IMPACT STUDIES:

THEIR ROLE IN THE BRITISH PLANNING SYSTEM

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Introduction:

> "'Muddling through', as pointed out long ago, implies a positive outcome in the sense that somehow one 'gets through', but this mode of decision making has an underlying assumption, namely that the mud is not more than three feet deep. When the mud is ten feet deep, clearly some other method for getting through is necessary."
>
> Yehezkel Dror.

An Impact Study is a communicative information document. Its purpose is to act as an objective aid in the decision making process. To continue Dror's metaphor, it is the aim of this paper to examine the need and feasibility of using an Impact Study in situations where the mud is deeper than three feet i.e. in the handling of 'major' development applications. The processes which are incorporated in such a study i.e. the identification, measurement, interpretation of impacts and their subsequent communication to information users are implicit in the handling of any application for planning permission whether it be for a pigeon loft or a dutch barn extension. However the hypothesis is made that for certain types of major applications an intensification of effort is required. This intensified effort takes the form of balanced rigorous assessment procedures inherent in the Impact Study.

The need for such intensified procedures is examined in Section 1. The growth in environmental awareness and the ramifications this has for the decision making process, both as a

factor of delay and a demand for broader decision bases, is discussed. Various foreign responses to this awareness are noted, in particular that made by the United States.

In Section 2, Parts 1 and 2, the question of need focuses on the British situation with an examination of both the statutory framework and its working context. The adequacy of the system is tested by the following two questions:

1. Does the British system bring to the attention of the decision maker, whether it be the local authority or the Secretary of State, all the relevant factors sufficiently described and evaluated to enable a decision to be made for a specific project or a choice to be made between alternatives?

2. Does the system command public confidence?

The working situation is further highlighted by a brief examination of the handling of oil related applications in Scotland in the early seventies. Ten Impact Analyses are included as evidence of a positive recognition of need.

Section 2, Part 3, goes on to examine the possible responses to this established degree of need. These responses range on a positive-negative continuum demanding various degrees of radical-incremental-least change action.

Finally, Section 3 considers the feasibility of the use of

Impact Studies as a method towards informed rational decision making. Their potential implementation is set in the context of envisaged procedural and administrative problems.

The concept of Impact Studies has only recently gathered momentum in this country. However, the literature on the subject is growing and in this respect, I would like to extend my special thanks to members of the P.A.D.C. Study Team, Mr. Brian Clark (Project Director) and Messrs. Peter Wathern and Ronald Bissett (Research Fellows) who have proved to be a constant source of information and inspiration to me. I have been extremely privileged to have worked with the P.A.D.C. Team over the past two summers and consequently some of the ideas which follow in this paper have been derived from their research work. The responsibility for the interpretation of these ideas, however, is my own.

Section 1 The Growth and Responses to Environmental Awareness

"The environment issue was like an iceberg. It had been there for years but most of it was not visible. There was a tremendous body of public opinion until all of a sudden it was just enormous. Then a few things happened. There was the Santa Barbara oil spill. Some of the more literate individuals came out with publications like the Population Bomb. You had quite a bit of talk about pesticide problems and D.D.T. in fish and other wild life. All of a sudden people got very uptight about the environment and that is why it became a big issue in 1970." (California Journal, November 1970, p.316)

1.1. Growth in Environmental Concern

Increased environmental concern represents a cumulative response to both the intensified impact of man on the environment and the dissatisfaction of man's control on that impact. Its origins can be attributed to the convergence of various factors.

The 60's and 70's saw an upsurge in environmental interest which manifest itself in the media, education and the mushrooming of pressure groups.

There has been a general enlargement of the standard of living idea beyond that governed purely by consumption. If standard of living is to include quality of living this demands a broader decision base than economics alone. The latter has been recognised

1.1. (cont) as a mischievous quantifier in a world abounding with intangibles.

The creation of the D.O.E. (1970), European Conservation Year (1970) and the UN Conference on the Environment in Stockholm (1972) all represent concrete reactions to this growing awareness. Consider the following principle from the Declaration on the Human Environment signed at the Stockholm Conference:

> 13. "In order to achieve a more rational management of resources and thus to improve the environment, states should adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve the human environment for the benefit of their population."

This growth in environmental awareness has ramifications for the decision making process. Development proposals are likely to be challenged by environmental interests. At worst, this leads with increasing frequency to costly delays. At best, it suggests that sufficient expertise and understanding is emerging about the more subtle and long range consequences of development decisions, and this warrants a broader and more rigorous appraisal of factors being built into the decision making process. The alternative is to face increasingly lengthy and costly conflicts of interests as the awareness of, and concern for broader environmental values grows.

The scale of the problem is as large or as small as society chooses to make it. Thus responses vary from the activities of a

1.11. (ccontd) local pressure group to those of such 'invisible colleges' as the Club of Rome or the International Society for Technology Assessment. In this paper, the scale of the problem focuses on the handling of major development applications. The proposed solution response is one of rigorous and balanced assessment procedures via the employment of Impact Studies.[1] Before examining the situation as it exists in Britain (Section2) a brief review of the responses adopted in other countries will be made with particular reference to the North American experience.

1.22. Responses to Environmental Concern

Growing concern about the effects of major developments on the environment has received political recognition in various countries via the enactment in recent years of legislation specifically relating to the protection of the environment:

(a) Spain has a non statutory Environmental Impact Analysis procedure for both private and state funded developments.

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1 At this chosen scale, the Impact Study represents a specialized form of technology assessment in the broader controversy of 'environmental harassment versus technology assessment'. Consider Huddle's definition of technology assessment: "the purposeful, timely and iterative search for unanticipated secondary consequences of an innovation derived from applied science or empirical development, identifying affected parties, evaluating the social, environmental and cultural impacts, considering feasible technological alternatives and revealing constructive opportunities with the intent of managing more effectively to achieve societal goals."
(A Short Glossary of Science Policy Terms, 1972)

1.22. (contd)

(b) France is in the process of enacting legislation which will require impact studies for all projects authorized or approved by public authorities. This will encompass both private and public sector developments. Regional Environmental Commissions will be set up to vet these projects and a National Environmental Commission will deal with the more important of these projects.

(c) The Australian State of New South Wales requires an Environmental Impact Statement for 'environmentally major and controversial projects'. Whether a development falls into either of these categories is decided after consideration of a summary description of the proposal known as 'declaration of environmental factors' which must accompany any application for development approval.

(d) Canada has also developed an environmental impact assessment and review procedure for federally initiated or funded developments. This consists of a 2-stage, preliminary and detailed, assessment procedure prepared and paid for by the developer. The responsibility for review rests with an independent agency.

1.3. The American Response

Because of the availability of information on the subject, the American experience will be treated in greater detail. It is proposed to look first at the federal legislation and then at the

1.3. (cont) growth of 'little' and 'mini' NEPAS at the State and Local levels with particular reference to the situation in California where EIRs are required for both public and private development proposals. A final section will review the relative success of the American experience during the first 5 years of its existence. It is hoped that such depth of detail will demonstrate both the potential advantages derived from the American system and the disadvantages which should be avoided if some form of impact study is to be adopted by the British planning system.

The focus of the American response is found in the National Environmental Policy Act which came into effect on the 1st January 1970. As well as prescribing national environmental policies and establishing the Council for Environmental Quality, NEPA requires the production of EIS's for "major federal projects likely to have significant effects on the human environment". Neither 'major' or environmentally significant can be very adequately defined but attempted definitions include:

(1) Actions whose impact is significant and highly controversial on environmental grounds.

(2) Actions which are precedents for much larger actions which may have considerable environmental impact.

(3) Actions which are decisions in principle about major future courses of action.

(4) Actions which are major because of the involvement of several Federal Agencies.

1.3. (cont)

(5) Actions whose impact includes environmentally beneficial as well as environmentally detrimental effects.

With regard to content of EISs each Federal Agency has different requirements but in general terms they should include the following:

(1) A detailed description of the proposed action, with information and technical data adequate to permit careful assessment of the environmental impact.

(2) A discussion of the probable impact upon the environment including any direct or indirect consequences that may result from the action.

(3) Any adverse environmental effects that cannot be avoided.

(4) Alternatives to the proposed action that might avoid some or all of the adverse environmental effects, including analysis of costs and environmental impacts of these alternatives.

(5) An assessment of the cumulative long term effects of the proposed action, including its relationship to short term use of the environment versus the long term productivity of the environment.

(6) Any irreversible or irretrievable commitment of resources that might result from the action or which would curtail beneficial use of the environment.

(7) A final EIS must include a discussion of problems and objections raised by other Federal, State and local agencies, private organisations and individuals during the review process of process of the draft statement.

1.3. (cont) Economic and social factors were not included initially but subsequent guidelines issued by various government departments have included them to some extent. However, the literature does seem to suggest that it is the environmental aspects which have captured the imagination.

The actual procedures for the preparation of an EIS were not made explicit in NEPA. Instead procedures have been moulded by court decisions and the C.E.Q. guidelines. In general, the federal agency identifies those actions which require an EIS. This may be a highly discretionary and subjective decision according to the agency involved. However an agency can be taken to court by a citizens group that believes a decision not to produce an EIS is wrong (AEC in the Calvert Cliffs decision). Having decided to produce an EIS, the Federal Agency produces a draft statement based on interdisciplinary research which it must circulate for comment at least 90 days before the proposed action starts. This draft is reviewed by other Federal, State and local agencies as well as the public. Such consulted agencies may have jurisdiction by law as is the status of the E.P.A. or alternatively offer special expertise with respect to any impact involved. After this period of consultation all comments and objections received, including testimony given at public hearings if any are held, are incorporated into the final EIS which must be produced at least 30 days before the proposed action starts. Both the draft and final statements are filed with the CEQ and are available to the public. The final decision on the proposed action as to whether it should be approved, modified or refused lies with the promoting federal

1.3. (cont) agency.

Thus to summarize, apart from the promoting federal agency, other consulted agencies and the public, there are three principal actors in the process:

(1) The Council for Environmental Quality (C.E.Q.): It represents the main federal force behind the impact statement process. Its main tasks are to write guidelines, review agency procedures mediate in problem projects and publish summaries of all draft and final statements in its monthly 102 monitor. However it does not approve projects.

(2) The Environmental Protection Agency (E.P.A.): This agency is independent of NEPA in both function and organisation. However it is the only Federal Agency required by law to review and comment on all E.I.Ss. The agency employs a rating system for this review process based on:

(a) The rating of the project:

(i) lack of objections (L.O.)

(ii) environmental reservations (E.R.)

(iii) environmentally unsatisfactory (E.U.)

and (b) The adequacy of the document:

(i) Adequate (Category 1)

(ii) Insufficient Information (Category 2)

(iii) Inadequate (Category 3)

1.3. (cont) If a statement is unsatisfactory the EPA refers it to the C.E.Q. and these notifications are made public. However the EPA has no authority to stop a project and acts only in an advisory capacity.

(3) The Courts: The lack of enforcement power by the C.E.Q. has meant that the task of interpreting both NEPA and C.E.Q. guidelines has fallen to the courts. In fact the degree of participation by the courts has resulted in the accusation of NEPA being primarily aimed at keeping lawyers employed rather than improving the environment. The result of court procedures is very seldom the complete abandonment of a project but rather the enforcement of full disclosure of information.

1.4. The Growth of 'Little' and 'Mini' NEPAS

EIS is no longer exclusively a federal procedure for there has been a growth of State, county and local levels. These lower levels of government are increasingly aware that they should incorporate environmental concerns into their decision making processes. As of 1st January 1975, 32 States had enacted legislation to establish NEPA equivalents.

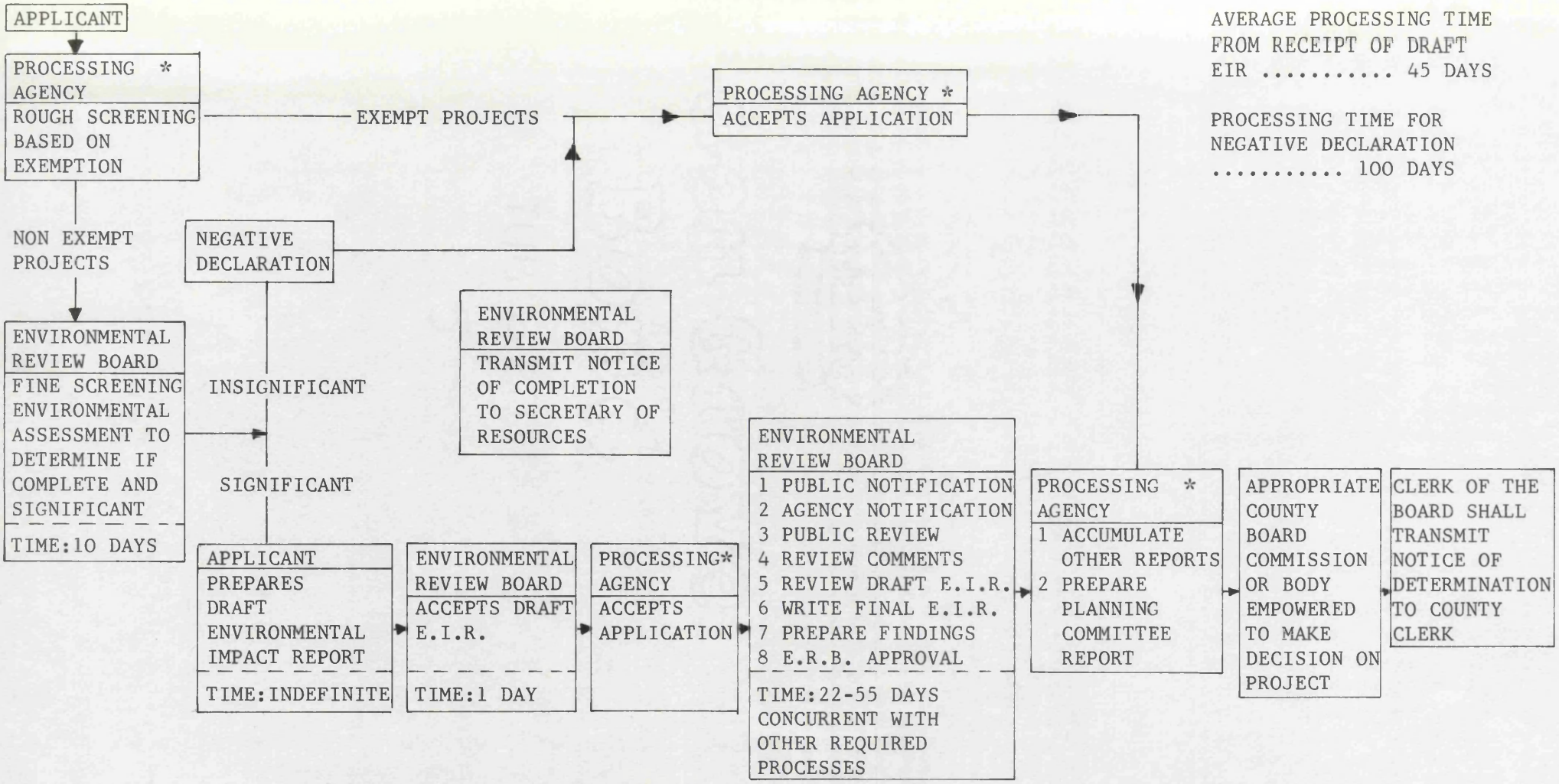
Land use decisions are the prerogative of local government. As such much of the real impact of a State's EIS requirements depends upon the question of whether those requirements extend to local government's control of the use of land for private activity. Only the laws of California, Massachusetts, Puerto Rico and Washington

1.4. (cont) currently impose EIS requirements upon local government.

Without trying to duplicate what already has been said concerning NEPA at the federal level, there appears to be some relevancy in examining the Californian system since it is the oldest and most extensive of these State programmes.

The California Environmental Quality Act (CEQA) was passed on the 23rd November 1970. The subsequent EIR requirements differ from those of the EIS in that they require separate treatment of both mitigation measures and growth induced impacts. Another major difference relates of philosophy: NEPA appears to stress trade-offs of competing values betwen each other, allowing the possibility of balancing adverse effects by some other stated consideration of national policy. CEQA limits EIR to the reporting of adverse environmental impacts, leaving the public agency to balance environmental objectives against social and economic goals. Also since 1972, CEQA has been applicable to private development. The guidelines which accompanied the Act are far more explicit. Amongst other things they state that the EIR is intended to enable public agencies to evaluate a project, not to 'rationalize approval of a project'. They also recognise that public agencies have obligations to balance other public objectives, including economic and social factors in determining whether a project should be approved.

However, inplementation of CEQA has been hindered by lack of central staff. There is no state equivalent parallel to CEQ. Thus there is no aid at interpretation of the Act and again no



* COUNTY OFFICE OF ENVIRONMENTAL MANAGEMENT: THIS IS A UNIT OF THE ENVIRONMENTAL DEVELOPMENT AGENCY, WHICH IS ALSO A PARENT AGENCY OF THE COUNTY PLANNING DEPARTMENT.

THE ENVIRONMENTAL REVIEW BOARD: THIS IS COMPOSED OF REPRESENTATIVES FROM THE OFFICE OF ENVIRONMENTAL MANAGEMENT, DEPTS. OF PLANNING, PUBLIC HEALTH AND COUNTY ENGINEER.

1.4. (cont) enforcement authority. Enforcement is again the responsibility of the judicial framework. In effect, State and Local agencies are allowed to evade the Act if they so desire, and if they can avoid being challenged.

The approach to CEQA is thus characterized by a laissez faire attitude. Two different approaches deserve mention. The first is a highly sophisticated approach adopted by San Diego County as outlined in figure 1. Many other cities and counties in California have adopted streamlined versions of this approach.

The fee for initial screening is $70. Thereafter if an EIR is required, it is prepared in draft form generally by a private consultant on behalf of the applicant. Processing fees charged by the County for review and preparation of the final EIR range $150 and $900. The final EIR as prepared by the OEM staff consists of:

(1) A draft EIR as amended by the ERB.
(2) A section containing the comments received during the consultation process.
(3) The response of the ERB to the significant environmental points raised in the review and consultation process.

A second and different approach is taken by Santa Clara County where there is an active effort made by the County's EIR staff to press developers into active participation in the EIR process. Here the EIR system is an integral part of the planning function

1.4. (cont) of the County. Emphasis is given to early consultation and review of development plans. This 'horse-trading' aspect of the process can be open to abuse if the public is not attentive of results. However for the professional planner, CEQA is providing in this context an extraordinary opportunity to bridge the two traditional planning roles of plan making and development control. This middleground can allow planners to design around environmental problems or invoke appropriate mitigating measures. The incentive for the developer is that a negative declaration may reasonably be granted or conditions imposed which may allow his project to pass EIR review. Credibility of the EIR process is essential for the viability of these planner-developer negotiations. The Santa Clara system almost takes the form of an 'appeal process' by which the developer attempts to show that his project is not damaging to the environment.

1.5. Evaluation of the American Experience

In general terms, there is no doubt that EIS procedures have had the effect of substantially raising the general level of consciousness regarding the environmental effects of development, and the concept has been widely accepted by public policy makers and environmentalists as a mechanism for managing growth. For the developer and the public alike it has had beneficial effects. The industrialist can now present factual data in support of his development and the public has an opportunity to properly challenge this development through the review and public hearing procedures. Each EIS must 'at minimum' contain information which will alert

1.5. (cont) the public to all known possible environmental consequences ..... both favourable and unfavourable. This 'full disclosure' law can thus open important phases of the decision making process to public scrutiny and pressure. As we have seen the public can institute litigations based upon procedure as well as fact.

However NEPA, in particular section 102, is not without criticism. In the words of Gilbert White, "The EISs required by section 102 confront noble aspiration with seedy and incomplete performance." One of the main criticisms of the EIS system is that Congress has provided neither money for preparing EISs nor the legal power needed to change proposed projects that could have detrimental impact on the environment. NEPA does not give any existing agency the power to enforce recommended changes so the EIS in certain cases may only represent additional paperwork and an opening wedge for harassment by 'environmental evangelists'.

Strictly speaking a Federal Agency can prepare a statement, receive unfavourable comments from all reviewers, note these comments in its final report and go ahead with the project as first proposed. Court action can alter particularly adverse aspects of some projects but despite initial optimism, not one project with adverse environmental effects has been stopped by NEPA and the EIS requirements. EPA has also played a disappointing role, given its environmental expertise. Moreover, it is frequently the case that by the time comments are invited the projects have reached a stage of technological advancement which makes it extremely difficult to change the plan.

1.5. (cont) The system as it exists may therefore be open to abuse. On the one hand the federal agency may use the EIS to justify self service activities, whilst growth opponents may use the EIS review process as a delay mechanism to effectively block development. This polarization of roles is very often aggravated by the poor information content of many EISs. A Rutgers' 10% survey in 1973 reached the conclusion that the majority of impact statements failed to present sufficient information to allow a neutral decision maker to judge the importance of the environmental benefits and costs of the proposed projects. The EPA has drawn similar conclusions and more important the percentage of statements labelled as inadequate have been increasing. One can either conclude that consultancy firms are either poorly prepared or ignoring the mandate of NEPA, or alternatively the guidelines that channel their responses are weak and ill defined. However, the alternative situation may also occur when a developer produces a highly sophisticated document only to find that public agencies have neither the capacity or the desire to properly use the information e.g. a Californian developer submitted an EIR 6" thick, weighing 12 lbs and costing $22,000 to prepare. The planning body had to commission consultants to evaluate the report which cost the developer another $30,000.

One final criticism is the fact that EISs are all too often seen in isolation from other planning activities. There is little evidence of linkages with the every day planning process of problem identification, formulation of alternatives, impact assessment and public evaluation. This situation is exacerbated by emphasis on the judicial rather than the planning framework.

1.5. (cont) In conclusion there is no doubt that EISs when good can be very good, both helping the developer to build an environmentally and economically sound project, and providing planners and local officials with data for making well informed decisions. However ..... when bad they can cost money and time not only through the approval process but later on the project's life when unanticipated effects bring grief to consumer, public agency and sometimes developer alike.

J.K. Galbraith remarked recently that the crises which the United States goes through at any time are just about five years ahead of similar crises in the other Western countries, and allows us just that five years in which to feel superior before we also are engulfed by the same problems. Those five years have passed and there are now signs that Britain, too, must make a response to the growth in environmental concern. It is unlikely that the British response will replicate that made by the United States. Each has a different statutory framework relating to planning and land use control and control of pollution. Such a full-disclosure law, creating a plethora of independent agencies and depending on the judicial rather than the planning framework for its enactment is unlikely to find favour in Britain. Nevertheless, Britain should pay due regard to both the advantages and disadvantages of the American system when contemplating the implementation of Impact Studies within the British planning system.

Section 2 The British Experience

Part 1 The Statutory Framework

2.1.1. Introduction

Any response to concern for the environment will depend in part upon the existing statutes relating to planning and land use and the control of pollution. These are to be examined now as they relate to the handling of major development applications. It should be stressed from the outset that there is a vast difference between 'existence' and 'effective usage'.

In reading Section 2, Parts 1 and 2, it would be helpful to consider the following questions:

(i) Does the British system bring to the attention of the decision maker whether it be the L.P.A. or the Secretary of State all the relevant factors sufficiently described and evaluated to enable a decision to be made for a specific project or a choice to be made between alternatives?

(ii) Does the system command public confidence?

Answers to these questions will help the reader form an opinion which he can compare with current attitudes on the subject of Impact Studies as they are examined in Part 3 of this section.

2.1.2. The Development Plan System

Any major development proposal must be considered in the context of the aims and policies of statutory development plans. The purpose of the forward planning mechanism i.e. structure and local plans is thus twofold:

1. To guide development to an appropriate place.
2. To provide the backcloth against which the proposals can be assessed.

The system plays an essential part and one which Impact Studies do not seek to dispense with but rather to supplement.

The Structure Plan is a statement of general policy approved by the Secretary of State. It has three main purposes:

1. To outline and justify to the public and the Secretary of State the authority's policies and general proposals for the development and other use of land in the area concerned.
2. To carry out national and regional policies in terms of physical and environmental planning for the area concerned.
3. To provide the framework for local plans.

Local plans are intended to show in detail how the policies of the structure plan are to be implemented. A local plan must be prepared for an action area as specified in the structure plan but otherwise their preparation is at the district authority's discretion,

2.1.2. (cont) subject to the Secretary of State's power to direct that plans of a particular kind should be prepared. There are basically 3 types of local plans:

1. District Plans: which set out proposals for both public and private development or other use of land and serve as an important guide for development control. They may cover whole or part of a L.P.A.'s area.
2. Action Area Plans: which may range from closely detailed plans (especially where a local authority is the developer) to a broad brief (which will only establish guidelines for the private developer, leaving the details to be settled by the process of development control).
3. Subject Plans: which explain in detail the authority's policy and proposals for some particular topic e.g. industrial location.

Any system of forward planning operates under the constraint of uncertainty. (Friend and Jessop, 1967) Consider for a moment how many of the controls available to a local authority are related only indirectly to the variables they are intended to influence, e.g. envisage the difficulties of structure planning conducted in the country's Development Areas when they are so dependent on changeable government economic policies. Uncertainty via lack of control is particularly prevalent within the private sector. Predictions on the rate and scale of investment cannot be made with confidence for more than a short period ahead for market forces and the commercial judgement of individual enterprises are at work. Plans can advise

2.1.2. (cont.) and guide but inevitably there are those developments arising from rapid technological change and discovery whose demands come in advance of provision for them in development plans. Uncertainty cannot be eliminated and this is why the development plan is supplemented by the development control system. However certain major developments promote such a degree of unplanned-for rapid change that more is required than our present development control system can provide. This gap in the system may be filled by the rigorous analysis of an Impact Study.

Development Control (2.1.3. - 2.1.10.)

2.1.3. The Decision-Making Authority

Development control is a district or general planning authority function. However in both England and Wales, and Scotland the county and regional authorities are given reserve powers to make decisions on certain applications. The Scottish system is guided by the Local Government (Scotland) Act 1973 in which the regional authority may 'call-in' for decision applications where:

(a) the proposed development does not conform to a structure plan approved by the Secretary of State, or

(b) the proposed development raises a new planning issue of general significance to the area of the regional planning authority.

Similar provisions apply in England and Wales, but they are less

2.1.3. (cont) precisely defined. Local Government Act 1972, Section 183, refers to 'county matters' but these are of a very general nature with mineral applications the only form of application defined as 'county matters' to be sent direct to the county authority. Other applications become 'county matters' if they conflict with the fundamental provisions of the structure plan, are inconsistent either with local plans prepared by the county or with a policy formally adopted by them. However the Act states that only "applications which appear to the district council to relate to county matters" need to be referred to the County Council for direction or decision. (Schedule 16, Part 1, Par. 19) To overcome this inherent conflict situation, procedures have been suggested in DOE Circular 74/73 whereby the county and district councils come to an informal agreement and establish a 'development control scheme'.

In both systems[1] the Secretary of State has the power to 'call-in' any application. It is also possible under these sections for the Secretary of State to issue a general direction relating to all applications of a particular type. (To all those requiring an Impact Study, perhaps?) These already include hypermarkets, oil production platform sites, oil terminals and oil storage facilities.

It can therefore be seen that three different levels exist in the decision making hierarchy. To ensure the effective use of resources in processing a major application the respective decision making tier

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1 Section 35, Town and Country Planning Act 1971

Section 32, Town and Country Planning (Scotland) Act 1972

2.1.3. (cont) should be decided as early as possible. Such a designation must not of course preclude subsequent contributions by the other levels. Different hierarchical perceptions and experience demand full co-operation to ensure effective decision making.

2.1.4. Public Sector Development

Since Public Sector Development (i.e. Government Departments, local authorities, nationalized industries and statutory undertakers) is subject to different development control procedures and since opinion has been voiced that such developments should be exempt from possible Impact Studies ..... a brief mention is given here to public sector procedures:

(i) Development by Government Departments does not need planning permission but discussions usually take place between local authorities and departments concerned to reach agreement. Circular 80/71 envisages that developing departments will follow as closely as possible to private sector procedures. Two particular development types lie outwith this circular:

(a) Trunk and Special Roads are governed by Highways Act 1959;

(b) New Towns are governed by the New Towns Act 1946.

(ii) Development by local authorities receives automatic planning permission, but types listed in Article 8 of the 1973 GDO, those affecting conservation areas and those which are departures

2.1.4. (cont) from the development plan must be advertised.

(iii) Developments by Nationalized Industries and statutory undertakers require planning permission but certain special provisions apply:

(a) a number of developments usually routine in character are given general permission by their inclusion in Clause XVIII of the GDO 1973,

(b) when statutory undertakers have been authorized by an Act of Parliament to carry out specific development on land designated in the Act, this land is covered by planning permission under Class XII of the GDO subject to approval of details by the L.P.A.,

(c) in the case of some statutory undertakers which require the authorization of a Minister, planning permission is deemed to be given with the authorization. This applies to power stations, overhead transmission lines, gas pipelines and opencast coal working, but in this process the undertakers' proposals are submitted to the L.P.A. (form B application). The L.P.A. is thereby allowed to state its views on the proposal before a direction is made by the appropriate Minister ..... it is not simply a question of 'leave it to the appropriate Minister'.

2.1.5. Outline and Detailed Applications

Applications can be made either in outline or in detail. It is my firm opinion that the type of major development application which we are considering in this paper should never be given outline permission, because once outline permission is granted the L.P.A. is obliged to allow the development in some form or other. However if an outline application is submitted and the L.P.A. decides that it cannot reach a decision on the information given it is theoretically open to the L.P.A. to seek both further information[1] and verification of any information given[2]. These powers are equally applicable to increase the detail of a so-called detailed application. If in practise these powers were effectively used one of the salient problems in the handling of major applications could be overcome. However the practical realities of the situation are:

1. Uncooperative developers.
2. Limited technical expertise within the L.P.A. to demand the relevant information and further interpret this information.
3. Fragmentary information submitted in the post application period.

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1 Town and Country Planning (General Development) (Scotland) Order 1975, Art. 5 (2).
Town and Country Planning General Development Order (Amendment) 1974, Art. 4.

2 Town and Country Planning (General Development) (Scotland) Order 1975, Art. 5 (4).
Town and Country Planning General Development Order (Amendment) 1974, Art 5 (4)

2.1.6. Consultations

Sources for consultations include the General Development Order (1973) as amended (Eng/Wales) and the General Development (Scotland) Order 1975, Acts of Parliament and circulars issued by the D.O.E., Welsh Office and S.D.D. Consultations may therefore be statutory as instructed by Acts of Parliament or Statutory Instrument, advisory as urged by the Secretary of State vis a vis circulars and informal i.e. at the discretion of the L.P.A. Most L.P.A.s publicise, notify and consult more widely than they are bound by law, but the practise differs widely. The process of consultation is an important technical information-gathering exercise. It provides the baseline data against which the information supplied by the developer can be assessed. In the processing of a major development application if a L.P.A. restricts itself to statutory consultations alone the outcome will be severely deficient.

2.1.7. Timing of Decisions

On receipt of an application the L.P.A. must notify the applicant of receipt and make their decision in 2 months, unless a trunk road is effected in which case the period is 3 months. If no decision is reached within this period the application is deemed to be refused and the applicant can thereafter lodge an appeal with the Secretary of State. This particular course of action is not commonplace with major development proposals. Normally the period is extended by agreement between the parties concerned. Mention should also be made of the informal consultation period between the developer and L.P.A.

2.1.7. (cont) prior to the formal submission of an application. In many cases this may be a particularly lengthy period of time ..... yet in all too many cases the application arrives to a largely unprepared L.P.A. Why? Is it largely due to fear of wasted effort and speculative applications? Surely there is a need for a better utilization of this period of informal consultation on the part of the L.P.A. Base line studies will never produce surfeit data for they will always provide information for forward planning. Perhaps the linkage between development control and development planning is not sufficiently realized.

2.1.8. The Decision

The final decision may be: (i) approval
(ii) conditional approval
(iii) refusal.

(i) If an application runs counter to a plan and the authority supports it, the L.P.A. can either apply to the Secretary of State for his approval of an amendment to the plan, or for a direction under Article 8 of the General Development Order. The latter is the more common approach since it is less time consuming.

(ii) The L.P.A. may impose such conditions 'as they see fit' upon a permission. However these conditions should be 'necessary, enforceable, precise, reasonable and relevant points to planning generally and to the development to be

2.1.8. (cont)

permitted'. Although it is a breach of planning control in failing to comply with a planning permission which has been granted, it is not an offence. It is at the discretion of the L.P.A. whether or not to serve an enforcement notice. The legal tangles which such a procedure promotes clearly emphasizes that rigorous analysis is necessary before any conditional approval is give. No possible contentious issue should be left to subsequent chance. Dobry clearly outlines this deficiency in the system when he admits (6.1) that because of the legal technicalities involved, enforcement practise is probably the weakest link in the development control system ..... (think of the Kishorn experience). The Secretary of State in his reply to Dobry (Circular 113/75) has promised legislation to be introduced at the first opportunity to make enforcement action against breach of planning control more rapid and effective.

(iii) Appeal against refusal of permission or the imposition of conditions can be made to the Secretary of State. He may reject or allow the appeal, or may alter the terms of conditions but before doing so he must affort both sides if they so desire either a private hearing or a public local inquiry.

2.1.9. Public Local Inquiries

Applications may be referred to the Secretary of State for decision under 'call-in' powers[1] or on appeals[2].

The Public Local Inquiry represents an important step in the decision making process at the ministerial level. One of its major functions is as a fact finding exercise on which the Inspector/Reporter bases his recommendations to the Secretary of State. Thus in theory the public inquiry should cover all the ground of an Impact Study but in practise this is not the case.

The scope of the public inquiry is defined in advance by the Minister in a letter to the L.P.A. This letter is made available to all participants. The L.P.A.'s statement must be available 28 days before the inquiry begins. No similar obligation is placed on the developer. Both the developer and principle objectors may be represented by Counsel. The developer's case is heard first, then the objectors', statements by other interested parties may follow and then the developer sums up. The Inspector then goes off to write his report, submits this to the Secretary of State and thereafter ..... usually quite a considerable time afterwards in which very few people have knowledge of what exactly happens ..... the Secretary of State issues his decision letter which may or may not accept the recommendations of his Inspector. This final decision may in fact reflect consideration

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1 Section 32, Town and Country Planning (Scotland) Act 1972.
Section 35, Town and Country Planning Act 1971.

2 Section 33, Town and Country Planning (Scotland) Act 1972.
Section 36, Town and Country Planning Act 1971.

2.1.9. (cont) of additional factors not even referred to in the inquiry or alternatively a change in government policy.

The level of public confidence in the inquiry system is without question at an all time low. Whilst the Drumbuie Inquiry highlighted criticism in 1973/74, the prize in 1975/76 must surely go to the much publicized Motorway and Trunk Road Inquiries (the proposed A55 along the North Wales coast and the Aire Valley Trunk Road). Although, perhaps of an exceptional nature, consider what Judy Hillman, planning correspondent for the Guardian, had to say about the Aire Valley Inquiry which has already cost £27,000 and got nowhere:

> "The Road to Pandemonium ..... when a public inquiry can only continue by excluding the public and relaying its proceedings by loudspeaker it has already strayed beyond credibility into the realm of a comic novel."

And consider also the comments of a local official at the A55 Inquiry which has been continuing now for nearly 9 months:

> "It seems to us there must be, even within the principles of democracy a simpler and cheaper way of resolving these issues, however complex they may be. At the end of the day, despite all that has been said and done during the 9 months, this boils down to a decision by one single person somewhere."

Such levels of criticism has resulted in the Council for Tribunals being asked to review inquiry procedures. Three of the main criticisms include:

2.1.9. (cont)

1. Excessive delays in the decision making process.
2. Excessive costs in the decision making process.
3. Unfair monopoly of information held by the developer.

It seems essential that to be productive the adversary system of the public inquiry should ensure that both sides are equally informed otherwise the nature of the conflict will only serve to increase the polarization of the participants, increase the delay in reaching an informed decision and increase the subsequent cost of the decision making process. Yet at present the developer not only has a monopoly of information but also is under no obligation to supply any of this information prior to the commencement of the inquiry. This makes the challenge by both 3rd parties and the L.P.A. very difficult. Various solutions to this problem have been offered: in the report, 'Energy and the Environment', 1974 it is suggested that the Secretary of State should make use of the powers under Rule 6(6) of the Town and Country Planning Inquiry Procedure Rules 1969 to elicit from large scale developers full technical and environmental details of their proposals well in advance of a public inquiry. These details should be made public; Dobry in his final report has recommended the use of pre-inquiry procedural meetings 'to identify the issues, to define the areas of agreement and disagreement between the parties and to determine the likely programme of the inquiry'; Departmental Advice (S.D.D. Circular 14/75: Public Inquiry Procedures) has been issued to Scottish local authorities to ensure that as much written material as possible is circulated before an inquiry. However no technical consensus has been suggested and the material would usually be confidential to the parties to the inquiry until the inquiry opens.

2.1.9. (cont) An Impact Study is an information document and it appears to me that such a document could play a key role in public local inquiries. Such studies may save time at inquiries by providing factual bases for the inspector's recommendations. At the inquiry, facts and issues on which parties are agreed could be submitted in writing so that attention could focus on unresolved issues. In certain circumstances, the factual documentation could consist of the impact study plus a report on unresolved issues.

2.1.10. Alternative Sites and the Planning Inquiry Commission

The procedure available at present for the consideration of alternative sites or composite developments or composite developments of a number of separate proposals is a Planning Inquiry Commission[1]. To date no development proposals have been referred to a Commission. This marked disinclination in official circles to make use of an inquiry commission is probably largely due to Central Government's experience of the Roskill Inquiry into the 3rd London Airport. However various requests have been made for the need of its use:

> "the mechanism of the Planning Inquiry Commission should be expanded so that when applications for particularly large projects (e.g. oil refineries and steelworks) are received, a decision can be made on one of several sites and not just the one applied for". (Select Committee on Land Resource Use in Scotland - Section 51)

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1 Town and Country Planning Act 1971, Sections 47 - 49.
Town and Country Planning (Scotland) Act 1972, Sections 44 - 47.

2.1.10. (cont) Although informal negotiations between L.P.A.s and developers may resolve the problem of alternative sites within one administrative area, there remain certain types of development with siting criteria that can only be met in a few locations in Britain. Where sites are thus dispersed over a number of L.P.A. areas the most suitable location might only be established after a long process which theoretically involves successive applications and inquiries relating to several sites. In practise however one finds the developer lodging one application for the site which he considers to be most appropriate. This choice is usually based on technical and economic feasibility studies. If this choice is not considered to be appropriate by all concerned the subsequent public inquiry will emerge as a curious ineffective amalgam of data related to the specific site proposals and a cursory glance at possible alternative sites. The situation is often further complicated by the additional difficulty of political competition for a development between areas of high unemployment.

An Impact Study, as an information document to facilitate the choice between alternatives, (see: 'Sites for Concrete Platform Construction in the Firth of Clyde', prepared by Jack Holmes Planning Group, Section 2, Part 2.) offers a possible solution to these problems.

2.1.11. National Policies

In addition to the statutory powers described in the sections above Central Government is also responsible for:

"securing consistency and continuity in the framing of a national

2.1.11. (cont) policy with respect to the use and development of land." (Cullingworth, 1972)

This function is entrusted to the Secretary of State whose duty it is to:

"co-ordinate the work of individual local authorities and to ensure that their development plans and development control decisions are in harmony with broad planning policies." (Cullingworth, 1972)

National Policy Guidelines must be recognised as playing a very important part in the decision making process. They are not intended to replace the decision making function but so often in respect of major development applications they are necessary to provide the framework in which a particular decision is made. This need has been recognised by S.D.D.:

"It is one of our aims to give central guidance and to build up as quickly as possible a set of guidelines on those aspects of land use which should be examined for Scotland as a whole and to draw these guidelines together into a composite document which will in turn become a compendium of all that can usefully be said about the national framework of land use planning." (Cmnd 5428, 1973)

The need for clear and coordinated national policy guidelines is there, however current evidence does not leave us with a very encouraging picture. Consider the non-existent central policy in

2.1.11. (cont) relation to oil related developments which was brought to a head in the furore of production platform site applications. Consider also the subsequent Coastal Planning Guidelines Paper (S.D.D., 74) followed by an Article 8 decision for Kishorn. Many of the current problems associated with motorway development may also be related back to the feeling of inadequacy over national policy which is enshrined in the 1970 White Paper, 'Roads for the Future'.

The importance and present lack of confidence in national policies has led to a demand particularly from national amenity bodies such as the Civic Trust, Friends of the Earth and Council for the Protection of Rural England for Strategic Impact Analysis as well as that for major developments. Such strategic impact studies could be prepared by the appropriate Government Department for the planning strategies of public agencies because frequently these policies set the context and subsequently provide the strongest justification for large numbers of developments. At the moment these strategies are being developed without full regard to their environmental consequences e.g. the long range electricity supply strategy of the C.E.G.B. (development of the Fast Breeder Reactor). Experience confirms that it is very difficult to argue effectively against individual proposals, however extensive their individual impacts may be, because it is the strategy that justifies them. Yet at the present there is no systematic or public way in which the possible consequences of such strategies can be debated or affected by outside bodies.

Thus apart from the inherent need for clear central government policies there also appears to be a need for:

2.1.11. (cont)

(i) Impact studies on long range strategies by public agencies, and

(ii) for such impact studies to be themselves the subject of public hearings.

2.1.12. Other Significant Legislation

The subject of the impact of development on 'amenity' is scarcely mentioned in the principle planning acts apart from minor issues such as Tree Preservation Orders, Buildings of Special Architectural or Historic Interest and Control of Advertisements. However various other acts demand its consideration:

1. The Countryside (Scotland) Act 1967
2. The Countryside Act 1968

The important effect of the above acts was to change the emphasis of the Countryside Commission's powers from the narrow context of 'preservation of the countryside' to the broader context of 'its use and conservation'. Part V of the Act contains a particular reference to the protection of amenity:

> "In the exercise of their functions relating to land under any enactment every Minister, Government Department and public body shall have regard to the desirability of conserving the natural beauty and amenity of the countryside."

As it stands this is rather a vague statement but it is one which both statutory and voluntary 'guardians of amenity' may seize upon

2.1.12. (cont) whenever there is likelihood of infringement.

The Secretary of State is also empowered under Section 9 to designate by order an area of special planning control following consultations with the appropriate planning authority. In cases of specified forms of development the authority is required by direction to provide specified information relevant to a planning application to both the Secretary of State and the Countryside Commission. Could these powers be invoked to ensure that some form of impact assessment is carried out whenever there is a major development application?

3. National Parks and Access to the Countryside Act 1949

This provides the main legislation concerned with the protection, preservation and conservation of plants and wildlife. This act gives mandatory powers to the Nature Conservancy Council who are obliged by statute to act as advisors to Central Government. Their prime function being to: 'give scientific advice, to establish and manage nature reserves and to organise and develop research.'

The Council may establish National Nature Reserves (Section 19), Local Nature Reserves (Section 21) and Sites of Special Scientific Interest (Section 23) and broadly speaking these areas are safeguarded against development proposals ..... 'unless a decision to change their status is taken at ministerial level.' (N.E.R.C., 1972)

2.1.12. (cont) 4. Control of Pollution Act 1974

Its basic purpose is to reform and supplement the existing law relating to the deposits of wastes on land, the control of water pollution, control of noise emissions and control of air pollution.

Part 1 relates to a new system for the collection and disposal of household, commercial and industrial wastes. It involves a licensing system to give more adequate control on the deposits of wastes on land, provisions to encourage reclamation and recycling and powers to control the import, supply and use of injurious substances.

Part 2 of the Act complements the Water Act 1973 (the Rivers (Prevention of Pollution) Acts have been repealed almost entirely). It reforms the power of Water Authorities in particular by extending their areas of jurisdiction to cover coastal waters, and by increasing the individual rights of members of the public. The Secretary of State will also be given powers to permit the use of effluent charges, a new form of control in the U.K.

Part 3 re-enacts and reforms the provisions of the Noise Abatement Act 1960 with a view to making the statutory procedure for the abatement of noise more readily effective and provides new controls over noise emissions from construction sites, plant and machinery. An important change lies in Section 58 which includes 'where noise nuisance is likely to occur' and therefore the L.P.A. can deal with potential noise in advance. Section 63 provides for a noise abatement order whereby a local authority can designate a noise abatement zone

2.1.12. (cont) confirmed by the Secretary of State.

Part 4 empowers local authorities to collect and publish information about air pollution including data on discharges from particular premises. Air pollution is still principally controlled by the Clean Air Acts 1956 and 1968 and the Alkali Etc Works Regulation Act 1906.

There is no doubt that Britain possesses a very comprehensive system of pollution controls. However, it is not without its critics:

> "Some of Britain's pollution rules are better suited to an Edwardian girls' school than to an advanced industrial society. Offenders are taken quietly on one side by the prefects and ticked off for letting the side down. There is no need for prosecutions; the shame of being found out is reckoned to be punishment enough. Carefully shielded from vulgar eyes, pollution control operates behind a deliberate smokescreen of evasion and reticence."
> (Tinker, 1972)

The '74 Act answers in part some of these criticisms and the Royal Commission on Environmental Pollution suggests further improvements in its 5th Report (Cmnd 6371):

> "262. We wish to see a more concerted approach in dealing with different industrial pollution problems and the creation of H.M.P.I. is essential for that purpose."

2.1.12. (cont) This may overcome the problems inherent in the intercorporate split between bodies concerned with enforcing pollution controls. (Regional Water Authorities (Eng/Wales), River Purification Boards (Scotland), Public Health Inspectors and the Alkali and Clean Air Inspectorate) The main purpose of the H.M.P.I. would be to expand the present concept of 'best practical means' to that of 'best practical environmental option'. Throughout the report there is stress laid on the fact that pollution is too important to be neglected in the interest of speed. Criticism is made of the fact that pollution is often a forgotten dimension in the planning process:

> "335 Pollution is often dealt with inadequately, and sometimes forgotten altogether in the planning process. In part this stems from lack of guidance and advice. Planning officers and committees are not pollution experts and they are necessarily dependent on advice on pollution matters. Such advice is not always available but even when it is, it is not always sought."

An Impact Study, through its rigorous balanced appraisal should seek to eliminate this forgotten dimension.

2.1.13. Conclusion

This then is the basic statutory framework against which any major development application is assessed. Before attempting to give answers to the two questions posed in paragraph 2.1.1., I feel it is essential to examine the statutory framework in practise.

Section 2 The British Experience

Part 2 The Situation at Work

2.2.1. Introduction

To examine the situation at work i.e. how the handling of a major development application fits into the statutory framework as outlined in Part 1 of this section, the obvious response would perhaps be to examine in detail a particular case study. There is doubtless value in detail but one of the aims of this paper is to examine the general need for the employment of Impact Studies. Thus in the time available as many examples as possible have been examined in an attempt to draw some general conclusions on the subject. This approach has proved to be fruitful for there does appear to be a repetitious pattern in the handling of major development applications. However, one must always be aware of synthesis: there are 'good' and 'bad' developers in this world just as there are 'good' and 'bad' local authorities. What follows must be regarded as a general picture around which individual cases deviate.

The types of developments examined have included mineral workings including open cast mining, oil terminals and refineries, aluminium smelters, gas terminals, an ammonia plant, a natural gas liquidation plant, oil production platforms, cement works, a fluorspar treatment plant, a brewery, a nuclear fuel reprocessing plant, power stations, petro-chemical works, motorways and trunk roads. In this we have

2.2.1. (cont) a bias towards industrial and communication developments. Other potential customers for impact analysis might have included reservoirs, marinas, national exhibition centres, hypermarkets, land reclamation projects and Ministry of Defence establishments. Neither time nor information permitted the examination of these project types but it is still felt that those examined are sufficiently broad in scope including both private and public sector developments to illustrate key points.

What follows is a general description of the scene and a definition of the roles each actor plays within this scene. The time limit extends over the past 15 years. What becomes apparent is that during this period of the 60's and 70's major development proposals on 'green-field' sites have always aroused environmental concern and questioned the ability of the planning system to cope with them. However, although these development proposals were sufficient in number, their staggered distribution over time and in areal distribution made the impact of this 'aroused environmental concern' highly localized and subsequently diluted in character. It took the discovery of North Sea Oil and its associated on shore activities to act as a spatial-temporal catalyst. Its impact above all others has focused attention on the inherent difficulties of ensuring adequate examination and analysis of complex proposals without causing undue delay in reaching a decision. Consequently the latter half of this chapter is devoted to the handling of oil related applications since these serve to highlight in more detail the general findings which we are now to discuss.

2.2.2. Main Findings

The developer's case is usually put in terms of economics and technical feasibility. Whilst the economic argument focuses of the general need for the development proposal, the technical argument relates to the specific site chosen. If objections to the development proposal are raised they frequently focus on 'Economic Benefits' versus 'Social and Environmental Costs'. 'Economic Benefits' can be interpreted at two levels:

(i) National Interest

(ii) Generation of Local Employment

(i) If the 'national interest' is involved it is fairly certain that the decision will be made at Ministerial level. It is also fairly certain that the preceding public inquiry will be characterized by a polarized argument between quantifiable national benefits and qualitative local amenity costs. The outcome whereby the local people by their loss of amenity bear the largest cost of a development which will benefit the rest of the nation is a fairly common occurrence. 'National Interest', a cardinal principle which one cannot seem to get away from these days, raises certain issues within the decision making process.

It has attached to it a certain stigma of 'inevitability'. This may lead the local council to relinquish its

2.2.2. (cont)

responsibility to Central Government. This applies to both private and public sector developments. The latter however have the edge for they are couched in what may be termed 'compounded inevitability' derived from a monopoly of technical expertise and certain statutory obligations e.g. C.E.G.B. has a statutory obligation to provide 'an efficient, co-ordinated and economical system of electricity supply'. However there is no reason why this resignatory 'leave it to the experts or appropriate minister' philosophy should occur in the face of 'national interest'. A rigorous appraisal at the local level can provide the basis for stringent conditions of consent e.g. the 70 conditions which have been attached to the permission given to Cromarty Petroleum Company for their oil refinery at Nigg Point. The Private Bill (April 1974) enacted by Shetland County Council in relation to the multi-user terminal at Sullom Voe provides perhaps an extreme example of the degree of local commitment which is possible in the face of 'national interest'.

However in general the input of 'national interest' into the public local inquiry system must distort the decision making process. This input must be seen in the light of practical economic and political realities; if the 'national interest' is sufficiently strong then the time and cost given over to the public local inquiry

2.2.2. (cont)

must be held to question. There will always be certain decisions which must be made at Cabinet level. (e.g. the expansion programme by British Nuclear Fuels Ltd at Windscale, Sellafield or the National Coal Board's proposals at Selby). In such situations the inquiry is serving the purpose of formulating and publicising the many complex issues involved in the decision and ensuring that legitimate fears of those living in the affected area are given a fair hearing. Could this function in such significantly 'national interest' cases not be substituted by an Impact Study ..... one which has a sufficiently wide circulation and whose assessment procedures have included affected group values and interests?

(ii) An equally common ground for confrontation is provided by the second tier in the developer's economic-benefit argument i.e. the generation of local employment.

A member of Anglesey County Council at the time of Shell's application for an oil terminal at Amlwch is quoted as saying:

"There are people here who would welcome a heroine factory if it gave people jobs."
(Richard West, 1972)

Lord Goodman with regard to the same application said:

2.2.2. (cont)

"It is improper that all considerations should be overridden for 60 jobs".

(Richard West, 1972)

These two quotations illustrate two important points. The prospect of the creation of local employment is a very forceful argument for a development's acceptance by local councillors. It is often said that if a developer can convince the council he will provide jobs for the locals he is half way there. In such areas where there is an overwhelming desire to create employment members and interested public (the environmentalist lobby excluded) will not only be pushing for the planning department to take a positive line but they will also be suspicious of what they might consider any undue period of time being taken to reach a decision. The possibility of lost employment and rateable income creates pressures which may lead to an unbalanced, inadequate appraisal of the impact of the proposed development.

It is also a sad fact of life that many of these areas in which high unemployment and emigration rates are characteristic problems are simultaneously by their remoteness and rural character, areas of high amenity value. The situation of jobs v. amenity in a politically volatile climate is a common setting for the handling of major development applications. This conflict

2.2.2. (cont)

situation has been highlighted in recent months by the increasingly frictional relationships between National Park Planning Committees and County Councils. For example N. York Moors Park Committee rejected applications for renewed planning permission for two potash mines near Whitby, only to be told by N. Yorks. County Council to think again. Also Derbyshire County Council sought to remove one of their representatives from the Peak Park because he voted on a conservation ticket and not the economic one favoured by the County Council.

Major development applications are the subject of major delays. It was found that up to 32 months may elapse between the submission of an application and a final decision. One of the main factors which contribute to this delay is the considerable difficulty experienced by L.P.A.s in obtaining the necessary information from developers to analyse the implications of proposed developments. Any major development proposal can be guaranteed to be complex either by its pure physical size; an unusual activity or process; or by the sheer fact that it was totally unanticipated and little prior warning was given.

Information of two sorts is required from the developer:

(i) General Siting Criteria: This will include technical, economic and policy factors considered by the developer in his analysis of site selection. If a L.P.A. has such data

2.2.2. (contd)

at a sufficiently early stage this should allow a better understanding of the site constraints and possibly help in encouraging a more positive attitude in the evaluation of alternative sites. Although this information should come from the developer it could also be supplied from Central Government. S.D.D. has in fact begun a series of Planning Advice Notes on major development types.

(ii) Information directly related to the development application: Such information may include some or all of the following categories:

(a) Details of the proposed plant and its processes

(b) Physical characteristics of the application site

Land requirements

Site utilization (detailed plans at varying scale)

Marine site characteristics (where appropriate)

(c) Employment characteristics

During construction phase

When development is operational

(d) Financial Data

Wage and salary levels

Expenditure on locally produced inputs

(e) Infrastructure Requirements

Raw material demand

Transport requirements

Water demand

Electricity demand

2.2.2. (contd)

Gas demand

Housing demand

(f) Factors of Environmental Significance

Noise levels

Vibration levels

Gaseous emissions

Odours

Dust

Discharge of aqueous elements

Solid wastes

(g) Emergency Services

Fire and medical services

Hazard

Control of pollution at marine facilities

(D.O.E. Research Report No 13, 1976)

Apart from the inherent difficulties of monopoly of information already mentioned there are those of slow supply and validity of information. Developers often argue that information is not available at an early stage e.g. outline application. This is in part true particularly with regard to oil-related activities where the degree of uncertainty due to the factor of discovery, world energy costs and emergent technologies is particularly high. All developments are influenced in varying degrees by uncertainty but experience of major proposals suggests that applicants planning major investments will have gone through fairly detailed investigations of most aspects of the proposed development including siting criteria, labour and raw material requirements. Similarly levels of emissions should be known

2.2.2. (contd) from design work and past experience.

Another argument put forward by the developer is frequently protection of commercial interests. The clandestine character of effluent data testifies to this. However spokesmen for both Shell and the C.B.I. have testifies to the fact that in practise the notion of industrial secrets leaking down the plughole is ludicrous.

The need for information is obvious not only in respect of the L.P.A. but also in the interest of the public at large.

> "We need an independent and objective appraisal of the risks involved at Windscale in terms that people can understand ..... and quickly before Parliament and Trade Union pressures, force the Government to commit W. Cumberland to still further irradiated fuel reprocessing contracts, not only in Japan but in Timbuktu."
>
> (Whitehaven News, January 1976)

The above represents a frequently heard cry of public disillusionment over both developer's and L.P.A.'s handling of a major application. In the above case it relates to British Nuclear Fuels Ltd. proposed expansion programme at Windscale, Sellafield.

The increasing vociferous information demands made by both the L.P.A. and the public are gradually taking effect. However it is very difficult to generalize on the responses made for they vary from the superficial public relations exercise to the submission of

2.2.2. (cont) articulate data. The approach adopted by N.C.B. at Selby is worth noting: a full-time public relations officer was appointed who went to live in the area. A regular newsletter is published which answers objectors queries and a total of 60 public meetings have been held in the last year. The success of this approach perhaps offers a future blueprint for inquiries and environmental management schemes?

Over the question of validity of information it is obviously not in the developer's interest to mislead the L.P.A. but it happens fairly regularly.

> "What annoys me most is the way in which these large companies will con small County Councils, as they did in Anglesey, will con Parliament, will con the Inspector at Public Inquiries. They will say anything to get their plans through." [1]
>
> (Man Alive, B.B.C.2 1974)

It is difficult to spell out whether such faulty information is deliberate deception or over optimism on the part of the developer. But what is easy enough to point out is that given the legal complications of enacting enforcement notices there is little a L.P.A. can do other than make life difficult for the developer in subsequent applications or reserved matters. This danger serves to emphasize the point of the need for a rigorous appraisal of information in the decision making process.

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1 Statement made by Marquess of Anglesey in respect of Shell and their application for an oil terminal at Amlwch.

2.2.2. (cont) The question of delay cannot be attributed to the developer alone for often the lack of structure in a local authority's assessment procedures vary widely and are largely a function of:

(1) Information Availability (not only that held by the developer but also the planning department, other departments within the local authority and other external bodies).

(2) Manpower Resources.

(3) Technical Expertise.

Both quantity (2) and quality (3) of staff resources will reflect itself in assessment procedures. Consider the different perspectives offered by the narrow professional base of a planning department consisting of chartered town planners and geographers alone and one of a multidisciplinary nature including ecologists, economists, sociologists etc. Information availability (1) however is the key to assessment procedures. Its comprehensiveness is challenged by existing information being uncoordinated, or unusuable or even worse non-existent. All too often it is the proverbial situation of the 'left hand not knowing what the right is doing.' To improve the comprehensiveness of information availability there is an increasing need to adopt the corporate outlook.

2.2.3. North Sea Oil and the Scottish Experience

Four general spheres of concern have now been identified within the 'British Situation at Work':

2.2.3. (cont)

1. The political and economic realities in which a major development application is handled.
2. The widespread factor of delay in processing these applications.
3. The inadequate submission of information by the developer.
4. The lack of structure in a L.P.A.'s assessment procedures.

Given these areas of concern what was the response made by the Scottish local authorities when faced with the onslaught of oil related applications in the early seventies?

When the first proposals were received in 1971 early 1972, the development plans for the affected areas inevitably did not make provisions for the types of development that were proposed, e.g. for the whole of Sutherland County and most of Shetland there was no development plan at all. These applications arrived to face a largely unprepared local planning machine. At the central level S.D.D. was equally unprepared concentrating at the time on the problems of West Central Scotland. However the problems which these sudden change developments brought required a change of focus. These were problems derived from some or all of the following factors:

..... large scale of projects (employment, material etc.).

..... unusual activities or processes.

..... required sites in areas of small resident population.

..... required sites in areas with insufficient infrastructure.

..... required sites in areas of scenic significance.

..... temporary (in some cases discontinous) projects.

2.2.3. (cont)

..... changing site requirements.

..... 'national interest' in the project.

In addition to these complexities derived from the project types, the problem was exacerbated by staff shortages.

The response by Derek Lyddon, Chief Planner S.D.D. was that "these uncertainties and complexities demand more planning, not less; but of a certain sort". His prescription was that, in these circumstances of sudden change, in addition to forward development planning "particularly positive steps are required to find out the full consequences of that application going ahead. In the majority of cases the full consequences can only be worked out by undertaking some form of impact analysis".

To date ten such studies have taken place. Initially S.D.D. 'called-in' the applications and commissioned consultants. However in later cases the L.P.A. concerned has either appointed consultants themselves with technical and financial assistance from S.D.D. or alternatively have done the study themselves.

Brief details of each analysis follow in par. 2.2.4., but certain salient points require emphasis.

Studies 1 - 6 all relate specific projects to specific sites. However the Fiotta (5) and Sullom Voe (6) studies are more concerned with working out the details of the project in an optimum manner rather than contributing to a decision in principle on a planning

2.2.3. (cont) application as in Studies 1 - 4. Studies 7 - 10 differ in that they are not single site/single development studies. The comparative Loch Carron (7) and Firth of Clyde(8) studies examined areas rather than sites in which there were several potential sites and several prospective developers. In the Loch Erribol (9) and Buchan (10) Studies there are several potential sites within two relatively small areas. There is therefore diversity in the potential use of Impact Studies.

It should also be made clear that none of these studies have attempted an actual assessment of impact. They have rather shown a confirmation of the occurrence of individual unrelated circumstances. The problem of impact assessment will be discussed further in Part 3, Section 1.

However what these studies have made clear is that an impact study is no longer a theoretical 'pie in the sky' concept. The only danger lies in the fact that such studies might be regarded as synonymous with major oil related applications. It is hoped however that sufficient evidence has been produced in both Parts 1 and 2 of this section to convince the reader of the general need for impact studies. It is not my belief that in relation to the handling of major development applications the system either commands public confidence or brings to the attention of the decision maker all the relevant factors sufficiently described and evaluated to enable a decision to be made either for a specific project or a choice to be made between alternatives. Perhaps both are theoretically unattainable goals but the rigorous balanced analysis implicit in

2.2.3. (cont) Impact Studies would represent a positive step towards their attainment.

In the concluding part of this section which analyzes the current attitudes towards the possible implementation of Impact Studies responses derived from the impetus of North Sea Oil have been deliberately omitted to prevent any undue bias.

2.2.4. Ten Studies of Impact Analyses as related to the experience of North Sea Oil in Scotland

1 IMPACT ANALYSIS: OIL PLATFORM CONSTRUCTION AT LOCH CARRON (DRUMBUIE)

Developer: John Mowlem and Taylor Woodrow

Commissioning period: About 1 month

Date Commissioned: 22 May, 1973

Date Published: August 1973

Study Team: Sphere Environmental Consultants Ltd

Sponsoring Body: Scottish Development Department

Terms of Reference: To analyse the impact of the proposals upon the physical environment and on the surrounding communities: to indicate any planning or other conditions that would minimise particular adverse impacts; to indicate any matters requiring further study; and to suggest any environmental characteristics that should be monitored in the event of planning permission being granted.

Objectives: To assist Ross and Cromarty County Council and the Secretary of State for Scotland to consider the planning applications with the fullest possible knowledge of the many local implications of the possible developments.

Contents: Description of project area.
Proposed project.
Existing economic activity.
Existing infrastructure.
Existing social structure.
Private sector land and housing.
Currently planned development.

1 (cont)

Analysis of potential impacts:

General

Physical

Economic

Infrastructure

Social Structure

After the project

General recommendations

Remarks:

This was the first study of this kind in Scotland. In drawing up the brief, use was made of the Leopold Matrix approach (extended to cover social and economic matters) and of experience with proposals for steel platform construction sites on the east coast. The report was published before the public inquiry into the Drumbuie proposal, and the Consultants, acting neither as supporters nor objectors, presented a summary of the results and were questioned at the inquiry. Unfortunately this objective analysis was not effectively used at the inquiry; the 2 sides used only those parts of the evaluation which happened to coincide with their argument.

Cost: £9,204

2. IMPACT ANALYSIS: OIL PLATFORM CONSTRUCTION AT LOCH BROOM

Developer:	John Mowlen Ltd
Commissioning period:	1 month
Date Commissioned:	15 August 1973
Date Published:	November 1973
Study Team:	Sphere Environmental Consultants Ltd
Sponsoring Body:	Scottish Development Department
Terms of Reference:	To analyse the impact of the proposals upon the physical environment and on the surrounding communities; to indicate any planning or other conditions that would minimise particular adverse impacts; and to suggest any environmental characteristics that should be monitored in the event of planning permission being granted.
Objectives:	To assist Ross and Cromarty County Council and the Secretary of State for Scotland to consider the planning application with the fullest possible knowledge of the many local implications of the possible development.
Contents:	Brief description of existing situation Village plan The proposed project Analysis of potential impacts General recommendations

2. (cont)

Appendices: Description of project area
Existing economic activity
Existing infrastructure
Existing social structure
The Village plan
The proposed project
Collaborating bodies and organisations.

Remarks:

This study was commissioned at about the time the Loch Carron (Drumbuie) study was nearing completion. The report is similar in content and style to the Drumbuie study, with a more detailed description of flora or fauna in the area. The planning application that gave rise to the study was withdrawn when the study was nearly completed, and it has never been printed in quantity and published. This surely raises the question of the possibility of the developer financing all or part of the Impact Study. £11,000 is a high price to pay for a speculative developer.

Cost: £10,967

3. IMPACT STUDY: PLANNING APPLICATION BY MESSRS FRED OLSEN AT ARNISH POINT, STORNOWAY

Developer:	Fred Olsen Ltd
Commissioning period:	Very short as internal study
Date Commissioned:	November 1973
Date Published:	February 1974
Study Team:	Ross and Cromarty County Planning Department
Sponsoring Body:	Ross and Cromarty County Council
Terms of Reference:	To appraise the planning application submitted by Fred Olsen Ltd for oil related development at Arnish Point, recommend either its rejection or approval and suggest suitable conditions which could be attached if the proposals are approved.
Objectives:	To establish the likely physical, economic and social impact of the proposed development upon the Stornoway and district community.
Contents:	Summary of main Olsen proposals Physical impact Economic impact Transport impact Social impact Impact on infrastructure services Impact on recreational facilities Summary of main implications of project Prospect for Lewis if project is rejected Recommendations Consultations recommendations

3. (cont)

Visual analysis

Economic analysis

Social analysis

Housing

Tourism

Remarks:

The proposed project had an immediate attractiveness because of the unemployment situation in Lewis. The study was carried out in-house by the County Council (with technical assistance from Highlands and Islands Development Board) with special emphasis on the employment and housing implications. An interesting feature of the report was the section on the cultural effect of a major manufacturing employer in an area characterised by small scale farming and fishing, and with strong Gaelic influence. This study proves that Environmental Consultants are dispensable and that Impact Studies can be carried out quite adequately by the local planning authority themselves.

Cost: In-house study not subject to formal costing.

4. OIL REFINERY AT NIGG, ROSS AND CROMARTY

1. ENVIRONMENTAL FEASIBILITY REPORT (with addendum relating to revised application)
2. NOISE AND VIBRATION REPORT ON ALTERNATIVE SITES AT NIGG AND DELNY (with addendum relating to revised application)
3. LANDSCAPE REPORT (with addendum relating to revised application)
4. IMPACT STUDY

(1 - 3 prepared for CC by consultants; 4 prepared by CC)

Developer:	Cromarty Firth Petroleum Company
Commissioning period:	
Date Commissioned:	February 1974
Date Published:	June 1974 and September 1974
Study Team:	Ross and Cromarty County Planning Department in conjunction with Cromer & Warner, Consulting Engineers; The Architect Design Group, Landscape Consultants; Acoustic Technology Ltd.
Sponsoring Body:	Ross and Cromarty County Council
Terms of reference:	To undertake the preparation of an impact study with the assistance of specialist advice.
Objectives:	To enable the authority to decide the planning applications on the basis of impacts on physical, economic and social structure, transport, housing, infrastructure, recreation and tourism and the necessity for a refinery from the national economic interest.

4. (cont)

Contents (LA report): Physical Impact

Economic Impact

Transport Impact

Social Impact

Implications for Housing and Infrastructure Services

Impact on Recreation and Tourism

Summary of Implications

Conclusions and Recommendations

Appendices

Remarks:

The County Council commissioned three separate consultants' reports on pollution, noise, and landscape, and added to these their own in-house studies of housing, infrastructure and other planning implications. This information was formally examined at the public inquiry and may have contributed quite substantially to the 70 conditions attached to the planning permission.

Cost: Not known

5. FLOTTA ORKNEY OIL HANDLING TERMINAL

REPORT 1: AN ENVIRONMENTAL ASSESSMENT

REPORT 2: VISUAL IMPACT ANALYSIS AND LANDSCAPE PROPOSALS

Developer:	Occidental of Britain
Commissioning period:	
Date Commissioned:	August 1973
Date Published:	December 1973 and June 1974
Study Team:	W.J. Cairns & Associates
Sponsoring Body:	Occidental of Britain Inc
Terms of Reference:	To state the procedures being followed by the Occidental Group in fulfilment of the environmental requirements for planning permission.
Objectives:	To identify and evaluate all potentially significant environmental effects of the proposed undertaking at the outset in order that alternative solutions including remedial measures are taken into consideration at an early stage in design decision-making. To take all practical measures to protect the environment of both land and sea and to maintain the balance and health of natural systems and their component organisms by measuring and monitoring change. To resolve conflicts that may occur between the social, visual, ecological and engineering requirements during all stages of development

5. (cont) including the period of construction and operations as well as restoration of the land following the cessation of operations.

Contents:

Stage 1: Project Development and Operation

Stage 2: Environmental Baseline

Stage 3: Visual Impact Analysis and landscape proposals

Stage 4: Marine Ecosystem Impact Environmental Protection

Stage 5: Terminal Operations

Remarks:

These studies were commissioned and paid for by the developer. The first two stages preceded the granting of planning permission in principle. The subsequent stages, which are still continuing, consist of detailed analysis and proposals for the project. The studies do not cover the social and economic implications of the project.

Cost: Not known.

6. SULLOM VOE AND SWARBACKS MINN AREA: MASTER DEVELOPMENT PLAN AND REPORT RELATED TO OIL INDUSTRY REQUIREMENTS

Developer:	NA
Commissioning period:	NA
Date Commissioned:	January 1973
Date published:	Draft reports: February - July 1973 Final reports: Phase 1 - April 1973 Phases 2-5 - September 1973
Study Team:	Livesey and Henderson, Consulting Engineers, in association with others.
Sponsoring Body:	Zetland County Council
Terms of reference:	To prepare a Master Plan to accommodate all the foreseen oil industry and related developments, so as on the one hand to meet the technical requirements of these developments and on the other to cause the least possible damage to agriculture, fishing, and to the social, natural and visual environments of Shetland.
Objectives:	To confirm the suitability of Sullom Voe as the site for a major industrial complex in Shetland to provide for oil and gas developments. To predict the nature and possible magnitude of industrial requirements, to examine in depth the marine and engineering aspects of the Sullom Voe area for oil industry and related developments, and to assess how such developments can be accommodated

6. (cont) with the least disturbance to the Shetland environment, and what complementary infrastructural developments will be required.

Contents:

DRAFT REPORTS

Phase 1 Suitability of Selected Sites

Phase 2 Master Development Plan and Report, related to Oil Industry Requirements

Phase 3 Volume 1: Oil and Gas Resources and and Production:
Estimates for the Shetland Offshore Areas

Volume 2: Demands on Resources:
Land Areas, Employment, Water Space

Phase 4 Volume 1: Planning Aspects - Industrial Development

Volume 2: Planning Aspects - Future Settlement Pattern

Phase 5 Volume 1: The Suggested Strategy

Volume 2: Planning Survey

Volume 3: Engineering Survey and Cost Data

FINAL REPORTS

Phase 1 Suitability of Selected Sites

Phase 2 Marine Terminal Studies

Phase 3 Estimates of Production and Demands on Resources

Phase 4 Planning Aspects

6. (cont)

Contents: (cont) Phase 5 Volume 1: The Suggested Strategy

Volume 2: Survey and Cost Data

Remarks:

Offshore oil and gas discoveries made a demand for major industrial sites in Shetland virtually certain. The Council were determined to prevent proliferation of major oil installations and wished to guide potential developers towards the establishment of one industrial complex. From local knowledge and expertise and with limited technical advice they selected Sullom Voe as offering a suitable combination of inshore deep water and coastal flat land, with fewer environmental and social problems, than other potential industrial sites. The present study aimed to confirm the suitability of this choice by a thorough technical analysis which would determine how best to guide development. Phase 5 Volume 1 of the study sets out the suggested strategy in the form of a structure plan and local plans for the villages which would be particularly affected.

Cost: Not known.

7. LOCH CARRON AREA - COMPARATIVE ANALYSIS OF PLATFORM CONSTRUCTION SITES

Date Commissioned: February 1974

Date Published: March 1974

Study Team: Sphere Environmental Consultants Ltd

Sponsoring Body: SDD

Terms of Reference: To examine eight possible sites for gravity platform construction in Loch Carron.

Objectives: To rank these eight sites in order of preference from the environmental point of view.

Contents: Introduction and Summary
Considerations relating to Site Evaluation
Description of sites
The Matrix - factors considered, weighting
Site Matrix analysis - results and analysis of results; recommended site
Implementation: social, organisation and management, physical, costing of infrastructure, revenues and benefits from 'new village'.

Remarks:

This was a follow up to the Drumbuie study to see how other sites compared with the main site. It was carried out during the protracted public inquiry, and was accompanied by a parallel comparison of the engineering merits of the sites financed by Department of Energy and carried out by Crouch and Hogg. The rapid completion was possible because data on the project and the area had already been collected. It is interesting to consider what the Reporter at the Inquiry thought of the Matrix method: "I regard this system as misleading

7. (cont) because the weight put by the assessor on each item is entirely subjective; the assessor can reach any result which he consciously or unconsciously desires. Further a serious omission from the Matrix is the element of social and cultural impact. I propose to ignore the Matrix system."

Cost: £7,002

8. SITES FOR CONCRETE PLATFORM CONSTRUCTION IN THE FIRTH OF CLYDE

Developer:	NA
Commissioning period:	About 1 month
Date Commissioned:	January 1974
Date Published:	July 1974
Study Team:	Jack Holmes Planning Group in collaboration with Crouch and Hogg, Consulting Engineers.
Sponsoring Body:	Scottish Development Department and the Department of Energy.
Terms of Reference:	To examine in social and environmental terms sites for platform building in the Clyde Estuary, (later extended to include Loch Fyne and Ayrshire, Wigtownshire coasts to Loch Ryan) which have been identified for the Department of Energy on the grounds of their potential suitability to a contractor and on the basis of a demand for platform construction sites requiring float-out depths ranging between 17-24 fathoms.
Objectives:	To achieve a direct reduction in unemployment, to make full use of existing infrastructure, as well as analysing visual intrusion and social impact, and to consider outstanding planning applications for platform fabrication sites at Toward Quay and Hunterston and sites at Portincaple, Ardentinny and Portavadie.

8. (cont)

Contents:

General

Social and economic factors

Land considerations

Transportation

Overall planning aspects

Discussion of sites

Social and economic factors

Landscape and environmental impact

Assessment of individual sites

Method of assessment

Description of Criteria and ranking order of preference matrices

Conclusions

Remarks:

This study covered (in two stages) the whole of the Firth of Clyde: there were a large number of possible sites in the area and several potential developers, and the report thus made a comparison of several sites for different assumptions about the total number to be developed.

Cost: £41,832

9. DEVELOPMENT - LOCH ERIBOLL FEASIBILITY STUDIES (FIRST PHASE)

Developer:

Commissioning period: 3 months

Date Commissioned: April 1974

Date Published: June 1974

Study Team: Peter Fraenkel & Partners in association with Economic Consultants Ltd and Llewelyn-Davies, Weeks, Forestier-Walker and Bar.

Sponsoring Body: Sutherland County Council

Terms of reference: To examine the economic and operational feasibility of locating various types of development facilities at Loch Eriboll.

Objectives: To assess the development potential of Loch Eriboll, and to preview requirements for further studies if a potential for development were demonstrated.

Contents:

9. (cont)

Remarks:

This study was the public response to an obviously speculative development with many inherent problems where the planning authority wished to obtain a clearer idea of the physical and economic feasibility and planning implications of the proposals. The first stage covered the feasibility aspects, and the second (impact analysis) stage was not reached because no possible developments seemed sufficiently viable from an economic viewpoint. However the first stage of necessity touched upon many of the infrastructure and physical implications. It was intended to proceed to a third stage (district plan) if any development had emerged favourably from the impact analysis stage.

Cost: £7,700

10. BUCHAN IMPACT STUDY (PART 1 AND PART 2)

Developer:	NA
Date Commissioned:	November 1974
Date Published:	Part 1 February 1975 Part 2 June 1975
Study Team:	Economist Intelligence Unit Ltd
Sponsoring Body:	Aberdeen CC and SDD
Terms of Reference:	To assess the demand for sites for petrochemical and other processes in the Peterhead area, to assess the direct impacts and requirements of these industries and to make recommendations about safeguards, planning conditions, and monitoring for plants already considering siting in the area. In stage 2, to make an appraisal of the combined impact of these current and potential industrial developments on the social, economic and environmental character of the area and on infrastructure demand; to define sites which are suitable for the industrial projects identified in Part 1; and to prepare a balanced locational strategy for development and conservation, together with an implementation programme and recommendations as to monitoring.
Objectives:	To provide an understanding of the extent and type of industrial projects likely to locate in Buchan as a result of North Sea

10. (cont) Objectives: (cont) oil and gas development, as a background to the assessment of individual planning applications.

Remarks:

It was known that large quantities of natural gas and natural gas liquids (which is a petrochemical feedstock source) would be brought ashore in Buchan from marine pipelines. The study therefore examined the economic probability of different types of development occurring, analysed the impact implications of the various overall levels and specific types of development, and suggested locations for the possible developments.

Cost: £24,700

Section 2 The British Experience

Part 3 Attitudes towards Impact Studies

2.3.1. Categorization of Attitudes

Attitudes towards the introduction of Impact Studies can broadly be categorized along a negative-positive response continuum which incorporates least, incremental and radical change motives.

(a) Negative/least Change Response: This has been motivated by some or all of the following factors many of which are heavily biased from the American experience:

(i) 'Technological assessment could mean technological arrestment'.
Impact Studies can be viewed as a threat in the public sector to central policy objectives and in the private sector as a threat to investment planning.

(ii) Impact Studies may serve as an additional power platform for articulate pressure groups ranging from the trade unions to the often irresponsible fringe in the environmental lobby. These articulated interests are often not representative of the interests of the affected community as a whole. This would increase a polarization of sectional interests.

(iii) Impact Studies may prolong the decision process.

2.3.1. (cont)

(iv) Impact Studies may insert objectivity/rationality into the decision process but the final decision will always be enshrined in political value judgements. Why then overcomplicate the decision process?

(v) Impact Studies may be seen as a mechanism for the increase of an already burgeoning bureacracy via the creation of a plethora of new agencies and institutions.

(b) Positive/incremental Change Response: This is a positive response with certain reservations. The concept of an Impact Study is supported in principle but at the same time due to the extent of statutory controls applicable to environmental matters, claims are made that impact analysis in various degrees of depth has been going on for a long time. Impact Study is therefore only a new name and fashionable discussion. Subsequently the introduction of Impact Studies to the British planning system would require very little change. This response is characterized by the following philosophy ..... "it is not so much the system that is wrong but the way in which it is used." (Dobry 1975)

..... "the best way of improvement lies in assisting all authorities to reach the standard set by the best."
(DOE Circular 9/76)

(c) Positive/radical Change Response: This response is fostered by the belief that to achieve a systematic and comprehensive procedure geared to a more fully informed decision maker and further

2.3.1. (cont) involvement of public opinion, a considerable addition to existing practise and legislation is necessary.

2.3.2. A Selection of Central Government Responses

Subsequent to the enactment of N.E.P.A. in January 1970, Peter Walker, the then Secretary of State for the Environment, voiced the following opinion:

> "Environmentally sound judgements can be made in Britain without decree or without employing the E.I.S. mechanism. I personally think that the E.I.S., like a number of other decisions in the past, really makes a land fit for lawyers to live in with no great impact upon the environment itself." (Lindsay, 1970)

This anti-legislative change response is furthered by the government's observations on the Report of the Select Committee on Scottish Affairs:

> "It is the Government's policy first to secure the progressive improvement of the quality of development plans so that they can serve as an adequate background against which any proposal can be assessed; second to impress on local authorities that it is their responsibility to carry out an adequate appraisal of the environmental impact of any major proposal for development or any alternatives that may be appropriate." (Cmnd 5428, 1973)

Thus the incremental response is levelled at both strategic and

2.3.2. (cont) individual development proposals. Note also that the ball is played into the local authority's court. There are no mentioned obligations placed on either central government or the developer.

The same twofold strategic and specific attack is advocated with regard to pollution in the Royal Commission on Environmental Pollution's 5th Report. It is worth noting what they have to say over the handling of specific proposals:

> "3.55 An environmental impact assessment of a proposed development is clearly of value to a planning authority. It is useful in providing information for residents in the vicinity particularly if a public inquiry is proposed. Some degree of technical consensus is desirable and should be published before a public inquiry is opened. This would enable some of the technical issues which local objectors are not competent to evaluate to be agreed on before the inquiry, while local people would have the opportunity to call in expert advice before the inquiry on those areas still outstanding. S.D.D. Circular 14/1975: Public Inquiry Procedures ..... suggests that as much written material as possible should be circulated before the inquiry. However technical consensus is not suggested and the material would usually be kept confidential to the parties to the inquiry until the inquiry opened. We consider that the concept of pre-inquiry technical consensus is useful: we recommend that the Government should give consideration

2.3.2. (cont) to its further development, especially in the context of E.I.A.s." (Cmnd 6371, 1976)

However it is perhaps the work of George Dobry in his final report which spells out with greatest clarity the need for Impact Studies within the British development control system.

..... for significant development Class B proposals:

"2.23 An applicant will be able to submit an 'impact study' in cases of special significance and in exceptional cases will be required to do so. This would not normally apply to house building. (7.61 - 7.63)

2.24 The notice requiring an impact study should be served within 14 days of application. (7.63)

2.25 An Impact Study should describe the proposal in detail and explain the likely effects on its surroundings. The Department should publish a bulletin giving guidance as to the form and content of an impact study. (7.64 - 7.65)

2.26 Proposals requiring impact studies should be prominently advertised and copies of the study should be on sale to the public. (7.66 - 7.67)"

The key points which emerge from Dobry's findings are:

2.3.2. (cont)

(i) This is a positive/radical response for the proposals infer legislative change ..... L.P.A. should have the power to require certain developers to prepare an impact study.

(ii) The onus is now being placed on the developer although the L.P.A. and any other authorities should provide any relevant information in the study's preparation.

(iii) The analysis must be objective, not a public relations exercise ..... its purpose being to ensure that the applicant and others are aware of the project's environmental consequences.

(iv) The overall suggested time period is 6 months. The L.P.A. should notify within 14 days if an impact statement is required. Thereafter the applicant is given 10 weeks to prepare the study, leaving 3 months for the L.P.A.'s decision.

(v) Contents of the study should include details of the proposed development and an explanation of its likely effect on its surroundings, particularly:

(a) traffic, roads and public transport
(b) foul and surface water drainage
(c) publicly provided services
(d) appearance of neighbourhood

2.3.2. (cont)

(e) employment

(f) noise and air pollution

(g) whether the development or its location constitutes a hazard

(h) whether it is likely to trigger off other development

(i) investigation of alternative sites

(vi) 'Public Involvement' is limited to the advertisement of the proposal, the availability of the impact study for public inspection and a small number available for purchase. The Impact Study in Dobry's sense is not seen as a participation exercise but rather to serve a publicity function.

Central Government's response to Dobry's impact study proposals is set out in DOE Circular 113/75:

"Environmental impact analyses may have a part to play in assisting the considerations of major applications, and in August 1974 I appointed a 2-man team to investigate and report on this matter. Their work will be completed soon, when I shall study their proposals in consultation with interested parties. I shall take Mr Dobry's recommendations into account in doing so."

2.3.3. Research Responses ..... is further research a sop to inaction?

The 2-man study-team referred to above are Messrs Thirwall and Catlow. The following are their terms of reference:

(a) To survey the techniques now being used or developed to measure the environmental impact of large scale projects.

(b) To consider the circumstances in which development proposals would give rise to the need for environmental impact analysis.

(c) To consider the ground to be covered in such an analysis and whether any standardized method of presenting the required information is appropriate.

(d) Who should prepare and pay for the analysis?

(e) To make recommendations as to further research, codification or technical presentation as thought appropriate.

Thirwall and Catlow have not reported to date (April '76). However an Interim Report was published in May 1975 which generated considerable publicity and interest. Their study concluded that the existing planning system in Britain was inadequate for the examination of development proposals where large scale and complex environmental impacts might occur. This was based on the following four deficiencies:

1. Lack of technical expertise within planning departments in local government which inhibits the evaluation of impact.

2. Lack of base-line data which prevents the identification of key issues.

2.3.3. (cont)

3. Lack of detailed information from the developer. (Thirwall/ Catlow noted that the L.P.A. is in a position to ask for this data but suffers from the constraints of time, staff shortages and quantity of planning applications!)
4. Lack of consideration of alternative sites.

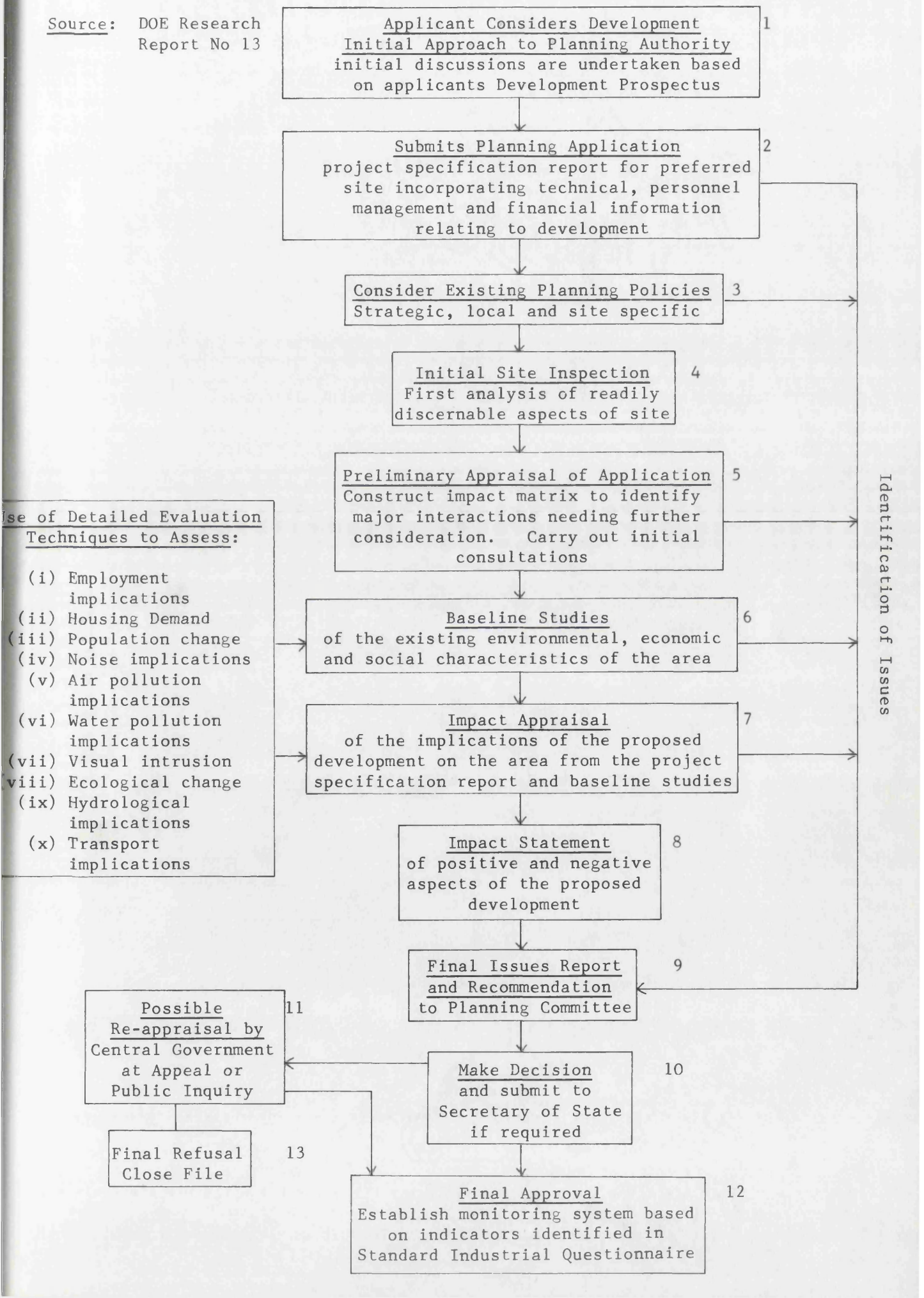
Their overall conclusion at this stage was that "procedures should be introduced which would enable the environmental implications of the comparatively few major projects coming forward each year (25 - 40 p.a.) to be studied in depth before they become too firm, and which would permit public participation at key points in the process. Such procedures would necessitate minor legislative changes, would facilitate and expedite the consideration of these projects. They might even result in fewer public inquiries, or at least better informed and less time-consuming ones."

The key points which emerge from these proposals are:

1. A system of environmental impact analysis should be incorporated in the statutory planning process to cover certain major proposals. (Positive/Radical Response)
2. The latter are defined as 'proposals which cause large scale and complex environmental impacts or where it is desirable to consider alternative sites and solutions. (Lack of clear definition)
3. The overall responsibility of preparation should lie with the appropriate planning authority with provision for 'call-in' or initiation by Secretary of State. Ideally,

AN APPROACH TO PROJECT APPRAISAL UNDER EXISTING DEVELOPMENT CONTROL PROCEDURE

Source: DOE Research Report No 13



2.3.3. (cont)

however, a joint approach with the developer is envisaged.

4. The E.I.A. should be set in motion well before the outline planning application. This clearly implies a formalization of the pre-application consultation period.

A second major research project ..... 'Project Appraisal for Development Control' has been undertaken simultaneously at the University of Aberdeen. This project sponsored by both D.O.E. and S.D.D. was commissioned in September 1973. Its terms of reference were:

"to develop methodologies for making a balanced appraisal of the potential impact of large scale industrial development on the physical environment, taking economic and social effects into account."

The project's initial impetus came from the onslaught of oil related applications in Scotland, however the methodology as outlined in D.O.E. Research Report No. 13 ..... 'The Assessment of Major Industrial Applications: A Manual' is equally applicable to any major development type.

The proposed procedures are outlined in fig 2. The key factor which emerges is that in contrast to both Dobry and the Thirwall/ Catlow Interim Report this PADC response is of a positive/incremental nature. ..... it merely calls for a greater formalization of existing assessment procedures within the present system of development control. In brief the process begins at the application

2.3.3. (cont) stage when the L.P.A. should supply the developer with a 'Brief for a Project Specification Report' prior to the submission of an application. This would be a standardized method of collecting data relating to the proposed development which would then enable the L.P.A. to systematically identify likely impacts. A simple Impact Matrix is proposed for this checklist exercise. From this range of identified impacts the L.P.A. could then initiate consultations to obtain necessary advice etc. The L.P.A. could then begin appraisal work ..... in this it may use its own technical expertise (10 technical advice notes are attached to the manual). If outside consultants are required it is recommended that these should be employed by the authority not the developer. The result of the appraisal work is an Impact Study presented to the elected member to aid decision making, alternatively the Secretary of State.

Two comparative approaches therefore exist within the research field. A point worth noting here, to which we will return to in the conclusion, is the fact that the P.A.D.C. approach has been published whereas the final report of the Thirwall/Catlow study is 6 months overdue and speculations are at present being made that it may not in fact be published.

2.3.4. Professional Responses

There has been a notable absence of articles on impact analyses in the professional journals. Graham Ashworth speaking on E.I.S.s in the States, said .....

2.3.4. (cont)

"Identifying choices is the planner's business. Making them is the politicians. The greatest challenge facing our society today is to ensure that all decision makers are sufficiently appraised of the long term possibilities and problems so that they do not mortgage our long term future for short term gains." (Planner, 1974)

One of the most recent opportunities to assess professional opinion on the subject was a symposium held at Kent University in early October, 1975, by the Planning Research Advisory Council. The proposals set out by Thirwall/Catlow's Inerim Report were the main focus of debate. Their reception was generally less than enthusiastic; a representative from the Transport Road Research Laboratory went as far as viewing E.I.S.s as 'formalized expressions of ignorance'. More constructive opinions however included an exhuming of the unused concept of the Planning Inquiry Commission and a need for Central Government to provide a framework of clearly defined national policies. A positive/incremental response was offered by Royal Institute of Chartered Surveyors. R.I.C.S. believe that the existing statutory framework is adequate for considering both alternative site proposals and acquiring additional information from the developer. However their ineffective usage is derived from the fact that local planning authorities generally lack the specialist knowledge required (1) to identify at an early stage all the relevant issues and, (2) to analyse the available data about proposed projects and their environments. R.I.C.S. propose that during the informal discussion period between the local planning authority and developer a decision should be made as to whether an impact analysis is required, and if so draw up a brief for

2.3.4. (cont) the study. The developer should be responsible for the preparation and cost of the study. It should be the L.P.A. who analyses and interprets the data contained in it.

One final viewpoint expressed at the conference which is worth considering is that of Wilfred Burns:

> "We now need to see if it is possible to develop a conceptual framework to allow people's perceptions of the different aspects of their environment to be linked together and compared ..... we do not always have to study everything but we should not miss anything of real importance. The decision making process is now so complex, that in evolving a methodology it is essential to have an overview ..... a structured framework of the key topics that might contribute to better evaluation techniques .... the aim is now to bring them together in an integrated process. There will never be a rigid formula for general application but a guiding framework for evaluation, with emphasis on incorporating all the key issues and particularly relating them to demographic descriptors, the effects on groups of people, and the contribution of social goals."

Other than those views expressed at the above Conference, the most active profession with regard to Impact Statements has been the Institute of Civil Engineers. They believe that some form of environmental planning is necessary if orderly growth is to be realized and have promoted the idea of a simplified Leopold-Matrix[1]

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[1] See LEOPOLD LUNA B et al., A Procedure for Evaluating Environmental Impact, Geological Survey Circular 645, Washington: Gov. Printing Office (1971)

FIGURE 3 TYPICAL HEADINGS FOR E.I.A. MATRIX (INSTITUTE OF CIVIL ENGINEERS)

SECTION 1	SECTION 2 (TO BE COMPLETED BY DEVELOPER BEFORE THE MATRIX IS ISSUED FOR COMMENT)			SECTION 3 (TO BE COMPLETED BY EVERY BODY/PERSON OFFERING COMMENTS)	
CHECKLIST OF POSSIBLE PRODUCTS AND EFFECTS OF PROPOSED PROJECT	MARK EACH POSSIBLE IMPACT X	BRIEF DESCRIPTION OF EACH POSSIBLE IMPACT AND REFERENCE TO SEPARATE IMPACT STATEMENTS WHERE RELEVANT	ASSESSMENT OF IMPORTANCE (+VE/-VE)	ASSESSMENT OF EFFECT AND/OR COMMENT ON PROMOTERS ASSESSMENT	ASSESSMENT OF IMPORTANCE (+VE/-VE)

2.3.4. (contd) to fulfill the following objectives:

An E.I.S. must be

(i) Accurate enough to rank with economic and technical judgements on the project.

(ii) Exhaustive enough to withstand public examination.

(iii) Clear enough to be understood by reasonably experienced and intelligent members of the public.

The I.C.E.'s matrix (see figure 3) is still essentially only a checklist of possible impacts with a brief assessment of importance (positive or negative) and space for different interest groups to make subjective judgements about the relative weights to be given to the effects (1 - 10 scale). A synopsis of the I.C.E. procedures is given below:

1. Developer scans checklist in Section 1 of the matrix and marks each item where he discerns a possible impact.
2. For each marked item he prepares an impact statement describing the nature, magnitude and extent of impact. The statement will be quantified wherever possible but will not end up with a single figure of magnitude. Any such figure would conceal different value judgements.
3. From each impact statement the developer makes his own assessment of importance on a scale of 1 to 10 (positive or

2.3.4. (cont)

negative). This is written into the matrix. Each is a value judgement which others may contest.

4. The developer issues to interested parties his completed matrix supported by his impact statements for each square which contains a figure for assessed importance.

5. Interested parties will almost certainly offer different value judgements on the 'importance of certain impacts' and offer additional or conflicting facts on some of the impact statements.

6. The end of the process is a set of decisions that are political in the sense that they reconcile the reconcilable and compromise between irreconcilables. The impact assessment procedures seek to help this process by exposing as clearly as possible the difference between fact and value judgement and treating each in an orderly manner. It does not offer a single final figure for total environmental impact because any such figure would need to incorporate massive and irreconcilable value judgements about different squares in the matrix.

2.3.5. Conclusion

Before attempting to draw any conclusions from the various attitudes which have been outlined in this chapter a brief mention must be made to two important factors against which any attempt to introduce the concept of Impact Studies must be considered:

1. Current Economic Climate

Due to the current economic crisis with 1.5 million unemployed and industrial investment at an all time low the principle National Policy without question is to encourage investment and exports. Within such a climate it is increasingly difficult to justify the possibility of delay in major development projects. This attitude is clearly spelt out in D.O.E. Circular 9/76:

> "An applicant should still get a decision as quickly as possible consistent with proper consideration of the planning merits of the development he proposes. This is particularly important now that the cost of delay to major housing, industry and commercial development is so high.
>
> Planning Permission should be granted unless there is sound planning reasons for refusal. The onus therefore lies on the authority to show that proposed development is not acceptable, rather than the applicant to show that it is.

Circulars 30/72 and 171/74 said that priorities should be given

2.3.5. (cont) to major industrial development and housing. These should remain."

Thus unless a very convincing argument can be made that Impact Studies can indeed reduce the delay in the decision process, which I believe they have the ability to do, their formal introduction into the British Planning system (i.e. statutory) will be very difficult to achieve in such an economic climate. Moreover if an incremental response is made as present opinion is suggesting it will be very difficult to enforce given the present over-riding need to encourage investment and exports.

2. The Spread of Corporate Planning Within Local Government

This second factor is of a more favourable character. The movement of Corporate Planning has injected new management structures and processes into local government. If we can examine for a moment the ideas which underlie corporate planning .....

(a) the identification of needs present and foreseen for the environment,

(b) the setting of goals and objectives in relation to these needs,

(c) the formulation of alternatives in achieving these objectives,

(d) the evaluation of these alternatives in terms of their use of resources and effects,

2.3.5. (cont)

(e) the making of decisions in the light of the evaluation process,

(f) the translation of decisions into managerial action,

(g) the monitoring of results ..... a continuous process.

..... and then re-examine the ideas which underlie the project appraisal process advocated by P.A.D.C. the parallels between these two rational models with their comprehensive, explicit and evaluative procedures becomes all too clear.

Take for example the definition of P.P.B.S. This is a technique which gives clarity to political choice ..... it is a way of presenting information in a systematic way so as to expose policy choices, making as explicit as possible the costs and consequences of these choices. If we forget about monetary values then the same definition will serve an impact study.

Thus if the onus of the impact study is to be placed on the local authority its reception will be facilitated in those authorities where already a corporate outlook is being adopted.

Given these two factors and the various responses which have been examined in this chapter in which direction are we moving: negative/least change, positive/incremental change or positive/radical change?

In view of the fact that knowledge and awareness of the environment, and of the effects of development on the environment, are increasing and also that the present planning system as currently operated does not

2.3.5. (cont) always produce a sufficiently rigorous analysis of the consequences of proposed developments, I shall eliminate the negative/least change response.

The improvement of the current planning machinery is thus left with two possibilities. In my opinion given the gross difficulties of attempting to secure information from developers the ideal situation would be one of radical change ..... i.e. to give statutory power either to the respective L.P.A. or Secretary of State to initiate an Impact Study. However the realities of the situation point towards incremental change. Given:

1. The present economic climate.
2. The disfavour voiced against the Thirwall/Catlow Interim Report and the non-appearance of the Final Report.
3. The heavy criticism which has fallen on the American mandatory system.
4. The not too distant possibility of European 'harmonization' of legislation and standards.

I do not think we will witness in the immediate future a tinkering of the planning process. Instead we will see Central Government drawing attention to local authorities and developers the need for rigorous analysis of major environmentally sensitive projects.

An approach to project appraisal under existing development control procedures as devised by the P.A.D.C. team at the University of Aberdeen (DOE Research Report No 13 ..... 'The Assessment of

2.3.5. (cont) Major Industrial Applications : A Manual) will soon be finding itself on the desk of planning officers throughout the country. I have a very great respect for this study and view the 'Manual' as a major step forward towards the goal of rigorous analysis of major development applications. My only reservations on the study are that perhaps insufficient stress has been laid on the pre-application period and above all without the necessary enforcement power it will require very persuasive personalities to produce results from the procedures outlined in the Manual.

The analysis of the consequences of development may be the very stuff of the British Planning System but as to whether this persuasive approach will bear the possible fruits of rigorous analysis we can but speculate.

Section 3 Problems of Implementation

Part 1 Questions to be Answered

3.1.1. Introduction

Any form of Impact Study whether mandatory or otherwise will pose various procedural and administrative problems. What follows in Part 1 of this section is a set of questions and answers. These questions do not profess to be a comprehensive coverage of the problems likely to occur but I believe they cover certain key areas. I have no doubt that practising planners could add further relevant considerations. The answers given to these questions are my own and have attempted to be as broad as possible in their outlook. The keynote to these responses is not deliberate vagueness but rather flexibility!

In Part 2 of this section problems specifically related to methodology are discussed.

3.1.2. If impact analysis is thought to be helpful in the handling of major development proposals, to what sorts should it apply? How can these developments be defined?

Possible identification parameters might include alone or in combination:

(i) area

3.1.2. (cont)

(ii) major departures from approved development plans and/or existing planning policies including financial budgets

(iii) proposals of national or regional significance

(iv) particular types of development

(v) particular sizes of development

(vi) proposals of a contentious nature

(vii) proposals which have a significant impact on the physical environment as well as on local employment and level of service provision (function of size and area)

With regard to definition by area (i) the experience of S.D.D.'s Coastal Planning Guidelines (September 1974) suggests that more detail would be required than central government's superficial attempt at trend planning via preferred conservation and development zones. Could impact, therefore, possibly be seen in the context of structure plan preparation, review and monitoring procedures ..... perhaps impact abatement zones? However there is the problem that local people will seldom acquiesce to the suggestion that their area does not merit an impact analysis in comparison with another area that does. This would bring charges of 1st and 2nd class areas similar to the outcry of the recent National Park proposals. This would also be less flexible than using the structure plan positively i.e. by clearly defining where development will be restricted and where it will be encouraged. If area is to be a possible identification parameter it should rather determine the type of impact study to be prepared not whether it will or will not be done.

3.1.2. (cont) Size of development (v) is also questionable because it is size of impact not development that is the key issue. A small development may promote major impacts either due to a particular process involved or because of its relative situation.

The parameter of greatest definition capability is probably project type (iv). The possibility exists for central government to provide a list of potential developments requiring impact analysis. Such a form of central guidance would be a warning aid to both local authorities and developers of the likelihood of an impact study requirement. Central guidance would also be necessary perhaps in relation to parameter (iii). However all the other factors of identification focus on the flexibility of interpretation at the local level. This will promote problems of the type envisaged in Dobry's proposed "Class A" and "Class B" application categorization. It is my belief that such flexible definition standards will also require an intensification of the pre-application in formal discussion period.

3.1.3. Given these flexible definitions, how can one enforce the requirement for an Impact Study?

Enforcement is a word which planners try to avoid using. However in this context it is hardly even applicable for it has been shown that the present climate of opinion is in favour of the more effective use of the existing system rather than the introduction of new statutory powers. Enforcement therefore must take the form of central government 'persuasion' to both local authorities and

3.1.3. (cont) developers for the need for rigorous analysis of major environmentally sensitive projects. The non-too juicy carrots to be dangled would include:

(a) reduction in local authority costs in assessing major development applications

(b) reduction in the delays often faced by developers.

A voluntary system backed by central 'persuasion' has the merits of flexibility but perhaps it overestimates the enthusiasm with which a developer will voluntarily provide required information and a poor local authority will suddenly revitalize its assessment procedures.

3.1.4. Should a requirement distinction be made between the public and private development sectors?

Given the fact that statutory undertakers have both a statutory obligation to provide a service via their respective acts and a statutory obligation to have due regard to amenity via the Countryside Acts, opinion is sometimes voiced that public sector developments should be exempt from any impact procedures. However given also that trunk and special roads, water schemes, power stations and major overhead transmission lines, developments by B.G.C., B.A.A. and the N.C.B. all have major impacts and are increasingly resolved at Ministerial level via the public local inquiry, it is my belief that the question is not exemption but perhaps the need for a different type of impact study.

3.1.4. (cont) A feature of many public sector developments is the hierarchy of decisions involved:

(a) Decisions of broad policy e.g. how many power stations and what types? At this level, decisions are dependent on national economic and political considerations. Impact Studies are as important at this level if not more important than analysis of the impact of a particular project.

(b) This next level of decision may involve the order in which and the places in which individual projects can be developed in accordance with (a) above. This would include an assessment of alternative modes of operation and alternative sites.

(c) Finally there are the choices of detailed design etc. on the actual chosen site. An impact study at this level should be carried out when the choice is still open to discussion. e.g. Forced or natural draught cooling towers.

In support of the argument for the inclusion of public sector developments it should be remembered that many private firms are supported by Government Agencies or Departments more or less openly.

3.1.5. Who should prepare the Impact Study?

To answer this question it not only requires an identification of the possible roles between the developer, consultants and ultimate decision authority whether it be the district council, county or regional council or appropriate Secretary of State but also the important question of resource constraints ..... namely finance, time and manpower expertise.

Section 2, Part 2, has established the fact that information necessary to prepare an Impact Study is held by:

(i) the developer

(ii) the district authority

(iii) the regional/county authority

(iv) in some cases involving 'national interest' the appropriate Secretary of State.

The first important step appears to be to establish a working relationship between the administrative hierarchy (ii), (iii) and (iv). This situation is complicated by the 2-tier split in planning functions at the local level. The greatest force of impact will be felt at the district level and therefore the incorporation of local knowledge and expertise is important. However such major applications as are being considered will normally impinge on strategic policies and may be 'called in' by the region/county. Co-operation between the district and region/county must be encouraged. In theory this appears an all too logical and feasible proposal. In

3.1.5. (cont) practise, however, many of these 2-tier relationships are often characterized by clashes of personalities and policies. The establishment of liaison working parties should nevertheless be encouraged. The latter would offer the potential pooling of resource functions i.e. expertise and a sharing of financial costs.

However, it is still questionable whether the problems of finance and the assembling of a suitably qualified team to conduct an impact study in sufficient time could be entirely overcome in every local authority. L.P.A.'s are geared to their normal work load ..... major projects requiring the extra effort implied by an impact study could be argued to fall outwith this work norm. Priority should not be given to a major application at the expense of routine matters. A L.P.A. should rather concentrate on implementing its defined policy standpoint which would effectively be derived from baseline studies and be a continuing process. When confronted with a major application its first responsibility is to review the application in the light of existing policy and not allow its general work programme to be dislocated.

The situation is further complicated by the fact that many applications requiring an impact study have a high probability of being 'called in' by the Secretary of State. This creates further problems: there is a widespread lack of guidance by Central Government on the likelihood of a 'call-in' on particular applications. Central Government can affect the procedures as much by keeping quiet, as by 'calling in' the application. The L.P.A. should ask itself the following questions:

3.1.5. (cont)

Is the proposal of national significance?

Are there alternative sites in other regions?

Is the proposal likely to end up in appeal?

But even then it would be to the benefit of both the L.P.A. and the developer if central government's position was made clear as early as possible. This would allow identification of the ultimate decision maker and the other participants in the decision making process could adapt their roles accordingly. It should be stressed that even though an application is 'called-in' there are many issues which will be of local/regional impact. Also a L.P.A. has to prepare a statement to present at the subsequent public inquiry, deciding whether or not to support a development. It should not be mistaken that a 'called-in' application automatically leads to an impact study being prepared by central government.

Given these situations, there appears to be various options as to who should prepare and pay for the impact study:

(A) <u>The developer</u> via the employment of consultants should prepare and pay for the Impact Study. This follows 'the polluter should pay' philosophy. The consultant's working brief should be agreed upon by the L.P.A. and the developer. If the interest of central government is involved they should also be included in the brief preparation. The role of the L.P.A. would be a liaison function between the developer, consultants, the public and the elected member ..... the L.P.A. would maintain

3.1.5. (cont)

a watching brief on the agreed work programme. One can maintain that a good consultant irrespective of who engages him should produce an impartial assessment of impact. The L.P.A. would also be in receipt of expert advice. However the problem of possible bias could result in the L.P.A. having to make their own independent assessment which really defeats the whole purpose of the exercise.

One must consider also the situation of the promoters of small scale projects which have large scale impacts ..... would such developers be able to afford the cost of employing consultants?

The strongest cases perhaps for the payment and preparation of the Impact Study being made by the developer are:

(1) Where the L.P.A. clearly intends to refuse the development proposal and the developer intends to appeal.

(2) Where the possibility exist of speculative applications.

(B) A joint approach should be undertaken between the developer and the L.P.A. which would include a sharing of costs and information supply:

3.1.5. (cont)

(i) The developer should be responsible for a full project description. This would be along the lines of the Project Specification Report as outlined in the P.A.D.C. study. This may involve the employment of consultants by the developer.

(ii) The L.P.A. should be responsible for conducting baseline studies of the local environment.

(iii) Finally the L.P.A. should be responsible for assessing the impact of (i) on (ii). This may also include the employment of consultants. However these could include public agencies undertaking work on a non payment basis as well as private firms. Over the question of finance this could fall on the local authority or assistance could be given in whole or part from either the developer or central government.

Both the P.A.D.C. and Thirwall/Catlow studies have adopted this joint approach.

(C) The role which Central Government might play could include:

(i) The 'calling-in' of applications and the appointment of consultants as in the Loch Carron and Loch Broom studies.

3.1.5. (cont)

(ii) The provision of finance and the devolved responsibility of the Impact Study given to the respective local authority.

(iii) The provision of technical expertise to assist in the processes of B(ii) and (iii) above. Once could envisage a roving unit attached to both S.D.D. and D.O.E. which would provide and supplement expertise during the processing period of a major application. However the recognition of the independence of this unit would be essential especially in relation to the cases which will end up in a public local inquiry. Otherwise it is likely that central government will be challenged with:

(a) providing the Reporter/Inspector,

(b) assessing the Inspector's Report for the Minister and

(c) identifying the key issues to be raised at the inquiry by their involvement in the impact study preparation.

Obviously there are multifarious deviations from these three broad responsibility options. Like the P.A.D.C. and the Thirwall/ Catlow responses I believe the joint approach offers the greatest attraction simply because the developer knows his own plans best and likewise the local authority has the greatest capacity to coordinate data on the local environment.

3.1.6. What information can planners reasonably expect the developer to provide and what data can planners reasonably ask?

It has been established that rigorous appraisal is highly dependent on the information received from the developer. However certain considerations should be borne in mind to determine the degree of comprehensive coverage sought.

(i) The fewer questions asked the better answers tend to be. This focuses on the need to isolate the key issues relevant to the application. A balance must be sought between quantity and quality.

(ii) The questions asked must be clear and concise otherwise the developer may play on a L.P.A.'s muddled ignorance and the answers received will be couched in useless vagueness.

(iii) A L.P.A. is very restricted on the grounds on which it can refuse an application. Thus an argument can be made that much of the information collected can represent a wasted effort if it cannot be used to demonstrably contribute to the granting or refusal of planning permission. This represents a very narrow view of development control. Surely information collected via the Impact Study can be fed through to the data base of development planning and policies? However, if the argument is particularly vehement this must raise

3.1.6. (cont)

further questions: if it is not the responsibility of the planner to ask for certain information then whose responsibility is it? Is there a need for the establishment of a corporate liaison group to analyse the impact of major developments? The latter is an important consideration given the parallels already drawn between the rational thinking inherent in both corporate planning and the impact study. (Section 2, Part 3).

(iv) Finally the problem of confidentiality of information must also be considered. Information received with an application is available for public inspection.[1] Also the contents of an impact study would be made public as soon as such a study was presented at meetings of the council.

The presence of these data constraints clearly emphasizes the gross problem which must inevitably be faced if the approach to the implementation of an impact study is to be of a 'persuasive nature'.

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1 Town and Country Planning Act 1971, Section 34 (3)
Town and Country Planning General Development (Amendment) Order 1974, Article 17
Town and Country Planning (Scotland) Act 1972, Section 31 (4)
Town and Country Planning General Development (Scotland) Order 1975, Article 15 (1)

3.1.7. At what stage in the decision process should an impact study be prepared?

To simplify this answer it will be assumed that the joint preparation approach as outlined in 3.1.5. B is to be adopted. Thus it is a 3 stage preparatory process:

1. The developer's project specification report
2. The L.P.A.'s baseline studies
3. The L.P.A.'s assessment procedures.

As discussed in paragraph 2.1.7. the only distinct point in the time framework of the handling of a major application is the date on which an application is formally submitted. In both temporal directions from this date i.e.

(1) the informal pre-application consultation period, and

(2) the post application decision period

there is a high degree of temporal flexibility between individual applications. The importance of the application date should not be undermined for this represents the formal involvement of both the public and the elected member. However both groups may be informally involved prior to the application date if either at the discretion or indiscretion of the developer and/or local authority information is made known of a pending application.

In my opinion the key issue with regard to timing lies in the question of how much of the impact study's preparatory process can or should be done in the pre-application period. Stage 3 in the process is applicable to any application however minor and thus this

3.1.7. (cont) must be carried out in the post application submission period. However this assessment procedure must be carried out within a strict time limit for it is the aim of the impact study to reduce uncertainty not to prolong it. Both Dobry and the P.A.D.C. study regard a 6 month time period as feasible. However with regard to Stages 1 and 2 of the preparatory process it is my belief that both should be carried out simultaneously in the pre-application period. Initial discussions would reveal whether or not an Impact Study was required. Thereafter both the developer and the L.P.A. would proceed with their allotted tasks. A speculative developer might at this point withdraw faced with the task of preparing a project specification report. Even though this withdrawal was made at a relatively late date the L.P.A.'s baseline studies would not be wasted effort for they could be fed in positively to local plan preparation. The subsequent result would be a prepared L.P.A., in receipt of an application accompanied by a detailed project specification report, and now ready to begin assessment procedures. The only problem which remains is the extent to which both public and the elected member should be involved in this now formalized pre-application period. Since Stages 1 and 2 do not involve any assessment of impact I feel that the only degree of involvement required, if necessary at all, is the disclosure of the fact that an impact study had been initiated. This would satisfy the public confidence that adequate appraisal procedures were being given to the application.

Section 3 Problems of Implementation

Part 2 Consideration of Methodologies

> "We have to be clear that whatever techniques we use today, we cannot measure everything, and wise judgement is still needed in large measure. Indeed value judgement becomes even more important when many variables involved in any planning situation become more fully appreciated. The role of decision makers in the planning process must therefore be carefully considered. At what stage should they be involved and how can the work of the technical expert, the decision maker and the public be organised to the greatest effect?"
> (Wilfred Burns in Lichfield, 1975)

3.2.1. Introduction

It is the purpose of this final chapter to examine yet another dimension of problems associated with the possible implementation of impact studies. These are problems of a technical nature which relate to Stage 3 in the preparation process of the impact study i.e. the assesssment procedures of the L.P.A. An attempt will be made to discover how this part of the Impact Study i.e. the impact analysis ..... , the work of the technical expert, can best relate itself to both the decision maker and the general public.

3.2.2. An Information Document

An Impact Study is not a decision document. It does not claim to usurp the rightful decision making role of the elected representative. Rather, its use is conceived as primarily an information document serving as an objective aid in the decision making process. The Impact Study is designed to be a 'comprehensive' presentation of objective factual information. This information is directed at three potential users:

(i) The Formal Decision-makers ..... either the local council or the Secretary of State. Evidence can be used not only to aid the process of decision making but such a balanced 'comprehensive' appraisal may also provide the policy makers with a well argued stance against strong sectional pressures. Information may also be used in defence of pre-conceived decisions. However the increasing pressures placed on the elected representatives to justify their decisions publicly and to do so in terms of the differential effects of the options for the well being of members of the community is an important safeguard against the possible abuse of the Impact Study as a paper exercise used only selectively to justify preconceived political decisions.

(ii) Any member of the general public who may want to participate at any stage during the overall process of

3.2.2. (cont)

arriving at decisions. Public availability of information is essential. If members of the public are to be affected then they should be made aware. If a balanced appraisal is made available to them then the possibility exists for a more balanced reasoned debate rather than the endless pursuance of biased sectional or even personal interests, a characteristic all too common of the present public inquiry system.

(iii) The Developer is also a potential user of the findings of an Impact Study. It would provide reasons for refusal in far more explicit terms than such present generalities as 'interest of amenity' and furthermore, if the will is there, it could also provide ground for further discussion and possible compromise e.g. acceptance of conditions of consent or in preparation of a planning agreement.[1]

To arrive at this final goal i.e. an information document, the L.P.A. should give consideration to the following 4 key components in their preparation of an Impact Study:

1. Impact Identification
2. Impact Measurement
3. Impact Interpretation
4. Impact Communication to Information Users.

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1 Town and Country Planning Act, 1971, Section 52
Town and Country Planning (Scotland) Act 1972, Section 50

3.2.3. Impact Identification

Identification constitutes an inventory into the impacts likely to be generated by the project. It provides a framework for the organisation of issues which will assist in the systematic inquiry into environmental impact. This step in the process should attempt to identify all significant impacts and then focus attention on the most significant considerations (i.e. identification of key issues). The latter is a professional judgement but one which should reflect values, problems and perceptions of those affected.

There appear to be two important considerations in this identification process:

1. The scope of the study.
2. The methods available to allow information to be organised in a technically accurate and comprehensive form.

Ideally the study should be 'comprehensive' in scope. However, obviously there are limitations to the breadth of the inventory process, some of which are deliberate so as to avoid the study becoming unmanageably complex and others which are unavoidable simply because of imperfect knowledge and understanding. 'Comprehensiveness' operates under 3 identifiable constraints:

(1) Uncertainty: An Impact Study should aim at producing information within defined limits of uncertainty. It should avoid the collection of disproportionate amounts of data that may have

3.2.3. (cont) little relevance in the reduction of uncertainty. Appropriate questions which the L.P.A. might ask itself could include:

(a) How much money and effort should be devoted to reducing uncertainty?

(b) What is the significance of uncertainty in the decision in question?

(c) How much reduction of uncertainty can be achieved by further study?

(2) Time: The impact identification process must delimit itself by some temporal cut off point. It should include both constructional and operational impacts. However beyond this point in time how far should the identifications process seek to investigate future potential impacts? (This decision again involves the constraint of uncertainty). The types of potential impacts would include induced developments and the possibility of on site expansion by the development in question. Given that the L.P.A. is not committed to either of these developments since both types will be the subject of future planning applications the immediate answer may be to defer consideration to such future application dates. However it appears that certain development types are characterized by these onsite expansion and multiplier effect tendencies (e.g. the tendency of the C.E.G.B. to select twin or even triple station sites; and the natural affinity of oil refineries to attract petrochemical industries). Therefore in certain cases the cumulative impacts should be taken into account in the identification process.

3.2.3. (cont) (3) Space: Again the impact identification process should operate within some form of spatial framework. However the spatial delimitations are far more complex than the simple categorization of the time continuum into construction, operational and future impacts. Each identified impact will have a different spatial boundary. These boundaries may not always conform with those of the local authority and may require consultations with neighbouring authorities. To a large extent the area identification of the various impacts associated with the development will be a function of the spatial boundaries for which information has been obtained for the baseline studies. These may include:

(a) The boundary for strategic planning purposes.

(b) The boundary for local planning purposes.

(c) The boundary of the application site.

(d) Any other boundary for which information is available e.g. Registrar General's enumeration districts and Department of Employment's local employment.

These initial boundaries would have been based on the range of likely impacts. If however at the identification stage certain impacts transgress these defined boundaries the system should be sufficiently flexible to enlarge the original spatial framework.

Given these three constraints of uncertainty, time and space the L.P.A. should still strive towards the goal of 'manageable

3.2.3. (cont) comprehensiveness'. If all significant impacts are not identified because of the limited temporal and spatial horizons adopted by the L.P.A. ..... or indeed because of a narrow professional outlook rather than an interdisciplinary approach ..... the final impact study is not likely to improve the capacity to make informed rational decisions.

There are four distinct types of methodologies applicable to impact identification. These have been drawn mainly from the American experience where each has been practised with varying degrees of success:

(1) Checklists and Checklist-type Matrices: A checklist is simply a list of environmental parameters to be investigated for possible impacts. It does not require the establishment of direct cause effect linkages to project activities. The checklist-type matrix such as that developed by Leopold (Geological Survey Circular 645, 1971) is a combination of two checklists which establish the direct effect between a project's causative actions and environmental components.

The inherent advantage of such methods is their simplicity ..... both as an initial guide to the L.P.A. and later as a clear display format to potential information users. They act as a safeguard versus the possible ommission of certain factors. However these are static frameworks which suggest only direct effects. The checklist or checklist-type matrix provides little help in identifying inter-related, jointly caused or

3.2.3. (cont)

cumulative impacts. They do not represent a mutually exclusive method and thus substantial opportunities may arise for double counting. Moreover if standard checklists are used these may not include all significant factors. Given these disadvantages, however, the immediate attractiveness of these methods is their simplicity, because in this context we are considering the introduction of a new concept to the planning process. In direct response to the last criticism checklists relating to specific development types could surely be supplied by central government. This would allow the identification of potential effects that are important as matters of central policy. To these could be added the concerns of the local professional, elected member and public according to particular circumstances.

(2) Cross Impact Matrices/Networks: The cross impact matrix differs from the Leopold type matrix in that it shows two-way linkages and feedbacks rather than simple lst order relationships (see Theodore Wirth and Associates). Networks work from a list of project activities to establish cause-condition-effect networks. These approaches generally define a set of possible networks and allow the user to identify impacts by selecting and tracing out the appropriate actions. (See the work of Sorensen; and Julius Kane) Both cross impact matrices and networks seek to go a stage further than the methods described in category (1). The latter sought 'comprehensiveness' whereas these methods seek to understand the relationships. They are increasingly more difficult to complete and may be

3.2.3. (cont)

totally unintelligible to the layman and for both these reasons their adoption does not seem entirely appropriate to an inexperienced public and planning profession.

(3) Overlays: These consist of sets of maps of environmental characteristics for a project area. They are overlayed to produce a composite characterization of the regional environment. Impacts are then identified by noting the impacted environmental characteristics within the project boundaries (see McHarg, 1969; Krauskopf and Bunde, 1972; and Nehmanetal, 1973).

The major constraint of this method is that it is only moderately comprehensive. Ten overlays would perhaps be the maximum number which could be used to ensure visual clarity. However its strength lies in this visual dimension. It can clearly illuminate complex spatial patterns and consequently is a good method with respect of large regional developments and corridor section problems (e.g. road or pipeline alignments).

(4) Ad hoc methods: These migh include the more traditional methods of public meetings and opinion surveys. These suffer from the problems of insufficient publicity and unrepresentative attendance. It is important to incorporate group views and interests, but at this early stage of impact identification these participatory methods are of doubtful value since all potentially affected groups are not sufficiently capable of perceiving the effects of a project. A more positive method for eliciting key factors and conflicting assumptions about potential impacts is perhaps

3.2.3. (cont) available through the use of gaming techniques (see the work of Armstrong and Hobson). These techniques operate in the workshop setting and are specifically designed to incorporate multiple and conflicting judgements in a particular situation rather than a standard checklist to fit all situations. They represent a more structured approach to the present practise of liaison working parties. The success of such a technique would be very much a function of the number and personalities of the participants involved. It is not my belief that such exercises can guarantee a comprehensive coverage of potential impacts. 'Round-the-table' controversy could also prolong the identification process.

Given these four potential methods for impact identification I, personally favour the checklist approach for the reasons outlined. This method has also been adopted by the P.A.D.C. study.

3.2.4. Impact Measurement

"What is a cynic?
A man who knows the price of everything and the value of nothing."
Oscar Wilde.

Impact measurement denotes magnitude i.e. the probable extent of each impact. What is required is a measurement of scale. This can often be defined largely on fact. It represents a professional judgement. However should there be flaws in this measurement process either via lack of information, predictive skills or

3.2.4. (cont) uncertainty then it is essential that the information user should be aware of the degree of certainty/probability attached to impact predictions.

Measurement of scale does not automatically mean quantification. Where possible, statements of likely impact should be accompanied by quantified information but it is not a necessary prerequisite. If this were the case, the impact study would be analagous with Cost/Benefit Analysis and its associated criticisms. Consider the definition of Prest and Turvey: "Cost-Benefit analysis is a practical way of assessing the desirability of projects where it is important to take a long term view (in the sense of looking at repercussions in the further as well as the nearer future) and a wide view (in the sense of allowing for side effects of many kinds on many persons, industries etc) i.e. it implies the enumeration and evaluation of all relevant costs and benefits."

Consider also the criticisms of Professor Self in relation to the Roskill exercise: "The cost-benefit figures are incredible, not only because of the disparate basis of the items included but because of the important items excluded. It is not meaningful to consider such diverse items in terms of costs ..... think about the intangibles."

Indeed how practical is it to assess the impact of a project in monetary terms? Cost-Benefit analysis seems to fail for three major reasons:

3.2.4. (cont)

1. It fails to consider the distribution of costs and benefits. The analysis appears to submerge these differences so that marginal benefits to very large numbers of people may obscure very significant disbenefits to small sectors of communities.

2. Effects, excluded from cost-benefit analysis because they defy monetary evaluation, tend to assume lesser importance and may not enter the decision making at all.

2. Money values may not accurately reflect their relative importance to the decision maker.

Rather than fall into these pitfalls of quantification, the impact study should identify itself with simple measurement factors. The P.A.D.C. study envisages that the L.P.A. should make an analysis of the scale and significance of potential change according to whether the impact is likely to be:

(a) beneficial and/or adverse
(b) short term and/or long term
(c) reversible and/or irreversible
(d) local and/or strategic

This simplicity is inherently attractive. However it is important to distinguish the difference between scale and significance. The former relates to impact measurement whereas the latter falls into the next stage of the process-impact interpretation.

3.2.5. Impact Interpretation

This involves the attachment of significance to any identified and measured impact. It is this evaluative stage in the impact study which will test the relationship between the technical expert, the elected representative and the affected public. The evaluation of significance is, in its final form, a political value judgement. Careful consideration must first be given to the degree of significance measured by the professional. It is impossible to outline a specific degree of acceptable professional involvement for this will largely be a function of the everyday relationship between the planning officer and his committee. However the situation whereby evaluation techniques may remove or appear to remove the decision from the decision maker either because the planning officer's recommendation report to his committee may include the value judgements of others or because the presentation may be so authoritative as to inhibit the decision maker to question its findings, should clearly be avoided. Whenever objectivity ceases to be the pre-eminent consideration and professional value judgement takes its place, it is essential that a clear statement of this fact should accompany the submitted report. Moreover it is the purpose of the impact study to facilitate choice not to make it. The second consideration in this evaluative stage is whether the value judgements of both professionals and elected representatives adequately cover the values of all interested parties affected by the final choice. Environmental quality involves many value laden opinions and this is why in resource planning the public traditionally play a reactive role. Is this reactive involvement role sufficient or is there a need for

3.2.5. (cont) more positive participation by the public? One method of positive participation could be envisaged in the use of Impact Tables and Preference Sets. The Impact Table would identify the predicted changes along with their magnitude and incidence. The Preference Set would be based on previously articulated public priorities.

It is my belief that a sufficiently rigorous analysis of the proposal, safeguarded by the present reactive involvement afforded to the public should adequately relect environmental values. More positive participatory measures are not customary to the development control system and may result in both a lengthening of the decision making process and a further undermining of the role of the elected representative.

Given these considerations, there appear to be four major categories of evaluation techniques which the L.P.A. may use to present its findings to the elected representatives:

1. Direct Display Techniques: These present information with a minimum of aggregation and evaluative prescreening. They are best related to evaluation by multiple reviewers whose value preferences may differ.

2. Constraint setting: This technique uses established standards and criteria to reduce the number of trade offs that must be balanced. It requires a certain level of agreement of conflicting interests.

3.2.5. (cont)

3. Ranking Procedures: A ranked list of priorities is one in which an order of importance is arrived at for the factors under consideration. Such a disaggregate list would allow elected members and the general public to examine and, if necessary, question the priorities derived by the L.P.A.

4. Weighting Procedures: Such procedures ascribe numerical values of relative importance to any ranking to create weighted factors. Weighting demands agreement on social aims and on the value system to be used in assessing the effects of a given action in achieving those aims. However the whole question of controversy focuses around such differences in value systems. Moreover the single numerical score inherent in the weighting procedures, rather than revealing trade-offs and decision issues, tends to hide them beneath layers of value judgements in such a way that objective and informed review is made impossible. The inflexible yes/no situation inhibits both member and public discussion.

Whatever evaluation method is adopted by the L.P.A. it will include value judgements and because of this, simple methods should be preferred to more elaborate ones. The latter may hide or disguise value judgements as facts and thus rigorous assessment would not automatically lead to rational planning; numeratequackery could very easily lead to the acceptance of harmful proposals. It is for this reason of simplicity that ranking procedures offer perhaps the greatest degree of attractiveness.

3.2.6. Impact Communication to Information Users

The Impact Study must include a level of detail sufficient where possible to make scientific judgement and also sufficiently general to be understood by officials and affected parties. To produce technically accurate and comprehensive information which can provide a basis for decision making is not easy, but if information cannot be understood by those who seek to analyse the project then the impact study is not likely to improve the capacity to make informed rational decisions. As an information document the impact study must also be a communicative document. It should avoid the pitfall as outlined by Gilbert White: "The Impact Statement could become a new genre of scientific fiction that could submerge bureaucratic decisions in an avalanche of obfuscating paper." (Professional Geographer, November 1972)

To avoid this situation it would seem appropriate to prepare as well as the full impact study which would include a total description of likely impacts with appended technical reports, summaries of consultations etc., a summary impact report. It would be essential that this summary should be succinct but at the same time sufficiently detailed to show the full implications of refusing or granting permission. This summary should be more digestible to both the elected member and the general public.

3.2.7. Conclusion

To achieve its original goal as outlined in par. 3.2.2. i.e. a communicative information document, it can be seen that the Impact Study has various problems to overcome in each of the identification, measurement, interpretation and communication stages of its preparation. The consequences of these problems not being overcome, is put succinctly by Richard Andrews:

> "A good checklist may provide many ideas about possible impacts that should be considered; a good assessment procedure may help define a problem and organise data in such a way that the information needed for decisions is clarified. But if all concerned sources are not consulted, all evaluative factors may not be considered; if 'seat of the pants' judgements form the data base, the results will only have 'seat of the pants' validity; and if existing inventory data is used rather than studies of systematic relationships, none of the techniques can provide any better forecasts of impacts and effects than intuitive judgements."

Conclusion:

However attractive it may seem, it would be deliberately misleading to conclude this paper on a positive optimistic note. The paper begins by identifying an area of need in the decision making process. It emphasizes that 'muddling through' is a sufficiently acceptable mode of decision making when the 'mud' is no more than three feet deep, but when that 'mud' ranges between depths of three to ten feet some other method for getting through is necessary. The method proposed is the Impact Study.

Such a study implies a rigorous and balanced assessment of all likely direct and indirect impacts associated with a major development proposal. Its advantages include a more efficient use of a L.P.A.'s resources, a reduction in the delay often faced by the L.P.A. in obtaining information from the developer and subsequently an overall reduction in the time taken to reach a final decision. Should a public local inquiry be held, an Impact Study offers the opportunity for prior agreement between the L.P.A. and the developer on various issues, thereby focusing attention on the remaining unresolved issues. Moreover the Impact Study could also lead to improved strategic and local planning as information from individual assessments is fed into the forward planning system. Above all, however, the Impact Study should clarify the picture for both the elected representative and the public. To reiterate once more an Impact Study is an communicative information document whose overall purpose is to act as an objective aid in the decision making process.

Given these advantages, however, it has been shown in Section 3 that the proposed method's road to implementation is not going to be an easy one. There are various procedural and administrative problems which must be overcome if the goal of rational informed decision making is to be achieved. In this respect, it is very difficult to evaluate the future role of Impact Studies with any degree of certainty and without optimistic bias.

This paper began with problems, offered a solution which in its turn promoted a new set of problems. The latter can only be solved if the necessity to improve decision making is fully recognised. Given the relatively primitive nature of existing decision making systems and the growing importance of handling increasing demands and scarcities, it can only be hoped that this recognition imminently infiltrates the minds of those who hold the power and influence to successfully implement the Impact Study.

Approximately
30,000 words

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List of Abbreviations as used within the text

A.E.C.	:	Atomic Energy Commission
B.A.A.	:	British Airport Authorities
B.G.C.	:	British Gas Council
C.B.I.	:	Confederation of British Industry
C.E.G.B.	:	Central Electricity Generating Board
C.E.Q.	:	Council for Environmental Quality
C.E.Q.A.	:	California Environmental Quality Act
D.O.E.	:	Department of the Environment
E.I.A.	:	Environmental Impact Analysis
E.I.R.	:	Environmental Impact Report
E.I.S.	:	Environmental Impact Statement
E.P.A.	:	Environmental Protection Agency
E.R.B.	:	Environmental Review Board
G.D.O.	:	General Development Order
H.M.P.I.	:	Her Majesty's Pollution Inspectorate
I.C.E.	:	Institute of Civil Engineers
L.P.A.	:	Local Planning Authority
N.C.B.	:	National Coal Board
N.E.P.A.	:	National Environmental Policy Act
N.E.R.C.	:	National Environmental Research Council
O.E.M.	:	Office of Environmental Management
P.A.D.C.	:	Project Appraisal for Development Control
P.P.B.S.	:	Planning Programming Budgeting System
R.I.C.S.	:	Royal Institute of Chartered Surveyors
S.D.D.	:	Scottish Development Department