications of planning-evaluation methods. The more abstract normative discussion of the preceding chapters gives way here to contributions that are still normative, but involve concrete reference to specific evaluation methods, contexts, and cases. In its own way, each evaluates evaluation: *Whitbread* in his critique of BCA applied to poverty alleviation programs, *Faludi* in his exercise of applying performance-based plan-evaluation to the European Spatial Development Perspective (ESDP).

In Chapter 7 Michael Whitbread identifies the limits of BCA in reflecting the interests of the poor: it is based on willingness-to-pay, and neglects incidence of project impacts. A review of definitions and dimensions of poverty leads to discussion of the interdependence of poverty-related impacts: health, education, insecurity and so on. Economic program assessment guidelines often omit poverty alleviation, while some discuss project targeting without specifying targeted populations.

BCA is applied to various poverty alleviation activities, from slum upgrading to property title arrangement and social development, but it usually involves costing-out actions, choosing the least-cost alternative within budget constraints. Evidence on benefits is scarce: disaggregated measures fail to capture benefits of comprehensive change, surrogate measures (estimated rent increment or land value increase) are inadequate, empirical evidence is uncertain and the BCA exercise is problematic. While the rigor of BCA is its main asset, it is limited for poverty-focused projects, and donors' requirement for BCA is unrealistic.

Chapter 8 presents Faludi's evaluation of the ESDP, based on the distinction between planning as a technical exercise and planning as a learning process. The ESDP's references to application (rather than implementation) complement the latter view, seeing application as an integral part of an interactive deliberative planning process. The background documentation of the ESDP confirms that the ESDP is a strategic document intended for "application". This reflects the "IOR School" view of planning as learning, implying a performance- rather than conformance-based evaluation.

The Dutch approach to plan evaluation, based on plan "performance" rather than conformance to the plan, offers criteria to identify where the ESDP has actually been applied. Specific ESDP prescriptions are identified in the Potsdam document; a review of their application in subsequent planning and decision transactions includes the Tampere Action Programme, EU member states' policies and the European Commission's Second Cohesion Report and White paper on European Governance. All these applications of the ESDP have clearly demonstrated its generative capacity as a strategic planning document.

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## Chapter 7

# Evaluation of Project Proposals When the Objective is Poverty Alleviation

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### INTRODUCTION

A popular critique of Benefit-Cost Analysis (BCA), one which economists have never really overcome, is that it does not adequately reflect the interests of the poor. BCA techniques use concepts of willingness-to-pay to measure benefits. Obviously the poor are constrained in their willingness-to-pay by their lack of ability-to-pay and, hence the critique goes, they have potentially less influence in the findings from analysis than the non-poor.

The general-purpose reply to the critique is that the techniques are relevant and applicable so long as care is taken to identify distributional impacts. For example, Lichfield's early contributions to this issue in essence were that the benefit-cost impacts of a project or policy decision should be identified according to appropriate groupings of beneficiaries and losers. In this way the decision is analyzed according to its implications for the different interest groups which are then revealed to the decision-makers. Weighting of the interests of specific groups is then a possibility. Sensitivity tests may be performed to further explore and reveal the incidence implications of the decision. This general approach to the interests of poor groups now finds its place in the conventional wisdom of BCA.

Recent guidelines offered by the Asian Development Bank are helpful in identifying six types of distributional groupings:

First, the project effects can be allocated among different project participants, usually suppliers, consumers, owners, lenders, workers or producers, and the government representing the rest of the economy ... Second, for projects that involve foreign investors, lenders, management, and labor, the distribution of net project effects between nationals and foreigners can be demonstrated. Third, project effects can be allocated between the public and the private sectors. Fourth, the net project effects can be allocated not only among different project participants but also among participants with different income



levels. Fifth, net project effects can be allocated according to whether the project net benefits are likely to be consumed or saved. Finally, costs and benefits can be allocated among different countries participating in sub-regional projects (ADB, 1997: Appendix 25).

This breakdown of incidence groups is applicable for the analysis of projects or policies having wide impacts, or impacts which are not specifically targeted at beneficiary groups. Poverty impacts are included in the fourth of the classifications but obviously they apply only when the beneficiaries are members of several different income groups including but not limited to the poor. When all the beneficiaries are in the same income group, the poor, the income classification is not helpful.

The poorest of the poor live on US\$1 per day or less. About 1.2 billion of the world's total population are in this category of poverty. The number of people living on less than \$2 per day is 2.8 billion. The very poor are numerous and the focus of considerable international concern. There are many institutions whose mission is to reduce this poverty. Projects and policies are obviously the way to achieve the mission objectives where all or most beneficiaries of the projects and policies are in poverty.

Generally there are three types of projects or policies that will impact on the poor:

1. targeted – where the project or policy is directed exclusively or primarily to the poor as beneficiaries,
2. inclusive – where the project or policy is broad-based and designed to improve opportunities generally, but includes the poor,
3. enabling – where there are presumed to be trickle-down impacts of poverty alleviation due to the general improvement in incomes.

Tracing incidence by income group, assuming it is a practical possibility, is appropriate for types 2 and 3. It is not especially relevant for 1 since the project or policy is already targeted at the poor and they are the exclusive, or at any rate the dominant beneficiary group. The issue of how to measure benefits and costs which impact on the poor in poverty-targeted policies or projects is not assisted by identification of incidence based on income. Moreover, the analyst cannot normally expect to calculate a positive economic rate of return since mostly the benefits are unlikely in conventional willingness-to-pay terms to exceed project costs. Targeting poverty means that benefits are reductions in poverty. The economic assessment, therefore, has to identify the project option which maximally reduces poverty per unit expenditure on poverty reduction.

Poverty, according to the World Bank's "World Development Report", is pronounced deprivation in well-being. It has many dimensions like hunger, lack of shelter and clothing, sickness and illiteracy, all of which are linked to low income. Five main dimensions have been identified but more could be added in further elaboration: low earnings and wealth; poor health and health opportunities; absence

of education; lack of security; and, lack of empowerment. Projects and policies targeting poverty need to identify which of these dimensions are being targeted. Some poverty-targeted interventions can be direct, such as provision of health facilities. Others may be indirect such as improving access to finance, which may lead to enhanced income-earning opportunities. Yet others may be integrated such as slum upgrading programs, which attempt to provide multi-dimensional benefits in the form of different kinds of infrastructure (such as drains, water supply and footpaths) and services (such as education and health).

Benefits may be itemized and possibly measured in physical terms in the cases of targeted projects; for example, reductions in the incidence of illnesses and improved literacy levels. Care is needed with even physical measurements since commonly it has been found that the poor may benefit in unintended ways from targeted intervention since their interests may not coincide with the expectations of the project designers and policy-makers. For example, provision of roads infrastructure such as pavements and drains, which are intended to improve access, in practice provide firm surfaces on which other functions may be performed. Other functions include economic activities, recreation opportunities and health provision<sup>1</sup>.

Poverty and vulnerability often go together. Social inequalities lead to environmental problems, which induce poor health, which in turn reduces capacity for economic activity. The poor tend to be prone to disasters by virtue of their location and housing circumstances, such as those caused by flooding and cyclones, and projects and policies may be directed to disaster relief or mitigation for the poor.

The key issues for BCA are:

- How to value the reduction of the poverty dimensions which are targeted?
- What poverty dimensions should be targeted?
- How much is it worth investing to reduce poverty?

## **ECONOMIC ASSESSMENT GUIDELINES OF THE INTERNATIONAL AGENCIES**

Principal international financial institutions (IFIs) and donors supporting improvements in the Developing World all have poverty reduction mission statements and objectives. For example, the World Bank has declared its mission as a world free of poverty. Similarly the Asian Development Bank states that it is “dedicated to reducing poverty in Asia and the Pacific”. The Department for International Development of the United Kingdom White Paper, “Eliminating World Poverty: A Challenge for the 21<sup>st</sup> Century” clearly states the Government’s commitment, “We

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1 A recent *ex-post* evaluation of a slum improvement project found that the new concrete roads served the following functions: sort rubbish; play area; depot for bicycles; bed; spare room; tent area for festivals; sites for hawkers; dry place for sitting; for learning how to cycle; washing and drying of clothes; access, and social functions.

shall refocus our international development efforts on the elimination of poverty...” (DFID, 1997: 6).

Each of these institutions, and many others which are participating in the funding and other support operations for poverty reduction requires that an economic assessment is carried out prior to the decision being taken to support the intervention. BCA is specifically mentioned as an appropriate appraisal technique. Guidelines and handbooks have been prepared to assist appraisals.

## **The World Bank**

Various earlier World Bank economic assessment guidelines have been brought together into a convenient book produced by staff members of the World Bank Institute “Economic Analysis of Investment Operations: Analytical Tools and Practical Applications” (Belli et al., 2001). As an economic assessment guide, this is extremely useful and readable, providing appropriate guidelines to analyze investment projects using practical and easy to apply analytical tools integrating financial, economic and fiscal analysis. The techniques permit analysts and decision-makers to review projects from the perspectives of principal stakeholders. In addition to its sections dealing with concepts, it offers advice and practical guidance on how to undertake economic assessments of education, health and transport projects. The World Bank’s book is clearly founded on traditional principles of BCA.

However, there is very little by way of advice and guidance in “Economic Analysis of Investment Operations” on economic analysis of the issues of central concern of targeted and focused poverty alleviation. None of the chapters deal with poverty as a central issue, notwithstanding the Bank’s mission, and the references to poverty in the examples cited are minimal; only one paragraph in the book is given over to poverty reduction *per se*, and two pages are provided on issues concerning the distribution of costs and benefits. In both cases the discussion is general and does not offer guidance on how projects that target poverty should be analyzed.

## **The Asian Development Bank (ADB)**

The ADB’s guidelines for the application of economic analysis to projects are generally more extensive than the World Bank’s. Guidance has been brought together into the “Economic Analysis of Projects – the Economic Rationale of a Project” (ADB, 1997: section 15). These Guidelines provide extensive assistance with conventional BCA approaches. The ADB offers guidance specifically on poverty impacts.

Appendix 25 of the “Economic Analysis of Projects” is especially helpful in providing several ways that the distribution of project effects can be analyzed. On poverty, the ADB suggests:

For the purpose of poverty impact analysis, project beneficiaries are divided into three national groups: the poor, the non-poor, and the government. Net economic benefits by

group are distributed between the poor and the non-poor according to the extent that they benefit the poor. In the case of net economic benefits to the government, it is assumed that 50 percent potentially benefit the poor (ADB, 1997: paragraph 4 of appendix 26).

Following the identification of impacts on low-income groups, the Bank recommends that no premium or weights for poverty should be applied. A statement is proposed of the distribution of project effects, without applying any premium to either incomes that are saved or to incomes accruing to particular income groups, such as the very poor.

For this, the Bank suggests:

A statement can be provided of the incremental financial benefits to different project participants ... Such statements, showing the distribution of financial benefits, can be the basis of assessing the division of benefits between the poor and non-poor ... Where possible, the proportion of benefits, in physical terms, going to the poor and the non-poor should be stated (ADB, 1997: paragraph 182).

“Economic Analysis of Projects” acknowledges that “Poverty reduction will be assisted where projects are targeted in ways that will assist groups of poor people directly” (ADB, 1997: paragraph 183). But Appendix 26 is limited in its scope, “To reduce poverty some projects target the poor directly, but most aim at economic growth, benefiting the poor indirectly as well as directly. This appendix shows how to trace the economic impact of growth projects on the poor” (ADB, 1997: paragraph 1 of appendix 26).

The Appendix introduces the interesting concept of the poverty impact ratio:

... the net economic benefits accrue to the poor according to the proportion of each group that is poor. A poverty impact ratio expressing the proportion of net economic benefits accruing to the poor can be calculated by comparing net economic benefits to the poor with net economic benefits to the project as a whole (ADB, 1997: paragraph 2 of appendix 26).

Despite being extensive and generally helpful on the issues of poverty the ADB does not provide guidance for targeted projects. The focus is on conventional BCA applied to investment projects with gainers and losers identified. No guidance is provided as to how the achievement of the objective of the Bank with respect to poverty reduction is to be measured or valued. The poverty impact ratio is a helpful innovation, but serves only to identify the extent to which non-targeted projects impact the poor. While this is an important innovation for the analysis of many Bank operations, it does not address the Bank’s central objective of poverty reduction.

In short, the international agencies view the economic assessment of their interventions in conventional BCA terms. They welcome distributional analysis, but poverty reduction is seen as incidental to the conventional economic assessments of projects, not its primary objective. Benefits are still to be measured by willingness to pay, by the poor and non-poor alike. The ADB’s poverty impact ratio is a concept for assessing projects which have indirect poverty impacts. No guidance is available

from the ADB on how to handle the economic assessment of poverty-targeted projects within the BCA framework despite the fact that the BCA is mandatory for *all* projects supported by the Bank.

## TYPES OF POVERTY

There is no universally accepted typology or classification of poverty. A common starting point is the distinction between income and non-income poverty. Income (or perhaps, income and wealth) poverty arises from low level of command over resources, which in some circumstances means insufficient purchasing power.

Purchasing power is required more in urban areas than rural; rural communities have greater reliance on subsistence farming and simple barter. Survival in urban areas, on the other hand, requires access to markets for food consumption as well as shelter, water and other basic requirements. The urban and rural distinction, therefore, is one useful classifier of poverty, since it assumes different *forms* in the two types of location.

It used to be believed that rural poverty was greater in intensity as well as in numbers. For example, the World Bank's "World Development Report" 1990, concentrated most of its attention on rural poverty based on its finding that the problems of malnutrition, lack of education, low life expectancy and sub standard housing are generally more severe in rural areas (World Bank, 1990). However, current thinking, supported by the rapid growth in urban areas over the last decade, is that cities constitute no less significant a problem and that poverty in the two types of locations need to be tackled with parallel or integrated efforts. There is a continuum of poverty from remote rural to dense urban areas and they cannot entirely be separated but still, differences do exist and projects to address them are different.

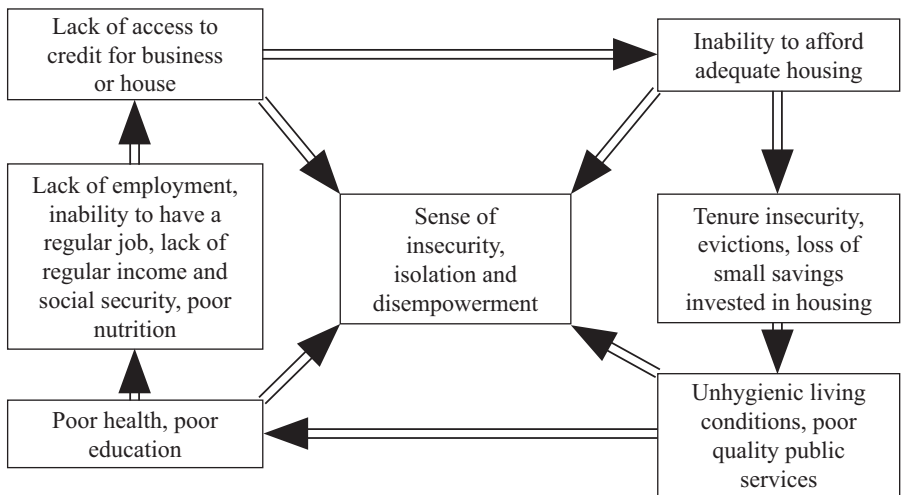
Non-income poverty often arises from lack of income-earning opportunities, but need not do so. Poverty may also arise from ill health or lack of education opportunities or other factors not directly related to income although often found in association with low income. The interactions between income poverty and non-income poverty are complex and crosscutting and invariably self-reinforcing. Figure 7.1<sup>2</sup> illustrates these interactions in the urban context.

Thus, intervening to address the problem of low income would be of necessity only part of any package to address poverty. As there is no easy way to effect comprehensive income transfers to the poor who are on the absolute poverty line, and many of the poor would not be reached even by complex redistribution systems, transfers are not likely to be appropriate for all or even many situations.

The ability of the poor to increase income by themselves is constrained in many ways. These include: employment insecurity and the casual basis of much of the work in the informal sector; lack of skills and hence inability to secure employment;

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2 This figure appears on the World Bank's Webpage for Poverty Reduction Strategy Sourcebook (2001).



**Figure 7.1 Cumulative impacts of urban poverty**

health considerations, not only for the productive members of the household but for others, which may affect work capacity of the household and involve costly treatment; lack of access to job opportunities due to isolation; lack of information; and, constraints imposed by regulations over enterprises in the informal sector.

Interventions to increase the income earning capacity of the very poor through, for example, initiatives on training, improved access to labour markets and employment generation, take considerable time to achieve desired results. Interventions would exclude some important poor groups such as the aged or infirm for whom income earning is not realistic or appropriate. So, income poverty alleviation measures alone would be an insufficient policy response. Policy needs to incorporate measures that address non-income poverty.

Accordingly, the classification, definitions and measurement of non-income poverty are important for policy determination. Poverty interventions will need to address non-income poverty directly as part of an overall poverty alleviation policy package or approach.

## Health

Generally the poor suffer from higher levels of ill health. Disease incidence in poor areas is on the increase. Unhygienic or inadequate food and water are major factors in causing ill health, which is exacerbated by living conditions of the poor which include lack of sanitation, poor environments due to the proximity to industrial pollution and other hazards, such as waste dumping and landfill sites, riverbeds and railways. In many poor societies another cause of health poverty is due to the high level of indoor pollution arising from the sources of energy used for heating and cooking.

The poor are also prone to employment-related diseases and accidents, which may arise at an early age due to the employment of children on manufacturing processes which result in physical handicaps. Apart from the debilitating effects of poor health, it can impact also on earnings and household income often in catastrophic ways. Generally, action to improve private and public health may be part of a poverty alleviation program.

## **Education**

Poverty can arise from inadequate education leading to illiteracy and poor employment performance. Constraints may arise from: the distance between residences and education facilities, which may deter attendance; insufficient schools or number of places; poor quality of education when it is provided; inability to afford the costs of schooling, and resources such as books and writing materials. All these constraints are capable of being addressed by policy actions.

## **Insecurity**

The poor invariably do not have access to land and often resort to squatting on public land, or to occupying private land on extremely small plots. In these situations dwellings are constructed without permits and formal agreements concerning occupation and infrastructure, and public services are non-existent. Land policies often fail to make sufficient land available which exacerbates the problems faced by the poor.

Attempts by public authorities to regularize squatting invariably encourage further squatting and illegal practices. Provision of land tenure may introduce procedures that are difficult for the poor to follow, and from which they then fail to obtain advantage. In addition to these problems, some of the poor lack sufficient resources to obtain loans to improve their housing conditions and cannot generate savings to use as down payments.

Lack of tenure security can result in problems for the poor in retaining jobs and the benefits of social safety nets which build up in neighbourhoods, due to the eviction or rotation of households. Also with insufficient security the home cannot be used effectively as a place of work, which is an added burden to the inadequate space and lack of proper shelter.

In addition to problems of tenure the poor are subjected to additional insecurities arising from the stresses engendered by their living circumstances. Family breakdown is more prevalent amongst the poor; there is social and institutional exclusion and greater domestic violence. These pressures often lead to reduced support for children with the consequential inability to participate in education with the effect that there are reduced opportunities.

Policy interventions to reduce household insecurities are difficult to generate and implement. Tenure transfers as part of slum improvement projects have resulted in

public opposition especially where the land in question was intended for public use such as a school or hospital. Nevertheless, they have resulted in the mobilization of some private resources for housing upgrading by the beneficiaries and appear to be generally successful in achieving their security objective.

## **Empowerment**

Social exclusion often applies to the poor, who are not given, or have difficulty in securing rights to participate in public sector decision-making. The poor often do not receive full protection from the authorities and they encounter problems arising from illegal occupation of land for residences, and their illegal employment activities as informal traders and workers. Even in situations such as slum improvement, the involvement of local communities in the decision-making regarding proposed improvements to the area is invariably limited or non-existent, as the authorities retain sole decision-making responsibility in allocating resources.

Due to the irregularity of residences and work, the poor often have to engage in illegal dealings with the authorities, having to bribe public officials to continue with their activities. These problems may be made worse by geographical isolation in rural areas and formation of ghettos in cities.

Faced with these multi dimensional aspects of poverty, there has to be action to break the vicious poverty circle. Income poverty is at the heart of all these problems but a policy approach is required which attacks the many facets of poverty in a multi-dimensional way. The issues for the authorities are what action to take and how to proceed with implementation.

Measurement of poverty and the identification of the poor are obviously major concerns in the formulation of any policy. An extensive literature exists on the use of indicators for poverty measurement<sup>3</sup>.

## **BCA AND POVERTY ALLEVIATION ACTIONS**

Actions to reduce income poverty include: job creation measures; improvements in the efficiency of working of the local economy especially labour markets through improved accessibility, skills development, and provision of finance and credit; improved governance to enable the poor to participate in civil society; the provision of infrastructure and public services which impact directly on the economy; policy on safety and regulation of activities; and social and community support measures, often administered through non-governmental organizations.

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3 The discussion of indicators would be too long to include here but useful insights and summaries are to be found in the UNDP *Human Development Report (1997, 2000)* and in the urban context on the webpage [www.urbanobservatory.org](http://www.urbanobservatory.org). Another useful discussion of indicators is to be found in Hentschel and Seshagiri (2001). Poverty definitions are extensively reviewed in Wratten (1995). Further insights are provided by Amis (1995).



Non-income poverty reduction may be achieved through actions to improve delivery of basic public services and the components of the quality of life. This includes improved security, action on corruption, health programs, education, mechanisms for the development of social networks, water and sanitation provision, food distribution, shelter provision or improvement programs. These actions may be supported by improved information to the poor about opportunities for enhancement in living conditions, and improved administration of existing programs.

### **Slum upgrading**

In urban areas an important instrument of policy for improving the conditions of the poor is upgrading of poor areas such as the slums. While slum improvement projects may include some actions targeted at income poverty, such as employment creation schemes, mostly projects focus on a package of improvements of infrastructure and basic services to an area predominantly occupied by the poor with a non-income poverty focus.

The non-income poverty targeted neighbourhood improvement approach contrasts with the conventional citywide approach to service improvement, for example for water supply or drainage. The citywide approach is intended to provide general benefits for which the poor are beneficiaries in conjunction with the non-poor. While the two policy approaches are not mutually exclusive, limited resources may require that more effort be put into one at the expense of the other. The advantage of slum improvement is that major gains for the poor can be achieved. A downside is that it will take time to improve all a city's slums and that prioritization is required to identify the poorest of the poor for initial action. There are issues therefore, of identification and prioritization of the slums.

A slum upgrading policy usually involves physical improvements to the area in the form of: water distribution, sanitation, disposal of solid waste, drainage, improved roads and footpaths and street lighting. Experience strongly supports provision of security of tenure for the occupiers of the slum being granted at the same time as physical improvements. This encourages the occupiers to undertake their own improvements to the dwelling based on the effects of increased wealth and engenders public responsibility in the maintenance of the assets. Granting of tenure also prevents the transfer of the benefits of the improvements to titled or intermediary landlords in the form of rent increases following the provision of services and infrastructure. However, tenure provision linked to increased property values which are due to infrastructure improvements may result in the slum area beneficiaries coming into the property tax net. In which case, their benefits are offset by the payments of tax.

Slum improvement projects often include the parallel development of income generating and social development activities either within the slum or nearby, such as market places, and provision of schools and clinics. Many projects include hygiene

awareness campaigns so that advantages of physical improvements are captured by improved behaviour.

The advantages of an attack on poverty through slum upgrading programs are that they are comprehensive (within the definition of local services used), and attempt to increase the coverage of services in a manner that is firmly targeted at the poor. Coordination of the execution of investments saves costs and can improve the efficiency of services. The results are highly visible in the targeted area.

The main disadvantages are that the poor who do not live in slums, such as those whose residential locations are geographically dispersed, will not become beneficiaries of the approach<sup>4</sup>. Additionally there are costs associated with organizing and implementing the program of works which need to be factored into the assessment. By definition, slum upgrading does not address linkages to infrastructure outside of the slum neighbourhood that is improved, although this may be included in the overall program of works.

Nevertheless, widespread evidence from the implementation of schemes suggests that projects do generate considerable improvements in living conditions in slum areas, especially when tenure security is provided. Where communities participate in the choice of actions to be taken in these upgrading projects, experience also shows that projects are likely to be successful and sustainable in the longer term and that residents take on many of the responsibilities of maintaining the investments that have been undertaken. Thus empowerment can be introduced through these projects, which otherwise are essentially designed to improve the physical living conditions of the poor.

### **BCA and slum upgrading**

How, then, to proceed with the economic appraisal of a slum improvement project? The first task is to identify the slums and prioritize them for improvement. To meet the poverty focus objective, the worst conditions should be identified as top priority. This causes a difficulty for the conventional BCA since the poorest of the poor are least likely to have capacity to pay for the benefits of the environmental improvements. Conventionally measured by willingness to pay, the selection of top-priority slums is likely to be inversely (or perversely) correlated with the poverty benefits of improvement.

Identification of the slums in a city is normally a straightforward matter based on physical conditions of the dwelling units and absence of infrastructure. Prioritizing creates some problems but there are two principal dimensions to consider: the poverty levels of the occupants of the slum; and, the environmental living

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4 Evidence usually exists which suggests that most of the people living in slums are poor. It has not been demonstrated that most of the poor live in slums. However, both conditions would seem to be necessary pre-conditions for an area-based policy approach to poverty reduction. Of course, there is a strong presumption that most of the urban poor live in slums.

conditions. Slums can be identified in a matrix, which consists in one dimension of the selected indicator of poverty, such as the number of people below the poverty line, which may be established by survey, and on the other dimension, an assessment of the environmental and infrastructure deficiencies based on a physical survey. The prioritization of slums would start with those slums in the matrix cell that are worst on both of these dimensions.

Listing of the slum's gainers from the project is not meaningful given that most of the beneficiaries in the slum will be a fairly homogenous group of poor households. Losers are primarily the taxpayers or others providing the funds for the scheme, which may be donors or aid agencies. Property tax may complicate this assessment since improved areas may result in regularization of legal entitlements to the land, and property values may increase bringing the slum properties into the tax net<sup>5</sup>.

The issues to be resolved then at this stage are how much to spend and what works to undertake? The former issue may be determined by a budget constraint, in which case the resources available are used to the maximum. If it is not, or if the budget constraints are imprecise in relation to any individual slum although applicable as part of a program to a large number of slums in a city, then it may be appropriate to adopt standards as the criterion for determining the expenditure requirements. The task of the scheme designers would be to find the least cost solution of achieving the official standard of engineering or service provision. This is normally a matter that can be undertaken by the project engineers, although with a natural tendency to overstatement of costs<sup>6</sup>.

### **Sources of evidence on benefits**

As for the issue of what infrastructure or services to provide, there are a number of sources of evidence that could be used to identify the beneficiary preferences. The most obvious approach is to undertake a survey or other consultative or participatory procedure whereby the residents of the slum participate in defining the scheme for their area by indicating their preferences for the different kinds of improvements. Their preferences need to be constrained, either by funds availability or by some externally imposed level of assessment as to what is reasonable in the circumstances; otherwise the beneficiaries will opt for the highest standards of improvement they can secure. Moreover, past evidence is conclusive that the interviewees in surveys

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5 City administrations usually have a minimum valuation threshold for the inclusion of properties on the register of property tax. It would often be possible for the authorities to increase the threshold to exclude the improved slums without the loss of much tax revenue from other properties taken out of the tax net. There would be savings in administrative costs from raising the tax threshold. This is because low value properties dominate the register in terms of numbers of register entries but generate little by way of income for the municipality.

6 Cost overstatement arises for a number of different reasons; a natural tendency for caution in preparing estimates; engineers on the ground may be poorly trained or inexperienced in slum projects; and, corruption in contracting, which is pervasive in developing countries.

quickly exhibit a strong propensity to lie about their conditions because of raised expectations from any action taken by the authorities, such as a survey as a precursor to undertaking a project.

Nevertheless, communities welcome participatory processes because they provide a sense of empowerment, which is important in itself. It is just that they are open to abuse by community leaders, local politicians or certain households, who may manipulate the process to suit their own ends, and care is needed to minimize this effect. Procedures need to be open and transparent and accomplished in a relatively short period of time to reduce the scope for these activities.

A second source of evidence on preferences is *ex-post* evaluations of slum improvement schemes completed elsewhere. These can provide very useful evidence of the kinds of improvements which appear to most benefit the poor. What was good for slum A that was improved last year is a guide as to what would be good for slum B next year.

A third source of evidence is to undertake a marginal analysis whereby the increasing benefits measured in physical terms can be assessed against the increases in cost of provision. This may give an indication of which types of improvements, for example roads or drains, appear to give the biggest benefit per marginal additional cost. However, these exercises are difficult to undertake in practice and secure public participation.

Another approach to measurement of benefits is to isolate the individual components of the scheme (for example water supply or roads) and to use external evidence of benefits for each of these independently and gross up to the total for the slum as a whole. Extensive international evidence exists on measuring water supply benefits, for example, which can be used to assist with the measurement problems<sup>7</sup>. Alternatively, the costs of existing water for the slum dwellers such as private vendors or the costs associated with the time and effort of collection from wells, can be assessed against the costs of provision of a piped supply. Storm water drainage improvements could, likewise, be measured in terms of the savings due to avoidance of costs of clean up after floods. Sanitation improvements are more difficult to assess since their impacts are on health, which is an indirect effect of the improvement. Other benefits of slum improvement schemes such as street lighting are even more difficult to measure.

Many slum improvement projects are justified on the proposition that the main benefits accrue as improved health. Sanitation and drainage obviously have direct impacts on health, but other improvements such as concrete roads and street lights as well as improved distribution of water may also play a part. Health benefits arise in many different ways including reduced medical costs, increased employment and hence wages, less pain and suffering. However, the link between improvements in an area and health benefits is extremely tenuous and difficult to measure. Such benefits may require almost total coverage of the city's slums before they begin to accrue

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<sup>7</sup> The evidence worldwide suggests that consumers are willing to pay up to about three percent of their income for a regular supply of potable water.

since an epidemic can be transmitted over distance from the unimproved areas to those that have been improved. There is very little evidence extant to evaluate slum improvements in terms of their health improvement effects.

Disaggregated approaches also would fail to capture the integrated benefits of a comprehensive scheme. The very essence of a slum improvement objective is to achieve overall benefits which exceed the sum of the individual parts.

As an alternative to the disaggregated approach, attention has been given to measuring benefits through rent or property value increases arising from the environmental improvements in slums. These should capture gains arising from the comprehensive nature of the scheme, as well as the individual elements. But it is far from clear that the existing residents would be willing (or able) to pay for any rental increases that might arise, which are more likely to reflect the willingness of outsiders to move to the improved area. If occurring, the displacement of the slum dwellers by outsiders would negate the residential security objectives of the policy. In any event, in practice the evidence of rental changes in improved slums is little more than by-and-large in nature, since information about rentals in these slum areas is anecdotal. This is due to the systems of slum landlords that often arise, in whose interest it is to suppress as much knowledge about their activities as possible.

Many of the measurement issues can be considered as risks in the project economic assessment and sensitivity analyses performed to determine the implications of the risk for project choice. However, the main thrust of the argument here is that the measurements of the benefits of poverty reduction are too uncertain and that the exercise itself is too controversial given the insufficiency of the evidence.

## CONCLUSIONS

What then does economic assessment offer to assist with choices relating to poverty-targeted projects and policies? The discipline of BCA is perhaps its main contribution. The helpful aspects of the BCA approach when appraising these projects are:

- a clear focus on identifying the target beneficiaries and losers,
- analysis of the incidence of benefits and costs,
- the stress given to the need for alternative project options and an options appraisal,
- concepts relating to the trade-off between costs and the effectiveness of the expenditures in marginal analysis,
- clarity in seeking relevant and accurate evidence, especially behavioural evidence, of the gains that the beneficiaries will receive from the projects.

However, there are clear limitations on the applicability of economic assessment and BCA for poverty-targeted projects, as follows:

- Willingness to pay is an inappropriate concept when dealing with the poorest of the poor and a satisfactory alternative has yet to be proposed. Description of poverty alleviation impacts is always possible, but trading off between impacts remains elusive. The poverty impact ratio and similar measures do not apply to situations where all or most beneficiaries are at the absolute poverty line.
- Cross-sectoral choices of different types of projects are in practice impossible to assess for the poor for a variety of reasons, but mainly because the benefits of investments in one sector (such as the example of concrete roads used above) provide multi-dimensional benefits across several sectors. Tracing these impacts has not been sufficiently researched.
- Economic rate of return and similar types of performance measurement are impossible to undertake in any convincing way for poverty-targeted policies. An analysis may provide some evidence of cost savings to offset against the project costs, but not much else.
- Cost effectiveness analyses may be undertaken using marginal analysis, as referred to in the paper, but even these are difficult while evidence linking expenditure to benefits, as in the health field, is so limited.

In this situation the mandatory requirement of donors and international financial institutions for an economic analysis to be undertaken as a pre-condition for poverty-targeted projects is an unrealistic requirement. The best that can be hoped for at present is a description of the effects of the different options under evaluation.

It may be possible to make progress in this area following a more extensive *ex-post* evaluation of poverty-targeted projects which attempt to carefully trace the impacts of the improved conditions on the poor. Until such a body of work has been undertaken and the evidence has been assembled and reviewed, the economic assessments of poverty-targeted projects will be little more than perfunctory exercises. They achieve little more than to satisfy the administrative requirements of international funding agencies that an economic analysis has been done.

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## Chapter 8

# Evaluating Plans: The Application of the European Spatial Development Perspective

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### INTRODUCTION

The success of the European Spatial Development Perspective (ESDP) as a strategic planning document is of intrinsic interest. The assessment of the ESDP is also revealing as an exercise in evaluating plans and planning processes. Contrasting performance-based with traditional conformance-based evaluation approaches (Alexander and Faludi, 1989) this chapter builds on the distinction between planning as a technical exercise and as a learning process. Talking about implementation complements the view of planning as a technical exercise. Talking, as the ESDP does, about application complements that of planning as a learning process. Based on relevant Dutch experience (Mastop, 1997; Faludi, 2000) this chapter discusses planning as learning as part of the ongoing process of applying plan messages. The focus is on how to establish whether this has been a success.

With this in mind, the ESDP is analyzed, showing that its makers have understood its nature to be that of a strategic planning document. But without application, that is some policy consequences, such a document may be no more than a “paper tiger”. Consequently, empirical evidence on the application of the ESDP is also presented. The conclusions argue that the ESDP has not been a paper tiger but a key in pushing the EU towards recognising territory as an important dimension of European integration.

Critics may indeed dismiss the ESDP as a paper tiger. However, what can we expect of a document representing the consensus of fifteen EU Member States and the Commissioner of Regional Policy? Such a document cannot give concrete guidance for action. So to talk about the ESDP being applied rather than implemented has been a good move, and its application a relevant item for discussion. First, the ESDP process is inherently interesting. If it succeeds, albeit (as seems likely; see Faludi 2004a, b) under the guise of territorial cohesion policy, then this will be a



major feat, anchoring planning at the highest level of European governance. Second, from a theoretical point of view, the notion of the application of strategic planning documents is a fruitful one. Third, five years have passed since the ESDP has been adopted, and there is empirical evidence about its application.

The chapter asks what the switch from implementation to application signifies. Some may feel that it is yet another sign of the weakness of planning, especially at supra-national level. Such critics point to abstract formulations in the ESDP and to the difficulty of envisioning action flowing from it. This chapter argues that invoking the notion of the application rather than the implementation of the ESDP reflects an, understanding, albeit intuitive, of the nature of strategic planning documents like the ESDP. Their follow-up is necessarily a drawn-out, interactive process, with outcomes that are unpredictable. The reason is that those involved in its application are as insightful and forceful actors as are the makers of the ESDP. Application as a concept signifies awareness of the fact that it is only through their agency that strategic planning documents can achieve anything at all.

So application is something other than the shaping of spatial development. Application is the shaping of minds of actors in spatial development. Wherever the ESDP helps them in making sense of their situations, it is being applied to good effect. However, since these actors are not passive recipients of messages from the ESDP but rather active explorers of options and shapers of their environment, they react by reinterpreting plan messages from perspectives of their own, reflecting their concerns rather than those of the plan-maker. So what those involved in spatial development do with plans depends on many more factors than just the planners' foresight.

So conceived, application is not a separate phase, but part and parcel of the interactive, deliberative process as which planning is often, and rightly, portrayed. This process goes through many gyrations that include altering working arrangements and elaborating planning documents so as to make them fit the situation as it emerges. This departs from the common view of planning and of plans. All too often this view leads one to think of planning as the making of a plan spelling out what needs to be done, period. Once it has been adopted, implementation of the plan is seen as the one and only path to be taken.

However, implementation seamlessly flowing from the plan is a far cry from the reality of much planning involving endless, multifarious negotiations. Real-life planning is a learning experience and the interaction between planners and those involved in spatial development, with the rubbing-off of opinions that this entails a valuable part of it. It follows that evaluating planning cannot be simply a matter of comparing outcomes to intentions either. We need to understand learning as an integral part of planning. Before developing this argument, we need to say briefly something about the ESDP.

**BACKGROUND: THE EUROPEAN SPATIAL DEVELOPMENT PERSPECTIVE AND ITS APPLICATION**

On 10/11 May 1999 at Potsdam, ministers of EU Member States assented to the ESDP in the presence of the European Commissioner for Regional Policy. This was the crowning event of years of dedicated work by the Committee on Spatial Development (CSD). Previously, the so-called Leipzig Principles laying the foundations of the ESDP had been adopted in 1994, the “First Official Draft” affirmed at a meeting at Noordwijk, The Netherlands, in 1997 and a “First Complete Draft” at Glasgow in 1998. The conclusions of the German Presidency at Potsdam were modest:

The Ministers responsible for Spatial Planning in the Member States of the European Union and the member of the European Commission responsible for Regional Policy emphasized in Potsdam that the conclusion of the political debate on the European Spatial Development Perspective (ESDP) was an important step in the progress towards European integration.

The reason for this lack of fanfare was that the ministers met, not as one of the incarnations of the Council of Ministers conducting European Community business, but informally. As the ESDP process has made only too clear (Faludi, Waterhout 2002), there is no Community competence for planning. The issue cropped up once more at the hearings of the then nominee Commissioners for regional policy, Michel Barnier, before the European Parliament in mid-1999<sup>1</sup>. He let it be known that he intended to launch a debate on the matter but volunteered the opinion that it was difficult to imagine planning as a matter purely for Brussels. However, a discussion at European level might be envisaged on transport and energy resources<sup>2</sup>. Still, the issue has remained unresolved and is now likely to be side-stepped by subsuming spatial development under the new concept of territorial cohesion (Faludi, 2004a).

Rather than focussing on the status of the ESDP, suffice it to say that – although not a formal plan – the ESDP may count as a strategic document and that its makers clearly wish it to be followed through. Indeed, the Potsdam document contains a chapter devoted to its follow-up, and so did the predecessor documents. However, because of its informal status, halfway through the process the makers of the ESDP ceased to refer to any follow-up as the “implementation” of the ESDP and talked about its “application” instead. In so doing, they showed awareness of the fact that the ESDP process was not about producing a technical plan but a matter of learning. It is this distinction that we need to look into.

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1 A little less than five years later, the same Barnier left his post to become French foreign minister, a post which he lost during a cabinet reshuffle after French voters rejected the Treaty establishing a Constitution for Europe in May 2005.

2 Summary of hearing of M. Michel Barnier, 6 June 1999, home page of the European Parliament, <http://www.europarl.eu.int/dg3/sdp/newsrp/en/n990906.htm#2>.

**TECHNICAL PLANNING AND PLANNING-AS-LEARNING**

The "IOR School" (IOR for Institute for Operational Research, a branch of the Tavistock Institute of Human Relations in the 1960s to the 1980s) is an early example of a break with classic views of planning (Faludi, Mastop, 1982; Faludi, 1987: 91-92). This school sees planning as "... not so much concerned with producing a plan as with gaining a better understanding of the problems with which we are faced now and in the future, in order that we can make better decisions now" (Centre for Environmental Studies, 1970: 16).

Of course, planning is not always learning. Learning relates to situations in which, such as in the ESDP process, issues are anything but clear-cut. Distinguishing between project and strategic plans, Faludi (Faludi, 1989; see also Faludi, Van der Valk, 1994; Mastop, Faludi, 1993; 1997) looks at how plans are being prepared, their form and intended effects. Thus, strategic planning concerns the co-ordination of a multitude of actors, is a continuous process, and strategic planning documents are no more than fleeting records of agreements reached. Strategic planning occurs where there is uncertainty, with the involvement of many actors adding to the complexity of the situation. Whilst it can occur at the local level, these conditions are more common at regional and national and even more so at the level of the European Union. The mind boggles at the sheer complexity of spatial development issues at this level, even more so since there is uncertainty about what the European Union is and how it relates to Member States, regional and/or local authorities and citizens. This is why the issue of a Community competence for planning is so touchy.

So the ESDP should give guidance where there is uncertainty, allowing those involved in spatial development to better appreciate the implications of courses of action open to them. They can derive such guidance from the document itself, especially Part A on policy. They may also derive insights from having participated in, or otherwise having become aware of, the ESDP process. Where insights are drawn not from the plan but from the process we speak of this as the "invisible products" of planning (Friend, Hickling, 1997; Wallagh, 1994). Invisible products are: a better appreciation of problems, a confluence of views, mutual understanding and trust and the like, in short, learning effects that are important, sometimes more so than the "visible products", the planning documents. What is crucial is that planning-as-learning involves interaction and communication. Witness the great interest in "communicative planning" (Fischer, Forester, 1993; Sager, 1994) and "collaborative planning" (Healey, 1997).

It is clear where this takes us as regards the follow-up of plans. Talking about implementation reflects a technical notion of planning. All relevant issues are assumed to have been resolved in the plan. What needs to be done is to follow it. Whoever fails to do so puts the goals of the plan into jeopardy. The relation between the maker of the plan and those implementing it is top-down. In fact, the ideal is that of machine-like implementation: those coming after the planners are not seen as actors in their own right but rather as cogs in a machine.

Talking about application complements the view of planning as learning. Those concerned are actively involved and have an indispensable role in fine-tuning whatever the plan says to the exigencies of the real-life situations. The relation between the maker of the plan and those applying it is one of equals. It is abundantly clear where in these terms the ESDP stands. The new Commissioner Barnier has certainly not been the first to emphasize that there is no room at European level for any master plan or blueprint. Indeed, there has never been a serious suggestion of this kind. What there has been, rather, is a great deal of mutual learning. Even if this has so far been limited in the main to the “roving band of planners” (Faludi, 1997) involved, progress has been palpable, and this augurs well for the future of European planning.

### **THE DUTCH APPROACH TO EVALUATING STRATEGIC PLANS**

The notion of plans being applied rather than implemented has a cunning resemblance to a Dutch approach to evaluating strategic plans (for reviews see Mastop, 1997; Faludi, 2000). This section is about this approach and what it implies for the evaluating the application of the ESDP. In so doing, we take heed from the exploration above of its nature as a strategic planning document. The purpose of applying ideas drawn from such a document is to allow those involved in spatial development to learn about their situations and what they, individually or collectively, can do about them. It follows that the quality of the ESDP must not be measured in terms of whether the outcomes conform to what it says. Rather, quality must be measured in terms of its application in the follow-up to the document.

Generally, application so conceived implies communication, either face to face or through the medium of messages in the plan document, between plan-makers and those involved in spatial development (including the plan-makers themselves). Faludi and Korthals Altes (1994; see also Korthals Altes, 1995) point out that, communication, especially where it is not face to face, is necessarily distorted. The process must be viewed as the “double reconstruction of texts” whereby the author of the plan conceives of the recipient in the abstract, and the recipient thinks of the author of the plan in the abstract, too. So meaning assigned to a plan and its messages during application is never the same as intended.

This is where the Dutch approach comes into its own. Following amongst others Barrett and Fudge (1981) it differentiates between conformance and performance as a criterion of the quality of plans (Faludi, 1989, 2000; Mastop, 1997). What is meant by conformance is surely evident. Performance refers to whether decision-makers use a planning document, whether it helps clarifying choices, whether the planning document forms part of the definition of subsequent decision situations. In terms of this discussion we might say, performance is a question of whether, and how, those concerned apply a planning document.

There is a rider. Strategic planning documents are complex and usually directed at many actors. It is necessary to break their content down and to assess planning

documents, like the ESDP, not as a whole, but in parts. These parts we describe as “messages”. Messages can be the outcomes of analyses; they can contain planning concepts, and so forth. For instance, the ESDP contains sixty so-called “policy options”. Many of them are not of the nature of policy options but rather exhortations, but this is not the point here. They are the clearest attempt in the ESDP to formulate succinct messages. The message that is drawing most attention is that of polycentric development in Europe (Krätke, 2001; Cabus, 2001; Waterhout, 2002; Davoudi, 2003; Peters, 2003; Faludi, 2004b).

So what happens with messages contained in the ESDP becomes the key to evaluating it. Accordingly, a message is fulfilling its role if, and only if it is being applied in defining the choices of the actor or actors to whom it is addressed. The addressees may include the makers of the plan who then in a manner of speaking send messages to themselves (like we do with our diaries). Addressees include of course others to whom the plan is directed. In addition, actors not explicitly mentioned, indeed, actors whom the makers of a plan never thought of as belonging to their target group, may take messages on board. For instance, a Dutch document concerning cultural policy has given the ESDP as a source of inspiration for focussing on architectural heritage, something that the makers of the ESDP did not, indeed could not, count on since, amongst other things, this type of Dutch policy document is new.

Even if the addressees decide not to take an ESDP message on board, it is not necessarily ineffective. The message can still form part of the actor’s framework of choice. As any strategic planning document, the ESDP continues to fulfil its function for as long as it informs actors involved in spatial development about the original intentions and the reasoning behind it, in other words for as long as by looking at the ESDP they learn something.

The above needs to be specified further. What will transpire is that we need to stretch the notion of the application of a strategic planning document to include the manifold follow-ups designed to clarify the meaning of the document and to promote its application. Especially in the phase the ESDP process is in, where there has as yet been little chance of direct application, the main thing one can do is to assess whether or not arrangements for following it through are adequate.

We start with criteria for plan performance (which we now understand to be the same as plans being applied). Mastop (1987 [1984]: 344) discusses three conditions of a strategic planning document being effective. The planning document must:

- specify decisions for which it is intended as a framework,
- be of continuing relevance to the situation as it evolves,
- help with defining decision situations.

Faludi (1986: 101) makes do with two conditions. The necessary one is that the relevant actors know the plan, or rather elements thereof that are relevant to them. This relates to Mastop’s first condition in that the more specific the document is as regards its target group, the greater the chances of messages coming through.

Faludi's sufficient condition is that the relevant actors must accept the plan, or rather messages contained in the plan, as part of their definition of the decision situations, which is Mastop's second and third condition rolled into one.

Now, two situations are conceivable. The first situation is that subsequent decisions of actors conform to the planning document, better to say to the relevant messages in it. This is of course an indicator of success, but since it is possible that this is a coincidence, a relation with the ESDP still needs to be established.

The second situation, where subsequent decisions fail to conform to ESDP messages, is more interesting. This is because we must find out whether the messages have at least been considered, and if so how. What is important here is to realize that, as emphasized, even where the actor or actors concerned take message seriously, the outcome can be different from what the planners foresaw. After all, once again as indicated, the actors concerned have perspectives of their own. They deal with situations that are more specific than those perceived by the planners. Also, their information may be more up to date. So it is perfectly conceivable for them to come to different conclusions. Even where this is the case, our assessment of the role of the plan message need not be negative, though. The message may have been applied in the sense of playing a useful role in the decision-making process. That an actor comes to a different conclusion from what the plan-makers have anticipated is all in the game. So our judgement must rest on whether, in the light of the messages from the plan, the actor's choices have been well considered, and not on whether the outcome conforms to the plan.

On this basis, it is possible to establish whether the ESDP has been applied, and to which effect. We need to search out the target groups and look at their relevant choices, establishing whether they follow the ESDP. Where they do not, we need to analyze their choices in more detail to establish whether, even though not followed, ESDP messages have played a role.

There are other possibilities of plan messages playing a useful role, and this is in follow-on actions by the plan-makers. Plans may be in need of modification or even outright revision. In these cases, plan messages may still be triggers for change and, if so, we can still talk about messages being applied. A message fails to make an impact only where plan-makers drop the idea, get disillusioned and decide to try something altogether different. Where they decide to elaborate upon or to modify the message so as to make it more amenable to the situations of addressees, there the assessment can be positive. The idea must have been basically sound. That it may need clarification is taken for granted. So the criterion of success is the persistence of ideas in a plan.

On the basis of similar considerations, Wallagh (1988: 122-123; see also Wallagh, 1994) specifies four situations in which, using the terms of this chapter, planning messages are being applied. These range from straightforward conformance at one end to plan revisions taking the original plan as their point of departure at the other. In the latter case the plan exhibits what we might call generative capacity. In addition a plan exhibits generative capacity where, rather than being revised, it is being elaborated, or where appropriate working arrangements are created to ensure that

plan messages are applied. A good example is INTERREG IIC, a new string to the Commission's bow introduced in the late-1990s, and one that Member States eager to receive assistance for trans-national planning approved of. INTERREG IIC was to render ideas generated within the ESDP process operational. Such elaboration is a natural part of the process of applying any strategic planning document.

Based on the above, we distinguish the following situations in which ESDP messages are being applied:

- where the decisions of actors involved in spatial development conform and there is evidence that this has been due to ESDP messages,
- where their decisions depart from such messages, but arguments for or against take account of ESDP messages, nevertheless,
- where ESDP messages are being invoked in situations unforeseen by its makers, thereby bringing them under the ESDP umbrella,
- where the ESDP is being elaborated or revised, thereby taking its messages on board and thus demonstrating generative capacity.

Below we give an account of the application of the ESDP, taking these points into consideration. First, though, we look at the ESDP itself. The purpose of the exercise is to establish how the ESDP handles the very notion of application and on that basis to give a preliminary assessment of its generative capacity and with it its chances of success. Thereafter we look at whether and how ESDP messages are being applied.

## **THE APPLICATION OF THE ESDP**

The final Potsdam version of the ESDP comes in two parts. There is a policy-oriented Part A, "Achieving the Balanced and Sustainable Development of the Territory of the EU: The Contribution of the Spatial Development Policy", and a more analytical Part B, "The Territory of the EU; Trends, Opportunities and Challenges". Here the emphasis is on Part A. It starts with a general introduction ("The Spatial Approach at European Level"). This is a first effort at articulating a discourse on European spatial development asserting territory to be a new dimension of European policy. The opening sentence addresses the widespread feeling of unease as regards the European project and its implications for national, regional and local identity. Thus, the ESDP points at the cultural variety of the EU. "Spatial development policies... must not standardize local and regional identities in the EU... which help enrich the quality of life of its citizens" (1) (numbers in parentheses refer to paragraph numbers in the Potsdam document). However, with integration, borders cease to be barriers. Projects in one country can have impacts in others. Community policy, too, must pay attention to spatial factors, in particular since, with European Monetary Union (EMU) a fact, it is no longer possible, at least not within the Eurozone, to compensate

for productivity disparities by adjusting exchange rates. Spatial planning can help to avoid regional disparities getting wider (2).

The authors of the ESDP are well aware of the importance of a shared discourse. A desired goal, complementarity, can best be achieved when objectives are held in common. This is why spatially transparent development guidelines are needed (3). Competition is one of the driving forces in the Single Market. However, not all regions start from the same base line, this being the rationale for economic and social cohesion policy. Spatial balance can contribute to a more even geographic distribution of growth (4).

The ESDP seeks to transcend sector policies. One of the most important modalities of spatial planning is indeed co-ordination across sectors, taking account of how policies affect territories. Without much in the way of explanation, it is claimed: "This is how the subsidiarity principle, rooted in the Treaty on the EU, is realised" (8). Other concerns relate to the environment. Of course, there is reference to sustainable development. Balanced spatial development is said to reconcile social and economic claims on land with the area's ecological and cultural functions. Here the document relates the three policy aims or guidelines of Leipzig:

- a balanced and polycentric city system and a new urban-rural partnership,
- parity of access to infrastructure and knowledge,
- sustainable development, prudent management and protection of nature and cultural heritage (19).

These objectives must be reconciled, paying regard to local situations and their exigencies (20). However, the makers of the ESDP do not see it as a blueprint but rather as a frame of reference (21). This leads into a discussion of the status of the ESDP, pointing out that it is a document of the Member States in co-operation with the Commission and that it has received backing from the European Parliament, the Committee of the Regions and the Economic and Social Committee. As a legally non-binding document, it is a policy framework, leaving existing competencies untouched. It is clear that in terms of this chapter the ESDP sees itself as a strategic planning document intended to be applied by autonomous agents, each in accordance with his or her predilections.

Under "The ESDP as a process", the milestones in its development are mentioned (23) followed by an account of the consultations in 1998-1999 (24). In a passage relating to what has been described as generative capacity of plans above, the ESDP states that there should be periodic review and that it should generate further plans and programmes aiming to promote balanced spatial development. The text adds that, at the next round of revisions, the focus is likely to be on enlargement (25). The latter topic close to the heart of the German Presidency is the subject of Chapter 5 on "The Enlargement of the EU: A New Challenge for European Spatial Development Policy". The emphasis on enlargement and the need to revise the ESDP is proof of the intent to pursue the ESDP further. At the meeting at Tampere, the Potsdam document has been described as the "first ESDP", thus enforcing the commitment to



an ongoing ESDP process. So the ESDP has been recognised for what it is, a document that, if it wants to have any effect at all, must be elaborated further. The institutional infrastructure for this, in particular the Committee on Spatial Development (CSD) needs to be maintained (26).

The main text on applying the ESDP comes in chapter 4 (“The Application of the ESDP”). The chapter distinguishes between levels of application, from the Community to the trans-national level and down to the level of cross-border and interregional co-operation. There is a section on the application of the ESDP in Member States and at Pan-European level. Indeed, in the meantime the Council of Europe has adopted so-called “Guiding Principles for Sustainable Spatial Development of the European Continent” reflecting ESDP principles (Council of Europe, 2002).

The text also says that in applying the policy aims and sixty options conflicts between sectors and spatial conflicts and timing difficulties need to be considered early on. “This requires new ways of co-operation, which according to the ESDP’s principles should be on a voluntary basis. The application of the policy options is based on the principle of subsidiarity” (161). To this end, once again three planning levels are distinguished: the Community; the trans-national/national and the regional/local level (163). The conclusion is that the “...main focus of the ESDP’s application as a European document is at Community and trans-national levels. Priority should be given to issues which cannot be dealt with in an appropriate way by one or two Member States but, instead, require the co-operation of several countries” (165).

The next paragraph is devoted to the application at Community level. The text reports on the formation of an inter-service group for investigating relationships between Community policy and spatial development (167).

The next item deserves to be quoted fully:

The meetings of the Ministers responsible for spatial development and those of the Committee on Spatial Development (CSD) play a central role in the application and further development of the ESDP. However, the informal character of these arrangements does not allow the taking of decisions or making of recommendations. For this reason, European institutions such as the European Parliament and the Economic and Social Committee support a formalisation of these arrangements, whilst maintaining the principle of subsidiarity. Member States have different opinions on this.

This is followed by the recommendation that “...Member States examine the suggestions of the European institutions to formalise both the Ministerial meetings on spatial planning and the Committee on Spatial Development, while maintaining the principle of subsidiarity” (168). Apparently, the informal arrangements for producing the ESDP were creaking at their seams and so, no sooner that the ESDP had been adopted, formalization returned on the agenda. As we will see, the Finnish Presidency set a process into motion for tackling this issue, a process that the French Presidency in the second half of 2000 has been invited to bring to its conclusion.

Further down, Member States are asked to “...regularly prepare standardized information on important aspects of national spatial development policy and its implementation in national spatial development reports, basing this on the structure

of the ESDP” (170). There are further recommendations concerning ESPON, demonstrating the make arrangements for future work on the ESDP.

A whole paragraph is devoted to trans-national co-operation under INTERREG IIC/IIIB. There are also passages concerning cross-border co-operation reflecting once again German thinking, that is, reciprocal arrangements for consultation.

The next paragraph is about the application in Member States, culminating in a passage about the inevitable “Europeanisation of state, regional and urban planning” (185). Out of the blue, territorial impact assessment, already mentioned above, re-appears, arguing that Member states should “...intensify the exchange of experience on territorial impact assessments and further develop national regulations and instruments” (186).

There can be no doubt, the makers of the ESDP take its application seriously. This can be gleaned, not only from the document itself, but also from the Conclusions of the Presidency at Potsdam (such conclusions being the only way of putting the sense of such meetings on record). The Conclusions first reassure the reader that the makers of the ESDP in no way clamour for new responsibilities at Community level. Then they specify types of follow-up. Thus, the German and the succeeding Finnish Presidency will forward the ESDP to European institutions. In addition, the German Presidency will inform the Accession Countries and others represented on the Council of Europe (Bundesamt für Bauwesen und Raumordnung, 2003). Other addressees are the sector planning authorities and the regional and local authorities of the Member States. Representatives of third countries will be informed of the ESDP’s aims and principles at international meetings and conferences dealing with regional and urban development issues.

The Finnish Presidency was asked to continue the ESDP process with steps to initiate its application by means of an action program and by beginning a discussion on the forms of the future co-operation on questions relating to spatial development. The conclusions stress that the ESDP should be taken into consideration in implementing the new regulations for the Structural Funds and in revising the Trans-European Networks (TENs). The Commission was asked to report on the spatial impacts of sector policies at Community level. Also, the European Spatial Planning Observatory Network (ESPON) should be established speedily. The Committee on Spatial Development was instructed to prepare an application for a co-operation project eligible for funding within the framework of the Community Initiative INTERREG III, and to also look for other funding possibilities.

The Conclusions also report ministers having discussed how their co-operation could be improved and on having asked the Committee on Spatial Development together with the Commission to examine the options and to present a report in the course of the coming year. In plain English: there was disagreement on this point.

The Finnish Presidency obliged the Member States and prepared both an action programme and a document on the future of the CSD. The Conclusions of the Finnish Presidency describe the action programme as an application of ESDP policy principles. It consists of twelve actions aiming to promote a spatial dimension in policies at Community and national level and to improve knowledge, research

and information on territorial development as well as to prepare for an enlarged territory of the European Union. The period covered is 1999–2003. Responsibility for co-ordination and monitor of the action programme should be tasks for the CSD. Lead partners committed themselves to co-ordinate work on concrete actions, with financing shared. However, the Community Initiative Interreg III was also invoked for some of the actions, as for the settling of a long-standing issue, the setting up and co-financing of the European Spatial Planning Observation Network (ESPON).

As regards the second item on the agenda at Tampere, the future of the CSD, the detailed Finnish paper on this receives hardly any mention at all in the Conclusions of the Presidency. The hot potato of the status of the CSD, implying some form of resolution on the status of European spatial development policy, was passed on in the hope that, by the time of the French Presidency in late 2000, the issues would be closer to its resolution. This was an idle dream. The French Presidency did not lift a finger to do so. The intergovernmental ESDP process was a lost cause. The Commission wanted to replace it by a form of territorial cohesion policy that it hoped would be more firmly under its control (Faludi, 2004a, b).

## **APPLICATION ON COURSE**

Here we discuss the Tampere Action Programme in more detail, to be followed by a discussion of the Community Initiative INTERREG and the European Spatial Planning Observation Network (ESPON), themes discussed in the ESDP chapter on application as summarized above. Having discussed these types of elaboration of the ESDP, we then turn to the application in a select number of Member States. This is followed by a review of how the Commission deals with the ESDP, showing that in a surprising number of instances it refers to this intergovernmental document approvingly. Most surprising is perhaps the reference to the ESDP as an example to be emulated in the White Book on European Governance (CEC, 2001).

### **Tampere Action Programme**

All in all, the Action Programme comprised of twelve actions. For each of these actions, a Member State or in some instances the Commission has signed up as lead partner. Not all projects have been completed, but progress has been considerable. A French proposal for a school textbook on the geography of Europe is now available in three languages. (For the English version see Bailly, Frémont, 2001.) The object of another action, ESPON, has now come about. As we know, the intended “Guidelines for the Sustainable Development of the European Continent” based on the ESDP have been adopted (Council of Europe, 2002). The Commission, too, has done its homework publishing the results of a study on “Spatial Impacts of Community Policies and Costs on Non-Co-ordination” (Robert et al., 2002). Other projects have not been completed, one on the application of the ESDP in Member States for which the Belgian Presidency (a role fulfilled by the Walloons) was the lead partner. Since,

as will become evident, the Committee on Spatial Development charged with the management of the Action Programme has faded into oblivion, attention for the Tampere Action Programme has slipped.

The Action Programme also listed the continuation of strand IIC of the Community Initiative INTERREG as one of the aims to be achieved. Meanwhile, INTERREG IIIB is in full swing. Mid-term evaluations are still in the works, though. However, and although the final evaluation on behalf of the Commission of the entire INTERREG Community Initiative is clear that INTERREG IIC has been a success. In four co-operation areas, the North West European Metropolitan Area, the North Sea Area, the Baltic Sea Area and the so-called CADSES Area (Central European, Adriatic, Danubian, South-east European Space), no less than 180 projects took place (by coincidence forty-five in each area). In the North West European Metropolitan Area alone, no fewer than 369 partners have participated. So it seems that throughout Europe thousands of experts must have been operating in the framework of INTERREG IIC. Zetter (2002) points out that this is certain to have contributed to the formation of a European planning community.

In addition, for each of the co-operation areas (but not for the others) a spatial vision has been prepared. (Nadin, 2002) Some of these pursue lines that for the ESDP itself have been a bridge too far, like articulating the spatial visions in the form of policy maps. In so doing, the visions have developed the art of European spatial planning further.

### **Application in Member States**

Amongst other projects there has been one (in which the author has participated) exploring the application of the ESDP in at least four Member States (Faludi, 2001; 2004c).

#### *Federal Republic of Germany*

Considering German enthusiasm for the ESDP, it is surprising how little drive there is in the Federal Republic for applying its messages. Now, the representation of the German position overall in the European arena is a matter for the federal government. Planning as such is a competence of the *Länder*, or federal states, and this also holds for the application of the ESDP (Selke 1999: 90-92). Unfortunately, the *Länder* show little inclination to apply the ESDP. Rather, the Federal Republic gives priority to practical co-operation with what at the time of writing are still candidate members of the EU: Poland and the Czech Republic and also (in the framework of the Baltic Sea programme) the Baltic Republics<sup>3</sup>. In terms of topics, the federal government has set priorities also as regards the types of projects that it wished to co-finance. What remains to report is that at least the Federal Spatial Planning Report "Spatial

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3 There is also co-operation with the Russian Federation.

Planning and Spatial Development in Germany” (Federal Office for Building and Regional Planning, 2001) makes due reference to the ESDP.

### *United Kingdom*

As with the Federal Republic, so with the United Kingdom: the context is largely responsible for shaping the application of the ESDP, but with the opposite effect. UK planners are now enthusiastic about applying the ESDP. This is a reaction to their enforced inactivity during the previous Conservative rule. Indeed, in 1997 at Noordwijk New Labour under Tony Blair declared itself unreservedly in favour of the ESDP (Zetter, 2001). What evokes particular enthusiasm is the “spatial approach”. UK planners see this as signalling a clean break with what the “Compendium of EU Spatial Planning Systems and Policies” (CEC, 1997) describes as the land-use management approach excluding social and economic considerations from the equation (Collingwood, Nadin, 2002: 81).

Regional planning guidance dealing with economic development issues introduced under the Conservatives (Tewdwr-Jones, Bishop, Wilkinson, 2000) has become the vehicle for applying ESDP messages. Each planning region must submit a draft regional guidance. These drafts must apply certain ideas coming out of the ESDP. Shaw and Sykes (2003) admit to great variations in the way this is done, but this is a remarkable achievement, nevertheless. In addition, the ESDP has been a source of inspiration for New Labour in modernizing planning (Collingwood, Nadin, 2002: 31). It goes without saying that UK partners also participate in numerous INTERREG projects. The UK after all has a share in no fewer than three co-operation areas, with parts of Scotland having the distinction to belong to all three of them: the North West Metropolitan Area, the North Sea Area and the Atlantic Arc (Zetter, 2001).

### *The Netherlands*

With the Germans and the French (about whom more below) the Dutch have had a large share in the ESDP process. The National Spatial Planning Agency even devoted one of its yearbooks wholly to European spatial development policy. (For an English cover-to-cover translation, see National Spatial Planning Agency, 2000.) However, the Fifth National Spatial Planning Document 2000/2020, “Making Space, Sharing Space” (for an extensive English summary see Ministry of Housing, Spatial Planning and the Environment, 2001) makes only scant reference to the ESDP. One of them is where the report identifies six national urban networks, one of them the so-called “Delta Metropolis” (better known under its former name as Randstad). Referring to the ESDP, the Delta Metropolis is positioned as one of the nodes of the European polycentric system of cities. The government undertakes to make further improvements to the infrastructure between the Delta Metropolis and the Flemish cities and to the German Ruhr Area.

For this and for other purposes the government wants to intensify co-ordination with the German neighbours. Northrhine-Westfalia must be welcoming this. This *Land* puts great store by its relations with its western neighbours, estimating that it, together with Benelux, forms a European economic core area described as the “European Region of Power” (Bezirksregierung Düsseldorf, 2000). In its Fifth Report, the Netherlands government announces the intention also of strengthening the spatial dimension of Community regional policy. Dutch planning is largely about spatial investments, and spatial investments should become a focus of European planning, too.

Generally speaking though, as with the German Federal Republic, the role of the ESDP in the Fifth Report falls below expectations. Two explanations are possible. One is that the Fifth Report has been controversial and going to be superseded by a new-style strategy document. With Europe not being a popular topic in a Netherlands turning (like the rest of Europe) more Eurosceptic, it is unlikely that the new document, at the time of writing eagerly awaited, will pay more regard to Europe than its predecessor.

The second possible explanation is that, with success, the Dutch have seen to it that the ESDP incorporates their planning ideas but that, as a consequence, its novelty value has been limited. However, the Dutch are participating in INTERREG IIC and IIIB with a vengeance. This small country, too, has a share in three co-operation areas, including the special case of the co-operation area for the river catchment areas of the Rhine and Meuse where flood prevention requires co-operative strategies. The Dutch are lead partners also for a whole series of projects, including one producing an interesting spatial vision for Northwest Europe (National Spatial Planning Agency, 2000; Nadin, 2002).

### *Belgium*

Belgium has undergone a radical federalization. The Belgian state has no more spatial planning competence left. In such cases foreign relations, too, are the responsibility of regions: Flanders, the Walloon Region and the Brussels Capital Region. During the ESDP process, these Belgian regions took turns in representing Belgium at the informal meetings of ministers and on the Committee of Spatial Development (Van der Lecq, 2001). Application of the ESDP is likewise a matter for the regions. However, the priorities of Brussels and Flanders are different.

The Walloon Region is the only one that seems to be inspired by the ESDP. A strategic document coming out concurrently with the ESDP (Gouvernement Wallon, 1999) has analyzed the geographic position of the region in danger of being bypassed by so-called Eurocorridors. The Walloon Region resents being branded as the nature reserve and recreation area in a densely populated Northwest Europe. As Williams (1996) has pointed out, capacity for spatial positioning is one of the benefits of participating in European spatial planning, and in the Walloon case this is evidently true. Walloon partners are also more active than partners from the other Belgian regions in participating in INTERREG.

*Member States of the Nordic Council*

Information on other Member States is patchy. Böhme (2002, 2003) reports on the members of the Nordic Council being touched by the European planning discourse. Their planners have become part of the European planning community and assimilate its approaches. Otherwise Eurosceptic Denmark has made the greatest contribution to the ESDP. In addition, Denmark has positioned itself as the “green room” in the European house (Böhme, 2002: 91). Publishing a national spatial policy document “Denmark and European Spatial Planning Policy” (Ministry of the Environment and Energy, 1997) reflecting ESDP themes, Denmark has taken a lead in its application. In addition, Denmark has played a leading role in bringing the Baltic Sea co-operation around the so-called VASAB project about. VASAB has pointed the way for the ESDP and the Baltic Sea is now one of the co-operation areas under INTERREG in which the ESDP is being taken further.

Finland, too, participated in VASAB. In addition, Finland has injected the so-called “Northern Dimension”, a mixture of geo-politics and spatial planning, into the European discussion. In the ESDP process as such the role of Finland has mainly been to prepare the Tampere Action Programme. Within Finland itself, the ESDP and more generally speaking EU regional policy have generated adaptation pressures resulting in the publication of the first ever strategic planning document “Finland 2017” (Ministry of the Environment, 1995).

Sweden, finally, kept its distance. It has difficulties with accepting planning at a level higher than its communes. The latter are few in number and well-endowed with planning and other powers. Sweden brings into focus also a feature of Nordic planning systems, the rigid distinction between land-use planning and regional-economic development. According to Böhme, Sweden is changing its ways though, offering the prospect of a Swedish spatial development perspective and of more integration between policy sectors.

*Other Member States*

There are other examples of the application of the ESDP. Luxembourg for instance has published planning guidelines (Ministère de l’Aménagement du Territoire, 1999) reflecting ESDP principles. The Austrian Spatial Development Perspective 2001 (ÖROK, 2002) makes an effort to put the ESDP on the agenda. Italy has never taken a consistent approach to the ESDP, but what has been said about other Member States also applies there. Co-operation in the framework of the Community Initiative INTERREG and innovative actions under Art. 10 of the regulations applying to the European Regional Development Fund have attracted attention. Janin Rivolin (2003) demonstrates that European spatial planning has given rise also to diffuse but nevertheless significant changes. A forthcoming special issue outlining “Southern Perspectives on European Spatial Planning” (Janin Rivolin, Faludi, 2005) shows the same to be true for the other South European Member States.

*Special case: France*

France took the initiative in the ESDP process and, with the Commissioner for regional policy, Michel Barnier, a Frenchman, French ideas played an important role<sup>4</sup>. To understand why, we need to go back in history. France, more in particular the planning agency DATAR (Délégation à l'aménagement du territoire et à l'action régionale) perceived a need for a spatial strategy to underpin the regional policy (itself reflecting French approaches, see Faludi, Peyrony, 2001) of the European Community. This was why France invited the ministers responsible for regional policy and spatial planning for their first informal meeting at Nantes which started the ball rolling. The Commission appointed a French official to co-ordinate the work. Had Germany not objected, this would have led without much ado to a variation of *aménagement du territoire* at Community level. It was Germany that convinced other Member States that spatial development policy was not a Community competence.

France acquiesced. Indeed, for a while the ministers responsible were Eurosceptics, and so the German position suited France. Now the ESDP is out, France keenly applies the ESDP. The French Presidency of 2000 provided a good opportunity to demonstrate commitment. France presented a study on polycentrism (Titecat, Hurel, Bailly, Robert, 2000), thus demonstrating once again that it was very interested in this concept. The project "France 2020" (Guigou, 2000) and the comprehensive polycentrism study commissioned by DATAR (Baudelle, Castagnède, 2002) confirm French interest in this concept. In addition, DATAR has published a popular version of the ESDP with comments added in (Peyrony, 2001).

What, despite the fact that at Tampere it had explicitly been asked to look into the matter, the French Presidency did not do, was to tackle the competence issue. In the meantime, the Commission had announced that it would no longer support the intergovernmental ESDP process (Gatawis, 2000: 71). However, France seemed unconcerned, nor did the Commissioner Barnier seem to mind. Within the Commission, he was also responsible for the preparation of the Intergovernmental Conference of Nice in 2000 and presumably did not want to be seen to plead his own case. France, too, was more concerned with bringing Nice to a positive conclusion. This appears to explain the reluctance to inject a diffuse and, in the context of the Treaty of Nice insignificant matter as a Community competence for spatial development into the negotiations.

Add to this the fact that in the meantime France has taken a different path altogether and this also applies to Barnier. Already during the Intergovernmental Conference of 1996/1997, nobody else than he in his function of French minister of European affairs was responsible for injecting the concept of "territorial cohesion" into Art. 7D (now Art. 16) of the Treaty on the Establishment of the European

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4 Barnier's replacement until the Commission's term ended later in 2004 was of course another Frenchman, the Member of the European Parliament Jacques Barrot. Subsequently Danuta Hübner from Poland took over.



Community where it says that so-called services of general economic interest serve to maintain economic and territorial cohesion<sup>5</sup>.

The meteoric rise, since Barnier took office, of the concept of territorial cohesion is striking. It plays an important role in the second Cohesion Report (CEC, 2001b). With Barnier a member of the Presidium of the Convention on the Future of Europe drafting the European Constitution, it is perhaps not surprising that territorial cohesion appears as one an objective of the Union on *a par* with economic and social cohesion. The third Cohesion Report (CEC, 2004) also makes reference to it, but – maybe so as not to jeopardise its acceptance whilst the wait for the Constitution is on – this reference is somewhat muted.

The aim here is not to explore the ins and outs of this new concept of territorial cohesion (but see Faludi, 2004a, b). Rather, the aim is to explore the application of the ESDP. It is clear that this has been quite effective, but that it seems to be taking us in unexpected directions – that of a Community competence – if not for spatial development, then at least for territorial cohesion policy<sup>6</sup>. All this is, of course, contingent upon ratification of the Constitutional Treaty, which, as is well known, has run into difficulties.

### **Application of the ESDP by the Commission**

The Commission has made considerable investments into the ESDP process. The impression is that it underwrote the ESDP in the expectation that this would gain it the trust of Member States so that they would grant it the role which the Commission thought was rightfully its due. This is also why halfway through the programming period 1994–1999 it added Strand IIC to the Community Initiative INTERREG. In this expectation the Commission was to be disappointed.

On the face of it, the Commission accepted this rebuff. However, no sooner had the ESDP been brought into port at Potsdam than the Commission cut its support. This brought an end to the work of the Committee on Spatial Development. Shortly, many members of the CSD found themselves sitting on a subcommittee for Spatial and Urban Development of a new Committee for the Development and Conversion of Regions, with the Commission, and not as with the CSD one of the Member States chairing. The ESDP process reached a dead end which only a resumption under the flag of territorial cohesion policy, about which more below, can overcome.

The interesting thing is that, having put an end to its support for intergovernmental planning, the Commission keeps on invoking the ESDP to legitimize its own policies. Communications relating to transport and to the urban initiatives referred to the ESDP even before Potsdam. The guidelines for the Structural Funds 2000–2006 (CEC,

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5 In passing, the same article invokes a European social model being served by these services, a concept which Delors was also keen on (Ross, 1995).

6 Note, however, that according to the Constitution, this competence will be shared between the Union and Member States. How the sharing of this competence will work out remains unclear though.

1999b) even go as far as requesting programming documents to refer to the ESDP, which brings us close to the ESDP being inserted into the *acquis communautaire* by the back door<sup>7</sup>.

The second Cohesion Report, too, mentions the ESDP (CEC, 2001, XIII, XXX), and so does the third Cohesion Report (CEC, 2004, XXXI). Prior to that, a Communication on Integrated Coastal Zone Management (ICZM) announced the intention of working with Member States on the application of the ESDP. The Strategy for a Sustainable Development of the European Union (CEC, 2001c) mentions the ESDP as a building block for the so-called Lisbon Strategy to turn the EU into the most competitive region in the world by 2010.

The perhaps most surprising mention of the ESDP is to be found in the White Paper on European Governance (CEC, 2001a) where it praises the spatial approach advocated in the ESDP as an example of good governance. Lastly, the Communication mentioned above relating to services of general economic interest also invokes the ESDP in the context of Art. 7D (now Art. 16) where territorial cohesion is also mentioned.

## CONCLUSIONS

We have come full circle. The Commission views the ESDP propagating the spatial approach as part of its general strategy for achieving more coherence of Community policies. However, it has changed its terminology. Rather than speaking about spatial development (let alone about spatial planning) the Commission now invokes the concept of territorial cohesion (which is the same as *aménagement du territoire* anyhow, says no less an authority than Barnier) (see Husson, 1999: 62). For the Commission switching to a discourse in terms of territorial cohesion is no big deal. It has the advantage of circumventing the cumbersome competence issue. More in particular, if and when territorial cohesion is accepted as on *a par* with economic and social cohesion, then this would put the Directorate General Regio in the strategic position of co-ordinating an important set of Community policies.

Whether this will happen is a moot point. Co-ordination within the Commission is notoriously difficult, as an internal working group of the Commission admits freely (Working Group 4, 2001). Be that as it may, what this demonstrates is the generative capacity of the ESDP. Never mind that the document as such will not be revised. The ideas in it have been absorbed by the Commission, causing it to pursue the idea under a new guise, that of territorial cohesion. In this sense, and through the various impacts that the ESDP has had on Member States and their planning, the ideas in it have been applied. That in the process the leopard has changed his spots after all is all in the game. Application is anything but a linear process.

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<sup>7</sup> Two interim evaluation studies (Rooney, Polverari, 2002a, b) show the extent to which this actually happens to be patchy. The question is what new members joining in May, 2004, will say of this. After all, they have not participated in formulating the ESDP nor, since it is not formally part of the *acquis*, accepted it.

Reviewing the application of the ESDP in terms of the four points as formulated by Wallagh, we come to the conclusion that the first situation, straightforward application, has arisen in the sense that Member States have been inspired by the ESDP to engage in strategic planning. Other actors (like the Commission) invoke the ESDP to legitimize their policies. The second situation, considered rejection of ESDP messages, has not come to our attention. The lack of any legal requirement to apply the ESDP may mean that, even if the application of ESDP messages was considered and subsequently rejected, this is not easy to find out about for lack of documentation.

An example of the third situation has been quoted in the introduction: the Dutch policy to improve architectural quality referring to the ESDP. Some of the examples of the ESDP being invoked by the Commission straddle categories one and three. For instance, the makers of the ESDP could not have foreseen it being invoked in communications concerning coastal zone management or services of general economic interest, thus indicating situation three. On the other hand the ESDP addresses Commission services generally, so these instances may equally be categorized under situation one.

Be that as it may, it is clear that at present the fourth situation is particularly important. Before ESDP messages can be expected to reach and touch actors involved in European spatial development, the ESDP needs to be elaborated and fine-tuned in various ways, with INTERREG IIC the best example. The involvement of stakeholders in the various INTERREG projects should enable them to find out for themselves what ESDP messages mean for the particular transnational planning situations that they are concerned with. Finally, the fact that the emergent territorial cohesion policy of the EU promises to take on ESDP concerns is of course the best indicator of the “generative capacity” of this strategic planning document.

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PART 2  
Applications in Practice

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# Multi-Criteria Decision Support

The planning evaluation methods and best practices presented in Part 2 include two types of approaches: multi-criteria evaluation methods (MCEs) and Impact Analysis. The chapters under this opening section present two MCE applications. The family of MCEs is prominent among the “third generation” of evaluation approaches that aspired to transcend the limitations of traditional public investment analysis methods such as BCA. Where those are entirely quantified and analytic, MCE methods combine quantitative and qualitative analysis in complex evaluation frameworks. These are especially appropriate for incorporating intangible factors and values into evaluation, and enable communicative interaction between the scientific, professional and public sources of impact information, planners developing alternative strategies, and officials deciding on their preferable policies.

Evaluation methods premised on instrumental and substantive rationality are analytic; approaches more consistent with communicative action are interactive. The MCE methods featured in the two following chapters combine these characteristics in different degrees. *Mignolli and Nijkamp* offer the most analytic and abstract approach, in their taxonomic methodological framework for planning and evaluation related to cultural heritage preservation. *Vreeker and Nijkamp*'s chapter is also mainly analytic, though their application has some interactive elements. They demonstrate a sophisticated combination of methods to evaluate regional development options for Southern Thailand under three contingencies.

Chapter 9 is positioned at the crossroads of three disciplines: economics, planning and cultural heritage preservation. Here Mignolli and Nijkamp present a general framework for local identity analysis and historic environment preservation within the context of a more comprehensive urban ecological planning paradigm. Based on the concept of sustainable development, a taxonomic approach is designed with a view to creating an evaluation framework that addresses historic entity, public and private values, public and private action strategies, and impacts on various relevant social groups. The approach gives due attention to three sources of value: the intrinsic values of cultural goods, their potential to promote local or regional development, and the needs and willingness of the local community.

Vreeker and Nijkamp's Chapter 10 offers a new approach for assessing sustainable development strategies at the regional level, in an evaluation blending two analytic methods: Regime Analysis (an advanced pairwise comparison method for discrete choice options) and the Flag Model (based on critical threshold value analysis of outcomes of choice options). In an empirical evaluation of alternative development policies for the Songkhla/Hat Yai area in southern Thailand, this compound evaluation is one element of a triangular evaluation framework; the other two components are a multidimensional indicator system for sustainable development, and a comprehensive qualitative community impact assessment system. Applying this framework, development program options are systematically evaluated in the light of three distinct policy scenarios; the chapter's conclusion assesses the evaluation framework's effectiveness.

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## Chapter 9

# Values and Effects of Local Identity Preservation

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### INTRODUCTION

This chapter addresses the issue of “local identity”. This has been a much-debated concept in recent years, and many efforts have been made to agree upon a common definition. For the purpose of this study, it is useful to refer to the following definitions:

- The first comes from the historic field; it considers local identity as an evolutionary concept, changing from formal and aesthetic towards social and cultural considerations of heritage. Local identity is then strictly connected to the historic environment, which represents a long-term evolutionary significance and allows its recovery and valorization. Meanwhile, a great concern is emerging<sup>1</sup> for the values of human communities and the need to preserve cultural diversity (McNeely and Keeton, 1995).
- The second is derived from the modern urban and regional planning field and considers local identity conservation as its main goal. And, in doing so, it directs an effective means of sustainable city and territory development. To highlight the importance of protecting and valorizing the identity of places and communities obliges decision-makers – limited by the perennial problem of financial resources and the complexity of certain decisions – to establish priorities and methods for cultural goods recovery within the context of global actions for territory development and human evolution<sup>2</sup>.

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1 Other recent contributions about local and cultural identity are: Lucas (1992); Hall and du Gay (1996); Beall (1997); and Wilson and Donnan (1998). See Figure 9.1, which tries to illustrate the steps towards the actual concept of local identity and the role of the various historic-cultural components, by considering their potential within the actual processes of socio-economic development of regional areas.

2 To document both the physical planning and the socioeconomic approaches to environmental protection, see recent studies: Jacobs (1993); Daclon (1995); Larkham (1996);

Values, effects, impacts and benefits – which will be treated below – refer to our prior concerns. They do not only refer to the preservation of cultural and environmental goods *tout court*, but above all concern the potential of the historic environment, in directing sustainable cultural, social, environmental and economic development processes (see also Figure 9.1). This chapter deals with “integrated urban planning” – or “ecological planning” – as a suggestion for new ways of reaching a balance between conservation and transformation; that is, to support territorial evolution and technical and economic growth, by considering the actual needs of the environment and humanity.

## **LOCAL IDENTITY AND HISTORIC ENVIRONMENT: CONCEPTUAL FRAMEWORK**

### **From local identity knowledge to sustainable development**

A development process has to draw deeply from local resources and be attentive to environmental preservation and traditional technologic rehabilitation in many sectors. This applies to advanced regions, but especially to peripheral areas of the western world. The prospects of actions towards sustainable development and integrated conservation appear to be the only ways to lead local communities to a balanced evolution, by overcoming imported technological systems (which usually paid no attention to the local resources).

In the development process, a new concept of sustainability, has to be based on globalism (Malusardi, 1992). A significant phase in the ecological approach to regional planning is the definition of the element set: which constitutes an overall cultural system. The cultural system refers to the natural (for example, physical environment and biological environment) and to the human ecosystem (for example, historical built heritage, old settlements, demo-ethno-anthropological goods).

For each perspective: from great (XXX) to low/no importance (-), with regard to popular interest and scientific research in the field their preservation/activation takes an important role in the process of regional and urban planning<sup>3</sup>.

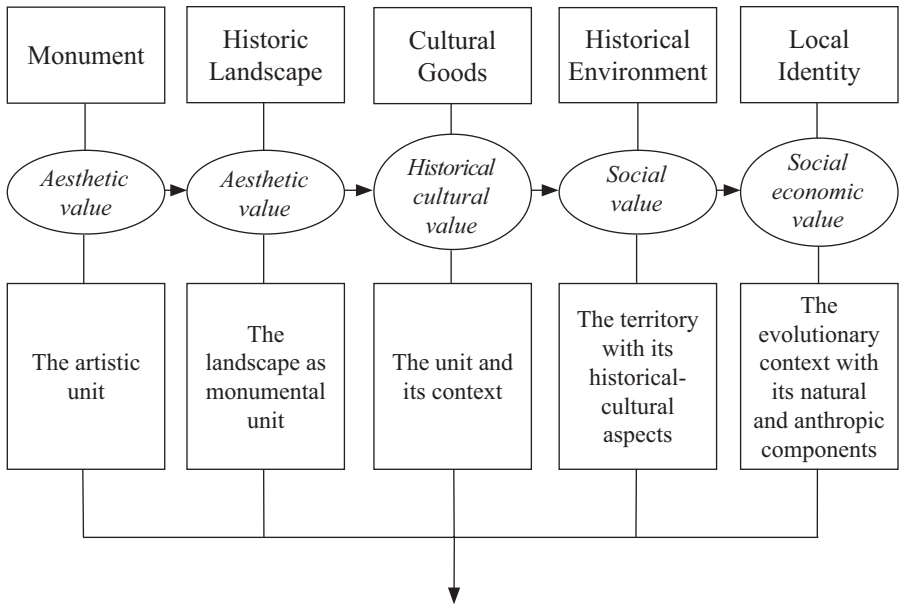
The pre-eminent factors in the recent process of physical planning for less developed regional areas include the following:

- the natural resources inside or near urban areas,
- the historical built heritage and the unrepeatable environments in the old cities,

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O’Riordan and Voisey (1997); Fusco Girard and Nijkamp (1997); Cicerchia (1998); Nijkamp, Bal, and Medda (1998); and Gerlagh (1999).

3 Compare Trevisiol (1995). For theories and processes of sustainable development, see Giaoutzi and Nijkamp (1993); Mitlin and Satterthwaite (1996); Pugh (1996); and Nas and Venma (1998).



CONSIDERATION OF VARIOUS HISTORIC-CULTURAL COMPONENTS IN THE CONCEPT EVOLUTION

<i>Components</i>	<i>'Monument' perspective</i>	<i>'Historic Landscape' perspective</i>	<i>'Cultural Goods' perspective</i>	<i>'Historical Environment' perspective</i>	<i>'Local Identity' perspective</i>
Natural environment (morphological or bio-ecological units)	XX	XXX	XXX	XX	XX
Natural environment (context)	-	X	X	XXX	XXX
Archaeology	XXX	XXX	XX	XX	XX
Ancient cities	X	XX	XXX	XXX	XXX
Historic architecture	XXX	XXX	XX	XX	XXX
Landscape	-	XXX	XX	XXX	XXX
Art	XXX	XX	XX	XX	X
Material culture	-	-	XXX	XX	XXX
Demo-ethno-anthropology	-	-	XXX	XX	XX
Traditional technologies	-	-	-	-	XXX
Rural settlements	-	X	XXX	XXX	XXX
Agrarian structures	-	-	XX	XXX	XXX
Historic infrastructures	-	X	XX	XXX	XXX
Industrial and rural archaeology	-	-	XXX	XXX	XX
Old agrarian techniques	-	-	-	-	XX

**Figure 9.1** The evolution of the “cultural goods” concept during the present century



- the technological traditions in local communities, regarding energy saving and soil conservation, and greater equilibrium in the built environment.

The first element concerns open spaces in urban and metropolitan areas: green zones, urban empty zones and cultivated spaces. The second factor refers to the recovery of historic settlement environments; they are the material testimony of past eras, and they have the characteristics of irreproducibility. The third factor considers old technologies in new ways to best use local resources, and cope with economic, social and environmental problems.

These are the central aspects, but the definition problem of local identity is becoming more complex as it becomes critical to current development processes and efforts to make a transition from a conservationist logic to integrated planning logic (to conjoin physical and historic-cultural resource preservation with the needs for human community development).

Figure 9.2 proposes a model with various phases, from the definition and analysis of local identity, to the processes of valorization for sustainable territorial development<sup>4</sup>. We need to define the basic concept of local identity and distinguish the current necessary conditions in the selected areas, and decide on which spatial level to operate in order to achieve our goals. Next, we need to discern within the local identity debate between “strong” areas to protect, and weak parts to leave to the mercy of uncontrolled exploitation. The goal is to direct regional areas to continuous and balanced processes of conservation and transformation.

Subsequently it becomes necessary to identify the territorial system components and assign a role and “weight” (relative priority) for each one related to local identity valorization. The final phases of our modelling process concern strategies and objectives for eco-development; social participation and proper involvement by historic heritage as determinants for integrated planning.

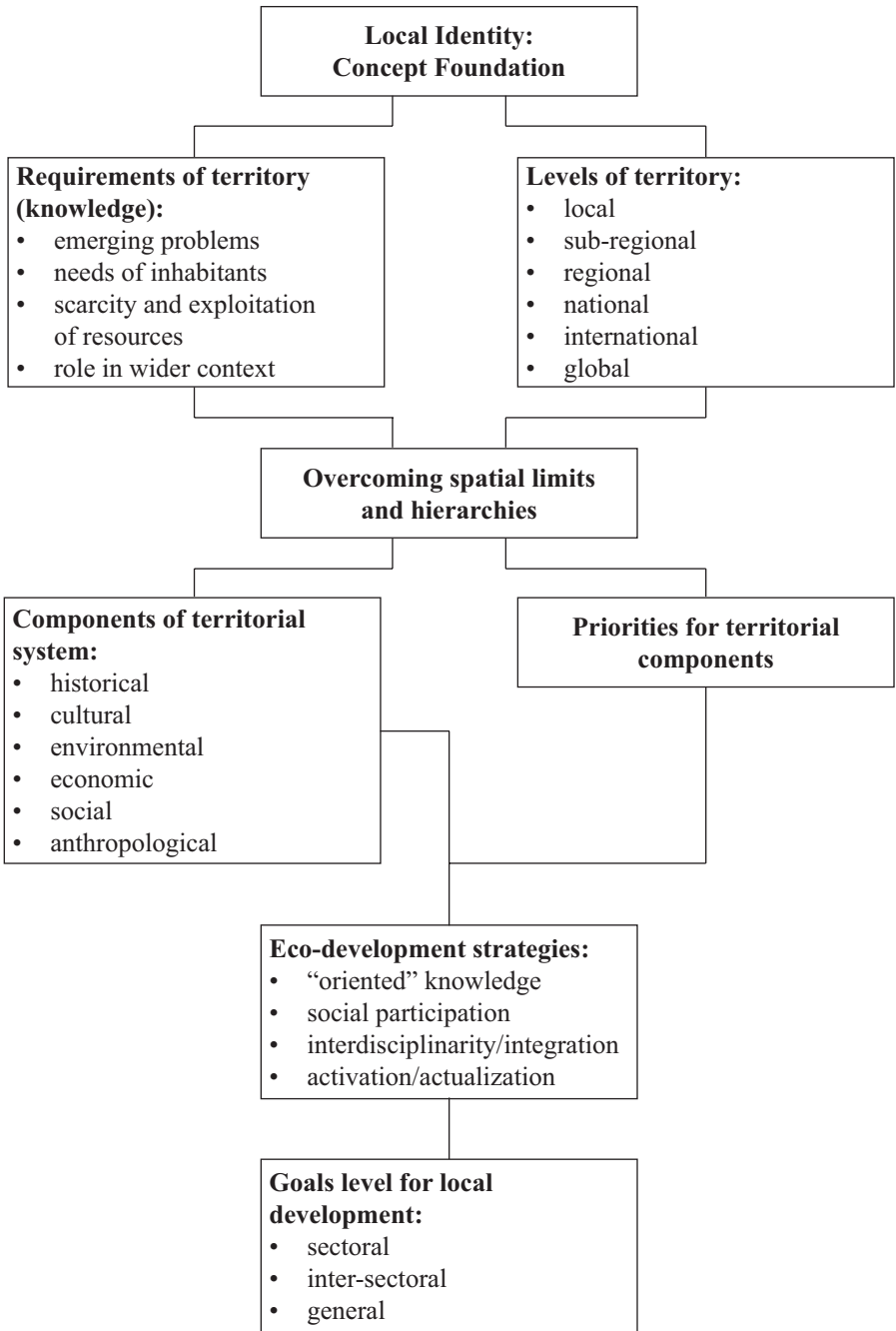
Ecological approaches to territory and human settlement transformation are steadily increasing. Projects and case studies reveal attempts to integrate the sustainable use of environmental resources, to recover historic-social and cultural values, and to address needs for economic improvement. The proposed strategies differ at each territorial level: national, regional, and local, and incorporate a variety of human concerns according to the expected benefits from the implementation of ecological planning actions.

This study classifies current policy orientations and strategies fundamental to the approach of territorial phenomena analysis and economic/ecological planning. We also point out primary objectives and benefits (for the complete framework, see Table 9.1). These aspects are defined according to the following spheres: cultural, social and anthropological, economic, environmental.

The proposed classification is indicative because of the difficulty of placing criteria and orientations in only one sphere. In effect, the most recent strategy for the sustainable development of depressed areas is the pursuit of integration to achieve

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4 Figure 9.2 is adapted from Mignolli (1995b).



**Figure 9.2** Local identity: From identification to activation for territorial development

**Table 9.1 Orientations, objectives, benefits in the process of local identity recovery and ecological planning**

<b>Cultural Sphere</b>		
<i>Orientations/Strategies</i>	<i>Pre-eminent Objectives</i>	<i>Benefits</i>
Formulate strategies of long-term research on territories and cities according to public institutions (from national to the local level).	Recovery of “environmental wisdom” of local communities, in terms of resource use modalities, aesthetic sensibilities, building modalities, traditional technologies.	Enjoyment of intrinsic values of unrepeatable environments. Scientific development.
Return to traditional use of natural resources.	Protect and valorize landscapes, complexes, and units of historic-cultural interest.	Increasing human’s cultural awareness level.
Protect habitat and species; they are particularly sensitive to human impact.	Increase knowledge of territory, and the dynamics of evolution.	
Protect marginalized cultures.	Protect environmental diversity.	
Formulate specific strategies for each territorial and urban area in relation to local communities.		
Consider the concept of “constant renewal” as the key for planning processes.		
<b>Social and Anthropological Sphere</b>		
<i>Orientations/Strategies</i>	<i>Pre-eminent Objectives</i>	<i>Benefits</i>
Social participation in directing national policies.	Valorize the diversity in human communities.	Increase quality of life.
Protect social communities or minorities; they are particularly sensitive to human impact.	Reinforce the autonomous “capacity to do” of local communities.	Positive evolution in human relationships. Reduction of crime.
Formulate strategies to capillary diffuse environmental education.	Social participation in urban and regional planning.	
Limit the service sectors of cities.		
<b>Economical Sphere</b>		
<i>Orientations/Strategies</i>	<i>Pre-eminent Objectives</i>	<i>Benefits</i>
Improve industrial production, in accordance with attitudes, life styles, and potential of local population and resources.	Direct economic benefits to local communities. Encourage local communities towards technical autonomy.	Recreational and educational use of natural and anthropological eco-systems.
Incentive (monetary, fiscal, and so on) to reduce pollution emission, avoid further environmental damages, and improve environmental quality.		Historic-environmental valorization can increase employment in the tourism sector.
Motivate population to restore private historic buildings.		Definition of ecological and sustainable systems for resource exploitation.

**Table 9.1 Continued**

<b>Environmental Sphere</b>		
<i>Orientations/Strategies</i>	<i>Pre-eminent Objectives</i>	<i>Benefits</i>
Protect natural and anthropized ecosystems, which are important for biological reasons and for scientific research.	Assure sustainable use of natural resources, especially for strongly altered areas.	Greater equilibrium between human activity and bio-ecological sphere.
Avoid a large gap between protected areas and other areas open to uncontrolled transformation and exploitation.	Limit city growth and land consumption; re-establish physical borders in relation to contemporary urban settlements.	Increase of human space quality.
Propose renewable energy sources to counteract the polluting ones.	Oppose a strictly metropolitan system by returning functions and values to historic relationships between cities inside regional areas.	Evolution of land use modalities.
Predispose defence of territory from natural disaster.		
Protect particular habitats, threatened animal and vegetable species, and important resources for medicine.		
Give back significance and vitality to old urban spaces through physical restoration of historic artefacts and their socioeconomic promotion.		

effective and efficient inter-sectoral equilibrium. The specific aim of the classification framework is to urge greater systematic reflection on methodology in the planning process for these kinds of areas.

Actually, greater attention is given to “cultural aspects”, as a distinctive element of places and human communities; these aspects are coming to the forefront of socioeconomic development strategies. Habitats and cultures that are particularly sensitive to human impact are the basic conditions for all methodological and operative approaches to protect environmental diversity. Nevertheless, the convictions originating from strong local specific conditions and/or the necessity to resume traditional ways of using local resources are the answers to environmental sustainability problems.

From a cultural point of view, two aspects assume an important role in the process of integrated/ecological planning for urban areas:

1. preservation of considerable historic environments for the intrinsic values, and economic potential,
2. knowledge and recovery of “environmental wisdom” of each human community, with reference to ancient technologies, formal expression, land and natural resources use.

The improvement of local population capacity to act autonomously, and the limits to the increase in the service sector in urban areas, refer to the “social sphere”, which includes the determination of public policies for environmental education to underline the values of human and cultural diversity in each community. However, the first goal of ecological planning strategies is “social participation” in local and national policy design. In many cases pursuing this objective is the key element to formulating methodologies and tools for eco-planning.

Three different typologies dealing with the fundamental problems of local identity and sustainable development involve the “environmental sphere”:

1. conservation of historic and natural values of environment, by paying close attention to rarity,
2. reduction of obsolescence causes and the uncontrolled exploitation of resources, by improving territory protection systems,
3. search for equilibrium between man and nature by considering:
  - a. perennial countering preservation with transformation actions,
  - b. willingness to reduce the difference between protecting larger areas, and abandoning older territorial parts or leaving them to absolute exploitation.

Another important aspect is connected to the limit of urban expansion, and the valorization of historical networks of human settlements upon certain territories, in order to restrain population concentration.

Orientations and strategies concerning the “economic sphere” are directed both at increasing local technical capacity – by using local resources – and at motivating environmental quality improvement and obsolescence reduction. The most important objective is the policy intention to address positive economic impacts to local communities. The benefits derived from these sustainable development strategies refer to four major typological classes (Knetsch-Davis, 1966; Haveman-Weisbrod, 1977; Kneese, 1985; Mitchell-Carson, 1989; Tietenberg, 1992; Lichfield, 1993):

1. benefits from sustainable use of resources: they concern recreational and scientific utilization,
2. existence benefits: they refer to intrinsic, intangible, or unrepeatably values of goods,
3. social benefits: they refer to the improvement of the quality of life and social behaviour, and also to the increase of the cultural and educational level and the reduction of crime,
4. environmental benefits: they concern all implications for the bio-ecological sphere, anthropic space quality, and land use modalities.

These kinds of effects and benefits can result from policies for historic environment preservation as well as local identity valorization, and the efficient processes of integrated development.

## **Historic environment field: Characters and current problems**

In a complete analysis of regional resources, it is important to include the existence, significance, social and economic functions of the cultural and environmental heritage<sup>5</sup>, which also helps to determine local identity.

This concept reflects a specific notion of cultural goods, with an anthropological interpretation, “substantially inclined the significance to culture that reality assumes in every individual because of his interaction with the environment in which he lives; a sort of subjective tendency to react to reality, as it is internalized among the members of every human group in its formation”<sup>6</sup>.

Cultural heritage is then understood in the dual aspect of community behaviour and as a result of the products of its activity. The cultural testimonies are the whole of physical and man-made structures, in that they contribute to the definition of a region’s identity. Cultural heritage is not the sum of separate elements, but rather an organic context of spatial and aspatial realities, which define the nature of a geographical area, the understanding of its physical structure (natural landscape and human landscape) and its historic uniqueness (Lee, 1992; Plachter and Rossler, 1995).

For many references, the meaning of the historical environment includes a diverse heritage, which encompasses tools and works of art or crafts, buildings and cities, agricultural areas and landscapes, uses, customs, traditions, language, music, poetry, and the productions of the formal and popular culture of a geographical area. The relation between conservation policy for the historical environment and the regional economic planning discipline is that the latter, in its analysis and management of regions, does not leave out of consideration the region’s cultural identity. From such considerations arises the possibility of more exact historic and scientific planning<sup>7</sup>.

Research on cultural goods has revealed the importance of knowing the relationships within a region, such as the connections between physical structures and the social, economic and cultural organization, and exploitation of regional resources. A good preservation plan cannot disregard these factors; it has to concern itself with proper planning processes, which encourage essential elements for social and economic development.

In effect, every initiative for the conservation-restoration of cultural and environmental heritage is unlike material for a museum, but is rather similar to “live” material in that it cannot disregard the pursuit of a more general territorial policy, such as a regional policy stating goals and functions of historic environment

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5 This is true for European countries and for the USA, where studies and activities for historic preservation in regional planning are continuously growing. See Birch and Douglass (1984).

6 The quotation is drawn from the Introduction of Tentori for the Italian edition of the book of Kluckhohn and Kroeber (1952).

7 This is a very contemporary subject, particularly in Europe, where studies are in progress. It is important to note the remarkable interdisciplinarity of this field, where various perspectives combine with interesting results; see many contributions in Lee (1992).

preservation within contemporary society, and to plan and manage protection which is, for all practical purposes, essentially public.

If a conservation policy of local identity – and the historical environment that characterized it – pursues its safekeeping and bequest to the future, then a regional (or urban) economic policy can include this bequest in a conception of regional development consistent with history. The image of the past can therefore become aligned with the range of thoughtful choices for the future. The problem of our time is one of reconciling ourselves with our past: to draw from the past the meaning of a positive stimulus for new action. The difficulty here is ultimately the integration of a cultural goods policy with a territorial and economic policy<sup>8</sup>.

Moreover, if we consider cultural and environmental goods as potential resources which, like others, contribute to economic planning and regional development processes, then it is not possible to entirely segregate their tools from those commonly appointed to the whole regional planning.

The unification of regional planning tools still is an unresolved subject, especially in regard to the methods and purposes of protecting, restoring, and valorizing the historic environment. Regional and urban planning processes need to be modified by introducing changes into the content of plans, and by promulgating regulations, both on a national and regional level, which are better attuned to the specific characteristics of local situations<sup>9</sup>.

In the past several years, all methods of assessing the value of regional territory: its identity, its natural and human environment, its historic-cultural structures, and understanding their relationships, have changed profoundly.

Nowadays a more complex and comprehensive system is replacing the old one. The old methodology was based on comparing sub-regions with a strong propulsive capacity and socioeconomic and political power, with other, economically, socially and culturally weak sub-regions. The new system attempts to integrate all segments of the region, which have the potential to transform and grow.

“The sensation that it derives from, is about a territory kept in a continuous process of transformation, reorganization, reuse in its every part, urban and not, historic or more recent” (Padovani, 1987)<sup>10</sup>. In other words, the old hierarchical system identified many regional situations both from a socioeconomic and a spatial point of view. This was the key to their understanding and know-how about directing planning activities. Currently every area of a region tries to put forth its unique role in the development process and an efficient policy of regional and economic planning

8 Many complete references apply to the Italian situation, where the studies in this field have no counterpart in practical applications. Compare Emiliani (1974); Calvani (1987); and Negri Arnoldi (1988).

9 It is possible to note a time lag in incorporating planning tools as well as environmental planning in the definition of economic and territorial models. See Fusco Girard (1987); Nijkamp (1989); OECD (1997); and O’Riordan and Voisey (1997).

10 Many references on this matter are in the work of various authors, in Ministero per i Beni Culturali e Ambientali (1987).

has to incorporate this new condition by using new tools to guarantee equilibrium and integration.

This change of approach towards regional and economic processes also requires changes in the parameters and the problems of preservation. On the one hand, since conservation is no longer limited to specific parts of a region, it has to draw from the broad spectrum of transformation processes of all aspects of the environment; these are not easily definable through the typical categories of analysis. On the other hand, the actual concept of conservation has changed on the basis of the new and differing concept of cultural goods, in terms not only of historic-artistic value, but also as products of history, and carriers of information. “Then the problem is no longer to preserve and restore the elements where the ‘artistic’ value resides, but to identify-know-understand and conserve all of the information that the document, not only a producer of culture but also a place where different human activities have been made and will be performed, incorporates in its physical materiality” (Padovani, 1987).

The stratification of various environmental types (social, economic, building, cultural, etc.) assumes great importance in the conservation problems of the environment (buildings and otherwise), and it also contributes to the determination of the physical regional order. This concept of historic environment that includes the meaning of time, history and origin, allows the acquisition of new levels of interaction potential with the transformation, breaking the notable comparison between areas with different roles in the general territorial context<sup>11</sup>. This points out the need for new tools and regulations that serve an “integrated planning”, and the conviction that local identity and historic heritage can play a fundamental role in leading to a more diffuse economic and social development.

In this connection, this chapter offers systematically some reflections on the main problems, needs and potential – the aspects that actually characterize the historic environmental field and are the key to the definition and direction of all actions.

It is important to confirm that our goal here is to point out the fundamental role of cultural goods and their preservation, to concretely direct sustainable development processes, and also to contribute to the design of tools and methodologies able to understand intrinsic characters and socioeconomic values of historic heritage (for the purpose of its activation).

Fundamental problems of the sector – with particular reference to the culturally built heritage – refer to the attributes of historic goods and to social perceptions:

- the great variety of cultural goods, in terms of typology, age, feasibility, aesthetic characteristics and consequently the difficulty in defining modes of intervention to achieve equilibrium, as well as in identifying the cultural and socioeconomic perspectives that integrated actions can offer to the territory,
- the obsolescence situation of artefacts, in connection with various aspects (Lichfield, 1988). such as the effective use of goods or modes of use (which

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<sup>11</sup> For a general outline, in consideration of different disciplinary approaches, see Emiliani (1974); Padovani (1987); Lichfield (1988); Nijkamp (1989); and Winpenny (1991).



are variable over time). It is practical to emphasize the obsolescence resulting from overuse, which especially is related to the problems of tourism due to historic heritage. Furthermore, there is functional and positional obsolescence, which stems from a decrease in demand or the complete abandonment of a given product for different logistic conditions,

- the lack of interdisciplinary knowledge of historic heritage and local identity, which need structured research to reveal the potential of cultural goods for sustainable socioeconomic development,
- the low level of popular sensitivity to the values of historic environment and its character as an important economic resource for regions and human communities. This factor is linked with education in environmental protection problems – which is still neglected by public institutions – and with poor communication among experts in the field, institutions, and others, and the consequential diffidence and rejection of historic things<sup>12</sup>,
- the lack of financial resources for research, and especially for conservation and valorization, which causes problems in making priority decisions,
- the strong speculative power of business interest that often sees the historic heritage as an obstacle for territorial resource exploitation, especially in regard to modes of land-use.

Despite increased awareness about the conflict between historic preservation and growth, the sector requires particular operative instruments and conceptual reflections. These necessities are defined as follows:

- greater effective integration between historic-cultural heritage and territory, so that goods are not considered merely worthy of respect but instead become more determinant resources for regional development. In this sense, it is important to pay greater attention to the range of elements comprising local identity, rather than to single monuments,
- a strong connection between physical restoration of ancient artefacts and obsolescence causes to better understand the role of heritage in the process of regional and urban planning, and to address preservation actions,
- the capacity to emphasize the perspectives of conservation as a means of tourism by indicating the effects and possible impacts of the recovery of local identity within regional areas and human communities,
- the design of tools of knowledge/analysis, valuation, conservation/planning for local identity and historic environment, or the provision of integrated

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12 This refers to two aspects: the modality of the scientific world, which is intent on knowledge production to use exclusively in its own sphere (therefore having few possibilities to impact on territory and social communities); and the action modalities of institutions (in some countries of the western world), which pay more attention to repressing action than to prevent damage and risk to the historic environment.

methodologies to respond (at various detail levels) to the demand of heritage for development.

The valorization and recovery of local identity by means of historic environment conservation could contribute to:

- understanding the value and consistency of available local resources (human, environmental, etc.) in order to clearly direct sustainable development,
- solving social tensions by attempting to integrate, protect and valorize cultural diversity,
- increasing the physical quality of places by giving greater importance to beauty for psychological well-being,
- preserving local resources, for example through the application of traditional technologies and improving the quality level of natural environment.

### **Economics of the historic environment**

The need for “operative tools” is apparent from the gap between theoretical convictions and concrete realization of interventions (still evident in spite of disciplinary and interdisciplinary progress). Affirming the status of conservation within the sustainable development process, the design of “new tools” helps to address urgent necessities as well as interdisciplinary integration by:

- “giving people a voice”; by promoting social participation in the planning process; conducting efficient diffusion of information and working on modes for concrete use of people’s opinions,
- understanding the values of local identity by valorizing the resources of historic environment to the real sustainable evolution of territory and cities,
- designing, analyzing, and valuing different alternatives for “integrated planning” actions to find solutions that reach a balance between conservation and transformation in the processes of sustainable development,
- receiving and integrating points of view and opinions of various social groups and actors, which are involved in the effects and impacts of interventions,
- adequately using the opinions of experts in relevant disciplinary fields.

These economic tools have to define the strategies for local identity conservation and restoration as actions of socioeconomic development by also involving sectors of services, communications, and commerce, and so on. In effect, the ancient heritage not only has inherent and historic-cultural values, but also values in other participating fields. In plans involving restoration and preservation, it is important to consider and estimate everything that may determine effects and benefits, including all cultural, environmental, social, and economic factors. In accordance with this,

one needs to consider economic aspects in terms of costs and benefits<sup>13</sup>. Historic heritage has aesthetic and cultural value as well as economic value, in terms of uniqueness, scarcity and irreproducibility. If this heritage is preserved, benefits can flow, thus encouraging the growth of positive externalities. If, on the contrary, intervention policies involve transformation, cultural goods can lose many of the fundamental characteristics, which have determined their value, so that intervention then becomes a producer of negative externalities. The above discussion refers to the criterion of the social complex value, which reflects the comprehensive value of resources by extending to multiplicity and diversity.

Today the role of economic valuation is clearly defined: it is more than determining the value of outcomes; it has become a tool of “social and cultural planning”, with the capacity to define effects and impacts of various types. Then, this tool not only supports choosing among alternative actions (which is necessary because of limited availability of financial and human resources), but also lends support to the fields of conservation and restoration, in the choice of intervention directions and methods.

The economic approach to decide the value of historic-cultural goods and effects that can flow from local identity valorization activities, involves a series of objections, particularly disbelief among experts in the historic and planning sectors, that it is possible to quantify intangible, cultural, and artistic factors.

It is equally difficult to objectively estimate the value of the historic environment either in monetary terms or in other units of measurement. We can admit that it is an “economic good” of a particular kind, because it has the characteristics of usefulness, it has usability and has limited availability, and it provides human survival as its primary utility. There is a relation between historic goods and man, the importance of which has to be expressed by an informed and interested community, who desire cultural continuity by means of tradition. It may therefore be easier to evaluate the implications of historic environment conservation in terms of the value of opportunities that have to be renounced in order to preserve the environment itself (for example, in terms of the value to be derived from the best alternative use of the site where the cultural goods are located), or on the contrary, in terms of the willingness of people to pay in order to preserve the historic heritage.

There is a substantial difference between choosing whether conservation is achieved by simply maintaining conditions as they are, or if conservation is a means of rehabilitation or restoration. This difference is surely one of the main philosophical problems of the conservation discipline; the dissimilarities are also found in the economic sphere, both in intervention costs and benefits (especially), because they have different weights, roles, and descriptions. The appraisal methods can potentially become tools to ameliorate the difficulties of evaluating economic value and contribute to the decision processes. They must also have the capacity

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13 It is important to mention here the double nature of costs and benefits, the social and the private; from the comparison between these two typologies, there flow many problems and obstacles for the conservation process, so the search for equilibrium is one of the main goals in the determination of intervention ways.

to analyze interventions with different characteristics and complexities, and with a variety of purposes, so as to allow for a comparison among the defined alternatives (see also Figure 9.3).

In conclusion, a reflection upon the character of historic preservation as a “productive activity” reveals that the utility of this concept is connected to a more complete definition and determination of flowing effects. The recovery intervention – with particular reference to the built heritage – is able to promote economic advantages with respect to:

- conservation as a transformative action of components of the historic environment into new elements, which provide greater utility without losing their intrinsic and inherent characters. A “plus-value” in the goods emerges, in connection with the actual necessities of public and private fruition,
- integration of historic goods in contemporary life and the processes of sustainable development. In this way, it is possible to observe the adaptation of the original functions into new ones, nearer to the social and economic request. Thus, the “plus-value” gains from public effects and benefits of conservation: from “plus-value” to “social value”.

## **“INTEGRATED PLANNING”: METHODOLOGIES AND TOOLS FOR TERRITORY ANALYSIS, PLANNING, AND EVALUATION**

### **General outline**

Here we elaborate on the relationships among the fields of Historic Preservation, Regional Planning, and Economy, within the theme of local identity valorization, to indicate that the tools to design have to make reference to these fields, and represent a mode for their integration.

“Integrated planning”, intends to define an action modality that is able to consider the multitude of territorial factors, and is the ultimate manifestation of the various interdisciplinary components.

“Integrated planning” answers the needs of a sustainable development program by being dedicated to local identity recovery (with its *modus operandi* in considering historic preservation as fundamental to social and economic growth). It is substantially the search for the “maximum equilibrium” for the territory and its human communities. Equilibrium is sought after the following levels:

- spatial level, between protecting certain areas for their evident great values, and leaving other areas to uncontrolled manipulation and degradation,
- temporal level, for a correct and articulated program with short-term and long-term objectives,
- environmental level, between resource utilization for necessities of life and the needs to restrain exploitation to the point of irreparable loss; but also

equilibrium between a conservative approach to territory and urban areas and the transformative approach,

- economic level, between the fundamental aspects of private and social costs and benefits, which can flow from conservation actions in regional areas; but also, equilibrium in the externalities between the various social groups,
- technological level, between the needs of the continuous – and often irresponsible – socioeconomic development during the actual period, and the collective will to review and substitute the existent technologies if necessary.

The clear integration between planner, preservationist, and economist expresses itself in the necessity to find common tools for sustainable development, and equilibrium in the main aspects of private and social costs and effects. This makes evident the importance of particular techniques of valuation, which are able to consider the varieties of costs and effects for conservation and new utilization of cultural goods.

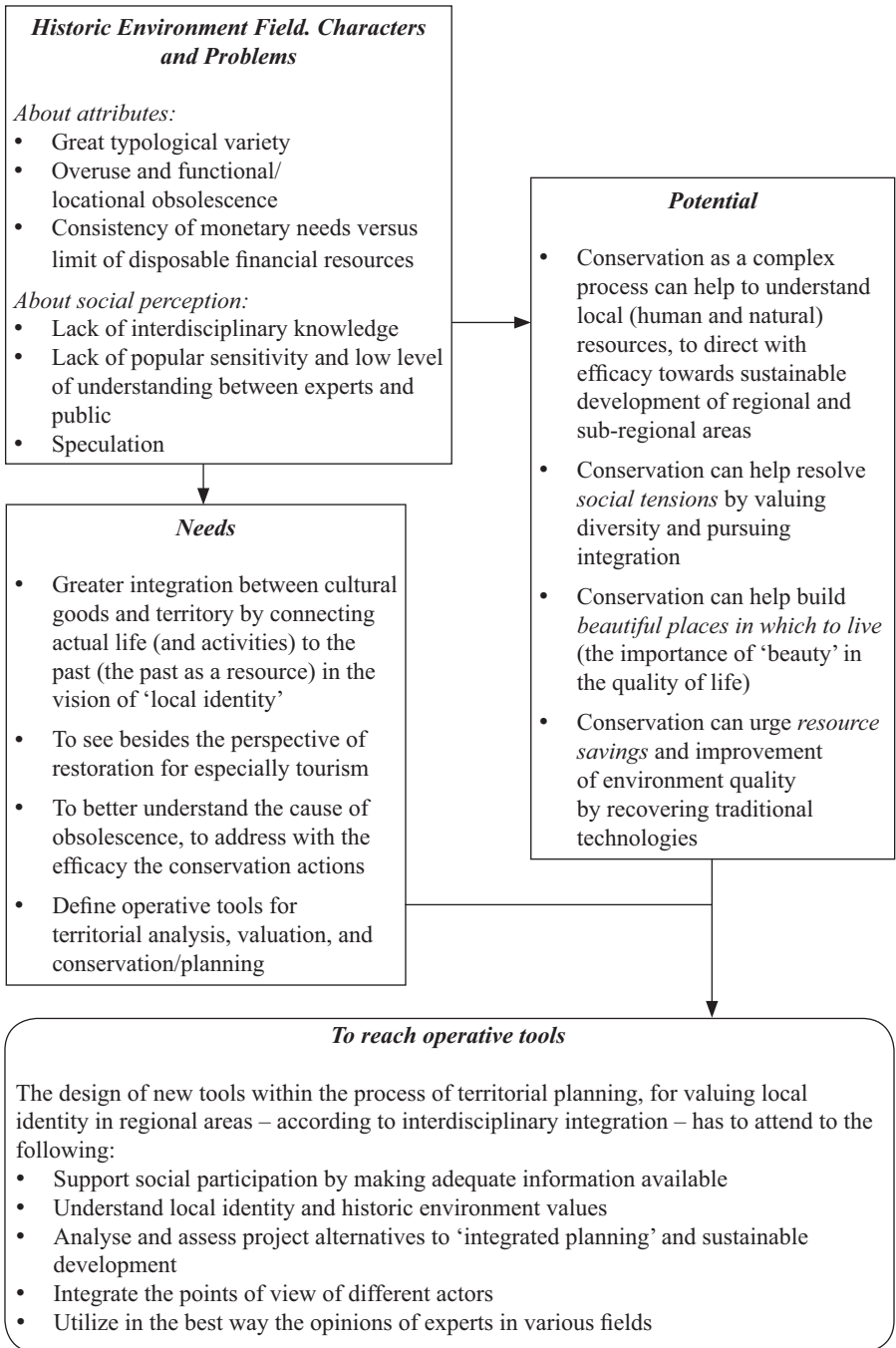
### **Role of economic valuation for regional planning and local identity conservation**

The need for tools that can help direct conservation and activation interventions, to identify priorities, and to define the effects on the region for these types of operations, is evident.

In view of this, the process of valuation assumes particular importance; it is fundamental at different levels: from decision-making, to planning, to implementation, to managing (Lichfield, 1993; Zeleny, 1993; Pearce, Whittington, and Georgin, 1994).

However, it is important to specify that the fields of urban and regional planning and environmental economics already have developed appraisal methods, techniques and applications, which have become regulations in some countries. In the field of historic-cultural heritage, however, research is at an early stage, although a few isolated studies have been carried out. Analyses of interventions on restoration and reuse are associated with proposals of cultural goods valuation, but much needs to be done in researching and systematizing of results, and in establishing methodological definitions.

Finally, it needs to be stressed that the main problem in the evaluation of historic heritage preservation projects, which involve effects and benefits, has to be quantified in monetary terms. It is towards this topic, in particular, that research efforts are directed. This research distinguishes the various types of values/effects of conservation, the best existing valuation techniques for the measurement of benefits, and determines the effects that are often considered “immeasurable”, especially for the type of goods they are derived from.



**Figure 9.3 The role of historic environment in local identity preservation**

On the basis of theoretical and practical studies and reference to the fundamental needs of the field, we can now define the main goals of using valuation systems for local identity preservation and valorization<sup>14</sup>:

- Valuation regards the historic environment as a non-renewable resource. It measures the level at which this resource can be used.
- Valuation can then attain a “decisional” role related to the character and quality of the historic environment by choosing and defining the object, purposes, priorities, and solutions of alternative hypotheses.
- It enables the definition and quantification of costs, values, and effects of activities on the historic environment, with regard to conservation, restoration, and “transformation”<sup>15</sup>. In the context of an overall project analysis, valuation systems help “to redress the balance between quantifiable and non-quantifiable effects” (Winpenny, 1991); they can also narrow “the field remaining for ‘pure’ judgement” (Winpenny, 1991) with reference to certain benefits.
- It helps define the role of the “decision” about local identity conservation within the more general economic system (valuation systems can offer directions of economic performance).
- With valuation, government policies can create greater power to direct historic heritage use by more efficacy. This provides the means of fixing the quantification of taxes, charges, and subsidies for interventions in the historic environment.
- Finally, it enhances the role of “conservation” in the process of regional planning.

There are critics of appraisal projects with the more developed field of public goods and environmental valuation. By transposing this criticism to the field of local identity and historic heritage preservation, it is possible to identify a few objections in regard to the use of valuation techniques for costs and benefits in cultural goods preservation. They are:

- In countries where historic-cultural heritage is important and has a significant presence, there is always strong resistance (especially from experts in the specific historic and preservative disciplines) against using economic tools to make decisions about interventions to protect and perpetuate cultural goods.

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<sup>14</sup> Useful references (given the necessary adaptations to our specific field) about why valuation and the importance of appraisal for the environment matters, are Kneese (1985); Winpenny (1991); Bingham et al. (1995); and Bockstael et al. (1995).

<sup>15</sup> One could also discuss problems and characteristics of historic-cultural heritage actions, but this exceeds the scope of this chapter. However, it is important to say that if the historic environment contains the stratifications of all events (of which each has “transformed” the previous situation) overtime, it is right that the current age also leaves its distinguishing mark (in this sense the “transformation”), provided that it respects for existing realities and values of the environment.

The task – which is very important in specific regional situations – is to integrate economic valuation in choices for historic environment preservation with inputs from scientific disciplines.

- The experience in many western countries reveals that economic appraisal is often used incorrectly to justify public projects. Manipulation of the valuation methods is always possible, but this does not reduce the utility and technical value of tools, such as “decision” criteria if their use is correct and honest.
- In the field of the historic-cultural heritage, and in the natural environment one, there are several essentially unquantifiable aspects; any attempt to attach a monetary value on these aspects is evidently strange to many. However, one can argue that most of these factors are only apparently non-quantifiable, as various valuation efforts have demonstrated. Contemporary literature in this field shows that the valuation techniques have incorporated interesting methodologies for the study and analysis of intangible effects in historic heritage preservation (Howe, 1993; Kling, 1993)<sup>16</sup>.
- In the sector of local identity conservation, valuation is in its early stages. The techniques have their origin in applications for public goods or environmental economics. Although there are remarkable analogies between these sectors and the historic-cultural sector, the transfer of valuation methods surely cannot be automatic. Methodological and technical efforts to attain this transfer are required.
- The current techniques were defined in developed countries; one objection to this lies in the difficulty of adapting these methods to less developed societies, including developing countries and backward territorial areas within developed countries.
- In order for valuation to render satisfactory results, technical and economic data are required. This is very difficult to obtain in developing as well as developed countries, especially for certain sectors. This largely is due to the complexity and variety of their components and the lack of knowledge. This is especially true in the historic environment sector.

## **OBJECTIVES, INDICATORS, STRATEGIES: A PROPOSAL FOR AN OPERATIVE METHODOLOGICAL FRAMEWORK**

For the purpose of this chapter, we propose a methodological framework taken from the historic environment and applied to ecological development processes. The general structure – which shows relations and connections – is illustrated in Figure 9.4.

First, there is the definition of local identity and the historic environment components, where there are several classifications in the disciplinary field, which substantially refer to two factors:

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<sup>16</sup> For real experiences in the historic-environmental field, see Grittani (1993); and Fusco Girard and Nijkamp (1997).



- the nature of cultural goods: tangible and intangible,
- the typology (including archaeology, architecture, demo-ethno-anthropology)<sup>17</sup>.

Our methodological proposal is a functional approach to the design of actions for local identity valorization, and is based on three fundamental categories: artefacts, socio-cultural components, and the natural and anthropologic environment. The values of historic heritage are considered on the basis of present situations (emerging actual use value). Effects and impacts flowing from conservation are indicated for actions on single goods (emerging existence values) and within the territorial context (global actions, regional plans, total economic values to be considered).

Certain factors lead us to a more unified theory of integrated conservation: social perception of the main problems of the historic-cultural heritage; the role of goods in different parts of the territory<sup>18</sup>; the goals of preservation actions, in conjunction with the necessity to pursue the “equilibrium” in the development process.

As a fundamental step towards sustainable development, conservation must have precise goals, indicators, modes, and strategies. The goals reflect the willingness to preserve and improve: to preserve from the main causes of obsolescence (which is not only physical); to improve towards greater environmental quality, cultural evolution, and overall economic growth. The indicators and modalities refer to the environmental, cultural, social, and economical spheres. For each sphere we indicate only the main elements representing the urgency for a better future, which are impossible to ignore in the planning process. The strategies consist of three main approaches: restoration of the historic heritage to hand down to future generations; preservation of cultural goods and related recreational services improvement to enjoy people from outside the area; integrated conservation for a global economic growth of regional areas. In this last mentioned case, the concerns are about:

- greater preservation, the pursuit of sustainable development through land use savings, and environment quality improvement,
- greater transformation, the pursuit of sustainable development by using local resources.

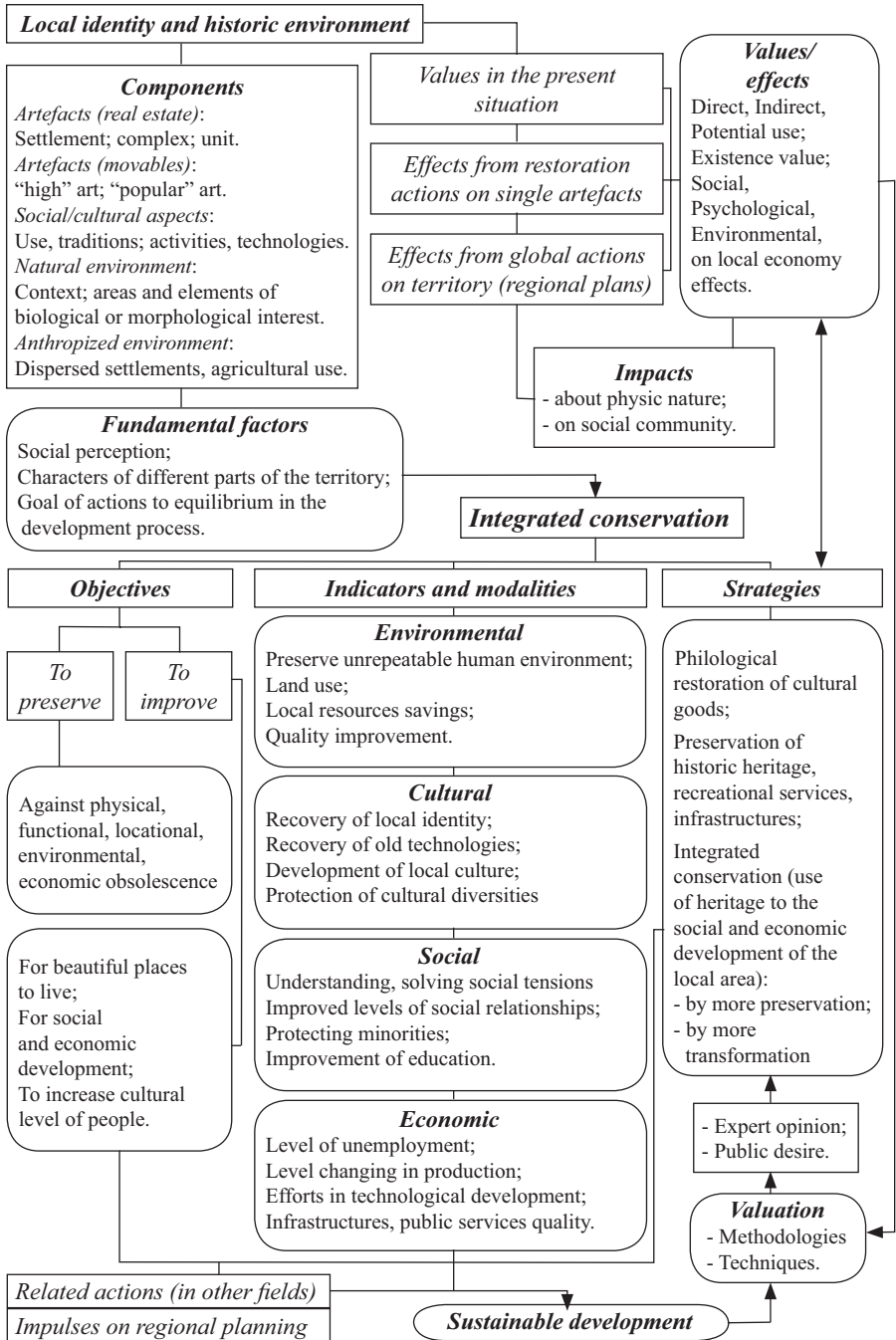
The proposed methodology also considers input from other fields, in the form of concrete integrated actions:

- tourism services, for the recreational use of monuments,
- nature preservation, by considering the modalities of land use in connection with a minimization of new buildings,

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17 See the classification in Mignolli (1995a) and the relative references.

18 The approach to historic preservation is different if cultural goods are in central areas or in peripheral areas. In periphery they can assume a key role for improvement processes of life quality for depressed places in the western world.



**Figure 9.4 Recovery of local identity in the sustainable development process: Towards a methodological framework of analysis and evaluation**

- transport, about aspects such as old cities and the needs of moving inside,
- agriculture, to rehabilitate traditional modes of production,
- industry, to develop the technological research towards less environmental damages.

The role of evaluation is important in assessing strategies and actions, by enabling consideration of expert as well as public opinion.

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## Chapter 10

# Methods for Evaluating Development Scenarios: An Application to Thailand

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### INTRODUCTION

Evaluation has played a prominent role in many planning studies in the past decades. More recently, the attention has shifted towards sustainability as a planning task.

The sustainability debate is in the mean time more than a decade old. It has generated a wealth of research and policy discussion on the meaning, measurability and feasibility of sustainable development (van Pelt, 1993). Despite some intrinsic ambiguity in the concept of sustainability, it has prompted policy-makers and planners to formulate new strategies for achieving a balanced economic and technological pathway that would safeguard our environment, not only here and now, but also elsewhere and in the future. It is clear that the problem of “evaluation in planning” is still an important research issue (see Lichfield et al., 1975), as it positions evaluation at the interface of many decision-making disciplines.

For economists, the notion of sustainable development has meant a new challenge, as they were forced to broaden existing analytical frameworks towards the domain of ecological systems or even international negotiation tables (van den Bergh, 1996). In the debate among economists regarding measures for coping with environmental externalities, the standard therapy for solving market failures, Pigouvian taxes, has become rather popular in recent years (witness the discussion on eco-taxes, for example). However, others advocate alternative policy approaches such as tradable permits, standard setting or even prohibitions. In practice, we have seen a portfolio of different policy measures reflecting a compromise between different political-economic viewpoints (Finco and Nijkamp, 2001). In most policy and scientific discussions on sustainable development, we observe the need for a broad evaluation of environmental issues, in which economic, social and environmental motives play an intrinsic role, even though the precise balance is not known.

An interesting attempt to focus sustainability research is to address specific sectors or regions. Consequently, we observe a growing interest in research that moves away from global sustainability analysis towards empirical policy-relevant

research at the regional and urban level (Giaoutzi and Nijkamp, 1993; Capello et al., 1999). This new interest in regional sustainability analysis is caused by several factors: a region is a properly demarcated area with some degree of homogeneity; this allows researchers to do a more operational empirical investigation. Besides, a region is usually subject to a properly regulated administrative competence and control, so that there is more scope for policy analysis of important sustainability issues. Finally, the statistical data base at a regional level is often appropriate for monitoring, analyzing and modelling the economy and ecology of an area (Nijkamp, 1999).

Clearly, the openness of a regional system might create a complication, as externalities may be imported or exported via trade or dispersion of pollution. Consequently, some authors make a distinction between internal and external sustainability, where external sustainability takes also the spillover effects to and from other areas into account (on the notion of the ecological footprint, see Wackernagel and Rees, 1996). Clearly, seen from this perspective, sustainability is context-specific and may hence be co-determined by needs and opportunities in a given region as part of a broader spatial system.

The previous discussion has pointed out that sustainability – as a policy concept – is not an unambiguous state of affairs, but a multi-faceted phenomenon, fraught with conflicts and uncertainties. As mentioned, the notion of a sustainable city or region comprises a great variety of (sometimes) conflicting dimensions, such as economic, social, land-use, ecological and transportation interests, among which a balanced compromise has to be found by policy-makers (Banister, 1999). Conflict resolution is, of course, a political action, but presupposes proper knowledge on the pros and cons of alternative choice possibilities. From an economic perspective this would ideally imply that all foreseeable costs and benefits of a planned initiative would have to be assessed.

In the past several methods have been developed and applied in policy analysis, in which a market evaluation played a prominent role. The best-known example of such a market evaluation method is based on Benefit-Cost Analysis (as an operational application of welfare theory). This method forms the foundation for many policy assessment methods and has formed the economic basis for in many case studies in the public sector.

Benefit-Cost Analysis (BCA) also has some severe shortcomings; especially in a situation with intangible aspects, this theoretically elegant method has often limited applicability. In many (public) policy evaluation studies, the assessment of environmental impacts turns out to be troublesome, since all advantages and disadvantages of policy options would have to be translated into a common monetary unit. Hence, incommensurable criteria of an unpriced and intangible nature cannot be included in a decision-making procedure based on a standard BCA. Furthermore, in the current policy practice in many countries there is hardly any applicable and meaningful way of including distributional impacts on welfare (for example, through a weighting system for different groups) into policy evaluation.

As a response to these shortcomings, Community Impact Assessment (or planning balance sheet) methods as advocated by Lichfield et al. (1975) have gained much popularity, as they are able to encapsulate also qualitative and distributional aspects. The trade-off among different outcomes in case of qualitative outcomes is somewhat troublesome, however.

As a response to the shortcomings of conventional evaluation techniques, a great diversity of modern assessment methods has been developed over the last ten years in order to extend their domain and to provide a complement to conventional benefit-cost studies. The aim is to offer a perspective for procedural types of decision-making in which various quality aspects are also incorporated. Many of these methods simultaneously investigate the impacts of policy strategies on a multitude of relevant criteria, partly monetary, partly non-monetary (including qualitative facets). They are often termed “multi-criteria methods” and are also known as “multi-assessment methods”. This approach derives its strength from the fact that it is, in principle, able to handle qualitative, quantitative and mixed data on distinct choice possibilities in decision-making.

The present chapter aims to offer a new methodological framework that is fairly general in nature and may in principle be used for a variety of case studies on spatial sustainability. The chapter is organized as follows. The next section of the chapter offers some specific methodological reflections on sustainability analysis and a presentation of an operational framework for assessing sustainable development at the regional level. The third section is dedicated to a discussion of the evaluation methods included in our methodology. It takes a closer look at the principles of this methodology by means of a more detailed description of the Flag Model and the Regime Analysis. The fourth section is concerned with a case study on the Songkhla/Hat Yai area in Southern Thailand. After a concise description of the natural and regional economic development problems in this area, the methodology and the evaluation techniques are applied and clarified in the sections that follow while in the final section we draw conclusions and offer some further reflections.

## **A DECISION SUPPORT METHODOLOGY FOR REGIONAL SUSTAINABILITY ASSESSMENT**

The notion of sustainability has become fashionable in modern planning. Sustainable development can be defined in numerous ways (Pezzey, 1989). In this chapter we will adopt the simple view that sustainability means that the development of an economy (national, regional) has to take place within a set of pre-specified normative constraints or pathways. According to van Pelt et al. (1992; 1994) a sustainability constraint has at least four attributes: (i) it is expressed in one or more measurable parameters; (ii) these parameters are linked to sustainability targets; (iii) the parameters have a proper geographical scale; (iv) these parameters have also a relevant time dimension. Ideally, such constraints should be mapped out in a quantitative way, but in reality we are often confronted with qualitative, fuzzy and incomplete information. In general,

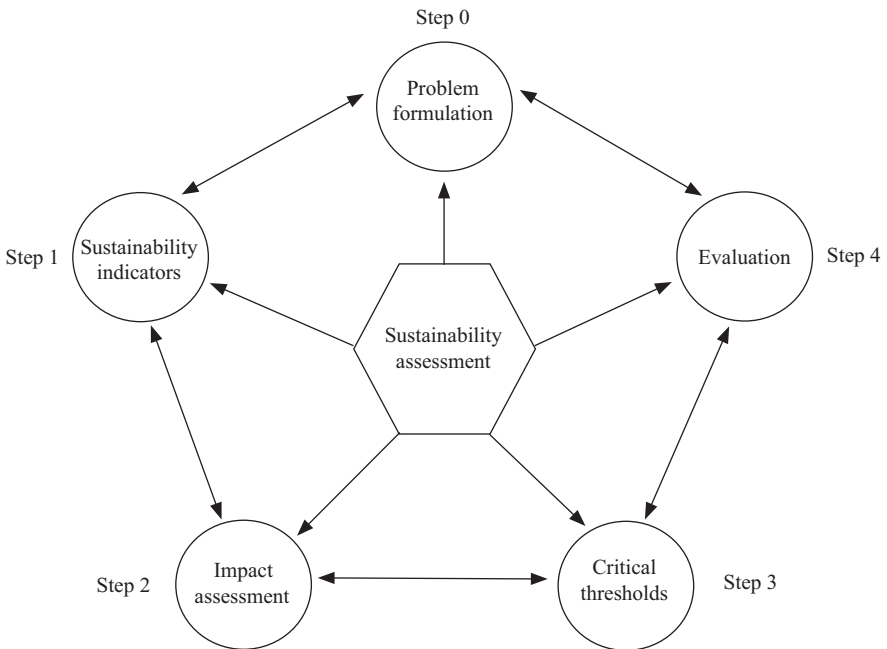


there may be various ways to identify such constraints (for example, safe minimum standards, quality standards, carrying capacity, eco-capacity, maximum sustainable yield, critical loads, vulnerability (or fragility), “environmental utilization space”, and so on). All such concepts may, in principle, be useful for a policy analysis. We will in our approach encapsulate such normative policy statements under the general heading of critical threshold values (Nijkamp and Ouwersloot, 1998). These values will form an important ingredient in our decision support model.

In the regional sustainability assessment presented here, we will distinguish the following steps (see Figure 10.1). Clearly, various feedback mechanisms and/or iterative steps may also be included in this stepwise approach. It goes without saying that the simplified and schematic general framework depicted in Figure 10.1 is fraught with various difficulties of a theoretical/methodological and empirical/policy nature (Bithas et al., 1997). Case study research is necessary to test the framework on its scientific merits and policy relevance. To obtain a proper level of information for a sustainability test in the various steps of a policy process is, of course, a major challenge.

**THE EVALUATION FRAMEWORK: A DESCRIPTION**

The designed framework is based on a joint use of various multi-criteria methods. The core of the methodology is formed by the Flag Model, extended with complementary



**Figure 10.1 Steps in a sustainability assessment procedure**

methods, here Regime Analysis. Since the critical threshold value approach is central in this chapter, on sustainability planning, we will start with a presentation of the Flag Model.

### **The Flag Model**

The main purpose of the Flag Model is to analyze whether one or more policy alternatives can be classified as acceptable or not in the light of an *a priori* set of sustainability constraints. The model does so by comparing impact values with a set of normative reference values (critical threshold values). We will in particular adhere to the definition of sustainable development as implying that the environmental impact of human activities stays well within limits of how much environmental impact the biosphere can take (RMNO, 1994). The specification of such limits provides a testable framework for policy decisions.

In this context the notion of “environmental utilisation space” offers an interesting and useful orientation, as it refers to the amount of environmental pressure or resource depletion a life support system can bear on both economic and ecological grounds. The “environmental utilization space” takes for granted that the environment has some regenerative capacity, so that also a distinction between renewable and non-renewable resources can be made.

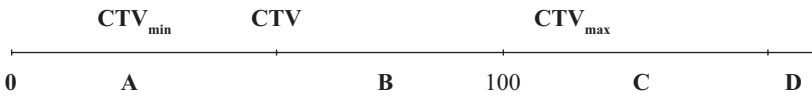
Clearly, one needs to define and specify meaningful and measurable indicators for sustainable development. There are no general and unambiguous sustainability indicators; they are always context- and site-specific. Taking for granted the existence of a set of such indicators, after careful field research, a critical threshold value (CTV) for sustainable development is then defined as the numerical normative value of a sustainability indicator. This normative value (at the margin) ensures a compliance with the carrying capacity of the regional environmental system concerned. Violation of a CTV means unacceptably high social costs to the environment or the socioeconomic system concerned. Clearly, such a CTV may originate from the above mentioned concept of “environmental utilization space”, critical loads, carrying capacity, sustainable yield, and so on (Weterings and Opschoor, 1994). It should be added that the introduction of such normative values is not entirely new in environmental management. Since the path-breaking contribution of Ciriacy-Wantrup (1952) on resource conservation, there has been an ongoing flow of scientific contributions on the use of such normative standards. What is novel here is that the CTV approach is cast in the framework of a decision support approach.

It is, of course, an interesting question how a CTV can be assessed. Clearly, it has to be based on solid scientific research concerning, for example resource availability or human health effects. This means that scientific information and expert opinion are of critical importance. In addition however, it ought to be recognized that several CTVs have by definition a policy meaning (for example, in terms of the acceptable level of access to resources), so that there is, of course, a policy involvement in the specification and numerical assessment of CTVs.

Thus the concept of CTVs must be used with great caution. It is based on existing knowledge that may be specific for a given area, for local socioeconomic and natural conditions, and for particular local/regional policy ramifications. Furthermore, some changes in natural conditions may exhibit resilience, so that after a temporary time period of violating critical threshold conditions a return to a sustainable development or an environmental security pathway may take place.

Clearly, for each sustainability or security indicator – be it environmental or socioeconomic – a separate CTV has to be determined, so that the entire set of CTVs may act as a reference system for judging actual states or future outcomes of scenario experiments. If, for example, an indicator has cost meaning (in other words, “a lower value is better”), then a level above the CTV signifies a dangerous or threatening development that is in a strict sense unacceptable. Clearly, a value of a sustainability or security indicator that is lower than the CTV is, in principle, acceptable or desirable. The inverse reasoning applies to benefit indicators. We will use here in our interpretative analysis – for the sake of simplicity – only cost indicators, as benefit indicators can easily be transformed into cost indicators.

A major problem faced in practice is thus the fact that the CTV level is not always scientifically unambiguous. In certain areas and under certain circumstances, different experts and decision-makers may have different views on the precise level of a CTV. It may even happen that a CTV is fuzzy in nature, so that then fuzzy assessment methods have to be used (Munda, 1995). A relatively simple and manageable approach to the above mentioned uncertainty problem is to introduce a bandwidth for the corresponding value of the CTV, defined as  $CTV_{min}$  and  $CTV_{max}$ , respectively. This bandwidth mirrors the minimum and maximum range of CTV values expressed by experts or policy-makers.  $CTV_{min}$  indicates a conservative estimate of the maximum allowable threshold of the corresponding sustainability (min-max condition).  $CTV_{max}$  on the other hand refers to the maximum allowable value of the sustainability indicator beyond which an alarming development will certainly start (max-max condition). This can be represented as follows, assuming that the original CTV has an index value of 100:



The line segments can now be interpreted in the following way:

Section A	Green	no reason for specific concern
Section B	Yellow	be very alert
Section C	Red	reverse trends
Section D	Black	stop further growth

It should be noted that deviations from the average can also be denoted by ++, +, +/-, -, and --, as will be illustrated later on.

The Flag Model is a visually appealing manner to confront decision-makers with the environmental state of affairs in a certain area. It can also be represented in a computerized way by colour graphs or coloured flags. In this way, the basic information for making trade-offs between conflicting objectives in a sustainability assessment is available.

The evaluation of various policy options for sustainable development based on the Flag Model can be facilitated by utilizing a recently developed software program (SAMI, 2000). This program analyzes the degree to which a choice possibility can optimize multiple objectives such as socioeconomic progress or environmental quality.

Once the data base and information on the set of CTVs have been collected, one may use policy experiments (scenarios, visioning methods, forecasting techniques, delphi-types of communicative procedures) to generate a series of 'alternative futures' which then may be judged on the basis of a multidimensional set of relevant policy criteria, while taking into account the importance of and existence of CTVs in identifying policy decisions. In this context it is also noteworthy that multi-criteria analysis (for example, Regime Analysis) forms an important complementary analytical tool.

The assessment module of the Flag Model provides a number of instruments for the analysis of alternatives. This analysis can be carried out in two ways. The first option is the inspection of a single alternative. The second one is the comparison of choice options. In the first procedure we decide whether an alternative is acceptable or not. In the latter case of comparing two alternatives, we decide which alternative scores best. This last option may be interpreted as a basic form of multi-criteria analysis.

The Flag Model can operate both as a classification procedure and as a visualization method. In the former case – for example, in combination with Regime Analysis – the Flag Model can determine the acceptable alternatives; accordingly, the examined alternatives can then be ranked by means of Regime Analysis. In the second place, one of the major merits of the Flag Model is its potential for representation. There are three approaches to such a representation: a qualitative, a quantitative and a hybrid approach.

The qualitative approach only takes into account the colours of the flags. This entails flag counts and cross-tabulation. This approach merely displays in various insightful ways the results obtained from the evaluation. The quantitative approach defines the values of the standards that may be acceptable or not. To achieve such results, we need to standardize the indicator (values), because they refer to different aspects, which are next expressed by different measurement scales. Finally, the hybrid form regards the existence of both qualitative and quantitative aspects.

## Regime Analysis

Multi-criteria analysis comprises various classes of decision-making approaches. The multi-assessment method used in our methodology is Regime Analysis. Regime Analysis is a discrete multi-assessment method suitable to assess projects as well as policies. The strength of Regime Analysis is that it is able to cope with binary, ordinal, categorical and cardinal (ratio and interval scale) data, while the method is also able to use mixed data. This applies to both the effects and the weights in the evaluation of alternatives.

The fundamental framework of the method is based upon two kinds of input data: an impact matrix and a set of (politically determined) weights (see for a detailed exposition Nijkamp et al., 1990 and Hinloopen et al., 1983). The impact matrix is composed of elements that measure the effect of each considered alternative in relation to each policy-relevant criterion. The set of weights incorporates information concerning the relative importance of the criteria in the evaluation. In case there is no prioritization of criteria in the evaluation process, all criteria will be assigned the same numerical weight value.

Regime Analysis is a discrete multi-criteria method, and in particular, it is a generalized form of concordance analysis, based on a generalization of pairwise comparison methods. Concordance analysis is an evaluation method in which the basic idea is to rank a set of alternatives by means of their pairwise comparisons in relation to the chosen criteria. We consider a choice problem where we have a set of alternatives  $i$  and a set of criteria  $k$ . For each criterion a policy weight is assumed to be given. We now need to rank the alternatives. In order to do so, we introduce the concordance index. The concordance index is defined as the sum of the weights that are related to the criteria for which alternative  $i$  is better than alternative  $k$ . We call this sum  $C_{ik}$ . Then we calculate the concordance index for the same alternatives, but by considering the criteria for which  $k$  is better than  $i$ , that is,  $C_{ki}$ .

After having calculated these two sums, we subtract these two values in order to obtain the net concordance index  $\alpha_{ik} = C_{ik} - C_{ki}$ . Because in most cases we have only ordinal information about the weights (and no trade-offs), our interest is in the sign of the net concordance index of  $i$  with respect to  $k$ . If the sign is positive, this will indicate that alternative  $i$  is more attractive than alternative  $k$ ; otherwise, the opposite holds.

We are now able to rank our alternatives. We note that due to the ordinal nature of the information in the indicator  $\alpha_{ik}$  no information exists on the size of the difference between the alternatives; it is only the sign (+ or -) of the indicator that matters.

We may also solve the complicating situation that it may not be possible to determine an unambiguous result: a complete ranking of alternatives, because of the problem of ambiguity in the sign of the index  $\alpha$ . In order to solve this problem we introduce a performance indicator – as a semi-probability measure –  $p_{ik}$  for the dominance of criteria  $i$  with respect to criteria  $k$  as follows:

$$p_{ij} = \text{prob} \quad (\mu_{ij} > 0)$$

Next, we define an aggregate probability measure, which represents the success (performance) score as follows:

$$p_i = \frac{1}{I-1} \sum_{j \neq i} p_{ij}$$

where  $I$  is the number of chosen alternatives.

The problem here is to assess the value of  $p_{ij}$  and of  $p_i$ . The Regime Analysis then assumes a specific probability distribution of the set of feasible weights. This assumption is based upon the Laplace criterion in the case of decision-making under uncertainty.

In the case of a probability distribution of qualitative information, in principle, the use of stochastic analysis will be sufficient, which is consistent with an originally ordinal data set. This procedure helps to overcome the methodological problems we may encounter by applying a numerical operation on qualitative data.

From the viewpoint of numerical analysis, the Regime method identifies the feasible domain within which feasible values of the weights  $w_i$  must fall in order to be compatible with the condition imposed by their probability value. By means of a random generator, numerous values of the weights can be calculated. This allows us at the end to calculate the probability score (or success score)  $p_i$  for each alternative  $i$ . We can then determine an unambiguous solution and rank the alternatives.

Regime Analysis is able to examine both quantitative and cardinal data. In case of choice problems with qualitative data, we first need to transform the qualitative data into cardinal data and then apply the Regime method. The Regime Software method is able to do so consistently<sup>1</sup>. Due to this necessity, Regime Analysis is classified as an indirect method for qualitative data. This is an important positive feature. When we apply the cardinalization of qualitative data through indirect methods, such as the Regime Analysis, we do not lose information like in direct methods. This is due to the fact that in the direct methods only the ordinal content of the available quantitative information is used.

## APPLICATION OF THE EVALUATION METHODOLOGY AND METHODS

### Sketch of the region

Thailand consists of a compact heartland, or mainland, and a long southern peninsular extension of the Malay Peninsula. This has a maximum north-south length of about 800 km. Forest occupies approximately 28 per cent of the land area, while farmland covers approximately 39 per cent. Four topographical regions are distinguished. The most important one is the central region, which occupies almost one-third of the

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<sup>1</sup> Regime Analysis is included in the software package SAMIsoft, a deliverable of the EU project SAMI.

nation and includes the fertile alluvial lowlands of the Chao Phraya river, “Thailand’s rice bowl”. Thailand’s three other distinct topographical areas are the northern region (a mountainous and forested area), the north-eastern or Khorat Plateau region (an area poorly endowed with resources and with unproductive lateritic soils) and the southern, or peninsular, region on the Malay Peninsula (rich in rubber and tin). Our case study on Songkhla/Hat Yai concerns the latter area.

Songkhla is a city located in the South of Thailand (950 km distance from Bangkok) close to Malaysia. The city is situated on a long and narrow peninsula stretching 9.3 km between the Gulf of Thailand on the east and the Songkhla Lake, a fresh water lagoon, on the west. Songkhla has an urban population of 86,000 people within its municipal boundary. Together with Hat Yai, a city of approximately 140,000 inhabitants at 25 km distance to the South, Songkhla serves as the regional centre for the South of Thailand. Songkhla is the capital city of the Songkhla Province and is the administrative, educational and cultural centre of the region. Hat Yai is the commercial part of both cities. The major commercial activities in Songkhla are related to fishery. The city possesses a large deep sea port for fishing ships. Tourism is another source of income and will likely become more important in the near future. Together with Hat Yai, Songkhla is the third most significant destination for foreign tourists in Thailand. The other economic activities in Songkhla are related to government services and activities in the private sector.

Since Hat Yai is also a part of the defined research area, we will give a short description of this influential city. Hat Yai is Southern Thailand’s commercial centre and one of the Kingdom’s largest cities, though it is only a district of Songkhla Province. A steady stream of customers from Malaysia keeps Hat Yai’s central business district booming. Hat Yai is very much a Chinese town in its centre, although a substantial Muslim minority is also concentrated in certain sections of the city. Since the city shares several common features with Bangkok, Hat Yai is often called “Little Bangkok”.

We will give here a concise overview of the main economic activities in this area. In terms of agriculture, the region possesses the country’s largest rubber plantation fields. About 44 per cent of the households in the region are engaged in rubber plantation. Next, fishery is an important activity; it is mainly related to the black tiger shrimp culture. Shrimp culture in Songkhla has a high development potential caused by the large suitable area around the coastlines. Furthermore, there are great opportunities for the production of fruits such as oranges, coconuts, limes, flowers and decorative plants, and vegetables for exports.

Traditionally, industry in Songkhla Province has consisted mainly of agro-industries, or industries and services related to this sector. Relying on indigenous resources including rubber and fishery, they are mostly labour-intensive. Most industries are located in or near areas equipped with good basic infrastructure like the city of Songkhla and the city of Hat Yai. Most industries profited from the governmental policy to redistribute growth and welfare to the regions. Many investors were encouraged to invest in Songkhla. Industries like para-wood furniture

and frozen sea foods expanded, and the international position of some industries improved, influenced by these investments.

Trade and services in Songkhla cover various business branches and industries. This sector has recently started. The city of Songkhla is an important domestic and international market place for consumption commodities. Hat Yai serves as a centre for rubber trade in the province and the South of Thailand. Songkhla is an international trade centre in the South of Thailand facilitating trading, in particular with Malaysia. Commercial banking and financing has also grown in recent years. There are some opportunities for the province to become a centre of trade, finance and marketing in the Indonesia-Malaysia-Thailand triangle (IMT-triangle). The decentralization policy of the Thai government is an important development factor for Songkhla.

Songkhla has diverse tourist attractions. They include natural attractions, historical sites, entertainment areas, and various shopping centres. The favourable connections (for example the airport) and communication networks with various cities in the neighbouring countries have contributed to the growth of the number of tourists who see Songkhla as a temporary destination. About 60 per cent of the tourists are Thai, the remaining ones are mainly from Asian countries, like Malaysia and Singapore. Increasingly more Europeans and Australians come to visit the province on their way to Malaysia or Indonesia.

In general, the Thai governmental policy can be summarized under six themes: decentralization policies, policies related to agriculture, industrial policies, policies related to tourism, IMT trade-triangle policies and environmental policies.

For Songkhla and Hat Yai it is important to take into account the development guidelines set for the Southern Region. The main development guidelines are related to conservation and rehabilitation of natural resources and the promotion of tourism (particularly in Phuket, Samui-Pha Ngan and Ang Thong Islands), investments in infrastructure (communications and transport) and the promotion of coastal cities and border provinces to form a gateway in order to stimulate trade with neighbouring countries. Industrial estate development is promoted to serve industrial requirements, particularly agro-industries, such as rubber, palm oil and sea food. Several regional urban centres in Southern Thailand are supported in order to redistribute development efforts to the region. In the next section we will describe in more detail various sustainability options for the region.

### **Design of development scenarios for the Songkhla/Hat Yai region**

Key issues in applying the concept of sustainability to Thai areas are the organization of production and consumption (the socioeconomic system), the quantity and quality of environmental functions, and the interaction between the socioeconomic and environmental system in the short and long term. An application of the sustainability concept, will of course, lead to different analytical problems and outcomes depending on location-specific circumstances. This holds especially for the application of the



sustainability concept in developing countries. In general, developing countries have other environmental systems than most developed countries. Climatic circumstances and geographic conditions have a distinct impact on the features of ecosystems. Many developing countries possess highly diversified but fragile ecosystems. Moreover, developing countries are still predominantly rural, whereas the developed world is largely urbanized. Socioeconomic systems in developing countries also differ from those in developed countries. These location-specific circumstances should be taken into account in the operationalization of the sustainability concept and the assessment of sustainability in the Songkhla/Hat Yai area.

In this section of the chapter, the policy aspects that are of critical importance for the assessment of sustainable development in the Songkhla/Hat Yai area will be presented. The three policy scenarios used in the sustainability assessment will also be described in this section. These scenarios are based on the six policies described in the preceding section.

We will now present in a systematic, compact way the three policy scenarios (A, B and C) for the area at hand, that by policy-makers and experts in the area were regarded as meaningful and potentially promising policy packages to be further investigated: the decentralization scenario, the sectoral and regional development scenario, and the environmental protection scenario (see Tables 10.A1–10.A3 in the Annex). It should be noted that these scenarios are to be seen as packages comprising policy objectives and measures. The objectives are not always sharply defined, as it was sometimes difficult to get consensus on precisely defined targets.

### **Sustainability assessment of the study area**

In this part of the chapter the development scenarios mapped out in Annex 1 will be assessed in terms of their sustainability consequences. In order to evaluate these scenarios, sustainability indicators and the effects these scenarios have on these indicators need to be measured. Therefore, the Songkhla/Hat Yai area is presented as a complex regional system. For this complex system sustainability indicators are identified, while next the consequences of these development scenarios for these sustainability indicators are traced by means of this complex system. The result of this assessment is thus based on a qualitative community impact assessment matrix. We will follow here the successive steps described in Figure 10.1.

#### *Step 0: Design of complex regional system for the Songkhla/Hat Yai area*

In this part of our analysis the economic, social and environmental subsystems within the Songkhla/Hat Yai area are identified and represented as a multi-faceted, interlinked system. However, due to lack of quantitative information the complex system of the Songkhla/Hat Yai area will be mapped out in a graphical way by means of graphs and arrows. The design of this system is made in a modular fashion. This means that the main components of the regional system (economic,

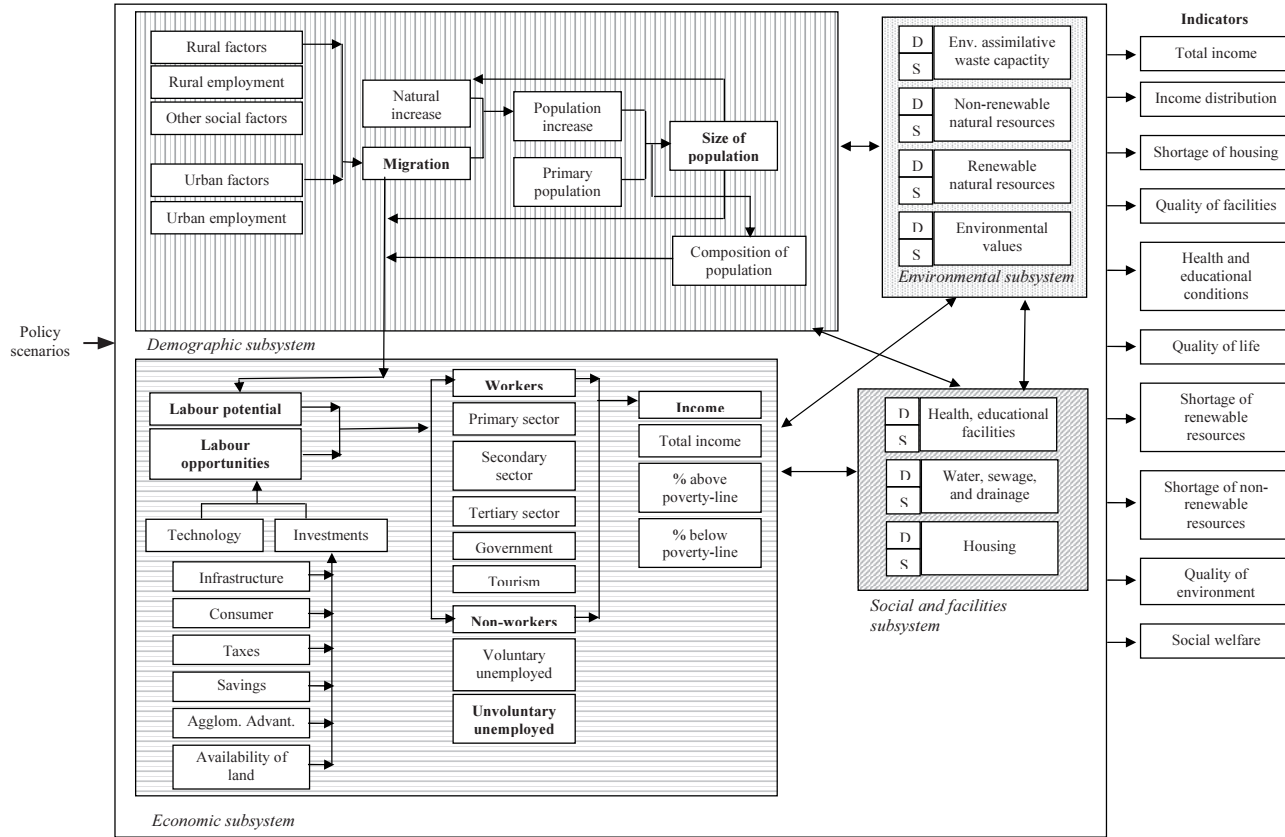


Figure 10.2 The qualitative complex systems model for the Songkhla/Hat Yai area

social, demographic and environmental) make up the architecture of the system, while next in a systematically nested way the various interlinked sub-components are depicted.

The design of this system for the Songkhla/Hat Yai region is based on extensive fieldwork in close consultation and cooperation with several regional and local experts. The presentation of this complex system can be found in Figure 10.2. By following a stimulus-response approach it is in principle possible to estimate the implications of distinct policy scenarios for various relevant sustainability indicators, based on the principles of community impact assessment (see Lichfield, 1996).

### *Step 1: Identification of measurable sustainability indicators*

By means of systematic fieldwork in the Songkhla/Hat Yai area, a rather extensive data base has been built that offers sufficient insight into the working of the different subsystems and their mutual relationships. In the sustainability analysis, 16 different indicators are used. These indicators show clearly the influence of the various scenarios on the area and are therefore useful for our analysis. With the help of the four subsystems mentioned above, measurable sustainability indicators can be subdivided into four subgroups, namely economic indicators, social indicators, demographic indicators and environmental indicators.

In our empirical research the expected value of the indicators is assessed on the basis of the likely influence a scenario exerts on these indicators. In a purely qualitative sense, two binary possibilities concerning the variables can be used in our approach: a minus sign (-) is used when an increase in the value of the indicator has a negative effect on social welfare; a double minus sign (--) means a very negative effect. A plus sign (+) is used when an increase in the value of the indicator influences social welfare positively. A neutral effect is indicated as +/- . As mentioned above, the final judgment concerning the impact of scenarios on regional sustainability is undertaken with the help of the CTVs, in particular in terms of the frequency of occurrence of green, yellow, red and black flags (Table 10.1).

### *Step 2: Assembling the impact matrix*

After the presentation of the complex regional system and the selection of sustainability indicators, it is now possible to estimate empirically the implications of various policy scenarios. The impact matrix plays a crucial role in measuring the effects that a policy scenario has on the sustainability indicators. Tracing the consequences of a policy measure step by step through the whole complex system designed can pursue this. It is important to note that a distinction can be made between first-, second-, third- and higher-order effects. These influences determine the overall effect a scenario has on the indicator concerned. All effects are standardized, and each possible effect can be described by qualitative symbols (++ , + , +/- , - or --). Several of these qualitative expressions have an underlying quantitative value, but for the sake of uniformity we will present all effect values in qualitative terms.

**Table 10.1 Sustainability threshold values for indicators**

Main Criteria	Sub-criteria*	CTV <sub>min</sub>	CTV	CTV <sub>max</sub>
Economic	Employment primary sector	+/-	-	--
	Employment secondary sector	+/-	-	--
	Employment tertiary sector	+/-	-	--
	Employment government sector	+/-	-	--
	Employment tourism	+/-	-	--
	Involuntary unemployment	+/-	-	--
	Total income	+/-	-	--
	Income distribution	+/-	-	--
Social	Shortage of housing	+/-	-	--
	Quality of facilities	+/-	-	--
	Health and educational facilities	+/-	-	--
	Quality of life	+/-	-	--
Environmental	Shortage of renewable resources	+/-	-	--
	Shortage of non renewable resources	+/-	-	--
	Quality of the environment	+/-	-	--
Aggregated	Social sustainability effect	+/-	-	--

\* All criteria are benefit indicators and measured on a qualitative scale.

These empirically based values will be deployed in the final assessment with the help of the Flag Model and Regime Analysis. By means of a recently developed software program the values will be compared with a set of *a priori* formulated CTVs (see Table 10.1). Clearly, each of the scenarios (A, B and C) has different effects. A short description of the effects of each separate scenario on the indicators will be given now, where the assessment is largely based on expert opinion in the area under study.

### *Step 3: Specification of CTVs for sustainability*

It is clear that the establishment of CTVs is not immediately straightforward. In our case, there was not direct and sufficient expert knowledge available. Therefore, as part of the policy strategy assessment we decided to introduce three virtual visions that may function as three options for establishing a CTV, which might generate a variation around an average value in terms of CTV<sub>min</sub> and CTV<sub>max</sub>. Thus, three auxiliary visions on CTVs are constructed to overcome these empirical problems in specifying a set of normative reference values for the Songkhla/Hat Yai area. Although the values within these visions on CTVs are not clearly specified, they are useful in the evaluation of the effects of the development scenarios on the sustainability indicators. These auxiliary visions are termed “weak”, “moderate” and “strong progress”.

In the impact matrix (Table 10.2), the effects on the sustainability indicators are represented by standardized qualitative values originating from the impact matrix; these values can also be used to develop different CTVs for each sustainability indicator.

**Table 10.2 The impact matrix for alternative regional development plans**

	Criterion	A	B	C
Economic	Employment primary sector (+)	+	+/-	+/-
	Employment secondary sector (+)	+/-	+	+/-
	Employment tertiary sector (+)	+	+	+/-
	Employment government sector (+)	+/-	+/-	+/-
	Employment tourism (+)	+/-	+/-	+/-
	Involuntary unemployment (+)	--	--	+/-
	Total income (+)	++	+	+/-
	Income distribution (+)	--	-	+/-
Social	Shortage of housing (-)	+/-	+/-	+/-
	Quality of facilities (+)	+/-	-	+/-
	Health and educational facilities (+)	+/-	+/-	+
	Quality of life (+)	+/-	-	+/-
Environment	Shortage of renewable resources (-)	+	+/-	+
	Shortage of non renewable resources (-)	+	+/-	-
	Quality of environment (+)	+/-	+/-	+
	Social welfare (+)	+/-	+/-	+/-

Within the “weak progress” vision, CTVs are set less stringently than in other visions on CTVs. Sustainability in this vision is defined as “non-negative” impacts on the sustainability indicators, and sustainability is thus achieved when the effects of a development scenarios has at least a +/- sign (in other words no further environmental decay). So, this vision contains the minimum CTVs for the sustainability indicators.

Within the two visions (moderate and strong progress) the CTVs become more stringent; this is useful in order to identify the most sustainable development scenario. If, for example, scenario A is sustainable within the “strong progress vision”, and if the other two scenarios (B and C) meet only the requirements for sustainability within the “weak progress vision”, one may conclude that scenario A is the most sustainable one. For each sustainability indicator the relevant CTV is represented in a qualitative sense, and will receive the values shown in Table 10.1. In the section below the results of the sustainability assessment are given, while the results of the comparison of the effects with the visions on the CTVs are also analyzed for all sustainability indicators.

#### *Step 4: Evaluation of sustainability strategies or scenarios*

In the sustainability assessment the outcomes of sustainability indicators are compared with the CTVs by means of the Flag Model. After the comparison of a sustainability indicator with its CTV, a coloured flag is assigned to (the value of) this indicator. The set of sustainability indicators is evaluated in a separate model of the Flag software program. Due to lack of quantitative information, a qualitative

approach is necessarily used here. The qualitative approach only takes into account the colour of the flags. Only flag counts and cross-tabulation are allowed. The outcomes can also be visualized by means of pie charts and stack bars. The results of the comparison are presented in the following section.

## **General specification of scenario effects**

### *Decentralization scenario*

The decentralization scenario has a slightly to a substantially positive influence on employment, total income and income distribution. Slightly positive effects on the social indicators may also be distinguished. These effects were to be expected, because this scenario was developed to redistribute welfare from Bangkok to the regional centres and the surrounding areas. In this respect this scenario seems successful. But it is also accompanied by undesirable environmental effects, which take up an extra amount of renewable and exhaustible resources.

The assimilative capacity of the environment is also negatively affected. These combined effects may nevertheless slightly improve regional welfare. The extent to which this scenario meets the pre-defined CTVs, and hence to which extent it meets the conditions for sustainability, is discussed later.

### *Promotion of sectoral and regional development scenario*

This scenario has also a positive influence on employment, total income and the income distribution. The effects on total income are less substantial, probably because of the measures concerning the IMT-growth triangle.

These initiatives will mainly have positive effects in the long term; in the first instance, they will be focused on the primary sector, which was already under some pressure in Thailand. The effects on the social indicators are approximately the same as the effects on the social indicators in the former scenario. Decentralization however, has a broader effect on the supply of housing. This seems a logical consequence, since this scenario focuses on the decentralization of income and prosperity. On the other hand, the promotion of sectoral development has a less negative impact on the environment. This is mainly caused by measures which are focused on the restructuring of the agricultural sector and which emphasize improvements in cultivation systems and farming methods, the formulation of land use policies in order to bring agricultural activities in line with the potential of the land, and the higher accessibility to water resources. Measures that concern the promotion of tourism also have a positive influence on the environment, especially with regard to natural environment conservation. The total effect on social welfare is likely not very different from the effect the decentralization scenario has on this indicator.

*Environmental protection scenario*

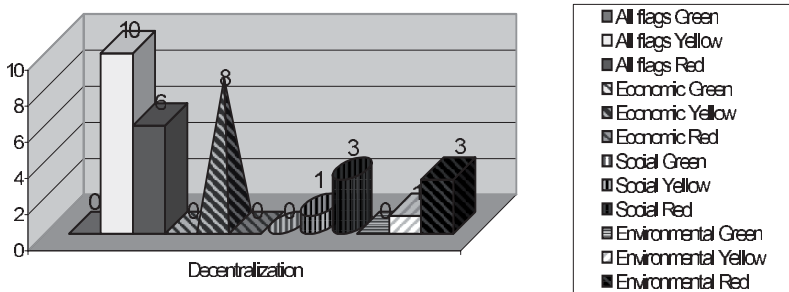
The final scenario seeks to ensure an improvement of environmental quality in the area. With regard to this scenario it is plausible that it will have a positive effect on all environmental indicators, and this is indeed shown in the impact matrix. This scenario, however, has only a very slightly positive influence on employment and the income distribution. An improvement in environmental protection results clearly in the improvement of the quality of life in the Songkhla/Hat Yai area.

**INTERPRETATION OF THE RESULTS OF THE THAI CASE STUDY:  
APPLICATION OF THE FLAG MODEL**

We will now concisely interpret the results of the three auxiliary visions for assessing tentative values for the CTVs: in terms of the weak, moderate and strong progress vision, respectively. Here we will present in Figures 10.3–10.5 the results of the Flag Model in terms of the frequency of flags for each of the three scenarios and for the three distinct visions on CTVs.

**Weak progress vision**

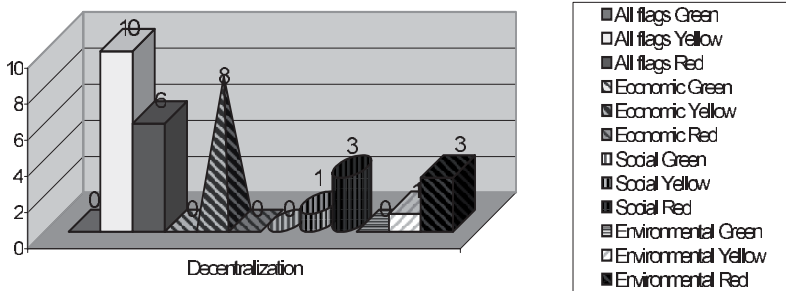
It seems plausible that the environmental protection scenario is the most sustainable one, based on the CTVs in the weak progress vision. The influence the environmental protection scenario has on the economic indicators is limited; it is, in fact, surprising that eight yellow flags are counted for these indicators. Thus, the environmental protection scenario is not in all cases very convincing.



**Figure 10.3a** Frequencies of flags for the decentralization scenario

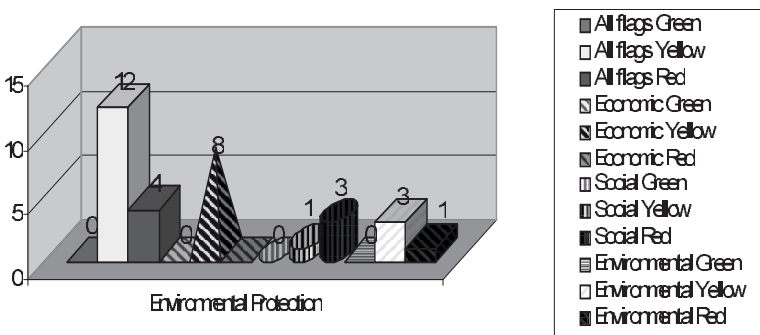
*Note:* Green flag: no reason for specific concern; Yellow flag: be alert; Red flag: reverse trends.

Clearly, the environmental protection scenario has more yellow flags counted for environmental indicators; this might, however, be expected.



**Figure 10.3b** Frequencies of flags for regional and sectoral promotion

We will now interpret some pairwise results of the scenario comparison. After comparing the decentralization scenario with the sectoral and regional promotion scenario, we can see that both scenarios have identical scores on the sustainability indicators. There are no indicators for which the decentralization scenario gives a better score than the sectoral and regional promotion scenario.



**Figure 10.3c** Frequencies of flags for the environmental protection scenario

The results show that there are three indicators for which the environmental protection scenario gets a better score than the decentralization scenario. The decentralization scenario has only one indicator, for which the score is better than for the environmental protection scenario. We may thus conclude that, with the



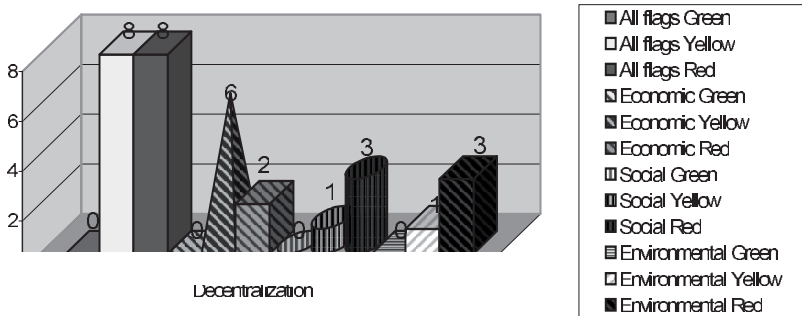
application of the weak progress vision, the environmental protection scenario is favoured over the decentralization scenario.

There are three indicators for which the environmental protection scenario obtains a better score than the sectoral and regional promotion scenario. We may conclude that the environmental protection scenario is favoured over the sectoral and regional promotion scenario. After the comparison of the different development scenarios we can conclude that the environmental protection scenario is the most favoured scenario within the context of the weak progress vision on CTVs, followed by the decentralization scenario and the sectoral and regional promotion scenario.

### Moderate progress vision

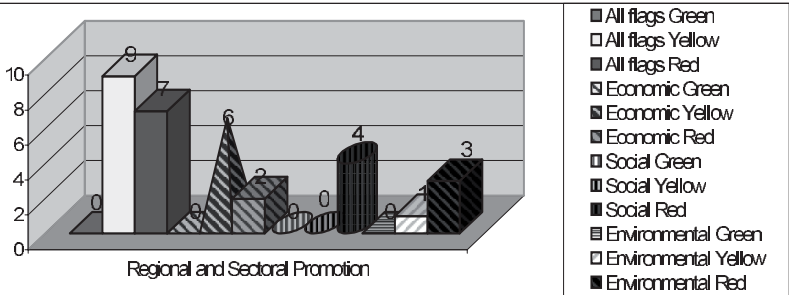
Next, we will analyze the consequences of the moderate progress vision (Figures 10.4a–c). With the application of this vision on CTVs, the differences between the development scenarios become more significant. The environmental protection scenario especially becomes less sustainable. Twelve red flags were counted for this scenario; most of them were assigned to the economic indicators. Relatively positive scores were found on the social and environmental indicators (three yellow flags in total). It seems that economic development is sacrificed in order to achieve ecological sustainability.

Although the decentralization and sectoral and regional promotion scenario display a large number of red flags (8 and 7), they are more sustainable than the environmental protection scenario.



**Figure 10.4a** Frequencies of flags for the decentralization scenario

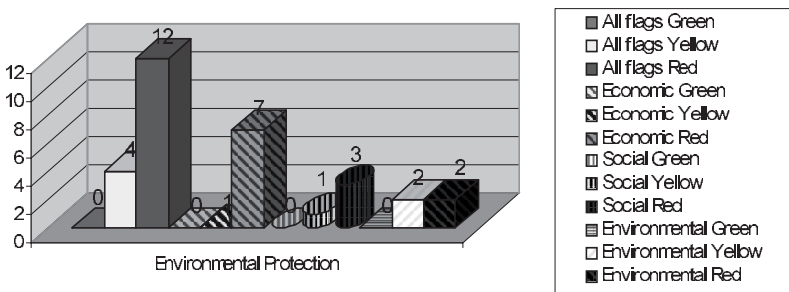
The relative positive scores (yellow flags) are mainly seen for the economic indicators. The objectives of these scenarios; redistribution of income and the strengthening of regional–economic sectors, seem to be well achieved with the use of the policy measures. But these scenarios compromise economic growth for social and environmental sustainability.



**Figure 10.4b** Frequencies of flags for regional and sectoral promotion

The comparison of the decentralization scenario with the sectoral and regional promotion scenario makes clear that the decentralization scenario is slightly more sustainable than the sectoral and regional promotion scenario. There are two indicators for which the decentralization scenario obtains a better score than the sectoral and regional promotion scenario. The sectoral and regional promotion scenario scores on one indicator better than the decentralization scenario.

There are six indicators for which the decentralization scenario obtains a better score than the environmental protection scenario. The environmental protection scenario has two indicators for which the score is better than for the decentralization scenario. We can thus conclude that the decentralization scenario is more favoured than the environmental protection scenario.



**Figure 10.4c** Frequencies of flags for the environmental protection scenario

There are also seven indicators for which the sectoral and regional promotion scenario obtains a better score than the environmental protection scenario, while there are four indicators for which the environmental protection scenario obtains better results than the sectoral and regional promotion scenario. We may thus conclude that the sectoral and regional promotion scenario is favoured over the environmental protection scenario.

The conclusion is that with the application of the moderate progress vision on CTVs, the decentralization scenario is the most favourable scenario, followed by the sectoral and regional promotion.

### **Strong progress vision**

Finally, we will analyze the results of the strong progress vision on CTVs. Under these conditions, none of the scenarios can meet the sustainability conditions in all respects. Although the decentralization scenario and sectoral and regional promotion scenario have some yellow flag scores for the economic indicators, reverse trends occur for the social and environmental indicators. The environmental protection scenario is unsustainable with respect to all indicators (economic, social and environmental).

The cross tabulation of flag counts shows no differences in sustainability between the decentralization scenario and sectoral and regional promotion scenario. Both scenarios have the same scores on the sustainability indicators.

The environmental protection has the highest number of negative scores on many scores on the indicators. This is caused by the severe negative effects on the economic indicators, such as total income, income distribution and employment. The other two scenarios show some “yellow” scores on these indicators and therefore their overall sustainability is slightly better. All three scenarios have the same negative effects on the environmental indicators.

In conclusion, the assessment of sustainability of the Songkhla/Hat Yai area shows that sustainability is only achieved at the lowest defined levels of the CTVs (‘weak progress development’). If CTVs are set more stringently, none of the development scenarios is able to achieve sustainability scores on the social and environmental indicators.

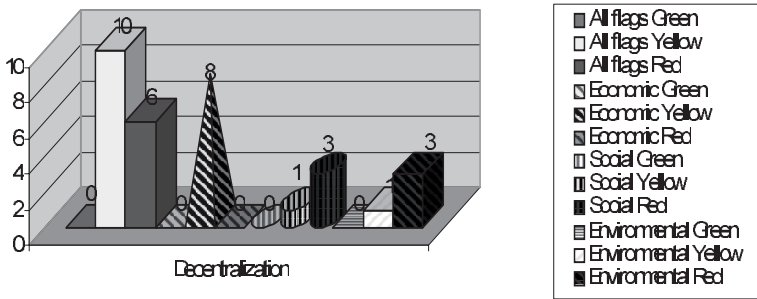


Figure 10.5a Frequencies of flags for the decentralization scenario

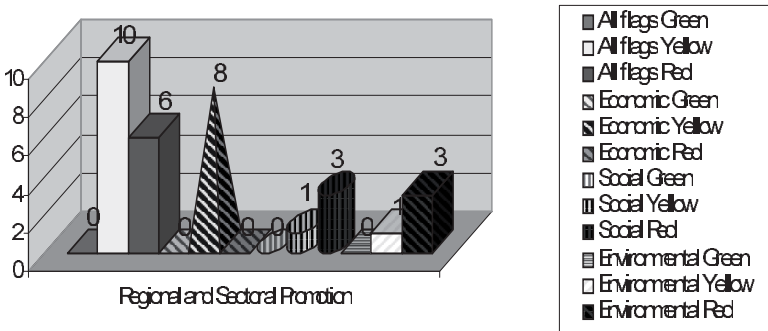
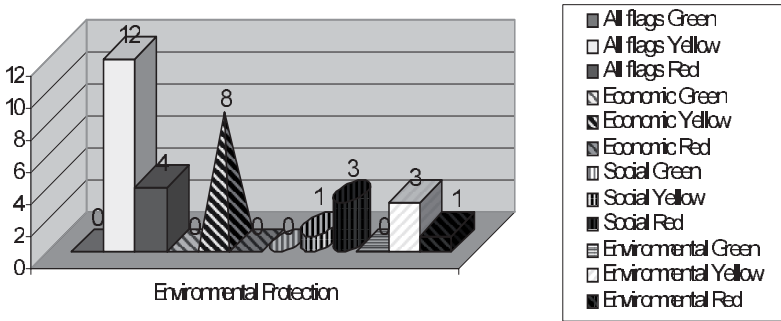


Figure 10.5b Frequencies of flags for the decentralization scenario



**Figure 10.5c** Frequencies of flags for the environmental protection scenario

The decentralization and sectoral promotion scenarios show some relatively positive scores on the economic indicators. The influence of the environmental protection scenario on the economic indicators is neither positive nor negative, and therefore this scenario becomes less sustainable when strict CTVs are applied. It may be concluded that the decentralization scenarios is the most favourable development scenario; this scenario is followed by the sectoral and regional promotion scenario. According to our assessment the environmental protection scenario is the least favourable scenario, mainly because its positive effect on the economic indicators is marginal.

**REGIME ANALYSIS FOR OBTAINING A RANK ORDER OF ALTERNATIVES**

The Regime Method described previously allows us to analyze an impact matrix containing (mixed) data and a weight vector in order to calculate a rank order of alternatives.

The weights are assumed to be equal here, but alternative weight compositions can be handled by means of a sensitivity analysis.

The software used to evaluate all alternatives in this case study (SAMIfsoft) translates all scores as benefit criteria; this means that the higher an alternative scores on a criterion the better it is.

In our case study research, the Regime Analysis was conducted on the results of the Flag Model. As indicators we used the flag colours (Green, Yellow, Red and Black) and the number of flags counted for the various flag colours. Therefore, the results in Figures 10.3, 10.4 and 10.5 form the input for our Regime Analysis. Since Regime Analysis assigns a positive judgment to high scores on indicators, we have to be careful to apply this method on the results of the Flag Model straightforwardly. For example, a high number of red flags will be positively judged by the Regime method, while from a sustainability perspective reverse trends occur. As a consequence, we consider the Green and Yellow flag scores as benefit indicators and the Red and Black flag scores as cost indicators and we transformed them into benefit indicators.

Table 10.3 shows these standardized indicator scores per vision on the CTVs. The results of the Regime Analysis per CTV vision are presented in Table 10.4. It is no surprise that the results do not differ from the results of the Flag Model.

**Table 10.3 Standardized impact scores per CTV vision**

	Weak Progress			Moderate Progress			Strong Progress		
	G	Y	R	G	Y	R	G	Y	R
Decentralization	0	10	0.7	0	8	1	0	3	1
Sectoral and regional promotion	0	10	0.7	0	7	0.89	0	3	1
Environmental protection	0	12	1	0	4	0.67	0	0	0.81

**Table 10.4 Rank order of alternatives**

	<i>Prob</i>			<i>Rank</i>		
	Weak	Moderate	Strong	Weak	Moderate	Strong
Decentralization	0.25	1	0.75	2	1	1
Sectoral and regional promotion	0.25	0.5	0.75	2	2	1
Environmental protection	1	0	0	1	3	3

## SUMMARY AND CONCLUSION

The aim of this study was to analyze various development scenarios in relationship to the spatial economic development of the Thai city of Songkhla and its adjacent areas. The main focus was on the assessment of sustainable development of this area. The strategic policy findings are briefly summarized here.

### The decentralization scenario

The decentralization scenario has a slightly to a substantially positive influence on employment, total income and income distribution. Slightly positive effects on the social indicators can also be traced. These effects were to be expected, because this scenario was developed to redistribute welfare from Bangkok to the regional centres and surrounding areas. However, the scenario also has undesirable environmental effects as a result of the use of additional renewable and exhaustible resources. The assimilative capacity of the environment is also negatively affected. These combined effects, therefore, result only in a slight improvement in the total effect on the welfare function of the region under investigation.

### **The scenario on the promotion of sectoral and regional development**

This scenario also has a positive influence on employment, total income and income distribution. The effects on the social indicators are approximately the same as the effects on the social indicators in the former scenario. This scenario, however, has a less negative effect on the environment. This is mainly caused by measures that are focused on the restructuring of the agricultural sector. The total effect on social welfare in the area is not significantly different from the effect the decentralization scenario has on this indicator.

### **The environmental protection scenario**

With regard to this scenario it was expected that it would have a positive effect on the environmental indicators, and the impact matrix correctly shows this. This scenario, however, has only a very slightly positive influence on employment and income distribution. An improvement of the environment clearly results in the improvement of the quality of life in the Songkhla/Hat Yai area, but to the detriment of economic growth.

Our assessment of sustainability of the Thai region under consideration shows that sustainability is only achieved at the lowest defined levels of the CTVs ("weak progress"). If the CTVs are set more stringently, none of the development scenarios is able to achieve sustainability in terms of social and environmental indicators. The decentralization and sectoral and regional promotion scenarios show some relatively positive scores on the economic indicators. The influence of the environmental protection scenario on the economic indicators is neither clearly positive nor negative, and therefore this scenario becomes less sustainable when strict CTVs are applied. It can thus be concluded that the decentralization scenario is the most favourable development scenario, followed by sectoral and regional promotion. In our assessment approach the environmental protection scenario is the least favourable scenario because, its positive effect on relevant economic indicators is almost negligible.

Finally, it is important to critically judge the methodological tools employed in our sustainability analysis. There are three critical points that deserve our attention. Firstly, the development of a complex regional system model is of critical importance, even though often by necessity a qualitative assessment has to take place. Secondly, the use of CTVs appears to offer an operational framework for sustainability analysis at the regional level, although lack of quantitative and reliable information may force researchers to resort to adjusted qualitative methods (for example, the auxiliary visions introduced by us). And finally, the flag approach, combined with Regime Analysis, has demonstrated its feasibility, even in cases like ours where no unambiguous expert information was available.

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ANNEX 1      **CONCISE DESCRIPTION OF POLICY SCENARIOS****Table 10.A1 A. Decentralization scenario**

Objectives	Measures
<ul style="list-style-type: none"> <li>• Redistribution of income and development benefits to the regions and rural areas in order to reduce income disparities;</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of monetary, fiscal and capital market development policies;</li> <li>• Implementation of fiscal and public expenditure policies;</li> <li>• Decentralization of fiscal and budgetary power to the provinces and local authorities;</li> </ul>
<ul style="list-style-type: none"> <li>• Dispersion of property ownership to enable those involved in agriculture to have legal ownership of land or securities in farmland;</li> </ul>	<ul style="list-style-type: none"> <li>• Land reform programs, issuance of land titles, housing credit provision for low-income groups;</li> </ul>
<ul style="list-style-type: none"> <li>• Enable people to have their own dwellings, or to have security in rental agreements;</li> </ul>	<ul style="list-style-type: none"> <li>• Promulgation of the Slum Improvement Act;</li> </ul>
<ul style="list-style-type: none"> <li>• Development of regional centres to serve as an economic and employment base in a region, in order to take advantage of the decentralization of economic activities;</li> </ul>	<ul style="list-style-type: none"> <li>• Development of regional centres, to be accomplished by creating basic infrastructural networks in and around these regional centres;</li> <li>• The dispersion of growth to towns surrounding these centres by linking those towns to the basic infrastructure networks in and around the regional centres;</li> </ul>
<ul style="list-style-type: none"> <li>• Upgrading the quality of life of rural people;</li> </ul>	<ul style="list-style-type: none"> <li>• Decentralization of authority, procedures and budgets;</li> </ul>
<ul style="list-style-type: none"> <li>• Upgrading the quality of life of the urban poor;</li> </ul>	<ul style="list-style-type: none"> <li>• Policies to emphasize income increase, upgrading of housing, provision of welfare and basic social services;</li> </ul>
<ul style="list-style-type: none"> <li>• The provision of infrastructural services in order to meet the demand for infrastructural services.</li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructural investments in regions (communication services and transportation);</li> <li>• Development of infrastructural networks in regional cities;</li> <li>• Construction of ring roads and bypasses, and improvements in the efficiency of urban and inner-city systems.</li> </ul>

**Table 10.A2 B. Promotion of sectoral and regional development scenario****B.1 Industries and services (including tourism)**

Objectives	Measures
<ul style="list-style-type: none"> <li>Restructuring regional economies into more industrial and service based economies, instead of agricultural base economies;</li> </ul>	<ul style="list-style-type: none"> <li>Dispersion of industries and services to regions by strengthening regions with a strong potential to serve as regional centres in the development of industries;</li> <li>Industrial development in the new economic zones such as the Southern Seaboard;</li> <li>Acceleration of industrial decentralization to regional urban centres;</li> <li>Investments in industrial real estate to meet industrial requirements and demand;</li> </ul>
<ul style="list-style-type: none"> <li>Promotion of agro-industry within the area (rubber, palm oil and sea food processing);</li> </ul>	<ul style="list-style-type: none"> <li>Support of agro-industries by setting up agricultural production zones to provide raw materials for the agro-industry;</li> </ul>
<ul style="list-style-type: none"> <li>The Songkhla/Hat Yai area should serve as one of the nine industrial centres in Thailand; the Southern Seaboard should serve as a long-term economic base within Thailand;</li> </ul>	<ul style="list-style-type: none"> <li>Dispersion of social infrastructural services to the region, especially educational services;</li> <li>Industrial cites should be set up in the region;</li> <li>Investments in labour training;</li> <li>Supporting local entrepreneurs to enhance their managerial efficiency and their use of technology;</li> <li>Industrial credit will be granted on a wider basis;</li> <li>Establishment of small and medium-size industrial zones in inland areas which have a high industrial potential;</li> </ul>
<ul style="list-style-type: none"> <li>A more competitive internal market environment;</li> </ul>	<ul style="list-style-type: none"> <li>Reducing protection of domestic industries;</li> </ul>
<ul style="list-style-type: none"> <li>Influx of more high-tech industries in the area;</li> </ul>	<ul style="list-style-type: none"> <li>Supporting oil-refining, petrochemical/ petroleum industries and related industries, by investments in infrastructure;</li> </ul>
<ul style="list-style-type: none"> <li>Songkhla/Hat Yai should be the centre of tourism in the lower South.</li> </ul>	<ul style="list-style-type: none"> <li>Encouragement of the private sector to invest in new tourism activities;</li> <li>Environmental conservation;</li> <li>Investments in infrastructure;</li> <li>Investments in training and quality of personnel.</li> </ul>

**Table 10.A2 Continued****B.2 Agriculture**

Objectives	Measures
<ul style="list-style-type: none"> <li>• Rise in agricultural incomes;</li> <li>• Increase in agricultural productivity;</li> <li>• Protection of agricultural workers to ensure their income;</li> <li>• Maintenance of stable commodity prices;</li> <li>• Agriculture and agro-industries should play a more important role in Gross Domestic Product;</li> <li>• Agricultural land use patterns should be more diversified.</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural restructuring;</li> <li>• Improvements in cultivation systems and farming methods;</li> <li>• Formulation of land use policies to get agricultural activities in line with the potential of the land;</li> <li>• Policies should encourage the private sector to invest in research and development activities;</li> <li>• Investment in basic services to support the transition in the production structure of Thai farmers;</li> <li>• Establishment of agricultural markets in regional urban centres.</li> </ul>

**B.3 IMT-triangle**

Objectives	Measures
<ul style="list-style-type: none"> <li>• Southern Thailand (Songkhla/Hat Yai) should function as a gateway for trade with neighbouring countries;</li> <li>• Songkhla/Hat Yai will be the centre of trade and services in the lower South of Thailand;</li> <li>• The Southern Seaboard will be developed as an 'economic bridge' linking the Andaman Sea with the Gulf of Thailand.</li> </ul>	<ul style="list-style-type: none"> <li>• Investments in infrastructural networks (communication and transportation networks);</li> <li>• Investments in road networks, Songkhla Seaport and Hat Yai airport to strengthen the position of the Twin Cities in Southeast Asia;</li> <li>• Linking Songkhla and Hat Yai with other border trade points, by investments in infrastructure.</li> </ul>

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# Impact Analysis and Beyond

In Chapter 11 *Mourmouris and Giaoutzi* discuss Impact Analysis of large-scale transportation projects, referring to the Trans-European (TEN) and Pan-European (PEN) Networks for Transport programs that were established during the last decade. Large-scale projects in this context involve prioritizing huge investments to achieve the efficiency and equity goals of the EU's Common Transport Policy, demanding sound decision-support instruments.

A number of EU projects, aimed at developing appropriate decision-making tools for the impact assessment of TEN on various aspects of development, raise technical problems that have to be addressed to enable evaluation processes to become operational and effective. This chapter identifies the constraints and barriers that appear in one of the tools developed for the impact assessment of Intermodality, Multimodality and InterOperability (IMO) on area development in the context of TEN and PEN: the EUROSIL approach.

Chapter 12 complements its predecessor, focusing on the development of reliable and comprehensive guidelines for the support of TEN and PEN program-related decision-making processes. *Giaoutzi and Stratigea's* Impact Analysis addresses some of the problems identified before, and is designed to assess projects with respect to their transport network characteristics, such as IMO, as well as their impact on area development. Towards this end a spatial evaluation framework is presented where the impacts of the enhancements of the above characteristics of transport networks on area development are assessed at various spatial levels.

*Dalia Lichfield* presents Dynamic Planning in Chapter 13. Here Nathaniel Lichfield's original idea, applied in CIA, that impact evaluation can become the framework for a whole interactive planning process, is taken to its logical conclusion. The integrated Dynamic Planning approach aims to counteract the compartmentalization that prevails today, recognizing urban and rural environments as constantly evolving systems involving active and recipient stakeholders, with land as an important but not exclusive resource for implementing plans.

Each of the five phases in the Dynamic Planning process – discovering/defining problems, analyzing possible problem causes, developing alternative intervention, evaluating strategies and choosing between them, and organizing delivery mechanisms – has four steps: 1) Preliminary professional analysis; 2) Stakeholder workshop; 3) Professional verification and synthesis into strategy/plan; 4) Public review and subsequent modification as needed. The chapter illustrates the application of Dynamic Planning in several cases, to offer readers an example of evaluation in planning as an integrative and communicative practice.

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## Chapter 11

# Issues in Large Scale Project Evaluation

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### INTRODUCTION

Recent developments in large scale transport projects have increased the concern of policy-makers for sound instruments that support decision making processes, especially as to their spatial implications, in order to improve effectiveness in implementing the equity and efficiency goals of the EU.

The Trans-European (TEN) and Pan-European (PEN) Networks for Transport, established during the last decade, consist of large scale projects inducing remarkable changes in the nature and structure of transport networks that may potentially lead to new network configurations. The increasing mobility patterns of goods and people, resulting from the radical political and socioeconomic changes in the broader European territory, have introduced a number of obstacles, in this respect, that call for sound solutions based on reliable instruments supporting the decision process.

Impact assessment of the newly emerging transport network structures upon area development is a crucial issue for policy making. Thus the focus of this chapter is on the identification of the barriers encountered in the context of the decision support system developed in the EUROSIL Project<sup>1</sup>, which introduce a bias in the process of impact assessment of intermodality, multimodality and interoperability (IMO) on area development in the context of TEN and PEN.

### LARGE SCALE TRANSPORT PROJECTS IN THE CONTEXT OF TEN AND PEN

European territory is in a transitional phase characterized by two main trends, namely the integration of the European Union countries and the expansion of the Union towards the Central and Eastern European Countries.

In this context efficient transport networks play a fundamental role in the economic development of the various European regions, since firms need to have

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<sup>1</sup> UROSIL: European Strategic Intermodal Links, European Commission, Transport RTD Programme, 4<sup>th</sup> Framework Programme, SC-1131, 1999.



reliable and cost-effective access to markets for inputs and outputs, while European citizens need good passenger transport services for getting access to jobs, training, shopping and leisure. European policies therefore have focused on the promotion of transport improvements, which may remove the constraints faced by firms and passengers. Such investments are aimed at reducing transport costs, congestion and travel time, and improving network capacity, performance, service quality and safety; under the general goal of sustainable development and mobility.

Transport networks thus play a strategic role in the economic and political cooperation of the European countries due to their potential for improving intraregional and interregional accessibility (Priemus et al., 1998), and enhancing the openness of the European space by providing the means for the smooth flow of goods, people, services and information by interlinking countries within the EU (TEN) and linking the EU to other countries (PEN).

However, transport networks are exhibiting increasing complexity as the result of quite diverse demands for mobility. In this context the issues of intermodality, multimodality and interoperability (IMO) of transport networks have been considered as the means to enhance the potential of the various transport networks (road, rail, inland waterways, sea and air). IMO principles are integral to the development of an integrated, efficient and effective Trans-European (TENs) and Pan-European (PENs) transport system.

The reduction of travel time and the increase of accessibility in the various European regions will be based upon:

- competition among the various modes of transport along the same corridors linked to multimodality of the transport system, so that an optimal modal split can be achieved,
- potentially integrated transport chains involving more than one transport mode, which relate to the intermodality of the transport system,
- organizational and operational requirements, which will create an “interface” among the different transport systems, namely the interoperability of the transport system.

The objectives pursued through enhancements in transport infrastructure, such as reduction of travel time and increasing accessibility of the European regions, will also involve impacts on area development. Whilst many of the appraisal procedures for informing decisions on transport investments are well established, the contribution of transport interventions, concerning intermodality, multimodality and interoperability on area development is less understood and as a result decision-making tools, in this respect, are far from being developed.

The following section presents the barriers identified during the application phase of the Decision Support System developed in the context of the EUROSIL Project in order to provide some ideas for future developments of such systems. A number of case studies studied in the context of the same project will be used as a basis for the identification of these constraints and barriers.

## BARRIERS IDENTIFIED IN THE CONTEXT OF LARGE SCALE PROJECT EVALUATION

Transport improvements in the present context and more specifically changes in transport performance through IMO enhancements may lead to remarkable improvements in accessibility, thus contributing to changes in the scale, type and pace of economic and land-use developments (EUROSIL Consortium, 1999; Giaoutzi et al., 2000).

The Decision Support System developed in the context of the EUROSIL Project (see Chapter 12 below) consists of a pilot exercise to approach the impact assessment of the IMO enhancements of the transport network on area development. During the application phase of the above evaluation framework a set of limits and barriers were identified.

The case studies used for the identification of these limits and barriers were part of the information collected for the purposes of the project (EUROSIL Consortium, 1999). The 12 case studies used (see Table 11.1) reveal among others the need for comprehensive guidance at the first stage of the evaluation process (see Chapter 12 below) and cover mainly aspects related to the selection of actors, properties and impacts for each application as well as to the measurement/modelling aspects involved in each particular problem of impact assessment, This applies in particular to cases where area development impacts have to be assessed, since there is great uncertainty in capturing and assessing these impacts.

**Table 11.1 The EUROSIL case studies**

Acronym	Name	Countries Involved	Type
1. SILET	Strategic Intermodal Link EuroTunnel	UK, France, Belgium	International – Interurban
2. SILAH	Strategic Intermodal Link Austria Hungary	Austria, Hungary	International – Interurban
3. SILC	Strategic Intermodal Link to Caspian Sea	Greece, Bulgaria, Russia	International – Interurban
4. SILAF	Strategic Intermodal Link Airport and Freight Transport	Germany, (B, F, NL)	International – Interurban
5. SILAP	Strategic Intermodal Link Airport and Passenger Transport	Germany	Interurban
6. SILFIR	Strategic Intermodal Link from Finland to Independent Republics	Finland, Russia	International – Interurban
7. SILBA	Strategic Intermodal Link Barents Euro-Arctic Transport Corridor	Finland, Sweden, Norway, Russia	International – Interurban
8. SILUB	Strategic Intermodal Link Urban Area of Brussels	Belgium	Urban
9. SILFAS	Strategic Intermodal Link Fast Handling Systems	Germany	Urban – Interurban
10. SILUS	Strategic Intermodal Link Urban Area of Stuttgart	Germany	Urban
11. SILNOW	Strategic Intermodal Link North-Western Macroregion of Italy	Italy	Interurban
12. SILIRE	Strategic Intermodal Link Ireland	Ireland	Urban

In every IMO related decision process various actors are involved, from both the public and the private domain, such as landowners, capital investors, infrastructure owners, designers, developers, passengers, freight shippers, operators, suppliers. The multi-actor nature of such large scale transport projects may lead to cumbersome decision-making procedures due to the conflicting nature of their goals as well as the different scale and nature of the objectives involved in the development/operation phase of such a project.

A typology of actors in terms of scale and nature of the objectives could involve the following:

- a microeconomic approach where most of the actors (for example carriers and shippers, freight agents, passengers, mode operators) exhibit strong economic interest in a project in terms of profits or transport costs,
- a mesoeconomic approach where the actors (for example regional authorities and capital investors) focus on the new added value activities related to transport or socioeconomic impacts in the broader area,
- a macroeconomic approach where other actors (for example public authorities, regional authorities and policy-makers) are focused on the socioeconomic and environmental aspects involved in the context of enhancing transport infrastructure.

The above three different approaches are presented in a “pyramid of interests” in the context of large scale transport projects (see Figure 11.1) (Frybourg and Nijkamp, 1995).

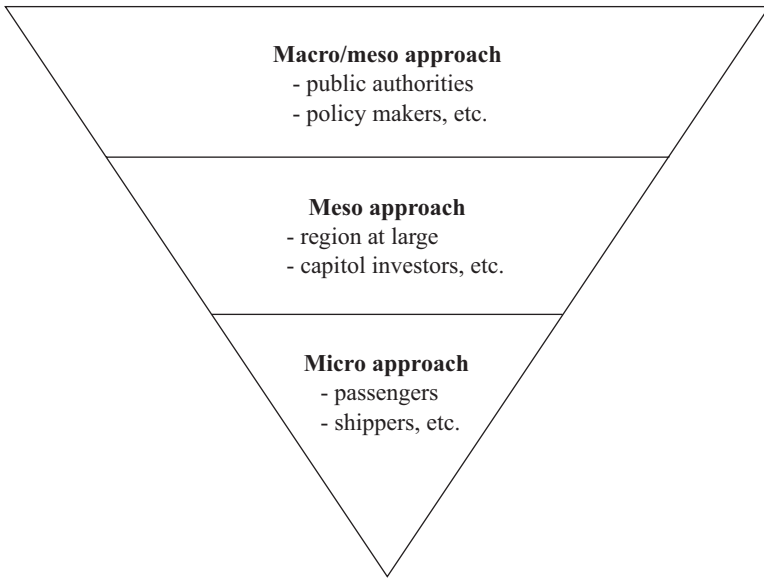
In order to identify the barriers involved at each level of the evaluation process, in the context of a transport project, a broad range of decision-making parties has to be considered. These parties/actors are taking part into either the development or the operation phase of each project.

The barriers introduced in the development phase by the actors are on the supply side:

- inputs by, for example, land-owners and capital investors,
- outputs by, for example, infra/superstructure owners and designers.

The barriers introduced by the actors in the operation phase are:

- on the demand side by those actors demanding the services of the terminal or link, for example, passengers and shippers/forwarders,
- on the supply side by those actors involved in meeting this demand, for example, operators and suppliers.



**Figure 11.1 Reverse pyramid of interests in the transport sector**

*Source: Frybourg and Nijkamp, 1995*

A classification of the actors likely to be involved in such a process is presented in Table 11.2.

**Table 11.2 Actors with an interest in IMO changes within the transport system**

<b>Development Phase</b>		<b>Operation Phase</b>	
<b>Input</b>	<b>Supply (Direct)</b>	<b>Demand</b>	
Land Owners	Infra-/Super-structure operators	Passengers	
Capital Investors	Employees	Passenger Travel Agents	
Stakeholders	Freight Agents Mode Operators	Freight Shippers Freight Forwarders Stakeholders	
<b>Output</b>	<b>Supply (Indirect)</b>		
Infra-/Superstructure owners	Suppliers – hardware		
Designers	Suppliers – utilities		
Developers	Suppliers – maintenance Suppliers – general utilities Suppliers – value added services		

*Source: EUROSIL Consortium, 1999*

Practical experience shows that actors commonly identified in most of the transport projects are the capital investors, passengers, infra-/super-structure owners/operators, mode operators and policy-makers, the latter expressing both transport and area development aspects.

A broad range of barriers may appear in the following steps of such a process:

1. The definition of a proper set of properties, actually the actor-related properties to be used as inputs into the evaluation framework, is not an easy task. This is due to:
  - the variety of transport projects encountered in the real world,
  - the different scales of reference – local, urban, interurban and international scale,
  - the numerous potential impacts of these projects.
2. In case of more than one actor in a transport project due care should be given to double counting of properties and impacts referring to changes in these properties, since some of them are common to more than one actor. This barrier appears when the number of transport modes increases (multimodality and intermodality) and the number of actors also increases respectively, leading in turn to an increase in complexity and interdependence among the impacts involved.
3. Certain properties, although relevant to a specific project, cannot be included in the chosen set of properties for evaluation purposes due to:
  - limited information on these properties (as for example in the case of agents and suppliers who have limited presence in the evaluation of transport projects) due to difficulties in identifying properties specific to these groups, or lack of the necessary information to estimate changes resulting from the implementation of a transport project – the impact assessment,
  - lack of information is a major barrier in this respect since data constraints seem to be a crucial factor limiting the scope of an assessment. These constraints may relate to the confidentiality of data, particularly when competing operators are involved in the project at hand,
  - coherence of data, especially when the transport project has an interregional/international nature, where data of different type, quality, level of spatial reference and so on can be collected,
  - quality of data, particularly following institutional changes,
  - difficulty in assessing empirical evidence on the impacts of increasing accessibility on area development, especially in newly emerging transport projects; therefore many projects have to rely on accessibility changes as an indicator of area development changes.
4. The large variety of impacts derived from transport interventions, for example enhancement of intermodality, in all regions. These primarily depend on the underlying regional characteristics and range of non-transport related factors, such as the strength of the economy of the region, availability of development subsidies, planning regulations and so on. In order to be able to choose from

the “impacts pool” in the evaluation framework of the EUROSIL project one has to be aware of these region-specific characteristics and adjust the choice of impacts accordingly. This can be a major issue in the case of interregional/international transport projects linking together various types of regions. The barriers identified in such cases lie not only on the lack of uniformity between adjacent regions, where region-specific characteristics have to be taken into account in the context of impact assessment, but also on data availability.

5. Apart from these region-specific characteristics, more specifically barriers may also appear in the selection of impacts in respect to the (EUROSIL Consortium, 1999):
  - The spatial level of the transport project, whether urban-periurban, interurban, international-interurban and so on. Various types of impacts appear at different spatial levels.
  - The function of the transport intervention, which implies that different types of impacts should be considered depending on whether the transport project involves passenger traffic, freight traffic or a combination of both. Usually freight traffic involves more actors than passenger traffic.
  - The spatial-operational level of a transport project, namely corridor transport projects, interregional/infrastructural transport projects, urban transport projects and so on.
6. Another barrier may appear at the institutional level where the identified IMO impacts on transport and area development may not always be relevant due to political, economic, social and cultural developments in the respective regions or countries. The institutional effects are often very hard to anticipate in quantitative or even qualitative analyses and thus the identified impacts might be misleading. In such cases one has to consider the relevance of approved regional/international development strategies and plans when identifying the impacts of the various transport projects.
7. The identification of potential area development impacts as well as their assessment, through properly selected indicators required for evaluation purposes, is another barrier appearing in the context of the evaluation framework. The whole process may be constrained by several other barriers such as:
  - time constraints,
  - budget availability,
  - data availability,
  - availability of modelling/measuring methods and tools, which will be used in order to estimate the impacts,
  - availability of the proper evaluation methods to handle specific types of impacts, for example qualitative impacts.
8. After identification of the impacts related to the project at hand, one has to specify the importance attached to these impacts in the context of the decision process. Barriers appearing in this respect are related to the:

- interested parties (actors) involved such as operators, landowners, local communities, and so on. Obviously each actor has a different interest in the project, which is expressed by a respective ranking of priorities related to the impacts,
  - purpose of the transport study, for example, transport network planning, land-use planning, investment planning, environmental assessment,
  - function of the transport project, for example, passenger or freight transport,
  - status of the transport project for example, a new or extended/refurbished terminal/link.
9. Another set of barriers appears at stage II – the modelling/measuring dynamics – during the assessment of the various impacts based on models. In the following four broad groups of models, which are relevant in some ways to the assessment of impacts of IMO improvements on Area Development, will be presented as to their potential as well as to the barriers involved in each group (EUROSIL Consortium, 2000):
- *Transport models* used in this context represent the interaction between transport supply and demand. These models cannot assess area development impacts, but provide the means of representing the transport impacts of IMO improvements. They also provide inputs to other models that address Area Development impacts. Only a few transport models have been developed to deal with the transport supply and demand issues that are important for IMO. Also very few advanced transport model developments permit intermodal linkages or intermodal passenger trips to be explicitly modelled. Even fewer models are capable of dealing with the much more complex structure of intermodal freight logistics chains. However, even with the most advanced models, modelling intermodality and interoperability requires substantial effort in collecting data and coding multi-modal networks with intermodal linkages. At the local or sub-regional level, however, many models, particularly urban transport models, do have mechanisms, which are in general use, to model intermodality (for example, park-and-ride trips).
  - *Accessibility models* provide indicators of transport accessibility (Johansson, 1993). These models calculate indicators from which Area Development impacts of transport improvements can be inferred. In general, such models rely on information from transport models in order to derive accessibility indicators. With respect to IMO, the situation is largely determined by the little progress made in transport modelling. Modelling changes to IMO on accessibility is, in principle, no different to that for other types of transport improvements except for the specification of the spatial impedance or transport cost term, which in most cases is the output of a transport model.
  - *Regional development models* are specifically geared to forecast regional economic development. There is a broad range of modelling approaches

to forecast the impact of transport infrastructure investment on regional economic development (Keeble et al., 1982; Canning and Fay, 1993; Capineri, 1996). However, there is no clear agreement which approach is the most appropriate. While some approaches focus on aggregate multiplier effects of transport infrastructure investments, other models mainly address spatial redistribution effects of transport infrastructure. There is no one comprehensive approach that encompasses all relevant impacts in a single model. Only regional development models that rely on network-based accessibility indicators or contain their own passenger and freight transport model (such as multiregional input-output models) can forecast the impacts of improvements in intermodality and interoperability.

- *Land use-transportation models* include a broad spectrum of operational models for forecasting the spatial impacts of urban or regional transport policies (De la Barra, 1989 and 1997; Hunt and Simmons, 1993). However, most of them contain some sort of conventional intraregional transport model. Their suitability for modelling impacts of intermodality and interoperability cannot be better than that of their embedded transport models, which, as noted above, generally do not represent IMO effects very well. Few of the operational urban land-use transport models in use today take account of intermodal linkages, and most of them do not contain an urban freight transport model.

## EVALUATION IN PRACTICE

The case studies used (see Table 11.1) provided the basis for the identification of the limits and barriers affecting the added value of intermodality, multimodality and interoperability on area development. The key statements summarizing the main limits and barriers as these were experienced in practice are presented in this chapter according to four categories: institutional, organizational, technical and other limits and barriers.

### **Institutional limits and barriers**

The development of IMO projects in isolation from the implementation of a regional strategy for combined transport infrastructure investments is identified as a major constraint on the potential effectiveness of individual projects. The challenges include:

- The difficulty of securing private capital involvement, borrowing and credit utilisation, has constrained authorities and project promoters.
- Political differences and economic, social and cultural issues between countries are often the cause of bottlenecks in IMO, especially in interoperability, usually manifested at border crossings.



- Competition between rail and road transport companies reinforces existing unimodal transport patterns when intermodal chains might provide efficiency savings for users.
- Institutional structures still encourage infrastructure investment in unimodal networks rather than in integrated intermodal networks.
- Geographical isolation can prove to be a hindrance to the achievement of added value of intermodality. Intermodality requires interdependencies between the different transport systems, and this could therefore reduce the competition between the modes, which leads to reduced efficiency.
- The requirements for the interoperability could lead to an increased regulatory/coordination bureaucracy (for example, need for allocation systems for costs and revenues).

Political, technological and economic differences between countries, all affecting interoperability, constitute an even bigger barrier for IMO in freight transport than in passenger transport. In particular, with regard to the enhancement of intermodal transport within the PENs, lack of an effective program of interventions in the short to medium term for reducing/removing these barriers may cause dramatic effects on the modal split in Eastern European countries, very likely worsening the present unbalanced situation in Western European countries.

The enhancement of intermodality through the necessary improvement of interoperability cannot be substantially achieved only through market rules, and the lack of institutional interventions, in terms of orienting the restructuring of the composition of the goods vehicle fleets and of implementing a suitable tariff policy by public transport operators, may constitute a severe barrier for IMO.

### **Organizational limits and barriers**

Intermodal transport is a complex issue because many actors are involved and it is important to control the information flows in an integrated way. Thus the quality of information systems represents an additional barrier to the organizational features of the new transport infrastructures. Information systems may significantly affect journey time or mode choice and lack of information flows may limit the benefits of intermodality and interoperability and the integration to the TEN and PEN. For instance, intermodal transport systems could be incompatible concerning the capacities of the different modes or different actors' operations at interchanges may reduce the efficiency gains (for example, different shift working). There are also certain thresholds at which investment in new mode alternatives becomes viable. For example, rail based public transport access to provincial airports is constrained by the demand levels and the predominance of road based access.

## Technical limits and barriers

Technical and partly legislative problems arise often on border crossings – especially between the EC and the CIS and CEEC area – (vehicle size, weight regulations, wage and labour questions at customs, speed limits and so on) and consequently constrain interoperability. Additionally:

- Different response levels in the adoption and diffusion of innovative technologies may lead to a lack of technical compatibility.
- A lack of standardization of procedures involved in the transshipment process, the use of automated transshipment facilities and the provision of customs and administrative facilities may limit intermodality and interoperability.
- Interoperability requires a harmonization of the operating systems. The actual low standard of interconnections limits the competitive advantages caused by intermodality. Technical problems on interoperability may, for example, give rise to delays.

### **SILET CASE STUDY (EUROTUNNEL TECHNICAL PROBLEMS WITH INTEROPERABILITY)**

The Eurostar trains were designed to conform to three different standards and power sources (French, Tunnel and British). In practice technical problems of interoperability occurred in the first year of operation giving rise to long delays, stranded trains and service cancellations. Delays at intermodal terminals caused by breakdowns have also contributed to major constraints on intermodal freight throughput.

## Other limits and barriers

Many case studies state that multimodality could lead to strong competition between the various modes. This could have positive impacts but could also lead to a lack of integration and cooperation between the modes. Strong competition could lead to a concentration of transport supply on high demand corridors.

Intermodality requires interoperability. This means, that the use of intermodal transport systems depends strongly on efficiently operating systems. If there are no interfaces between the modes that provide easy access, or no acceptable level of service, the users will not accept the intermodal transport offers and will therefore not use it.

There exist many possibilities for improvements concerning interoperability with respect, for example, to fares, ticketing and information systems. This requires the use of new technologies and willingness of the different actors to cooperate. It also leads to commercial imperatives for operators. Other considerations that need to be taken into account include:

- Multi-actor involvement caused by IMO transport systems leads to cumbersome decision-making procedures.
- Induced traffic due to a new scheme or link or increased capacities can be very significant and can therefore reduce the benefit of the scheme/link (SILET, SILUS). In the early years of operation the level of induced traffic can be higher due to the novelty factor.
- The case studies show, for example, that Park and Ride capacities are often not fully accepted due to high costs or to time delays by Park and Ride.
- General limitations exist on the use of different modes, for example by trip purpose or as a result of other behavioural aspects of the travellers.

#### **SILAP CASE STUDY (PASSENGER RAIL ACCESS TO AND FROM AIRPORTS)**

The SILAP case study revealed that there are certainly limits to the success of rail based public transport access to airports due to various reasons. Especially smaller airports have only a limited number of air passengers and therefore a limited number of public transport users on the access mode. Few riders do not justify a frequent public transport service to the airport resulting in long door-to-door travel times. This – together with (mostly) low parking fees at smaller airports – is a bigger disadvantage for public transport than at big airports.

A general limitation on the use of public transport to and from the airport is associated with trip purposes. Many passengers are business travellers for whom the monetary costs of the access mode (taxi fares, high parking fees, rented car) are only of minor importance. They rely on travel time and convenience/comfort. On the other hand, many holiday travellers make an air trip only once a year, mostly as a couple, family or group and are carrying luggage. Here, it seems convenient to be brought to the airport by somebody with a private car.

Intermodal transport needs efficient interchange facilities (nodes, Interports, Freight Centres), which lead to additional costs, need for land availability, local increase of environmental impacts, time delays and uncertainties of interchange.

The Rail Systems in many Western European Countries are still far from providing efficient and user-tailored services. At Pan-European level, the general performance of the Rail Systems in the Eastern Countries is very poor in terms of commercial speed, level of service, maintenance of the infrastructure and available rolling stock.

## **CONCLUSIONS**

Transportation planning in the contemporary world takes place in a field of conflicting views on land use, spatial mobility and economic progress. In the context of TEN and PEN, IMO enhancements and their impacts on area development often

encounter conflicting views on locational options, priorities in the implementation of plans, IMO enhancement options and so on.

Such problems can be tackled efficiently by developing properly structured methodological tools that enable the impact assessment of IMO on area development. The decision support system developed in the context of the EUROSIL Project is such a tool. During the application phase of this system various types of limitations and barriers have been identified, which relate to various aspects, such as social (the actors involved in the various transport projects and their conflicting interests), economic (limited resources), political (cohesion aspects and the constraints they impose in terms of information availability), and technical (efficient methods and models to be used for certain purposes).

The identification of the limitations and barriers in this context contributes considerably towards a more efficient evaluation framework that will facilitate the decision process and provide the decision centres with sound and reliable results.

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## Chapter 12

# Impact Assessment of Trans-European Networks on Area Development

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### INTRODUCTION

The increasing mobility patterns of goods and people resulting from the radical political and socioeconomic changes in the broader European regions resulted in the strengthening of relationships among the various regions/nations at a global level. These developments introduced remarkable changes in the nature and structure of transport networks, evidently leading to new network configurations.

The introduction of the concept of the Trans-European Networks at the beginning of the 1990s, in the Maastricht Treaty and a series of Decisions which followed, covering high-speed rail, road, inland waterways and combined transport (and later ports and airports), reflected the intentions of the policy makers to transform the national transport systems of the Member States into a Communitywide network, including road, rail, combined transport, inland waterways, airports, and seaports. The evolution of the Trans-European Networks (TEN) for transport during the last decade, and the renewed concern of policy makers towards increasing effectiveness in implementing equity and efficiency goals, has enhanced the scope for sound instruments to support decision making processes in the context of TEN, especially with respect to their spatial implications.

Impact assessment of the newly emerging transport network structures upon area development is thus a crucial issue for policy making. The focus of this chapter is on developing a set of reliable and comprehensive guidelines to support the decision-making processes in the context of PEN and TEN. For this purpose, transport network characteristics such as multimodality, intermodality and interoperability and their impacts on area development have been elaborated in the context of a spatial evaluation framework where the impacts from transport network enhancements on area development can be assessed at the various spatial scales (EUROSIL Consortium, 1997a, b and c).

**THE TEN AND PEN IN EUROPEAN TRANSPORT POLICY**

The goal of the European Union's Transport Policy is to ensure sustainable mobility for people and goods and create an integrated global transport system that would contribute to the attainment of its major objectives, such as the smooth functioning of the internal market and the strengthening of economic and social cohesion. This policy included the establishment of a transport network through a major infrastructure program for a Trans-European Network in the field of transport (TEN-T), which comprises both infrastructure and traffic management systems.

The concept of Trans-European Networks was introduced at the beginning of the 1990s, in the Maastricht Treaty and a series of Decisions covering high speed, rail, road, waterways, and combined transport (and later ports and airports). The intention was to transform the national transport systems of the Member States into a Communitywide network, including road, rail, combined transport, inland waterways, airports, and seaports.

The objectives pursued by the establishment of the TENs included (European Parliament/Council, 1996; 2001):

- the integration of land, sea and air transport infrastructure networks throughout the Community gradually by 2010,
- the achievement of sustainable mobility of people and goods within an area without internal frontiers under the best possible social and safety conditions,
- the development of all modes of transport, by taking into account their comparative advantages,
- the upgrading of interoperability within all modes of transport as well as of intermodality among the various modes of transport,
- coverage of the whole Community territory, in order to facilitate access in general, link islands, landlocked and peripheral regions to the central regions and interlink the major conurbations and regions of the Community by removing bottlenecks,
- connectivity to the networks of the EFTA States, the countries of Central and Eastern Europe and the Mediterranean countries, while at the same time promoting interoperability and access to these networks.

Therefore the main goal of this action can be considered to be the establishment and development of Trans-European transport networks, within a system of open and competitive markets, through the promotion of interconnection and interoperability of national networks and access to them. Following the same rationale the Pan-European Transport Infrastructure was endorsed and a three layer concept for transport infrastructure development at a Pan-European level was introduced, including (Weise et al., 2001):

*Layer 1:* the long term perspective for infrastructure development of common interest,

*Layer 2:* the medium term priorities of common interest up to 2010,

*Layer 3:* the short term priorities of common interest (up to five years).

The corridors involved in the context of PEN were primarily international and in most cases spanned a number of countries. In some cases the corridors excluded the busiest national links. This first approach considered mainly efficient links between two or more European activity zones rather than a combined link-node approach including ports, airports, intermodal hubs, passenger interfaces, and so on.

The extension of the existing TEN in the accession countries was based on the results of the Transport Infrastructure Needs Assessment (TINA) process. TINA – led and funded by the EU – has developed a multimodal transport network, which serves as the main framework for the extension of the TEN in the enlarged European Union (TINA, 1999). TINA was set up by the European Commission in order to supervise and coordinate the development of an integrated transport network in the countries that applied by that time for EU membership, and ensured coherence with the Trans-European Transport Network within the enlarged EU. The idea was to upgrade the existing infrastructure or build anew, in order to create a coherent network based on the existing transport corridors – which would be used as the “backbone network” – and thus maximize the potential for European trade.

The TINA Network was built on the following assumptions:

- The network should be in line with the criteria laid down by the EU Guidelines for the Development of the TENs (Council Decision 1692/96/EC), according to the objectives described in Article 154 of the Treaty.
- The technical standards of the future infrastructure should ensure consistency between the capacity of network components and their expected traffic.
- The time horizon for the realization of the network should be 2015.
- The costs of the network should be consistent with realistic forecasts of financial resources, so that the average costs was not to exceed 1.5 per cent of each country’s annual GDP over the period up to 2015.

All in all, the Common Transport Policy calls for the establishment of transport systems capable of providing sustainable mobility so that goods and people may travel throughout the Community, efficiently, safely, under the best possible social conditions and fully respecting the environment. Therefore this “Global Approach” includes the objective of strengthening economic and social cohesion by developing transport infrastructure that contributes to reducing interregional disparities and links islands and land-locked and peripheral regions with the central regions of the Community.



## **AREA DEVELOPMENT, INTERMODALITY, INTEROPERABILITY AND MULTIMODALITY (IMO)**

The emphasis placed by the long wording of the Common Transport Policy (CTP) on the upgrading of intermodality, multimodality and interoperability (IMO) was aimed at increasing transport efficiency and promoting equity issues in the TEN context. The IMO principles are integral to the development of the transport Trans-European Networks and Pan European Corridors. The rationale underlying improvements in the IMO elements was meant to increase accessibility among the different regions of the Union as well as between the Union and Central and Eastern Europe, which in turn would support more spatially balanced economic development and improved social cohesion.

Since this chapter is devoted to the presentation of a decision support system enabling the assessment of the impacts of intermodality, multimodality and interoperability on area development, it is of crucial importance to clarify the interpretation of intermodality, multimodality and interoperability adopted here (TINA, 1999):

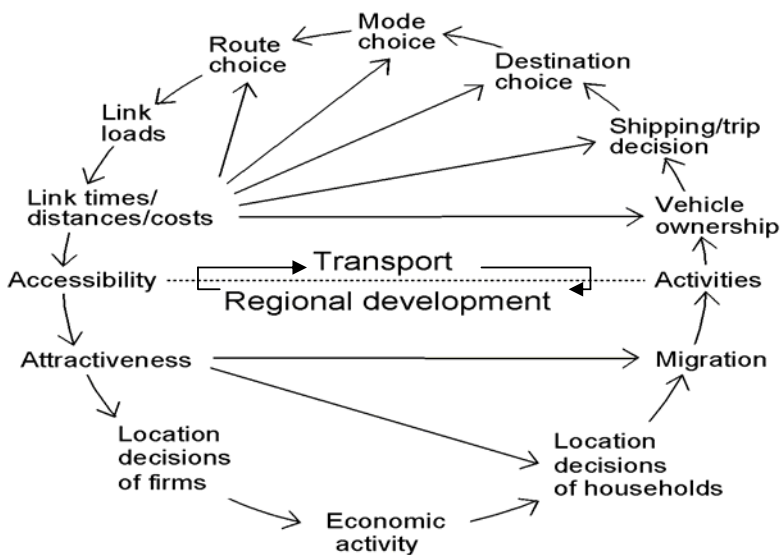
- Multimodality is a characteristic of the transport system, which reflects the competition between transport modes in the same corridors. The modal choice issue is presented here for all relevant travel modes and travel purposes, taking into account the issues of congestion in crucial corridors and/or modes, as well as the presence of information (transport telematics).
- Intermodality is a characteristic of the transport system, which allows the use of at least two different transport modes for a single trip (a route serving passengers and/or goods using more than one travel mode for the same travel purpose). A trip may also be defined as being intermodal when it uses at least two different modes from origin to destination. Intermodality has to consider the location of terminals, transfer points and interconnections (interfaces) with the scope to minimize the “resistance” of the integrated transport chain, as a whole.
- Interoperability is the quality of two or more interacting transport systems, which allows the provision of an acceptable level of service by intermodal transport for the route, node or corridor under consideration and/or the use of the same mode services, which are provided by different operators/actors. Organizational arrangements (especially for terminals and transfer points) and removal of institutional, financial, physical, technical, cultural and political barriers are the means used to this end. Particular emphasis is given to optimization of the interfaces between Trans-European and urban networks.

Multimodality and intermodality are defined as characteristics of transport systems that, moreover, can coexist. Similarly, interoperability is defined as the quality of two or more interacting transport systems, including multimodal and intermodal systems. The very nature of IMO projects has a potential influence on area

development with improvements in transport efficiency leading to improvements in accessibility and, in turn, to improvements in area development.

Area development, in the context of this chapter, has been defined as the structural changes in the scale and type of land-use (industrial, commercial, residential, retail and leisure) as well as in the pace of economic activities at a regional and sub-regional level. Economic activity and land-use development in an area are influenced by a range of factors including environmental attractiveness, accessibility and, partly as a result of the first two, land values. Transport improvements and specifically change in transport performance through IMO may lead to improvements in accessibility, contributing in turn to changes in the scale, type and pace of economic and land-use development. Also, physical infrastructure facilities as part of IMO (particularly intermodal facilities such as interchange and transshipment centres) contribute to area development directly. On the other hand, transport demand and travel conditions are clearly influenced by economic activity and land-use development.

There is, thus, a two-way interaction between area development and transport as illustrated in Figure 12.1. The relationship is a loop in which area development creates more demand for travel and transport provision, which then leads to changes in accessibility which in turn influences area development. The greater the extent to which IMO influences transport conditions and choice – and hence accessibility – the greater the linkage between IMO and area development. The decision to build or use an IMO-facility is principally based on the rationale that overall this facility creates benefits compared to a single mode alternative. In other words, the facility must have an added value for the actors involved (for example, user, owner, operator, or transport or planning co-coordinating authority).



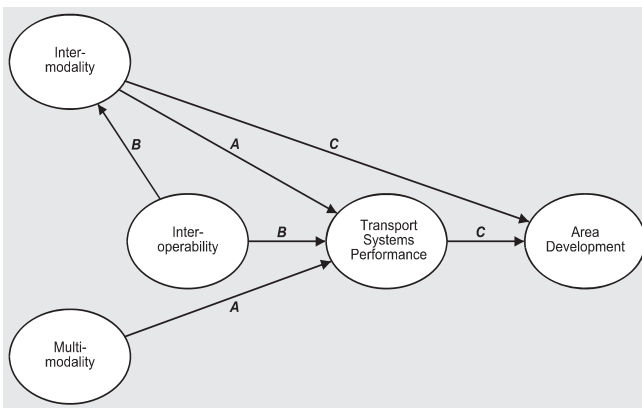
**Figure 12.1** Transport and area development

Source: EUROSIL, 1997

When discussing the added value an IMO creates for the Transport System in general and to Area Development in particular, one may identify different “mechanisms”, which are of varying importance. In general, one may distinguish between the influence of improvements in the Transport System Performance on Area Development through the provision of improved accessibility (indirect influence) and the influence on Area Development by the transport facility itself (direct influence) such as emissions, for example, in the case of a terminal creating a focal point for business location.

Figure 12.2 shows more precisely the process of how intermodality, interoperability and multimodality may contribute to that phenomenon:

- Intermodality affects the performance of transport systems by reducing travel time or transport costs or by improving other factors like safety or convenience. Intermodal facilities like terminals may have direct impacts on Area Development, such as creating focal points for business location. Moreover, it is often assumed that there exists an indirect influence of IMO on Area Development “via” changes in the transport systems performance for example, through improved accessibility.
- Interoperability is in many cases the prerequisite for intermodality. Interoperability influences the quality of the transport system as a whole; its impact on area development exists mostly only indirectly via its contribution to intermodality or – only in a few cases, for example, traveller information systems – directly by improved Transport System Performance.
- Multimodality influences transport efficiency directly; for instance, by providing more transport options and higher capacity on a particular corridor. This may then influence Area Development. A direct impact from multimodality on Area Development is rather an exception.



**Figure 12.2 Relationship between IMO and transport systems performance/ area development**

Source: EUROSIL, 1997

## THE EVALUATION FRAMEWORK

Whilst many of the appraisal procedures for informing decision-makers on transport investments are well established, the extent to which intermodal, multimodal and interoperable transport interventions contribute to area development is less well understood and consequently, decision-making tools are less well developed. A main task therefore should be to elaborate on evaluation frameworks supporting decision-making processes, specifically as to the impacts of multimodality, intermodality and interoperability (IMO) on Area Development in the context of the Trans-European and Pan-European Networks. Therefore this is the orientation of this chapter.

Although the present framework is specifically tailored towards the requirements and the characteristics of IMO and Area Development, the entire approach should fit into the framework of a general evaluation process.

It is very important therefore to design or use evaluation processes that try to assess the pros and cons of a certain choice alternative for separate groups or regions. It is important also that these processes be of a cyclic nature, since this enables adaptations of elements of the evaluation, due to continuous consultations among the various parties involved in the planning process at hand. The level of complexity of an evaluation process depends, among other things, on the evaluation problem at hand, the time and knowledge available as well as the organizational context (Voogd, 1983).

An evaluation process in principle starts with a definition of what is to be evaluated by defining the problem and setting the goal of the evaluation (Figure 12.3). An integral part of this initial step is a stated analysis, for example including an appraisal of the current transport demand and levels of service (supply), land-use patterns, and the financial, regulatory and funding frameworks. In the case of IMO, the problem and goal description might contain the identification of obstacles to intermodal transport as well as the objectives of transport investments and policies for the removal of these obstacles. Moreover, some fundamental prerequisites for the evaluation process must be determined – such as the time horizon for revealing costs and benefits and the spatial dimension of the study area. The latter is important to cover all positive and negative aspects of the project under consideration. By taking employment effects of an intermodal freight centre as an example, it is not only necessary to consider the number of new jobs created in the centre but also the losses to neighbouring regions, for example, by the movement of firms to a new location.

A next step is the identification of a range of alternative scenarios, which consist of the likely solutions to the problem. Scenarios allow alternative views of the future to be considered in the evaluation process, enabling indicators to be measured and compared under different assumptions about future events. Thus, approaches using alternative scenarios and performing sensitivity tests relating to the possible range of single impacts are widely used in real world applications.

The next step is the definition of the problem related evaluation criteria. Since the present and the consecutive steps have been considered of special importance in the field of IMO and Area Development, the present evaluation framework

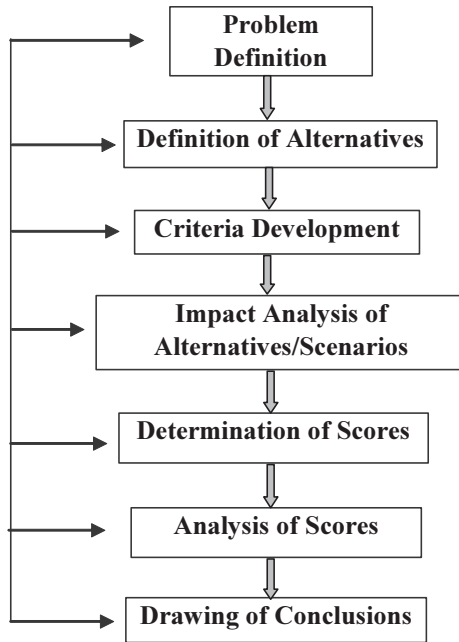
was designed so as to provide specific guidance in this respect. For the selected evaluation criteria the impacts have to be identified for each alternative/scenario under investigation. Measuring/modelling and estimation techniques – possibly tailored to the requirements of intermodal transport – should also be applied.

After identifying the impacts, the evaluation procedure has to be performed by assigning “scores” to these impacts. This is usually done by transforming the criteria related impacts into a one-dimensional system, for example by using monetary values or score points. These scores have to be analyzed by simply comparing the alternatives for each criterion and by listing for each criterion the strong or weak alternatives. In the last step conclusions have to be drawn and recommendations have to be prepared for the decision-maker based on the results of the previous steps.

The steps of the evaluation process in the context of EUROSIL formed an evaluation framework, which enables a user-friendly structured approach to the assessment of IMO impacts on Area Development in the context of TEN and PEN. A number of terms were used in this context and are as follows (EUROSIL Consortium, 1997b, c):

- The term “actor” refers to “any person or body having a strong interest in a terminal and/or link”. In this framework, actors are vitally linked to the properties of a transportation project, by expressing their specific interest in the development/operation phase of this project.
- The term “property” relates “to those characteristics used to judge the location, physical characteristics, operations and/or environment of a new or refurbished terminal or link”.
- “Impact” relates to “the effect of change of a control variable on all components of a system”.
- An “indicator” refers to a measurable property or a surrogate to measure one or several properties (in measurement theory the term indicator is used for the empirical specification of concepts that cannot be fully operationalized on the basis of generally accepted rules).
- Finally a “criterion” is considered as the “explicitly formulated standards of judging, i.e. a measurable aspect of judgment by which a dimension of the various choice possibilities under consideration can be characterized”.

In order to support the structuring of the “evaluation framework” at hand, the results of a set of illustrative case studies in the context of the EUROSIL Project have been used (EUROSIL Consortium, 1997a, c), providing both input for the applied aspects of the system under construction as well as test bed cases for application in the overall framework. The experience from these “real world cases” showed that there are three general areas, which need explicit guidance by applying the present evaluation framework in order to cover the IMO and Area Development specifics:



**Figure 12.3** General structure of an evaluation process

- the identification of the relevant actors, properties and impacts to be investigated,
- the measurement/modelling of the dynamics of the identified criteria due to IMO,
- the assessment/evaluation of the scheme under investigation.

The evaluation framework consists of three stages (Figure 12.4), namely:

- the Evaluation Criteria Development Process (Stage I),
- Modelling/Measuring/Estimating the Dynamics (Stage II),
- the Evaluation/Assessment Process (Stage III).

### **Stage I: The Evaluation Criteria Development Process (ECDP)**

In this stage the person in charge of the assessment (for example, the decision-maker) should determine the properties, impacts, and indicators needed for the project appraisal. The choice of the evaluation criteria depends, among others, on the project objectives, the project outline, and the actors involved. Therefore, the entire process has – as indicated in Figure 12.4 by the dotted line – to be specifically tailored for the actors and objectives under investigation. However, in practice, the choice of the

evaluation criteria depends also on the available methods for modelling/measuring and evaluation as well as on the personal preferences of the decision-maker.

Since the selection of suitable evaluation criteria has been identified as an IMO – and area development-driven process – a specific tool called KEP (Key Property selection) was established for providing assistance to the evaluator. KEP is used to select from the superset of properties the actual key properties, using as a filter the actor's view (EUROSIL Consortium, 1997a).

Stage I (The Evaluation Criteria Development Process) of the Evaluation Framework – combines four steps:

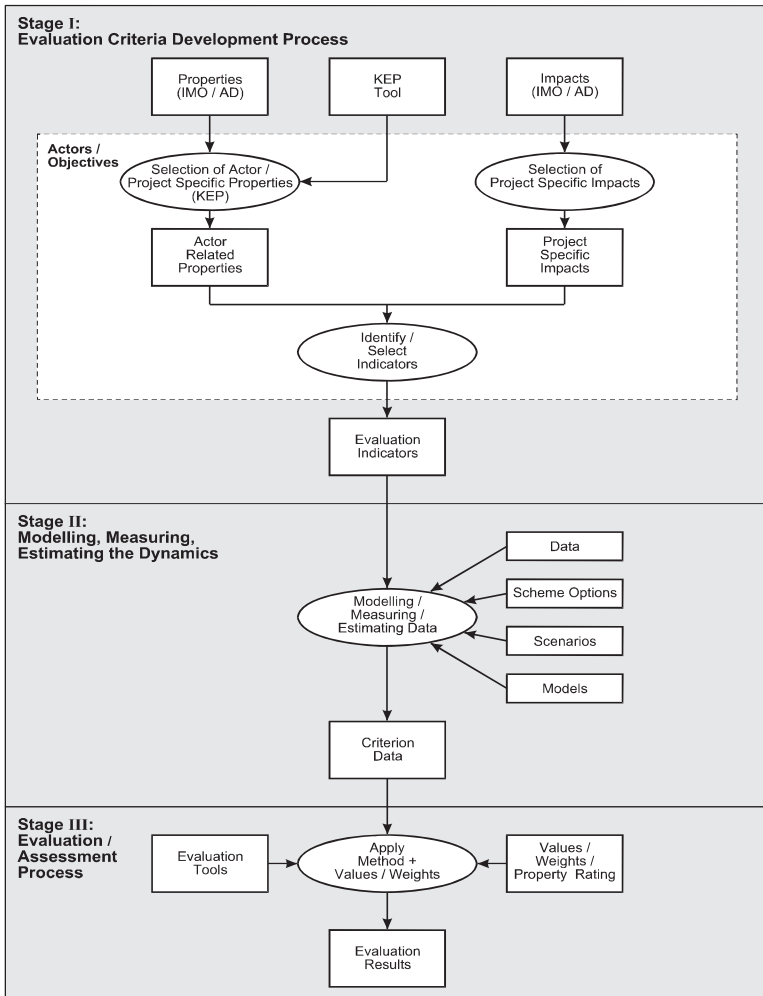
- definition of the full range of actors with an interest in the project and the objectives underpinning the project,
- identification of a set of properties, related to the project specific interests and objectives,
- identification of impacts producing the necessary or desired indicators to be considered in the subsequent evaluation process,
- definition of the indicators in terms of precise measurement units.

Depending on both the actors and the spatial scale, an indicative set of properties can be defined from a superset of properties available in the database of the system. The aim of this step has been the identification of those “key properties” relevant to the project at hand. The term “key properties” refers to those properties that are relevant to the objectives of the project. The whole procedure is based on the KIS/KEP approach (EUROSIL Consortium, 1997a).

The entire process presented in Figure 12.4 – Stage I as the criteria development process, is based on these three distinct elements, namely the spatial scale of the transportation project – for example local, regional or national; the actors involved – land owners, capital investors, stakeholder groups, infra-superstructure owners, passengers, freight shippers, mode operators, policy makers and so on; and a pool of properties related to transportation issues.

Some effort has been devoted to identify the properties that are of interest to actors and to link them to the different parts of the property pool at the various spatial levels. The type of actor selected will thus be linked to the properties related to the specific actor's interests at a certain spatial scale.

In the next step of the criteria development process, efforts focus on the identification of the evaluation indicators. In this context all the important key properties – transport project specific – have been initially defined and linked to relevant impacts. The first step of this stage is to establish links between each property and the related impact(s) of primary importance. The next step is to construct indicators so that changes in properties, in other words impacts, can be measured or estimated. Finally indicators are turned into criteria when entering the evaluation process (see Figure 12.4).



IVV-Aschoten: esh10\_99/eva\_frame.odt

**Figure 12.4 The modelling and evaluation framework**

Source: EUROSIL Consortium, 1997b

**Stage II: Modelling/Measuring/Estimating the Dynamics (MMED)**

In this stage, all probable changes caused by the project for each selected criterion should be determined. These changes can be measured, modelled or perhaps only estimated depending on various prerequisites such as the nature of the criteria themselves, the data availability, the model availability, the time frame (*ex-ante/ex-post*) and so on. Often, different scenarios are taken into account to cover the broad range of possible future developments.



The Modelling/Measuring/Estimating Dynamics (Stage II) seeks to provide a quantification of the impacts per alternative in terms of changes in indicators. An important aspect of this stage is the emphasis on methods and tools for modelling IMO transport improvements and Area Development aspects as inputs to decision-making on implementation and investment issues.

The following guidelines are proposed for the modelling framework assessing the Area Development impacts resulting from IMO enhancements:

- An overall modelling framework is required, which includes both land use and transport model components, ideally in a composite structure, which effectively comprises separate land use and transport sub-models with inputs and outputs linked in an overall iterative structure.
- The land-use (sub-) model should employ the generalized costs from the transport model in some form, enabling land-use impacts to be directly influenced by changes in the transport system, for example, improvements in inter-modality or interoperability.
- The use of a network-based representation of alternative routes and modes within the transport (sub-) model is considered essential. The network model should employ appropriate multi-pathing algorithms to construct alternative routes through the network between origin-destination pairs.
- The transport (sub-) model should employ some form of choice model, estimating the demand on each mode combination/route, based on the generalized costs of the different alternatives.
- The generalized cost formulation used in the transport (sub-) model should include an *explicit representation of costs of modal transfer*.

### **Stage III: The Evaluation/Assessment Process (EAP)**

In this stage, the changes in criteria need to be assessed, which means that an evaluation method (for example, Benefit-Cost Analysis or Multi-Criteria Analysis) should be applied. This implies – depending on the method – a monetarization of the criteria or the assignment of values and weights per criterion and a concluding judgment.

The third stage of the framework – the evaluation/assessment process – involves the following steps:

- The first step is the selection of the appropriate evaluation method.
- This influences the measurement type (ratio, monetary, ordinal, and qualitative) used in the evaluation process.
- A further important step of Stage III is the assignment of values and weights to the evaluation criteria, taking into account that these may vary by actor and over time. This is particularly important for IMO projects and area development impacts, where a wide range of actors are likely to be involved.

- The final major step is the comparison of the different alternatives under investigation on the basis of the information analyzed as part of the evaluation process.

For linking Stages II and III it is essential to understand the significance of the resulting changes due to investments in measured indicators (impacts).

The use of an appropriate evaluation framework presenting a systematic generation of alternatives, the definition of objectives and evaluation criteria and the selection of appropriate evaluation techniques will greatly support decision-making in resolving issues of conflicting views on locational options, priorities in implementation of plans, IMO enhancements options and so on, so that policy makers are able to take account of the performance of planning strategies.

In this context both Benefit-Cost Analyses (BCA) and Multi-Criteria Analyses (MCA) can be used in a complementary way, since BCA is bound to monetary values while MCA to qualitative aspects. However, due to the great number of actors involved in IMO projects, the nature of the properties and impacts describing the effects on the transport system and the Area Development call for case specific selection of evaluation methods.

The monetarizing process includes all the disadvantages imbedded in BCA, such as dependence on correct monetarizing method, conversion of monetary values to market prices, referencing of alternatives to universal background and so on. This greatly restricts the usefulness of BCA as a sole method in the context of evaluating IMO impacts on Area Development, where a broad range of qualitative attributes is also involved. However, when the performance of Benefit-Cost Analysis is legally binding for large-scale public projects (investments) there is the need to cover the specific aspects of IMO and Area Development in the monetarizing process. If this is not possible these aspects must be covered adequately in the description of the intangibles.

In this respect MCA is able to cope with a wider range of objectives and criteria, which could be based on both social and economic welfare. The ability of MCA to cope with conflicting views (variety of actors) as well provides decision-makers with a sound tool for the evaluation of IMO and Area Development.

## **CONCLUSIONS**

The decision support system presented here is a tool providing comprehensive guidance as a practical evaluation support for decision-makers on problems related to evaluation/assessment of the impacts of IMO projects on Area Development aspects. To this end, this approach can help the person in charge of each specific evaluation problem to select the most representative properties, and avoid problems such as overlapping. This is performed through the KEP key properties selection filter.

The modelling framework in turn provides support for selecting the appropriate models for the assessment of cardinal (quantifiable) evaluation criteria, while for the rest of the properties (qualitative or mixed) a set of appropriate methods has been provided for performing evaluations incorporating qualitative attributes as well.

Finally the proposed guidelines provide the basis for constructing comprehensive evaluation tools that capture the added value of IMO and their impacts on area development.

There remains a need for further development at all stages of the process. At the level of property selection, further research could address an interactive dynamic updating of the properties list/base. This may involve a more sophisticated key properties selection process incorporating a series of tests, for example tests for the independence of variables/criteria selected. At the level of measuring/modelling/estimating of impacts, a toolbox of models/methods for example, dynamic simulation models, factor analysis, should be incorporated in a satellite form which will enable the use of a broad range of tools for the assessment of impacts of various types and levels. Finally alternative evaluation methods should be incorporated in a user-friendly mode providing guidance for the selection of the most appropriate methods for each problem. The complexity of the system associated with capturing the added value from each intervention is generally not included within "standard" evaluation tools and should be enhanced by providing additional instructions on the type of method or assistance needed.

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## Chapter 13

# From Impact Evaluation to Dynamic Planning: An Integrated Concept and Practice

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### BACKGROUND

#### The Essence

The planning literature has long recognized the complexity of ongoing change in our living environment<sup>1</sup>, the inter-dependence of its diverse factors, and the importance of an integrated approach to planning and development<sup>2</sup>. Various policy documents demonstrate the intention of the EU and the UK Labour Government to promote integrated planning. Yet compartmentalism, distorting many plans, is alive and well. It has become part of the UK workplace culture and is difficult to overcome. Though to some extent inevitable in an age of specialization, compartmentalism is also a defence of one's territory, a fight for survival of individuals and organizations. In this environment "town and country planning" in the UK had been pushed aside by other policy areas and lost much of its previous status and identity and, consequently, the ability to recruit the best people into the field. At the same time there is eagerness to change, but how?

This chapter briefly explores the reasons for that situation and proposes a way forward for integrated planning which also redefines the role of "town and country planning". The proposed approach echoes the theories and hopes of many distinguished writers in the field, but its fresh contribution is in the attempt to formulate a "thinking tool" and techniques that bridge the gap between theories and practice.

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1 The "living environment" here stands for the physical, social, economic and institutional environment, in both urban, rural and regional spheres, or "lifeworld, + 'system'", according to Habermas.

2 "Planning and development" here stand for the planning and development of physical, social, economic, and institutional aspects of our living environment.

In brief: integrated planning requires understanding of our living environment as a *dynamic process* of interaction between forces<sup>3</sup>, and it aims to prepare feasible plans<sup>4</sup> to manage and modify that dynamic interaction. This requires an understanding of the ‘stakeholders’ behind the forces in any sphere of our living environment, their motives and constraints and, as far as possible, involving them in an integrative thinking process. Mutual understanding will increase the common ground between them regarding knowledge and interpretation of ongoing processes of change, as well as of ethical principles and practical feasibility. One would thus be conducting plan-making itself as a *dynamic process*, in which perceptions and attitudes of the relevant stakeholders are changing – a first step towards agreement and collaboration.

The keys to implementing this approach are in:

- a. appreciating the reasons for it not taking place as a matter of course,
- b. structured and purposeful (rather than casual) interaction between relevant stakeholders from different sectors,
- c. using techniques that engender shared concepts, information and interpretation of the scene around us.

This approach applies contemporary concepts such as stakeholder participation, inclusivity, transparency, feasibility, environmental, social and economic sustainability and “best value” in the public interest.

*Dynamic Planning* has been influenced by two core concepts described originally in Nat Lichfield’s Planning Balance Sheet analysis (Lichfield, 1956) and later in his *Community Impact Evaluation* (Lichfield, 1996): the discipline of tracing through the process of urban change (chain of effects & impacts) that follows from a planned intervention, and the concern with the distribution of impacts amongst all “community sectors” or, in current parlance, stakeholders. But, whereas his concern with “process” and “stakeholders” was reserved for the events that *follow* a planned intervention, *Dynamic Planning* extends the concerns with a process of change to the situation that exists *prior* to planned intervention. The aims are to understand the causes of problems that call for intervention and to appreciate the feasibility of managing a future process of change – which requires integrative planning.

This chapter is a reflective practitioner’s overview not an academic thesis. It is based in the main on practical experience in Britain, Israel and Nigeria, but its simple underlying concept and sensitive techniques lend themselves to adaptation to many other situations and countries.

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3 “Forces” here stand for phenomena such as bus operations, commuters’ behaviour, financial policies; housing supply, social unrest, and so on.

4 “Plans” here stands for any form of policy, control or other intervention in the ongoing processes of our living environment.

**A PERSONAL NOTE**

The quest for integrated planning has been noted in the literature throughout the twentieth century, but planning made little progress towards practicing integration, and nowhere less so than in Israel of the 1960s. The Ministry of Housing and Development was primarily concerned with housing a mass immigration from hostile societies, and its officials viewed the planning and development of urban settlements mainly as a construction process under their control. Early attempts at introducing sociological and anthropological considerations soon faded away and “economics” was seen simply as maximizing housing supply within the Government budget.

The Housing and Development Minister, Mordechai Bentov, conscious of the need for a broader outlook, recruited an international expert as advisor. I was put in charge of Professor Nat Lichfield’s visits, which included many discussions about planning. Two of his observations contrasted with the then current perception of planning in Israel. First: although the local planners and architects thought that they could control urban development, towns would develop anyway, as they have done for generations, thanks to many other interacting forces. Second: in planning, what matters is not the achievement of the planners’ objectives, but the distribution of impacts and side effects from the plan’s implementation amongst different groups in the community. A third observation led to my joining him in both life and work – but that is another story.

Underlying Nat’s first two observations is the importance of analyzing and appreciating the complexity of an urban or regional process of change. It is most clearly expressed in his work on community impact evaluation, where a methodical analysis is conducted of future changes – the chain of repercussions that follow from intervention in an existing scene, whether through physical development, operational, or statutory intervention. His work in the 1950s originated in a positivist paradigm, and was conducted as a rational expert analysis with social equity aims. The fundamental merit of his method – identifying the diversity of people affected and the distribution of impacts – allowed us to extend it in the 1980s to systematic communication with the affected stakeholders, correcting the ‘expert assumptions’ about impacts upon them.

In this chapter I indicate how a similar methodical analysis, but enriched with fuller involvement of stakeholders, can be applied to past changes – the processes that led to an existing situation which requires intervention. Understanding the root causes of an existing problem is a pre-requisite for effective intervention. The concern with processes of changes – both past and future – thus forms a consistent concept and practice of integrative and dynamic planning.



## COMPARTMENTALISM AND INTEGRATION IN PLANNING

### **The need for an integrated outlook**

Change in our living environment is a product of interaction of many forces, including underlying cultural and institutional factors and physical conditions, and involves various resources such as land, finance, human and institutional capacity, and natural resources. Land is important but control of land use alone cannot bring about most of the planned changes. Well recognized by private enterprise, this has still to be internalized by most public sector planning.

Land use planning provides for a broad range of activities and as such can be called “comprehensive”, but accounting for some discrete “land uses” does not of itself lead to understanding the inter-relations between them and between land and other forces and resources. Such planning misses out on key aspects of the problem and of the solution.

Much of the ongoing change is brought about through activities planned by the private sector. Although “Planning” has the powers to control the use of private land, its understanding of the private sector operations, with their beneficial and adverse impacts, is limited.

In practice our living environment for the most part suffers from compartmentalized and fragmented planning and development, through various local and central government departments as well as private sector and other agencies. Each has its particular remit or sphere of responsibility and is naturally concerned with maximizing its own objectives. Many public services, perceived as looking after “the public interest”, share these characteristics. Plans set to achieve one organization’s particular objectives may adversely affect others.

Substantial resources have been invested around the world on ineffective urban regeneration programmes because they tackled the most visible problems without understanding their interaction with other phenomena and without tackling their root causes. Much of the financial aid to developing countries is wasted in a similar way. Compartmentalism thus leads to ineffective plans.

The problems of compartmentalism appear in many countries and are widely appreciated. The European Community has promoted the concepts of Sustainability and of Spatial Planning and the UK Government adopted this terminology, but without advancing a consistent interpretation. The UK Government<sup>5</sup>, particularly under “New Labour”, has tried to address the need for integrated work in areas such as community planning, transportation, and the environment. Proposed changes

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5 In particular the Department of Environment (DOE), Department of the Environment, Transport and the Regions (DETR) and Office of the Deputy Prime Minister (ODPM) – a succession of reconstituted central government departments in the United Kingdom dealing primarily with population growth and the physical environment, including land use planning, urban regeneration, and transportation.

to the planning system<sup>6</sup> include the germ of an integrated approach through the proposed Community Strategy, promoting features that have become Government “buzz words”: sustainability, public participation, inclusivity, partnerships, integration, accountability, efficiency, and best value. But while these efforts are well intentioned, they lack a unifying conceptual framework and any follow-up with coherent methods and training.

Thus, while local authorities grapple with the requirements in their different ways, there is little clarity about the nature of “integrated planning” in practice. Central Government demands many different types of plans and sets “performance standards” that reward speed not quality. Also, while government guidance emphasizes the importance of stakeholder consultation, many local authorities have difficulty achieving effective consultation in practice.

The failure to master integrated planning and to engage the necessary participants is of particular concern to the UK planning profession and administration. The Royal Town Planning Institute (RTPI) responded to these problems in its “New Vision for Planning”<sup>7</sup>. The challenge for British planning is how these good intentions can be translated into everyday practice.

Only a truly integrated outlook can fathom the process of past and future change, allowing the planner to discern the feasibility of planned changes as well as their wider range of outcomes. So the need for integrated planning is understood now more than ever, but the search for it still goes on.

## **IN SEARCH OF INTEGRATED PLANNING**

An integrated approach to development and change was naturally practiced before professional and operational specialization brought about the current differentiation between agencies that produce major changes in towns and regions. We will not dwell here on the search for an integrated approach in planning theory and in practice of recent times. Suffice it to say that a holistic view of the world as an “organism” or a “system” was clearly voiced by socioeconomic thinkers of the “Chicago School” following the depression of the 1930s and the Second World War, and continued into the 1960s and 1970s with mathematical modelling of urban systems.

Efforts continued to translate integrated thinking into practice, under the headings of Comprehensive planning, Corporate Planning, Cross Departmental work, and Spatial Planning. While advancing the thinking and making inroads into practice, these had not solved the problem.

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6 Policy documents include the Planning Green Paper, Department for Transport, Local Government and the Regions (2001) and the Planning and Compulsory Purchase Act 2004 (HMSO, 2004). The UK Government accommodates a somewhat different planning system in Scotland.

7 See the Royal Town Planning Institute’s policy discussion notes (RTPI, 2001a, 2001b).

Several of the earlier efforts (for example, “Corporate Planning” in the 1970s) were based on centralized power to dictate a rationally conceived, integrated plan. In many cases the good intentions did not materialize since those supposed to implement the plan did not share in developing the knowledge, perceptions and ideas of the plan and the multitude of their daily decisions were not inspired by the plan.

Sadly, although by now the paradigms of “stakeholders participation” and of “spatial planning” are widely spread, we find that in many instances the supposedly integrative plan (Community Strategy, Regeneration, Air Quality Action Plans and more in the UK context) are prepared by a specialist department with only a token relationship with other stakeholders within the same or other agencies and the public. Compartmentalism is, in practice, alive and well.

### SUMMARY, AND A COHERENT WAY FORWARD

The need for integrated planning in our living environment is well understood and forms part of declared policies by the EU, the UK and other Governments. In practice it encounters great difficulties and what passes for “an integrated plan” is often no more than a compilation of separately produced chapters with insufficient regard for the interaction between different aspects of change and for the mechanisms that may produce or impede implementation of the plan.

Attempts to introduce integrated planning through declarations of intent, administrative requirements or a centralist “super-planner” are facing difficulties. A contemporary solution must be cast in terms of the current paradigm of democracy and stakeholder participation, of equity as well as efficiency. But change cannot come by decree. It has to overcome both human and organizational impediments (Alexander, 1995). To move towards widely practiced *integrated planning* it is necessary to devise an *integrated strategy* for transition into an integrative culture and know-how. Such a strategy would include:

1. a coherent concept of integrated planning that is meaningful to all stakeholders,
2. easy to understand methods for communication and for sharing of information,
3. better understanding of the human and of the organizational resistance to an integrated mode of operation,
4. an organizational system that rewards integrated working,
5. a training program and knowledge support facility,
6. statutory instruments that enable integrated planning<sup>8</sup>,
7. a body whose responsibility it is to see the change through.

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<sup>8</sup> The statutory powers given to planning departments vary between countries. Traditionally local planning departments control the use of land but not other resources. The

This chapter is concerned mainly with a methodical answer to the first and second of these points – concepts and practice of integrated planning – which address the human response. This is seen as a first step for change, since organizational change is only likely to take place if individuals in key positions internalize the concept and the need for integrated planning.

### ***DYNAMIC PLANNING*<sup>9</sup>: CONCEPT, METHOD AND PRACTICE**

This section explores ways of developing the capability of people, who come from different backgrounds and organizations, to engage in integrated planning. The working assumptions are:

1. Integrated planning requires sharing some basic concepts, following a method that relates to that concept, and using practical techniques to operate the method. All these are provided within the *Dynamic Planning* method.
2. The underlying concepts of *Dynamic Planning* lead us to look at the world with constant attention to the reasons behind processes of change. With this mind set, the dynamic planning method becomes second nature and allows one to select the most suitable practice for particular occasions.
3. The devil is in the detail: putting the concept into wider practice requires techniques for a structured and purposeful interaction between relevant stakeholders throughout the planning process, such as will ensure the creation of shared concepts, information and interpretation of the urban scene.

### **THE UNDERLYING CONCEPT**

*Dynamic Planning* starts from a familiar but fundamental tenet. In simple terms, we are standing in “the present” – a moment in an ongoing process that has a past and will continue into the future. “Planning” must unravel the past process and understand its driving forces if it aims to redirect the future process. Surveys of present conditions alone will not do.

Speaking figuratively we could say that an existing situation which we wish to change is like a “still frame” at a given moment in time. We need to roll the film back as a “movie” of the urban scene to find out what interactions led us to this point, who was behind them and why. Equally, we need to project the likely future interactions to see who needs to participate in making the change, how it will progress, and who

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UK for example had for many years a limited definition of “material planning considerations” which has been slowly expanding.

9 The term “Dynamic Plan” was formulated in the late 1990s during the author’s preparation, with Professor Eli Stern, of a new plan-making system for Israel, encapsulating an evolving concept of integrated planning.

will be affected along the way by the various side and final effects. Both past and future can only be understood with a holistic, or integrated, outlook.

The ability to grasp multiple interactions is natural to human beings and is exercised in daily life; for example when planning how to spend our time and money (who could we invite this weekend, would the guest enjoy a football match or a restaurant, which location will be less prone to terrorist attacks, how accessible are they options to us and to our guest, how much would either option cost us, and so on). Much of it is done intuitively, and would take longer to describe and communicate rationally. It is all the more difficult to formulate and communicate an integrated view of a complex urban or regional system and to share it as a basis for exchange between stakeholders and analysis of past and future changes.

At a time when compartmentalized specialization has become the general mindset, a conscious effort would have to be made to instil an integrative outlook as a basis for communication between people of different backgrounds and agendas. To that end it would be useful to have a shared *concept* of what is an integrated outlook. This would be a basis for a shared *practice* of integrated planning amongst all those involved. Such concept and practice would help those involved to formulate at a conscious level what is probably grasped intuitively, though inconsistently, by most people. A consciously shared concept will increase the likelihood of consistency in its application.

The *Dynamic Planning* concept recognizes that:

- urban and rural environments are constantly evolving systems,
- evolution is a product of the interaction of diverse components,
- the interactions of components are driven by active stakeholders,
- the consequences of evolution are experienced by recipient stakeholders,
- planning must understand the total picture and incorporate the specific roles of all stakeholders to successfully redirect the course of events,
- land is an important but not the only or even main resource for implementation of plans.

Amplifying these points:

1. Our urban and rural environments are *constantly evolving systems*, with many interacting components. “Components” in this context may be man made or natural (for instance, “settlement”, “businesses”, “climate”) and the product of institutional or of personal decisions (for example, a local authority’s charge on congestion, or an individual’s chosen mode of travel). An integrated outlook is one that reveals the relationships between the various components in a given environment.
2. The relationships are dynamic, as components react to changes in other components operating in their immediate environment or in the exogenous environment. The reaction may be delivered by human “stakeholders” (such as commuters changing the mode of travel in response to an institution

setting a congestion charge) or delivered by nature (the climate changing). Their interactions over space and time are systemic and complex and still imperfectly understood (for example, the growth of a settlement is affected by cost of travel which is affected by world oil prices and by congestion charges and the ensuing changes in pollution levels affect climate change which in turn affects the attractiveness of the settlement). The cumulative effects of past change have produced “the present”, and consequential interactions later on (for example, increased unemployment) will produce “the future”.

3. The process of change is affected by “Active Stakeholders” – people who cause the change by their decisions, actions and reactions. They include, in addition to “professional town planners”, also those planning the central and local government expenditure, the community services, house builders, public transport operators and many others in both the public and private sectors. Those responsible for a particular plan may be able influence some of the active stakeholders – through the use of statutes, budgets, infrastructure incentives, political persuasion and the like. Some components that play a part in our local environment are exogenous and cannot be influenced, although their effects on urban and regional change can be felt – they include for example Central Government, “the economy”, “global warming” and more.
4. The effects of any change are experienced by “Recipient Stakeholders” who may regard the impact as enjoyable or detrimental. They include active stakeholders who caused the change to their own benefit, as well as some “passive” and “reactive” stakeholders who had no part in causing it and may have been deliberately targeted or the subject of unplanned side effects.
5. A given effect at source may be experienced differently by different recipient stakeholders in accord with their particular location and sensitivities. Moreover, one person’s benefit may be another person’s disadvantage (for example, rising house prices are a bonus to the owner and a cost to the purchaser of the tenant); and the same person may be experiencing different impacts (for example, from their view point as a pedestrian or as a driver at different times).
6. The concept of active and recipient stakeholders is similar to that of “producers” and “consumers” in Nat Lichfield’s Community Impact Evaluation of urban development projects, and so is the differentiation between effects at source and the distribution of their impacts on people, which has also found its way into widely used methods of transport and of environmental impact analyses.
7. Nat Lichfield is concerned with tracing the process of change that follows planned intervention in order to obtain the distribution of impacts and inform the planners about likely outcomes, potentially leading to a revised scheme. *Dynamic Planning* regards the tracing of processes of change as the fundamental concept and method of integrated planning – from identification of problems to implementation of plans.

### From concept to method

Urban and regional planning is initiated by people and institutions who consider the current course of events unsatisfactory-giving rise to current “problems” or to anticipated future “problems”. To succeed, a plan must lead to change in the current course of events through interventions that are feasible, efficient, and meet the objectives of those responsible for approval of the plan.

The sentence above would fit into any planning manual and may appear obvious, but different active and recipient stakeholders give each of the verbs, nouns and adjectives different interpretations. What hope is there for coherent and collaborative interventions without creating amongst them common ground based on a holistic, integrated outlook?

Sharing an integrative concept of the way an urban environment evolves is a starting point for mutual recognition and dialogue between participants in a planning process. The unifying motif in the *Dynamic Planning* concept, which is transmitted to its planning *method*, is the importance of understanding the process in our urban and rural environment, with the roles that different stakeholder groups play in it. Such understanding is essential for a plan to address the right issues and propose feasible and effective action. It includes understanding the interactions that lead to an existing situation, the interactions that will or will not allow a desired process of change to materialize, and its full extent of impacts. This can be best achieved by communicating with stakeholders who play roles in these processes of change.

*Dynamic Planning* attempts to develop common ground amongst planners and stakeholders through a methodical, stage by stage shared exploration of *problems*, *causes*, potential *changes* and implementable *strategies*. Evaluation of the likely *distribution* of beneficial and adverse impacts, and the *delivery mechanisms* of plans, are inherent in the thinking throughout the planning process and take a more formal shape at the end.

The work is structured around key questions within five specific phases of plan making:

- a. Do we really understand “the problem”?
- b. What do we know about the root causes of the current or future ‘problem’ and is intervention justified?
- c. What measures could be used to ameliorate the current course of events and how could they be packaged into coherent and feasible strategies?
- d. How to choose between strategies and between measures within them?
- e. How to organize the delivery mechanisms for the selected strategy?

The techniques used at each phase of planning are designed to build up in the participants’ minds an interest in understanding the processes of change in their living environment, acquiring an integrated outlook and sharing knowledge and interpretation, all of which are essential to *Dynamic Planning*. The conceptual and the practical are thus intertwined.

Each phase involves four steps:

1. a preliminary professional analysis of the subject matter and identification of the active and/or recipient stakeholders who should play a role at that stage,
2. a workshop with the relevant stakeholders, bringing their personal knowledge and perceptions to enrich the professionals' as well as their own understanding of the subject matter and of each other's view point,
3. a professional verification of the views and ideas produced at each workshop and, later, their synthesis into a strategy or plan and its evaluation,
4. a public scrutiny of the selected strategy or plan and, if necessary, its professional modification.

There is a natural flow between the workshops of each phase – a discussion of problems is used to raise awareness of their causes, a discussion of causes produces ideas on measures to mitigate them; discussion of measures raises issues of how to select and package them into effective strategies, which requires consideration of feasibility and of evaluation. Planning analysis and creativity, feasibility and evaluation are thus interlinked in an integrated thought process of both the planners and the stakeholders.

On the surface the five phases of *Dynamic Planning* may appear similar to “established” planning stages. In fact they embody significant differences, whose common thread is the pursuit of understanding processes of change. A review of current practice is in order before setting out the dynamic planning practice.

### **What is wrong with common planning practice?**

Very many variations of plan-making are being used around the world and are still evolving under the EU's drive for Spatial Planning. Nonetheless it would not be far from the truth to say that:

1. the first steps in planning as commonly practiced are the collection of masses of statistical data and the “definition of objectives” by politicians or planners,
2. objectives are supported and supplemented by a public meeting at which those who attend are invited to engage in “visioning” of a brighter future. Ideas for action are expressed at such meetings,
3. widely supported ideas may be used by the planners when preparing one or more options of the plan,
4. the public may then be invited to comment on the plan or its formal options before it is finalized,
5. when comparing formally between options, or conducting “intermediate” or “ex post” evaluation, the outcomes of a plan would normally be measured against the objectives that the plan was designed to achieve.



These common methods of work have certain weaknesses:

- a. Objectives are set before knowing whether they are achievable. This is exacerbated by the early “visioning” procedure, which builds up public expectations of unrealistic changes, or such that have undesirable side effects.
- b. Public consultation normally aims to reach the wider public, but is often a casual assembly of participants who are not quite representative of either the “recipient stakeholders” whose plight or problems the plan aims to solve, nor of the “active stakeholders” who would have to be involved in implementing the plan. The objectives set or endorsed at such meetings are not necessarily answering the real distribution of problems.
- c. The responsibility for preparation of a plan in the UK, in Israel and in many other countries, is normally with a particular local government department. Where the use of land is an important feature of the plan, responsibility may lie with Land Use or Spatial Planning department, or more specifically with the Regeneration, Housing, or Transportation department. Other components of the process of change do not receive the same level of expertise.
- d. Economic Development, Social Services, Education and other departments see themselves as discreet sectors of activity, making their own separate departmental plans or strategies.
- e. Although the planners may be conscious of the links between their own area of responsibility and those of other departments, all too often communication is sparse. Consultation between departments, where it takes place, tends to be reactive in nature – the lead department passes on its proposals for comments to other departments, but they are not developing a joint understanding of how their different policies may influence each other’s area of activity – for example, how an increased cost of transport may increase housing costs in particular areas, taking housing out of reach of low paid workers, which in turn affects the economic viability of certain types of businesses and of public services.
- f. Communication between public sector planners and private sector stakeholders are even weaker, and compartmentalized thinking accounts for public sector planners’ inadequate understanding of market forces and constraints.
- g. When plans are evaluated – before, during and after implementation – they are usually assessed on the extent to which they are likely to achieve, or have achieved, their objectives. Reservations about the validity of such objectives have been discussed by Alexander in the Introduction to this book, as well as in points 1 and 2 above. In addition, by focusing on achievement of objectives – which are desirable by definition – one is likely to miss out the unplanned side effects, which may also be detrimental for particular groups in the community.
- h. Implementation of plans that were prepared in this way may be hampered by unforeseen problems, as a result of failing to anticipate the process of change

and its ramifications, failing to identify the active stakeholders that would have to be involved and to understand their motives and constraints, and failing to predict side effects.

- i. Moreover, while interim and “ex post” evaluation of implemented plans can be based on facts, evaluation of proposed plans is based on prediction of outcomes. Prediction requires understanding of the likely interactions and processes of change that will emanate from the planned interventions, in other words, an integrated outlook and information.

Flaws in the common practice of planning often lead to ineffective plans, undermined by one or other of the aspects that were not properly understood during the planning process.

### **From method to practice**

The method and techniques used in *Dynamic Planning* aim to overcome the flaws of common practice. Plan making itself becomes a dynamic interaction between the core planning team who manage the process, the active stakeholders and the recipient stakeholders, in a joint effort to understand the dynamics of past change that led to the current situation, and to devise a dynamic process of future changes that will overcome the problems without creating new and worse ones.

The inter-relation between “rational” and “communicative” planning is quite clear. The planning team consists of professionals from different departments or sectors who have a rational grounding in their professions as well as in *Dynamic Planning*, and the latter requires strong communication – amongst themselves and with all other relevant stakeholders – in order to test and expand their rational understanding of change processes. The “community stakeholders” are participating in a process that involves them in thinking about plan making as a rational progression of thought, not simply an “outcry” or a “vision”. Leading this plan making process is the planning team and it has to be carefully selected and trained.

#### *The planning team*

The size and composition of the planning team will of course vary in accordance with the nature of the issues and the geographical area affected. As a general principle there should be a permanent *core team* small enough to work together and an expanded team whose composition may vary as different aspects are tackled. The expanded team will comprise additional key stakeholders and may at times operate as the workshop group.

A core team for a major issue or area such as a UK Community Strategy may consist of a head, an assistant and 2-4 other key stakeholders. These may include senior members in the Chief Executive, Planning, Transportation, Economic Development, Housing or Regeneration units. The team leader should, in addition to

other qualities, have a good grounding in *Dynamic Planning*, and personal leadership qualities. Additional team members will be the most active stakeholders on key aspects of the change process in question, who may come also from the private and voluntary sectors.

In essence, the planning team will have had induction or had otherwise developed their integrated outlook along the principles of *Dynamic Planning*. They will conduct provisional analyses of issues related to each planning phase and construct provisional rational hypotheses about the forces driving ongoing processes and those likely to affect the future. These “conjectures” will be tested and refuted or expanded by the stakeholders in consultative workshops. The modified hypotheses will be adopted as the working theory<sup>10</sup>. Conversely, views expressed by stakeholders at the workshops will be tested in discussion and verified by the professionals on the team. *Communication* is thus an essential tool for the development of *rationality*.

More specifically, the main plan making phases encompass the interconnected questions described below.

*A. Do we really understand the (existing or anticipated) “problem”?*

1. What current or anticipated *effects* (physical, economic, social or environmental phenomena) are considered detrimental?
2. Who and how many stakeholders are personally experiencing the *detrimental* impacts of these effects?
3. Who and how many (if any) are experiencing *beneficial* impacts from the same effects?

We are focusing on “problems” as the impetus for planned change. On the face of it much urban, rural and regional planning is driven by “objectives” and “visions” for the future rather than “problems”: the wish to provide for growth, a better lifestyle, or environmental conservation and so on. On closer examination, each of these objectives or visions implies a concern or dissatisfaction with a likely future in which they would not materialize. Strictly speaking, these would become future problems, and a change in the current course of events is necessary to avert them. Just as in the case of existing problems, planning requires an understanding of the process of change that does, or that may, cause a problem—as well as the process that will remedy or avert it.

The whole picture may in fact be different from partial impressions held by those calling for change, often representing a particular interest group amongst the recipient stakeholders. A systematic analysis of effects will reveal that what is “a problem” for some stakeholders may be “a benefit” to others, and the true distribution of disadvantages and benefits will gradually emerge.

Consulting stakeholders about their experiences would reveal the distribution of adverse and beneficial impacts upon them. Recognizing these facts is the first step

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10 This relationship is reminiscent of Karl Popper’s philosophy.

towards change in a narrow and compartmentalized attitude that some stakeholders may have initially.

The role of stakeholders in such a consultation is to jointly create the broad canvas of the nature of the problems and their impacts. Pre-selection and participation of the groups likely to be affected is important, and should be undertaken by professionals who have a broad outlook. It is distinct from the commonly open invitation to “the public” that may bring in a partial representation of groups affected, and tends to produce an instant expression of aspirations for treatment of symptoms (which may or not solve the problem) or of “vision for the future” (which may or not be realistic).

There will be no attempt to formulate “objectives” at this stage. While general aims and aspirations are naturally related to recognition of a problem, “objectives” are binding targets against which success/failure are measured. It would be prudent to be bound by them only once their feasibility has been established, some steps down the line of the plan making process.

Putting this phase into practice involves the following activities.

*Provisional definition of “problems”* The impetus for preparation of a plan may be based on observations and concerns coming from various quarters, with vested interests or a general public interest. The planners should attempt to verify these claims and expand the list from readily available information. They will define “problem” as a phenomenon that causes significant discomfort to a given number of people in the present or future generations, indicating whether foreseeable trends exacerbate or reduce the extent of the problem.

Problems are often interconnected and it would be good to deal with them in one workshop. The planners will identify, to the best of their ability, the main recipient stakeholder groups suffering under each problem, and the main active stakeholders causing the problem.

*Consultative workshops* The presence of recipient stakeholders in this workshop is essential for a better understanding of their perception of the nature and extent of problems. The presence of the main active stakeholders is desirable, to promote their understanding of the consequences of their actions.

Personal invitations would be sent to the relevant recipient and active stakeholders, explaining that this is not an ordinary “public consultation”. A plenary session will invite participants to mention briefly (for example, on colour coded “post it” stickers) their own lists of problems, which will normally be given to consolidation around a few key problems.

Discussion groups (ideally 4–8 people) of participants from mixed backgrounds will then be asked to fill a table which raises awareness of the true distribution of impacts – who, how many, and how deeply are they affected, and will the problem become worse or subside if no special intervention is initiated.

Responses will reveal different perceptions of “the problem” with some being in fact causes of the ultimate impact on people (for example, “the problem” may be

defined by some as time lost in traffic congestion, by others as congestion, by others as narrow roads or location of traffic generating uses that lead to congestion). The findings are then shared in a final plenary session.

*Verification* The planners will consolidate a list of inter-related problems and of the ultimate distribution of their impacts. They will follow with verification, using statistical and other sources, of the extent of the ensuing impacts. The expanded list of recipient stakeholders who experience the impacts will serve at the later stages of planning and in particular during evaluation.

*B. What do we know about the root causes of the “the problem” and is intervention justified?*

1. What is the chain of causes within the living environment that have led (or are anticipated to lead) to the problem?
2. Will current problems be exacerbated or reduced through current trends without intervention; assuming that intervention is necessary?
3. Which of the causes are within the sphere of influence of the planning and implementing authorities, and which are exogenous?
4. Who are the Active Stakeholders (individuals, institutions, companies and others) behind the causes that are within the sphere of influence?
5. Why are the relevant stakeholders acting as they are, and what might motivate them to change course?

Exploring and understanding the answers to these questions is the backbone of *Dynamic Planning*. Through it the ability to grasp the dynamics of a situation is acquired and, eventually, becomes second nature.

Putting this phase into practice involves the following activities.

*Preparatory work* The planners will conduct an initial analysis of the chain of causes of the problem or problems and identify the active stakeholders behind them. They will invite these and representatives of the main recipient stakeholders to workshops.

*Consultative workshops* These workshops ought to take place shortly after the workshop on problems, when the links between problems and the initial focus on causes are still fresh in people’s minds.

The presence of active stakeholders at the workshop is essential, as they will be engaged in the deeper exploration of causes. They will include relevant policy makers in the local authority, managers of public and private services, voluntary organisations and other active stakeholders. Representatives of recipient stakeholders ought to be present, to allow mutual understanding to develop between them and the active stakeholders and to gain better understanding of the extent of feasible changes.

Discussion groups (ideally 4–8 people) of participants from mixed backgrounds will be asked to think through the chain of causes of a particular problem (as defined in the previous workshop). A “fishbone diagram” or a “tree roots diagram” will assist in placing causes into a chain or a network which will be more extensive than the initial chain of “problems that cause other problems” that was discovered in the “Problems” workshop.

A structured discussion amongst the participants would unravel the interactive process in which they play part, and the stakeholders’ motives, modes of operation and constraints. This knowledge would lay the foundation for the exploration of measures that could be taken to ameliorate the future.

Ideas regarding possible measures will come up in the course of discussion about causes. This response will be encouraged and the ideas should be recorded and carried over to the next phase.

*Consolidation* The professional team will crystallize a description of the chain or network of causes leading to existing or anticipated problems, and the active stakeholders behind them. This could be presented as a descriptive text or table and would be assisted by a graphic presentation, for example a “fishbone” or a “tree roots” diagram.

*C. What measures could be used to ameliorate the current course of events and how could they be packaged into strategies?*

1. What are the “antidotes” to the root causes of identified problems, or what measures must be taken to advance desired future?
2. What measures and strategies have been tried in the past and what caused their success or failure?
3. Which active stakeholders would have to be involved in implementing the proposed key measures?
4. What would motivate the relevant stakeholders to make the changes, and are they within our sphere of influence?
5. Which measures are mutually dependent or enhancing?
6. What strategic options are there, and what scenarios are likely to develop if they are implemented?

Several ideas for measures will have been recorded during the analysis of the causes of existing or future problems and more will be proposed at this third stage. It is important to distinguish between root causes and superficial causes. Root causes, if tackled successfully, would alleviate subsequent causes. For example, shortages of low paid workers in London could be tackled by increasing their salaries (with numerous economic side effects) or by tackling the root problems: shortage of affordable housing in London, or costly transportation to the affordable housing supply further afield.

Semantically it is also necessary to distinguish the meaning of “a measure” from its “product”. “To increase the quantity of affordable housing” sounds like a measure,

but in fact it only tells us about the product – affordable housing. The measure taken to produce it could be, for example, rented housing built by Government, inducement to the private sector to build rented housing, or regulations requiring each development to contribute to the stock and management of low cost housing. Once the “the measure” is seen in terms of the action it requires, attention is drawn to who might take the action and how feasible it is. With this frame of mind planners – and members of the public – should want to hear the views of the active stakeholders who might be taking the action. Communication with these stakeholders would be an important step toward producing a feasible plan.

Which of the many measures considered should be adopted for a plan or action program? The selection is often made on grounds of lowest cost or of political appeal. A more sophisticated selection might utilize one or other method of comparative costs and benefits analysis. Integrated planning, however, requires a broader approach.

Measures are frequently introduced as discreet action, often compartmentalized. In reality such action is part of a wider urban and regional system. It is likely to be dependent on other elements of the system, and its effects may throw some parts of the system out of balance. The Niger Delta Regional Development Plan illustrates the issue of consistency between elements of the plan (see Case Study 1). It is therefore necessary to devise an integrated strategy that embraces mutually enhancing measures. The meaning of “strategy” in this context is similar to its military use.

Know what you are attempting to achieve; understand the likely impediments or “enemies”; understand the make up of your own arsenal, forces and resources; outline a sequence of mutually supporting moves of forces that will conquer the stronghold and be able to hold on to it. Leave the detailed action plans to the unit commanders, but make sure that they understand the total war plan and how their movements contribute to it success<sup>11</sup>.

The military strategist has to visualize in outline the total process of change with the forces and resources that will make it happen. It is an integrated outlook.

The same principles apply to urban, rural and regional planning, although the complexity of the scene may be much greater. We have to acquire the habit or mode of thinking about interactions and processes that lead to the current situation, and those that would lead to a future one, we have to identify the main stakeholder on the scene, and develop our side of active stakeholders into a team with shared understanding and attitudes, who see their roles in the context of an integrated strategy, and we have to produce a strategy that will be credited as sensible and deliverable.

The array of possible measures is our arsenal. They could be used in different combinations to produce strategies, which become part of different *scenarios*.

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11 As described by Colonel E. Lahav in discussions with the author about the generic attributes of “planning”.

**Case Study 1 Integrated Strategy: The Experience of Niger Delta Regional Planning**

The Niger Delta Region has a fast growing population of 30 million people, is very rich in oil, other mineral resources and agricultural land. Yet the region's service infrastructure is amongst the least developed in the world and its population is one of the poorest: sub-subsistence living, high mortality rates, poor education, and generally, hardly existent services. The Federal and Regional Government wished to improve living standards and avert a scenario of increased unrest.

Public consultation over a future strategy suggested that most of the resources should be invested immediately in health and in education. A professional "process analysis" of these ideas highlighted the following potential scenarios:

- Much improved health would lead to higher life expectancy and thus more mouths to feed and families to shelter. If food and housing production are not increased by at least the same rate, the health oriented strategy would lead to only greater misery.
- Channelling all the efforts into an immediate improvement of education would similarly produce the wrong outcomes, since the better educated young people would not find satisfactory jobs in the current economic scene and are likely to seek their fortunes abroad.

These observations lead to a suggestion to focus on investment in agriculture, producing food and fish with a surplus to be sold or traded against new housing. A discussion about the process of such change, however, revealed several other links in a chain: surplus produce and fish has to be stored, but cold storage requires a reliable power supply which does not exist; even if storage were achieved, it would have to be widely marketed, but there is hardly any local knowledge of the wider markets and of marketing methods; even if marketing skills were introduced, the goods would have to reach the markets, but there are no adequate roads and means of transport in the agricultural areas; and even if these existed, the purchasing power of the wider areas was limited.

As a result of this analysis by local stakeholders using Dynamic Planning techniques, an integrated strategy was devised. It starts with pilot/demonstration projects in selected rural and urban areas, where investment in institutional capacity and skills is matched by investment in physical and service infrastructure across all the links in the chain. In rural areas it involves agriculture, power supply, communication, marketing, transportation and financing – as well as health and skill oriented education. In urban areas an appropriate integrated program was devised for institutional capacity and skills and physical investment in the chain that would facilitate business enterprise and development.



Scenarios are projections of a process of change from the present to the future, bearing in mind the main factors likely to influence that process. These include the ongoing interactions discussed above, proposed interventions that are controlled by the planning agencies, and external influences that are outside the planners' control (for example, "the economy") but may be predicted. Scenario building with stakeholder involvement is a well established art (Shell International, 2003)<sup>12</sup> and we shall not repeat it here.

First amongst the scenarios is "Do-little" – how the future will evolve without a significant intervention on our part, having considered the likely interactions of the active stakeholders we consulted, and the influence of exogenous forces (such as the world economy).

Next are scenarios likely to result from alternative strategies aimed at redirecting the ongoing process of change. These strategies have to influence a complex urban process by triggering a modified set of reactions from the active stakeholders, and do so using available resources to best effect. It is easier to plan for feasibility and desired outcomes of a strategy when there is good understanding of urban processes, which is enriched by insights into the roles, motives and constraints of the main active stakeholders and whatever causes or influences their responses<sup>13</sup>.

Putting this phase into practice involves the following activities.

*Preparatory work* The planners will collate the various ideas for measures and strategies that were proposed in the workshops and on other occasions, including by the planning team itself.

The planners will conduct an initial review of measures and strategies that had been tried in the past, and a provisional assessment of the causes of their success or failure.

The planners will identify key active stakeholders – particularly those who would be involved in the more prominent or frequently mentioned measures, and the main informed observers of public behaviour in the relevant areas. All these will be invited to the workshop.

*Consultative workshop* The planners will lead a discussion on each of the points described under phase C above, putting their provisional assumptions to the test, and enlightening stakeholders where new reliable information is available.

*Synthesis: Preparing draft strategic options* While knowledge and ideas can reach a wider range and insight in discussion with a broad range of stakeholders, the synthesis of that knowledge into integrated, coherent and consistent strategies is best achieved through professional skill and concentration of integrated planning professionals. When formulating potential strategies the planners will inevitably come across questions or dilemmas, which they cannot answer. These, together with

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12 Shell's publication includes a detailed reading list (Shell, 2003).

13 See, for example, Alexander (2004): 33-42.

**Case Study 2 Ashkelon: Packaging Measures on the Budget Line**

Ashkelon on Israel's coast was one of the country's poorest immigrant new towns in 1979. Project Renewal, a National program set initially to regenerate poor housing areas, included Ashkelon's poorest neighbourhood. The team commissioned to plan that neighbourhood analyzed the process that had led to poor housing conditions, concluding that the causes of poor housing in that neighbourhood were rooted beyond the housing estates, in general management of social, economic and other aspects of the town as a whole and its regional linkages. The municipality agreed with the team's suggestion to prepare a regeneration strategy for the whole town.

Project Renewal rules allocated budgets – in this instance some £3,000,000 in year one. It also required that each neighbourhood should conduct community consultations and put forward their own ideas for improvements. The various local communities and active stakeholders held separate discussions unguided by the planning team and sent forth their own lists of high priority projects for year one. The cumulative cost of all these projects exceeded £10,000 for the year. Some 30 representatives gathered one afternoon to discuss the action program. Although all agreed that the regeneration strategy and program ought to encompass all areas of activity, there was no agreement on which projects would be selected. Having pronounced the wishes of their respective communities or organizations, it was a matter of pride for each proponent to see their own project approved in preference to others. They were unlikely to accept an "imposed" professional verdict.

The professional challenge was to lead the proponents to recognize of their own accord that a given amount of money would produce different levels of benefit if spent on one project rather than another, and that each project has to be considered and perhaps be trimmed or delayed within a wider framework. Each proponent was invited to represent their project as a cut piece of coloured paper, its colour representing the area of intervention, its width corresponding with the cost (1 cm =£10,000), and its length corresponding with the number of people likely to benefit from it. The top edge of the paper was folded to be hung on the budget line.

When all were assembled, each proponent was invited to hang their project on the line. It was filled after only a third had hung their projects. The group was asked to debate the merits of the next project by comparison with the previous ones. The professional planner suggested questions to consider – including the ratio of benefits to cost (expressed in the proportions of the paper not its overall size), what projects are mutually supportive? In five hours many of the first round projects were trimmed or deferred to a later year and an agreed budget was in place. Most striking was the pleasure that the participants derived from the exercise ("it was so interesting", "it's so nice to feel that we can agree rather than fight with each other"), and the different tone of debates that took place in the following months. Although the assessment was not scientifically correct, the new way of thinking proved to yield high returns in the life of that community and its local government.

Ashkelon is considered today one of the most advanced and successful of the new towns.

evaluation of the draft strategies, will be put to a subsequent stakeholders' workshop. The Niger Delta Regional Development strategy was an example of this mode of operation.

Circumstances vary, however, and at times the wider assembly of stakeholders, or community representatives, might wish to be making the choice between potential measures. That was the situation, for example, when the Ashkelon Project Renewal Strategy was being prepared in 1980–1981 and a different method that can now be judged with the benefit of hindsight was used to involve the community in the packaging of measures (see Case Study 2).

*D. How to choose between strategies and between measures within them?*

Good planning practice will normally require presentation of options and comparison of their merits before selecting a particular strategy. This process is variably called "Assessment", "Appraisal" or "ex ante Evaluation", and is separate from evaluation of the *outcomes* of the strategy during and post completion. We will refer to it here as ex-ante evaluation or simply "evaluation" since it is necessary to recognise the link between the consideration given to the merit of intended strategy, and the actual outcomes of that strategy. A vast volume of literature has been produced about different methods of formal evaluation, mostly envisaging a number of defined alternative strategies being formally compared on similar criteria. The weakness of that approach is that it applies to the finite plans of strategies, while many more incremental sub-selections have been made in the course of preparing each of these alternative plans, on the basis of the planners' personal, often intuitive judgment only.

Ongoing personal judgments are inevitable – a planning process would never end if every little aspect were subject to a separate formal evaluation. Apart from being cumbersome, the dangers of such a process are highlighted in the debate surrounding the concept of sub-optimization. A more useful approach is to improve the habit or mode of thinking of the planning person, to the extent of forming part of their "intuitive" response. If their mind seeks, as a matter of course, to understand urban interactions and processes of change with their many side effects, is aware of who participates in the action and who may be experiencing its outcomes, then a sensible selection is more likely to emerge. Formal evaluation may then be applied to more major aspects and strategic options.

The *Dynamic Planning* concept and practice, is a step towards that mind set. Once formal evaluation is called for, the methods of evaluation vary greatly. As mentioned before, plans are usually assessed against the likelihood of achieving their declared objectives or performance criteria. This may be useful when operating in a fully controlled environment, such as factory. The complexity of the urban system is certain to produce side effects through interactions that are not under the planners' control. By focusing on achievement of pre-set objectives – which are desirable by definition – one is likely to miss out the unplanned side effects which may be either desirable or detrimental for particular groups in the community.

A sound evaluation method for planning the urban environment must be one that traces through the process of change likely to result from intervening in the existing environment. While doing so it should identify the people who would experience a change from their existing situation, and present an explicit, comprehensive and transparent account of the anticipated impacts on these people.

This is the essence of Nat Lichfield's Community Impact Evaluation (Lichfield, 1996). He is concerned with all those involved in the process of change. They include both the "Producers" who drive the process (land owners, developers, financiers, local authorities and others) and the "Consumers" who experience the "ripple effects of development" (future users of the new development, surrounding residents, road users, nature lovers, etc.). Thus, for example, the local authority that has to spend money on services as a result of development may raise taxes, which would in turn affect the public at large. In his analysis Nat Lichfield differentiates between "effects" which are objective phenomena (a noise level) and "impacts", which are the changes caused by such phenomena to a person's way of life and well being (a certain noise may cause distress to a musician but may not disturb a deaf person).

While most effects can be described in tangible (not necessarily financial) terms, impacts as in Nat's definition are ultimately subjective and require deeper research to be compared and accepted. Not many cases are capable of providing that level of analysis. A simpler and more practical approach is one that defines three links in the chain: "effect" being a phenomenon at source as it takes place (for example, noise levels produced at the concrete machine), "impact" is how it affects the receiving end (the noise levels reaching the windows of houses at different distances) and "experience" is the difference in well being as experienced by different people or groups (such as the noise sensitive and the deaf). This three-link chain combines Nat Lichfield's original concept with its derivative in the field of environmental assessment.

*The practice of Community Impact Evaluation* Community Impact Evaluation (CIE) has been applied by Nat Lichfield and his team numerous times to widely diverse projects. In its early years (1956–1970s) it was conducted by experienced planners applying their professional insight to tracing the chains of effects and impacts, and making common sense assumptions about the objectives or preferences of the people experiencing the impacts, as opposed to objectives defined by the Local Authority or similar. Drawing attention to the diversity of people's experiences and values was a tremendous step in those days and had its share in bringing about the culture change which now demands full attention to these attributes.

The evaluative concept of CIE can be applied at different levels of sophistication. In the Ashkelon "budget line" exercise (see Case Study 2) participants were prioritizing and trading off projects on the basis of a rough concept of benefits (the colour and length of the paper), which could be obtained from a given cost (the width of the paper). A project represented by a thin but long hanging paper had clear advantages over a broad but short hanging one.

By its very nature CIE is well disposed to active public participation. Once the chains of effects and impacts have been traced through and the people experiencing them are identified, it is possible to consult these very people and verify the planner's assumptions about their impacts and experiences. The planners' initial work becomes a provisional evaluation, which may gain in scope and accuracy through the targeted consultation, as for example in the case of the Prospect Park project (see Case Study 3). A transparent CIE can thus help in decision making as well as in justifying decisions that may harm the few while benefiting the many.

The terms used in *Dynamic Planning* – “active” and “recipient” stakeholders – take the participatory role of “Producers” and “Consumers” a step further. They are to be consulted on not only their experience of impacts, but on the roles they can play in making the changes which the plan aims for and absorbing their impacts, including from side effects. Moreover, exploring the likely chain of changes when moving *forward* from an existing situation, and being aware of their effects and impacts, becomes a habit of thinking. It seems natural that it should govern also the way we look *back* from an existing situation to understand its causes, stakeholders, and how best to introduce change. This is the essence of *Dynamic Planning*. It brings into one conceptual and practical framework the science of understanding the environment we live in, the creativity of planning for the future, and the combined scientific and judgmental sphere of evaluation.

*E. Ensuring delivery mechanisms for the selected strategy* The concern with processes of change is inextricably linked to concerns with feasibility and delivery mechanisms.

Feasibility analysis and development risk assessment are well-established fields, although different parameters may be used by different analysts who focus on particular aspects (for example, financial viability; planning approval risk, political feasibility). Integrated planning would consider the full path to development and consult with those who interact in that process and should therefore be the active stakeholders. The process of change is likely to take place by a combination of public sector intervention and private market activity, comprising businesses and supported by consumer responses. An insight into their motives and constraints can avert what may otherwise become unforeseen obstacles. As mentioned previously, common problems arise when public sector planners are not familiar with the private sector considerations. However, by identifying processes of change and conferring with both active and recipient stakeholder, this knowledge gap can be narrowed.

The implementation scene varies greatly between developed and developing countries, and within each category. In developing countries the main impediment to development may be the absence of adequate delivery mechanisms in both the public and the private sector, while such mechanisms may be commonplace in developed countries. Many grand designs were wasted in developing countries, producing “master-plans” that show an attractive “end-state”, including a phasing scheme, but without ascertaining that delivery mechanisms exist to implement it.

### Case Study 3 Prospect Park: Evaluation in Action

In the late 1980s British Airways applied for permission to develop their much needed Headquarters building near Heathrow Airport on land they owned – approximately 20 hectares. Their land was in the Green Belt (which in the UK is protected from development) and near a local village of approximately 450 residents. But it was part of a vast landfill site, surrounded by a high fence with severe warning signs: “Do not enter – Health hazard”. It was exuding methane and known to contain dangerous chemicals. Development in the Green Belt could only be allowed under “very special circumstances” and BA were advised by the local planning authority that reclaiming the entire landfill area and creating a public park would count as a very special benefit that, together with BA’s special needs, could be considered as “very special circumstances”. BA accepted the advice and submitted the necessary plans. During an initial public consultation a few activists in the village objected to the plan and rallied the entire village to petition against it. Their stated cause for objection was “Green Belt” but it became clear soon that many of the signatories were not really familiar with the plan and its implications.

The Planning Consultant prepared an initial CIE identifying who in the village might be adversely affected by the development due to traffic, parking pressures and change of scenery from a certain direction, and who might benefit through employment in BA, different forms of recreation in the new park, and the change of scenery elsewhere. Meetings were then held with the groups likely to be affected, at which they gained better understanding of the real beneficial and adverse impacts upon them, and the Planners gained an insight into people’s sentiments and how they may experience particular impacts of change.

For example, the planners’ provisional analysis assumed that people in some 30 houses facing the landfill site would experience the change into a park as a benefit. In discussion with this group it transpired that 11 of them regarded it as a disadvantage since at present the unsightly area does not attract outsiders and these residents liked the peace and quiet and the sense of safety, which could be lost if the park is successful and attracts many visitors. The CIE summary table was readily amended to reflect this and other variations from the provisional assumptions.

The discussions with particular groups, focusing on their real impacts, had further outcomes: the plan was modified to minimize adverse impacts, and the residents changed their response pattern in the subsequent formal consultation, with the majority now supporting the proposed development.

Here is not the place to go into that subject in any depth, but suffice it to say that using the *Dynamic Planning* approach it should not be possible to fall into the same trap since the planned process of change would include the development of delivery mechanisms. The Niger Delta project mentioned above is a good example of that approach in action. It consists of policies that set the aims, the action that has to be taken to introduce change, and the building up of human and institutional capacity to a level that would enable sound and integrative implementation. The strategy

had to overcome the enormity of the problem where neither physical nor human and institutional infrastructure existed that would be able to support the desired economic, physical and social development. Change was to be initiated with pilot/demonstration projects, which involve developing human and institutional capacity to prepare, implement and monitor an integrated plan for the locality, and these will then be used to disseminate the experience. In preparation for these projects, programmes were set in train to develop the capacity of the regional authority that would have to oversee these pilot projects, and the capacity of academic institutions that would build up and disseminate the knowledge base for the activities proposed in the various policies of the regional plan.

## CONCLUSION

The quest for integrated planning is motivated by the hope that its outcome will be more effective plans, fewer unwanted side effects, and less waste from conflicting or duplicated interventions. This requires an holistic approach and integrated thinking and collaboration by those who produce the plan and those who would be implementing it.

For joined up thinking and coordinated action to develop it is necessary to have some common ground at the conceptual level, a generic method, and practical techniques that can be adapted to many different situations. All these elements hang together on the basic principles originally set out by Nat Lichfield: the importance of regarding any development as an intervention in an ongoing process of change and the ultimate test of that process are the diverse impacts on different groups of people who play the roles of “producers” and “consumers”. Although being concerned only with evaluation of future impacts, he has laid the foundation for an entire philosophy and practice of integrated planning. For this we thank him.

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# Conclusion

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## Chapter 14

# Problems and Prospects: Dilemmas in Evaluation and Directions for the Future

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### **STATUS: EVALUATION IN PLANNING TODAY**

Evaluation became an integral part of systematic planning in the twentieth century, when responsible public officials needed informed advice on complex planned development and strategic project investments. Benefit-Cost Analysis (BCA), rooted in classic liberal-utilitarian economics, was the first formal evaluation method that was applied to appraise potential investments in major strategic projects, and (with some refinements) has remained the prevailing evaluation method until today. Planned development also demanded assessment of alternatives, and planners used BCA (and modifications such as Financial Investment Appraisal and Fiscal Impact Analysis) to evaluate the impacts of proposed developments, neighbourhood plans, urban expansions, and regional development plans.

Newer evaluation methods emerged in response to the perceived shortcomings of BCA: its focus on efficiency to the exclusion of equity, its inability to address distributional impacts, and its problems in converting intangibles and non-market values into money. First among these was Lichfield's Planning Balance Sheet (PBS), which became Planning Balance Sheet Analysis and evolved into the Community Impact Analysis (CIA).

Lichfield's critique of BCA that produced his PBS was the stimulus for the evolution of the Multicriterion Evaluation (MCE) family of methods. This began with Hill's Goals Achievement Matrix, followed by many variations on the common theme of systematically combining alternatives' performance assessment on selected criteria with weighting objectives and prioritizing goals. In parallel, strategic project evaluations using disaggregated impact analysis evolved, in response to mandated demands for Environmental Impact Assessment and Environmental Impact Statements.

In the search for ever more comprehensive evaluations, Social Impact Analysis supplemented the consideration of economic and environmental factors, incorporated respectively in the BCA and EIA. More recently, hierarchical-sequential multiple method evaluation systems (such as Strategic Impact Analysis) have been developed for application in complex major strategic public projects, such as the EU's Trans-European Network. Seemingly, we are witnessing the evolution of evaluation methods of increasing comprehensiveness and complexity.

But the evolutionary metaphor is an illusion. None of these methods is extinct: all co-exist, and the apparently most primitive prevail and flourish. In what has been observed as a widening gap between evaluation theory and its application in practice, the "best practices" and most advanced methods are widely propagated in publications (like this one) and journals, but they are rarely applied in the field.

Evaluations for planned development more often include Impact Analysis approaches and MCE methods, but BCA is still the evaluation method of choice for strategic projects. Sometimes BCA is used together with EIA, but often the latter pays lip service to legally mandated project approval requirements, and economic efficiency criteria determine the final decision. The institutionalization of more complex evaluation frameworks that systematically combine complementary methods, such as the EU mandated evaluation system for its TEN projects (Giaoutzi and Stratigea, Chapter 12 above) and Britain's GOMMS for evaluating transportation projects (DETR, 2000), is still rare.

Exhortations for communicative practice abound, and the frequent prescriptions of participative evaluation in the academic and professional literature are illustrated by isolated cases of real-world application (for example, Barbanente and Khakee, 2005). But there is little evidence of realization of their interactive potential of many of the newer evaluation methods (such as MCE and Social Impact Analysis) that are in use, making documentation of such applications – for example, community participation in applying the CIA (D. Lichfield, Chapter 13 above) all the more valuable.

Critical observation of planning evaluation in practice today suggests that progress is more apparent than real. Some problems, which were the subject of comment two decades ago and more, are still unresolved today. One of these is the question of the normative meta-ethic behind evaluation – whether consequential (as in most formal evaluation methods) or deontic (which implies quite a different approach) – that was mentioned then as a subject for research (Voogd and Faludi, 1985: 206). Another is the question of how to institutionalize evaluation (Hill, 1985) – more on these below. At the same time, advances on other fronts (for example, coping with complexity) have intensified dilemmas, such as the trade-off between expertise and participation, which have always been latent in evaluation theory and practice.

These problems can be discussed under a few headings, to explore their avoidance or resolution in evaluation methods and their impact on evaluation theory and practice. Under the first heading of norms and values we find dilemmas at the meta-ethical and operational levels. The meta-ethical dilemma is the conflict between consequentialism and a deontic approach to substantive evaluation; the

operational dilemma is the conflict between market values that are easily articulated and non-market ones that are not. The second heading, complexity, raises issues of transparency versus technical sophistication and expertise versus lay knowledge, which lead into the next area and interact with several of its elements. This is the question of communication, which subsumes participation in evaluation and related decisions, and communication of the evaluation and related information to participants and affected parties. Interdependencies between all these bring us full circle to the final issue: institutionalization of evaluation processes and methods in the relevant planning and decision-making contexts.

## PROBLEMS AND DILEMMAS IN EVALUATION

### Norms and values

#### *Conflicting meta-ethical norms*

Usually the normative basis for evaluation at the meta-ethical level is taken for granted. Even though BCA was attacked for its utilitarian bias (Moroni, Chapter 2 above), all the formal evaluation methods applied in planning are premised on the same underlying norm of consequentialism. In other words, they value actions according to their consequences, and the only difference between them is how those consequences – or projects' expected outcomes and impacts – are expressed, and which of them are measured. So BCA aggregates consequences in terms of economic efficiency and measures them in a benefit-cost ratio or a project's NPV, while CIA itemizes tangible and intangible impacts in their appropriate units of measurement. Implicit in consequentialist evaluation is the idea of balance and the possibility of value trade-offs.

But there is another, quite different, normative basis for evaluation: while consequentialist ethics value actions that *do* good, deontic ethics judges actions as right or wrong, and values actions that *are* good. In planning, judging policies and plans or evaluating projects by this standard may seem far-fetched, but in fact it is commonplace. Every judgment that is based on rules is in principle deontic, and this definition reveals the many deontic evaluations that are performed in planning.

Administrative plan review for conformity with valid statutory plans and regulations is a deontic form of substantive plan evaluation. Most judicial review of policies, plans, programs and projects is also deontic<sup>1</sup>: it upholds or rejects the disputed proposal based on whether it conforms to ruling laws and regulations that embody prevailing societal norms and values (Alexander, 2002a). Deontic principles underlie political debate on policies and plans no less than consequential ones. This is discussed and illustrated in two Italian cases (Borri et al., 2005), and becomes

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1 The exception is when judicial review applies the criterion of substantive reasonableness, which implies a balance of appropriate and relevant consequential considerations (DeSmith and Brazier, 1996).

explicit in attempts to define the concept of the Public Interest, especially in relation to planning evaluation (Moroni, Chapter 4 above). Applications of the Public Interest criterion in plan evaluation illustrate at once the conflict and complementarity between consequential and deontic approaches (Alexander, 2002b: 228-233).

The classic case of the little old lady's rose-covered cottage, which must be cleared for an urban revitalization project that will bring untold benefits, illustrates the conflict between consequential and deontic ethics. Systematic evaluation would endorse the project, based on its aggregate benefits and the positive balance of its distributional impacts. A review applying deontic norms (e.g. based on rights in law) would reject the project or condition approval on modification of the plan to avoid this injury.

Awareness of this potential conflict can mitigate this dilemma, but sometimes it is unavoidable. Attempts to combine both approaches in an integrated evaluation framework are likely to fail. A better prospect may be institutional design of an evaluation procedure, integrating the two approaches in an interactive-dialogic process that combines complementary methodologies<sup>2</sup>. But institutional constraints may often make this infeasible, and if such a process can be implemented, its complexity may make it inoperable. This illustrates the interdependence between problems challenging evaluation, here meta-ethical conflict and complexity – more on the latter below.

### *Market and non-market values*

The requirement to measure all impacts in market terms is a major shortcoming with BCA, which stimulated a variety of responses. Some of these take an economic approach to translating intangibles into market values. This approach involves finding surrogates for the market prices that are unavailable: ascertaining a hypothetical “willingness to pay” or finding a substitute market-based value, such as an insurance policy for a human life. Other responses took the form of alternative evaluation methods that could incorporate non-market values (Miller and Patassini, 2005: 1-3); these included all the newer evaluation methods reviewed above.

Finding ways of incorporating intangible but real values in the process of assessing the prospective social benefits of public investments has enjoyed renewed attention. Examples include assessing the added value of accessibility for the disabled (Voogd, 2005), including the social benefit of reducing environmental risks (Patassini et al., 2005), incorporating social solidarity and quality of life values (Fusco Girard, Chapter 6 above), estimating the intrinsic value of cultural assets for their host community's local identity (Mignolli and Nijkamp, Chapter 9 above), and operationalizing the concept of sustainability for regional development (Vreeker and Nijkamp, Chapter 10 above).

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2 For examples, see Fusco Girard (Chapter 6 above) and Fusco Girard, Ceretta and De Toro (2005).

Articulating non-market values for policy, program or project evaluation continues to be difficult because every solution confronts one or both of two endemic constraints. The first is subjectivity: however it is arrived at, every attribution or estimate of a non-market value cannot ultimately be more than some kind of aggregation of subjective assessments. Translating these into the “objective” information that is fed into the evaluation process involves an ultimately political act of assigning some relative weight, priority or importance to the human or social subjects who are the sources of these assessments. The best way of addressing this constraint is to acknowledge it and structure the relevant evaluation as an openly political process, but this raises the dilemma of institutional design discussed later.

The second constraint is complexity. One source of complexity is the fact that apparently simple concepts are multidimensional. On reflection this is obvious, considering common intangible values such as travel time, human life, or education, not to mention intrinsically compound concepts such as landscape, cultural assets, social solidarity, or sustainability. Another source of complexity is the inter-subjective nature of non-market values when they are applied in evaluation, which again elicits complexity in the evaluation processes developed in response.

## Complexity

Already in the discussion above, the problem of irreducible complexity has raised its ugly head. Several factors contribute to complexity in evaluation. One is the inherent complexity of the evaluation subjects and the material of the evaluation process. The former include the policies, plans and strategic projects that are the objects of evaluation, their contexts, actors and affected parties. These are all complex because they are composed of multiple and diverse elements, relationships and interactions. The latter means everything making up and related to the evaluation process itself: its theories, methodologies, actors, concepts, tools and methods. In large measure their complexity reflects the intrinsic complexity of the evaluation subjects.

Another aspect of complexity in evaluation is inter-subjectivity. This contributes to intrinsic complexity – evaluation subjects themselves are social constructs involving diverse actors and interests – making generalized statements about their needs, goals, and values difficult and problematic. Inter-subjectivity is also a major source of complexity in evaluation processes and methods, because it undermines the legitimacy of simply derived “objective” (but really *ex parte*) findings and conclusions.

The third aspect of complexity, which pervades planning in general and *a priori* evaluation in particular, is uncertainty. Uncertainty is inherent in planning that deals with the unknown future. Evaluation that is based on assessing possible consequences of intended actions faces uncertainty of every kind. “Environmental Uncertainty” undermines confidence in predicted impacts, “Decision Uncertainty”



limits evaluators' knowledge of the future contexts of those actions and their effects, and "Value Uncertainty" makes judgements based on prevailing values and present preferences problematic<sup>3</sup>.

In our contemporary life-world, the accelerating dynamic of technological innovation interacting with demographic and cultural change magnifies the uncertainty endemic to planning. The dilemma of coping with uncertainty and complexity, also defined as the problem of decision-making with limited information, makes us aware of bounded rationality. While this dilemma is real, Archibugi (Chapter 5 above) cautions against reflection to the point where it defeats effective planning and evaluation practice.

### **Evaluation: Structure and process**

The perceived need to respond to the growing complexity of evaluation subjects, contexts and issues, has produced new challenges for practitioners of evaluation in planning. In particular, reflection on how evaluations should be structured – which methods to apply in what kind of integrating framework – and how the evaluation process should be managed to produce effective decisions that command the consensus necessary for their implementation, raises several interdependent problems.

Consciousness of real-world complexity has produced more complex evaluation methods that rely to an increasing extent on technical-theoretical sophistication and scientific knowledge. At the same time, awareness of inter-subjectivity and value uncertainty, and the normative status of communicative practice in the planning community, has called for more participative and interactive forms of evaluation. These opposing trends have generated dilemmas of transparency and communication, which current practice has yet to resolve.

#### *Transparency and knowledge*

The knowledge necessary to conceive, develop, and operate today's planning-evaluations is usually quite esoteric, and limited to experts in this field or in subfields of adjunct disciplines (such as economics and operations research). The same is true for providers of most of the empirical data and analysis that provides the information base for evaluation: economists, sociologists and anthropologists, ecologists and environmental scientists, and the design and engineering professions.

This fact presents two challenges to evaluation that aspires to be interactive as prescribed by communicative practice. The first is transparency: how to format the expert-scientific inputs to the evaluation process (which may include methodological considerations, scientific data and analyses, and the evaluation framework itself) in

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3 These types of uncertainty are based on Friend and Jessop (1969).

ways that will be easily understood and intuitively appreciated by “lay” participants<sup>4</sup> in the evaluation process.

The second is communication to diverse audiences. On one hand: how to present the evaluation so that it is intelligible and responsive to the broader public and the various interests involved in the planning process. On the other hand: how to make the evaluation’s argument and its recommendations for choice or action persuasive to the responsible decision-makers.

Unfortunately, these are challenges that many evaluations in planning fail to meet, even when their methods and procedures represent the best practices we know. The question is whether this failure is the result of an irresolvable conflict between communication and complexity. This would mean that no evaluation method that adequately reflects the complexity of its subject can be simple enough for satisfactory communication and non-expert participation, and no evaluation can be really participatory without harmful simplification and information loss that risk bad decisions. The trade-off this implies between knowledge and participation is discussed next.

#### *Evaluation and decision: Process or product*

This conflict may explain the failure to realize the apparent interactive potential of many advanced evaluation methods. For example, this is probably why the goal identification many MCE methods require – as in the AHP or in EVAMIX (Nijkamp, Rietveld and Voogd, 1990: 74-100), is usually done through “armchair” interaction within the expert evaluation team, rather than with a larger panel of decision makers, stakeholder or interest representatives.

The conflict between communication and complexity confronts us with a choice. One option: evaluation recommendations that reflect the best available knowledge and accessible information, which are likely to elicit decisions adopting the best feasible course of action. The other: a process that maximizes active participation, applying an evaluation framework which enables the interaction of all appropriate stakeholders, interested and potentially affected parties to produce a consensus on their preferred decision. This choice between two good alternatives is a dilemma, because we cannot do both.

From another perspective we can understand this dilemma as a choice between different types of planning: practice based on instrumental or substantive rationality that focuses on the decision and aspires to optimal action, versus communicative practice that focuses on the quality of interaction and aspires to consensus.

The story of evaluation in planning offers us examples of both choices among succeeding “generations” of evaluation methods (Khakee, 2003: 342-343): the “third generation” of “objective” methods represents the first option, while the “fourth” generation of “soft” methods represents the second. In its extreme form,

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4 Such persons may be experienced and expert in their own domains, but not in the specific field or discipline related to the relevant information.

this approach abandons traditional evaluation, in favour of a structured discourse among stakeholders: a dialectic learning process to probe into the reality of the subject policy or plan.

The only way out of this dilemma that I can see is to reject extremes – “the best is the enemy of the good” – and blend both kinds of rationality in a process that attempts to integrate knowledge and communication. That this is difficult we know; but we cannot concede that it is impossible. The problem of combining methods in a process that can integrate expert analysis with communicative interaction raises the issue of institutional design of evaluation in planning.

## **DIRECTIONS FOR THE FUTURE**

Looking back on the evolution of evaluation in planning, we can recognize the parallel between the development and adoption of more advanced evaluation methods, and a growing awareness of the importance of the institutional context of planning in general and plan-evaluation in particular. More than thirty years ago Hill (1973) noted the interdependence between decision-making contexts and evaluation strategies, and relating evaluation methods to complex problems and institutional contexts was proposed as a topic for fundamental research (Voogd and Faludi, 1973: 205-206).

Much of the progress in evaluation theory and practice that has been described above is attributable less to methodological innovations than to better institutional design of evaluation frameworks and processes. This is true of all the “best practices” shown above, from Fusco Girard’s complex combination of environmental analysis and interactive value-setting, through Vreeker and Nijkamp’s integration of several MCE methods in an interactive decision support framework, to D. Lichfield’s communicative application of the CIA approach. Planning “disasters” and evaluation failures, too, can be ascribed to flaws in institutional design (Alexander, 2005).

Addressing the above dilemmas as institutional design issues is a promising direction for evaluation in planning. This suggests less investment in theoretical sophistication and methodological innovation, and more attention to developing, testing, and applying integrated evaluation processes in real institutional contexts. Such processes might include expert-analytic evaluation methods as decision-support for political value-setting discourse, and structuring institutional arenas for wider communicative interaction with stakeholders and affected interests.

The challenge is to create evaluation frameworks that are at once responsive to complexity, transparent for communication, and enable effective interaction. This is the challenge Nat Lichfield recognized and responded to nearly half a century ago, when he first addressed the problem of evaluating complex public planning and development projects. His vision and lifelong efforts in this field have influenced many, across various academic disciplines and several professions. But more than his particular theoretical and methodological contributions to the art and science of evaluation in planning, important as they are, perhaps Lichfield’s most significant

impact was how he changed the way in which we look at and practice planning and evaluation. As a result, we can today confront this challenge with a wiser awareness of the dilemmas and problems of evaluation in planning.

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