

Sustainability and national policy in UK port development

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Given the private sector character of the UK port system it might well be thought that, so far as port development is concerned, the market ruled. There are of course permissions to be obtained, including planning consent under the Town and Country Planning Acts; but this process has not so far been considered to interfere with market function. Ports are already well used to the process of obtaining approval, to negotiations with objectors and environmental interests, and to mitigating the effects of development when defining projects and secking approval.

However, as ports policy is being brought into line with transport policy generally, and in particular with Government policy for sustainable development, ports are being faced with a more challenging regulatory framework. The search for sustainable transport is leading Government towards a broader based approach to the approval of development applications in which market need and commercial viability are simply two of a number of considerations which ports must take into account in designing projects which also meet environmental concerns.

There has been a long standing requirement for developers of major projects to carry out Environmental Impact Assessments. In addition Government policy is set out in a number of publications, applying sustainability and the associated "New Approach to Transport Assessment" (NATA) to the ports sector. In a separate and broader initiative it has also considered a radical reform of the planning system and the establishment of national priorities for infrastructure combined with a simplification of the Public Inquiry process. In the event it has been decided not to establish national priorities in the ports sector, although the aim of simplification of the Inquiry process remains.

The aim of this paper is to explore the emerging theoretical and practical issues arising within the development approval process. These are of most concern in the development of major projects for cargoes which have broad hinterlands, and where there are competing locations for new facilities. The most important example of this is in the deep sea container sector where there is a demand for new capacity and a choice of widely spaced locations in the south east of the UK. Some comment will be made on this sector and on the issues arising at the Public Inquiries for the proposed container port developments at Dibden Bay (Southampton) and the London Gateway at Shellhaven on the north bank of the Thames.

1. Sustainable development and transport policy

Transport policy since 1998 has been developed in the context of overall objectives for sustainable development. Under the policy four objectives are set out.

Social progress which recognises the needs of everyone Effective protection of the environment

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Prudent use of natural resources: and Maintenance of high and stable levels of economic growth and employment. (1 DETR 1999)

This is not a simple policy of environmental protection at all costs, and the needs of economic development and social progress are recognised as being as great as ever. The objective of policy is a new model which achieves effective protection of the environment alongside economic growth. Technological progress allied to good engineering design and mitigation can sometimes allow all four aims to be advanced together. Indeed, taking the longer term historical perspective, new cargo handling technologies in particular have allowed the needs of economic growth to be met with a much reduced overall impact on the coastal environment. Measures of mitigation can also alleviate environmental impact and create alternative habitats to maintain biodiversity. Nevertheless, there are areas of conflict where difficult choices need to be made in the national interest.

In the transport sector there have a number of major new policy initiatives incorporating the principles of sustainable development in recent years. The main objectives of policy were set out in a White Paper which promised a New Deal. (2 DETR 1988) This was followed by a document on sustainable distribution, (3 DETR 1999), the process culminating in a Ten Year Plan. (4 DETR 2000a) The Ten Year Plan put forward a target figure of £180 billion in public and private sector transport investment and expenditure for the decade 2001/2 to 2011/12 (this excluding the ports sector). Of this £60 billion was for the railways, some £4 billion being allocated to rail freight. Targets were set which included a 50% increase in rail passenger kilometres and an 80% increase in rail freight over the period. At the same time the Government put forward a new approach, leaving behind rather the objectives relating to privatisation, competition and de-regulation which had dominated in earlier years, and placing the emphasis on environmental protection, integration between the modes and improved regional and local planning guidance.

The aim of sustainable distribution was expressed as follows:-

To ensure that the future development of the distribution industry does not compromise the future needs of our society, economy and environment.

And the detailed objectives were to:-

Improve the efficiency of distribution

Minimise congestion

Reduce the road freight intensity of economic growth

Make better use of transport infrastructure

Minimise pollution and reduce greenhouse gas emissions

Reduce noise and disturbance from freight movements

Manage development pressures on the landscape - both natural and man made

Reduce the number of accidents, injuries and cases of ill health associated with freight movement (5 DETR 1999)

The implication of objectives 2,3, 5 and 6 is that there should be an emphasis on increasing the use of the most environmentally friendly modes. This would include

¹ N.B. Transport was the responsibility of the *Department of the Environment, Transport and the Regions (DETR) up to 2001* when, following re-organisation, it became part of the Department of Transport, Local Government and the Regions (DTLR). There has since been a further re-organisation and Transport is now a separate department.

favouring maritime as opposed to inland transport, where this is an option, and increasing the use of rail in the inland sector. This in turn has an impact on policy for ports with extensive hinterlands by favouring those which are well located as a base for maritime feeder services and/or well integrated into the core rail freight network. Similarly, objective 4 favours ports from which inland movements could be most easily accommodated by core road and rail freight networks. Objective 4 would also suggest an approach where ports made the most of any opportunities for redevelopment, whilst objective 7 requires that port development be managed to minimise environmental impact and provide for measures of mitigation.

The objectives have been embodied in policy statements for the ports, and in the Strategic Rail Authority's plans for the core rail freight network, although in the latter case these plans have been thrown into disarray following the problems with the rail network and the escalation in the cost of proposed upgrades.

2. The commercial character of the UK ports industry

Ports policy was elaborated in 'Modern Ports: A UK Policy' published by the DETR at the end of 2000.² In contrast to general transport policy this does not set targets for investment in infrastructure, but affirms the independence of port authorities as commercial enterprises. It starts with the proposition that the ports industry has responsibility for its own commercial decisions.

It is a strength of the ports industry that each undertaking has statutory powers suited to its needs. Commercial decisions, as well as responsibility for port operations, lie with those who have these powers and the duties that go with them. This continues to be fundamental. It is not the Government's job to run the ports industry. (6 DETR 2000b 1.1.8)

Government does not decide the ports industry's commercial strategy, or direct or fund its investment. These are matters which are entrusted to local statutory authorities who fund their investment and operations from levies on port users. In general port infrastructure can and should be commercially financed. (7 DETR 2000b 2.1.11)

The document also specifically endorses the principle of user pays:-

We believe that port developments and port operations should not in general need public subsidy. Public money is not well spent in distorting competition between ports...Subsidy tends to spread the problems caused by excess capacity. It can be damaging to otherwise healthy neighbouring ports. (8 DETR 2000b 2.1.13)

This aligns with EU ports policy which the Government supports.

Ports are an integral part of the economies of many national and local member states, as they are of ours, but some other countries use this to justify substantial state aid. Such distortions of competition are unfair to UK ports

The Government welcomed the European Commission's Green Paper Ports and Maritime Infrastructure, published in December 1977. It supports applying the user pays principle to port and maritime infrastructure to bring about fair competition. (9 DETR 2000b 2.3.1–2.3.2)

This establishes the fundamental basis of policy and confirms that the ports themselves will retain the major role in bringing forward commercially viable

²This covers the general outlines of policy for the UK although the Devolved Administrations of Scotland and Northern Ireland have direct authority over planning decisions in these regions.

development plans. The approach to guidance is consistent with this, in that it stops short of recommending particular projects. In this context Government policy objectives are to be achieved via the provision of statistical information, general guidelines, the control exercised in the development planning process, and the rules for project appraisal. In spite of the fact that commercial independence is fundamental, Government did consider the possibility that it should establish strategic priorities in respect of major elements of the nation's infrastructure. However, as mentioned in the introduction, this approach has been abandoned in the ports sector.

2.1. Guidance

2.1.1. Focus on Ports and The Review of UK Container Ports There are various forms of guidance offered to the ports industry, the approach being consistent with the DTLR's view of commercial independence in that it focuses mainly on providing background information. There is some analysis, but this stops short of providing specific recommendations on port development.

Focus on Ports presents statistical data on long term trends and reviews developments within the industry. It provides useful background, but does not deal with port development issues per se. A follow up "Recent Developments and Prospects at UK Container Ports." went beyond this to consider supply and demand in the container sector. It offered guidance, whilst at the same time affirming that the ports industry should formulate its own development plans, and re-affirming the role of the planning system and the ultimate authority of the Secretary of State over development decisions. The contrasting elements are apparent in the first two paragraphs of the document:

This paper forms part of the commitment made by the Department...in Modern Ports: A UK Policy to have a clear picture of trends affecting the ports industry and especially of the potential need for port investment including new development. (10 DTLR 2001 para 1)

This paper does not set out Government policy on ports and port capacity. This is described in Modern Ports, in particular Section 2.4. Nothing in this paper should be construed as an official endorsement of any particular view or statement. It is also important to note that any proposed port project will be the subject of the usual planning controls and procedures and that this paper will not affect or pre-empt any decision made by the Secretary of State in exercising his planning functions. (11 DTLR 2001para 2)

The reference back to Section 2.4 of Modern Ports simply re-affirms the basic principles of policy.

The document then provides a broad ranging review of the sector including trends in supply, productivity, demand, ship size and the role of hub ports. In the conclusions it states:-

On balance, and on a conservative view of future growth, it is the opinion of most of those consulted by the study that there will be pressure on capacity at UK container terminals within the next few years.(12 DTLR 2001para 70)

In its final paragraph it deals with competition issues:-

An important issue for Government concerns the attitude to competition in the ports sector. With nearly 50% of UK container throughput being handled by one terminal operator, and the concentration of deep-sea cargo flows between a few shipping lines, competition issues might arise when considering the ownership of new port capacity. (13 DTLR 2001para 77)

The document favours container port development and also suggests that government would approve of a reduction in concentration in the ownership of port facilities. However, as will be seen below, the decisions on development approval will be taken in the rather broader context of overall NATA criteria.³

3. The new lines of policy

3.1. Integration

Having affirmed the independence of ports and the principle of user pays 'Modern Ports' sets out the new lines of Government policy.

Historically, Government's relationship with the ports industry has been confined largely to the endowment of duties and powers. There has been a strong recent emphasis on de-regulation in the industry aiming to stimulate it by exposure to market forces. The need for an integrated transport policy has been neglected in the last twenty years, and the role of ports in such a strategy has not been adequately considered. (14 DETR 2000b 1.1.10)

Integrated transport aims to meet the needs of port customers sustainably. Customers want not just port facilities, but good connections to their destinations by road, rail or sea. (15 DETR 2000 1.1.11)

The document then refers to the 10 Year Plan pointing out that it does not:-

look in detail at private investment in the ports industry. It does, however, take account of likely future trends in the use of ports when considering surface access issues. (16 DETR 2000b 1.1.12)

Integration with inland networks is one of the criteria encompossed by NATA. But this is not simply a question of local links, for port cargoes with distant origins and destinations it encompasses the issue of the overall load on road and rail networks, and this is where the Strategic Retail Authority (SRA) has come into the picture.

Following clarification of the roles of Railtrack and the SRA the latter was given responsibility for network development and published a Strategic Agenda and a number of Strategic Plans. In an early strategic assessment of the possibilities for rail freight it conducted an analysis of freight flows, concluding that most important

³ Deep sea container capacity in the UK is concentrated in the south east. The only terminal outside of this area is at Liverpool and has a specialised role. By far the largest container port is at Felixstowe, followed by Southampton, with smaller scale facilities at Tilbury on the north bank of the Thames and Thamesport on the south bank. At the time the DTLR review was published the choice for large scale new development of deep sea container facilities appeared to be between Dibden Bay (Southampton) with a project for 1,850 metres of quay and Bathside Bay (at Harwich opposite Felixstowe) with 1,400 metres. Bathside Bay would be developed by Hutchison which already operates Felixstowe and Thamesport. Expansion there would increase concentration in the ownership of the sector. Dibden Bay is owned by Associated British Ports and development there would avoid the concentration on a single owner, although the end result would still be a virtual duopoly of deep sea container capacity in the south east.

The situation has now moved on with a new application for a deep sea container facility at Shell Haven. The application for this project, named London Gateway, was lodged at the end of January 2002 by P&O and Shell, and is for a large facility with some 2,100 metres of container quay and an ultimate capacity of some 3.5 million TEUS per annum. This is associated with plans to provide for a very large road and rail linked logistics centre on the same site.

There are now three large projects for deep sea container capacity in the pipeline as well as a number of proposed smaller scale developments at existing terminals.

new opportunities lay in movements of Fast Moving Consumer Goods (FMCGs) between the ports and the main centres of population and economic activity. Substantial growth in this area would be required to meet the targets of the Ten Year Plan.⁴ This put the focus of attention on container movements and on short sea trades via the Channel tunnel.

In the deep sea container sector rail has had a high market share almost since the start of containerisation, and the issue here is one of providing adequate capacity and increasing the loading gauge on major routes to accommodate 9' 6" containers. This is important because of the growth in the popularity of these high cube containers. They now account for one quarter of the world box fleet, this share being expected to grow to one third by 2005. The UK rail network can cope with 8'6" high containers, but except on the West Coast Main Line, there are severe difficulties in accommodating 9'6". Notionally they can be handled with special wagons, but this is not ideal, and to accommodate 9' 6" containers on standard 1 m wagons requires upgrades across the network to improve clearances under bridges and in tunnels.

In the short sea sector rail may either use standard freight wagons, which can be accommodated on the existing network, or containers or swap bodies which also require gauge improvements. In this sector rail has only a modest share and in order to compete it must be able to match road transport in terms of flexibility and service quality as well as offering a significant cost saving. In the short sea sector rail has only a small share and for this to increase shippers would have to switch from the dominant road mode. Progress has been set back by Hatfield and the Channel Tunnel fire, and there is a general and long standing problem in integration across Continental and UK rail networks and in the provision of adequate service quality.

In line with its targets for FMCGs the SRA set out its plan for development of a core rail freight network. The network would have an enhanced loading gauge (W12), greater capacity and resilience, a 24/7 capability, and would accommodate trains 775 metres in length. Extra capacity is required because the network is currently close to its limit, and this requires an increase in the paths available for freight and the ability to run the longer trains. The latter improvement would also help rail to compete on price. Two major elements of the plan were the upgrading of the Felixstowe-Nuneaton and Southampton-Birmingham routes. These would provide additional freight paths and reduce pressure on the north London route (used by Felixstowe traffic) and on the Southern end of the West Coast Main Line.

However, there has been a huge escalation in the cost of development of the rail freight network, and in particular of the West Coast Main Line, which has gone from an initial £2.5 billion to somewhere between £5 billion and £10 billion. Similarly, when the Southampton-Birmingham upgrade was first mooted the cost appeared to be in the region of £100 million. A few months later the cost was reported to be of the order of £1 billion, part of this being related to the extra capacity required for the Virgin cross country passenger services. On the operating front Network Rail has indicated annual operating costs are running at a much higher level than expected.

The WCML upgrade is still going ahead, and this major artery has W12 gauge and some paths allocated for rail freight. But most other projects are now on hold

⁴This equates broadly to general cargo.

and under re-appraisal in terms of value for money. Even the improvement of local links from the ports to the main lines can be expensive, and they provide no guarantee that container capacity will be available across the core network as a whole. In these circumstances one might have thought that Government and the SRA would reconsider the targets for the growth of rail freight. But so far this has not happened. Problems emerged at the Dibden Bay Inquiry, where the SRA's commitment to the growth of rail freight was contrasted with the fact that the upgrade was on hold, and ABP itself had to carry out an investigation of some aspects of capacity and the cost of gauge enhancement. They have become acute in the arguments recently put to the London Gateway Inquiry.

In its application for London Gateway P&O had indicated that the rail share of inland container movements would lie between 10% and 30%, this wide spectrum being explained by the uncertainty in respect of future rail freight capacity. One can sympathise with this, given the fact that container ports have not traditionally had a major role in inland distribution, this being the province of ocean carriers, shippers and the logistics sector. Nevertheless, the SRA argued that the rail share should be between 25% and 30% in terms of containers, this being close to that currently achieved in container movements out of Felixstowe and Southampton.

To provide the required rail capacity for a 25% rail share at full output, over 20 rail paths per day in each direction would be required, a major problem being that of capacity on routes across north London to the WCML. About half of the capacity required would become available if the Felixstowe Nuneaton cross country route were completed in due course, as this would release rail paths presently used by Felixstowe traffic on the North London line. It was proposed that an alternative link across north London, (the Tottenham-Hampstead line), would provide the other half, coming on stream first, and supporting the early stages of port development. But this would require investment to increase the loading gauge, the major works being in the Hampstead tunnel and costing an estimated £50 million. The SRA argued that planning approval for the port development should be made contingent upon an agreement between itself and P&O to provide financial support for this project, even though it was unable to guarantee that the project would go ahead. Similarly, Essex County Council argued that a 25% rail share should be required, and that without this the project would be unsustainable and should not be approved.

There are a number of issues here. First, the other ports also face problems in respect of rail capacity. Felixstowe and Southampton have a high rail share at the moment, but without additional capacity and gauge enhancement they might not be able to sustain this as throughput grows, or even to maintain existing rail movements. Given the present uncertainties it is not clear how ports will eventually compare in terms of potential rail share. Second, investment in the Hampstead tunnel would represent a sunk cost, and before a commercial enterprise could contemplate such an investment one would expect it would require guarantees of capacity across the rail freight network.

More generally, if this line of argument were accepted, the SRA's decisions on its network development programme could determine the outcome of the port planning process. Specifically, only where the rail network can be developed to maintain a 25% modal split for rail could a port development go ahead. If the further development of the core freight network remains on hold then all projects might fail to meet the criterion, bringing environmental policy into direct conflict with the

requirements of economic development. This is not what is intended under the Government's New Approach to Transport Assessment as referred to in Modern Ports, which requires a broad based assessment and the striking of a balance across the whole range of important issues. Not least among these is the impact of development on the marine environment, and it is only in extreme cases that the characteristics of a project in relation to one criterion would determine the outcome. So far as integration is concerned, one could see that a project like that proposed for Falmouth some years ago would now fail on this account, because it is remote from the major origins and destinations of cargo and would place an excessive load on the transport infrastructure of the west country. But this does not apply to the London Gateway which is well located in relation to origins and destinations and the problem is one of capacity on links to the core networks. Finally, the SRA's approach would give it a significant leverage in its negotiations with the ports on contributions to development of links to the rail network, even though the overall prospects for capacity would remain quite uncertain.

The SRA appears to be working on the basis that the rail freight network will be developed and the targets of the Ten Year Plan are still in place, whilst at the same time stating that that there is no guarantee of network upgrades. How it squares this circle is something of a mystery. There must now a possibility that the core rail freight network will not be adequately developed and implications of this need to be explored. If the rail infrastructure can not cope with the demand for inland container movements, then attention should turn to the capabilities of the road network and to the potential of feeder ship services. On the road side there would be the issue of from which port the road system could, most easily accommodate increased flows, whilst in terms of operation there are the issues in relation to the shortage of drivers and the effects of the Working Time Directive.

Maritime feeders, including coastal services, are already widely used all over the world and have always had a role in north Europe. For the cost of the upgrade of one rail tunnel, such as Hampstead, it would be possible to build a couple of short sea container terminals: and for the cost of the proposed new central freight line in the UK, which runs into billions, it would probably be possible to subsidise the full cost of feeder services for decades. An increased use of maritime feeders is also the path that the shipping industry itself would be likely take in response to acute congestion in the inland modes, and there has already been some indication of this in the response to the Hatfield crisis. In contrast to the problems with the development of the rail network an increase in the capacity of maritime feeder services is eminently do-able, the environmental impact and economic cost of feeder terminals are orders of magnitude less than that at the major hubs, and ships are readily available on the charter market. Finally, the level of sunk costs in a feeder strategy would be much lower than that for a rail based strategy.

There are certain problems. The frequency of maritime feeder services is not as good as that of rail and transit times will be increased to some degree. The routes to the West coast of the UK are rather a long way round from east coast and north Continent hubs, and the Midlands markets remain difficult, being no more accessible to feeder ports than they are to the main container ports of the south east. Nevertheless, there can be no doubt as to the technical feasibility of the mode or its ability to provide capacity to northern regions quickly and at a modest cost in terms of infrastructure.

An increased use of maritime feeders would bear on the roles of both short and deep sea container terminals and affect competition in the deep sea sector. For example, deep sea ports like Southampton and Le Havre are well located for serving the UK West coast and Ireland, whilst Felixstowe, and also Rotterdam, are convenient for the north east. Terminal design might also be affected when feeder ships have to be accommodated at the deep sea ports. The tendency for ports to move into the feeder business could be encouraged, and this could eventually lead towards broader based strategies for feeding encompassing ocean carriers, ports and logistics operators.

3.2. The criterion of clear need

At the end of Chapter 1, Modern Ports deals with the nature of Government involvement in port development via the planning system.

Strategic transport planning must address the role of ports, including Regional Planning Guidance, the Regional Development Agencies strategies, local transport plans and the policies of the devolved administrations. Regional strategies must be based on some assessment of the national context. (17 DETR 2000b 1.1.14)

There is no particular problem with this at the local and regional level, but the link between regional strategies and the national context is rather weak as there is no explicit national strategic framework, and the guidance provided by the old DETR does not fill this gap.

At the end of Chapter 1, a set of key policy aims are set out. These are wide ranging and encompass a number of issues relating to safety, good practice in management and operations, and training etc. Control over development, which is the point at issue here, is covered in the following key policy objectives:-

To maintain a balanced policy on development which aims to make the best use of existing and former operational land, secures high environmental standards, but supports sustainable projects for which there is a clear need. (18 DETR 2000b 1.2.2 emphasis added)

Some ports need to increase capacity to meet future demand. This may require new port development in a relatively small number of cases. Where there is a clear need we will support sustainable port projects, but each case must be looked at in detail on its merits. Particular cases must be considered within the strategic context provided by regional planning guidance and the regional transport strategy. We will follow established approval procedures - including hearing any objections. (19 DETR 2000b 2.4.7 emphasis added)

Clear need and sustainability taken together allow for comprehensive review of a project. For major projects there is likely to be a Public Inquiry where each aspect is subject to forensic examination.

There are no difficulties with making good use of existing and former operational land and securing high operational standards, and these requirements are likely to be entirely consistent with commercial objectives. The main issue is that, although the objective of the criterion of clear need is environmental (oriented in particular towards protection of the coastal zone), it is a measure which also protects incumbents and ports in possession of development approval from further incursions into the market. The precise effect would depend upon circumstances including the overall scale of the industry; the number of independently run terminals within each port, and in the system as a whole; and the scale of the capacity increases

allowed.⁵ This in turn would be affected by forecasts of demand and of productivity improvements, the berth occupancy ratio which is used in the assessment of full capacity, how much forward provision is allowed for in the development applications, how this is distributed among ports and terminals, and finally the extent of any control over the phasing of development.

An interpretation of clear need which allowed for ample capacity in infrastructure and berths, with some degree of forward provision, could be compatible with competition, although this would be managed competition, rather than the free for all which has appeal to some regulators. However, an interpretation which gave a high priority to the environment, and tried to hold capacity down to the very minimum which would suffice at any given point in time, would act as a severe constraint on competition. It would also be subject to the risk that economic development could be compromised, as there would be insufficient redundancy in the system to meet any unanticipated surge in demand or supply side failure. This would be particularly the case where high rates of growth in demand were associated with a long time scale in the development approval process.

Broadening the perspective, where planning authorities control supply, the character of ownership in the ports sector is only one element in the competitive environment. Within any individual regulatory regime, the way capacity control is exercised by Government is extremely important. This raises the further issue of the number of regulatory regimes which control a set of competing ports. Within a private sector regime such as that of the UK, incumbent ports could benefit under a principle of clear need from an environment in which competition is subdued by governmental and planning authority control of new entry. On the other hand public sector ports could face competition across regional or national borders operating under the auspices of different planning authorities. Indeed the competition of planning authorities for economic benefits, and related subsidisation of port development, are likely to be major factors in over provision. This is an issue which is of concern in Continental Europe where the planning structure is more fragmented than in the UK. It is difficult enough to apply a principle of clear need within a single regulatory regime and not too easy to see how it might work in the more complicated context of the European Union.

Coming back to the UK situation, in spite of the new emphasis of policy in the transport sector Government continues to re-affirm the principle of competition. The general approach towards ports is still that market forces provide the incentive for efficient operations which minimise the requirement for capacity, and achieve a reasonable long term balance between supply and demand and this is consistent with the affirmation in Modern Ports of the commercial independence of the industry.

3.3. NATA and evaluation of alternatives

Modern Ports makes specific reference to Sustainable Development and the safeguarding of sensitive sites.

Sustainable development policies aim to manage new development not rule it out. Even where sensitive sites may be affected, regulations include procedures for approving development with appropriate safeguards. These safeguards include a proper

⁵The EU has addressed this issue in a draft Port Services Directive.

consideration of alternatives. The regulation of special sites – nationally and internationally recognised and protected – is naturally very restrictive, reflecting the importance and sensitivity of our coastline This is a challenge to port operators under expansion pressures, but it is one they should rise to. (20 DETR 2000b 2.4.12)

This leads on to a reference to "A New Approach to Transport Appraisal" (NATA) which was developed to ensure that decisions are based on the principles of sustainable development. It sets out criteria for the evaluation of all transport projects, including new port developments.

The five overarching criteria of NATA are:

- safety
- economy
- environment
- accessibility and
- integration

(Safety and accessibility, although undoubtedly important, can be designed into any scheme, and are probably not significant in the choice between major projects in the ports sector.)

Modern Ports then considers the application of the NATA principles:-

Promoters will have to show that they have sifted options using the NATA framework criteria and indicators. They will have to apply NATA criteria to the performance of the most promising option and they will have to include a base case which covers the current infrastructure and any approved changes.(21 2000b 2.4.15)

There is no problem with NATA at the local project level. This deals with sites within the promoter's control in defining the optimum scheme according to NATA criteria and is a form of Master Planning with which major ports would be familiar.⁶

At the broader regional or national level there are two issues, first how are assessments over widely differing criteria to be brought together and second what is considered to be a proper consideration of alternatives. On the first of these Government acknowledges the problem.

The NATA indicators are a mixture of monetary values, physical units and non quantifiable elements. The framework does not give implicit or explicit priority to anyone. It provides information about each of the options appraised, but does not provide a single overall indicator which can be used to rank options. Decisions on cases are matters of judgement not pre-determined weightings. (22 2000b 2.4.14).

On the second issue, it is certainly not the mission of ports to conduct a broad ranging and in depth review with the objective of defining the best of a set of competing projects in relation to both environmental and economic criteria. The broad scope of an environmental analysis for a major project can be seen in the Appendix to this paper which sets out the structure of the development application for Dibden Bay, and this together with the daily transcripts indicates just how far ABP has had to go in making its case. It is quite inconceivable that an individual port considering a project in its own dock estate would evaluate the full environmental and engineering implications of competitive developments in distant

⁶This may extend to other sites within a particular harbour, outside the promoter's control, but which might in principle be developed by him. A review of this nature was undertaken prior to the development of the Dibden Bay scheme.

locations, where projects might well be at an early stage, could be poorly defined, and would in any case be outside of its control.

Government provided guidelines on the application of NATA in a consultation document on a project appraisal framework for ports issued by the DTLR.

The framework does not start from a strategic view about where ports should be located or require ports to adhere to a central forecast or model. It is for the promoters of a development to demonstrate, using the framework, that they have compared different sites and types of development within their control to meet the forecast requirement. (23 DTLR 2001c 1.4)

The consultation does not envisage that promoters should be required to appraise alternatives outside their control, such as developments at sites which they do not own, at competing ports, or in other countries. However, interested parties may wish to bring forward arguments that other sites or developments outside the promoters' control may offer genuine alternatives to the project under consideration. (24 DTLR 2001c Introduction)

Later on the document states that:-

Promoters and objectors should make use of available information but it is unlikely to be productive to engage in speculative arguments based on unverifiable assumptions or hypotheses. (25 DTLR 2001c 3.15)

The intention here is clearly to limit the consideration of alternatives, but some ambiguity remains. The issue was taken up in the Dibden Bay Inquiry when objectors raised the issues of clear need and the requirement to evaluate alternatives.

4. Project appraisal under NATA and the criterion of clear need

The private sector character of the ports system and the principle of user pays are affirmed by Government. Nevertheless, the principle of clear need implies intervention which adds a degree of protection to the market, whilst NATA can be considered to require a broad based approach which arguably is more appropriate to a planned than a private sector system.

Summarising the projected approach, the starting point in the development appraisal process will still be with the ports themselves which would bring forward proposals which should be commercially viable. The requirement for viability should also ensure that a project can be financed by the private sector. As a starting point the port would carry out a strategic appraisal. This would have to show that there was a requirement for additional capacity which could be met to the satisfaction of users by the new project. Depending upon the interpretation of the scope of NATA at the strategic level, it might have to include some consideration of potential capacity, environmental issues and integration with inland modes at other sites. In order to be feasible this would have to be at the strategic level and carried out on the basis of readily available information.

The port would then focus on its own local area and optimise its project proposal in terms of engineering and operational design and also according to the full set of NATA criteria. During this process there could be negotiations with environmental interests and measures of mitigation could be developed. In some cases agreement between the parties could be reached at this stage. Major projects would be likely to be reviewed at Public Inquiries called in by the Secretary of State. At the Inquiry the application would be subjected to forensic examination. The Public Inquiry would be project oriented, but, subject to the availability of information, it could deal with the question of alternative sites outside of the ports control at the strategic

level. For projects called in by the Secretary of State there could be the possibility of a final selection process if a number of projects are under consideration at the same time.

The problems lying in wait when there are a number of competing projects in the pipeline, are first whether any of them can demonstrate clear need, and second which is the best in terms of NATA criteria. The question of need was explored at the Dibden Inquiry by Associated British Ports (ABP), which owns the Port of Southampton, and Hampshire County Council. ABP stated that they had fulfilled the requirements of NATA at the strategic and project level and determined a shortfall in capacity which could be met at Dibden Bay to the satisfaction of users. Thus need had been demonstrated. Hampshire County Council on the other hand, argued that three projects would be before the Secretary of State at about the same time, (the other two being the London Gateway on the north bank of the Thames and Bathside Bay at Harwich), and that the question of need would have to take into account the availability of the other sites and the fact that they could in principle satisfy any shortfall in supply. Objectors to other sites could use precisely the same argument.

The paradox arises from the fact that, although there may be a clear national need for further capacity, where there are a number of supply side options, this does not translate directly to a clear need for any one facility. At the level of the port's strategic appraisal, the judgement is internal, and ports are likely to have very positive views about the prospects for their own projects. However, once a development application has been lodged and there are a number of projects in the frame, the genie is out of the bottle, and the question of which is the best seems to demand an answer. Even prior to the lodging of development applications, other possibilities could well be raised, although in most cases they would not be well substantiated and would be unlikely to have much impact at an Inquiry.

During the course of the Dibden Inquiry the Inspector received a weighty Environmental Statement for London Gateway. In line with the DTLR approach in the Consultation on a Project Appraisal Framework outlined above, he ruled that he would not consider this, although objectors could have access to the documents and raise issues arising from them. An approach to this problem was then developed at the Inquiry. This followed the consultation document in that it limited consideration to alternative projects which were credible, feasible and plausible. For these projects ABP reviewed alternative possibilities in terms of a number of major factors. These included the legal status of the development proposals; the likely scale of the problems involved in producing an environmental statement (bearing in mind particularly the scale of dredging and possible impacts on the coastal environment); the overall time required to complete the development approval process; the ability or otherwise of these alternative projects to meet the precise need that had been defined at Southampton; and the possibility that the proposals would face operational limitations. ABP also pointed out that much of the urban regeneration of the Thames Gateway project would be derived from the large distribution park proposed for the site which was separate from the container port project. Finally they argued that there was a pressing national need for additional container port facilities, that the complex Dibden Bay Inquiry would be successfully completed in one year, and that the decision time could be extended in waiting for the results of successive Inquiries to come in.

Following the closing statements, at the suspension of the Inquiry in December 2002, the Inspectors indicated that the target date for the production of their report would be October 2003 which would allow for a decision and commencement of construction in 2004. This would happen if the Secretary of State accepted that the requirements of NATA had been adequately fulfilled and took a positive decision. Alternatively, he could defer consideration of the project until he had a full set of Inspector's Reports encompassing the alternatives. This raises a number of issues. First, the Applicants for each might have to be given the opportunity to make a further representation. Second, unless there were a very clear winner and optimum sequence of development, it would be hard to show that the decision had been taken fairly, and it could be challenged. This is particularly the case given the absence of a common currency across the various economic and environmental issues and the scope for a large element of judgement in the decision. Further, in an industry with a growth rate of some 5% per annum, any significant delay in taking a decision could involve congestion and this could erode the advantages of choosing the best first project. This would be particularly the case if all developments were to be required within ten to twenty years (as suggested by the supply demand analysis which supported the Dibden Bay application) because the environmental advantage of the first choice project would be relatively short lived.

As an alternative to the sequential process it would in principle be possible to arrange for an all embracing Inquiry, and this approach has been followed in certain cases outside of the ports sector. However, given the cost and complexity of the inquiries for major ports projects, without some method of simplification and with no common currency, an all embracing Inquiry could prove to be impossibly difficult, expensive and time consuming. This is particularly the case given that the process is funded to a considerable extent by the private sector. There would also be a distinct possibility that it would produce no clear or generally acceptable outcome, and it would be unlikely that a broad based analysis could achieve the sophistication and quality of environmental mitigation that can be obtained in an individual project based evaluation.

5. Conclusions

The fundamental question addressed in this paper concerned the way in which the Government's strategic objectives for the economy, infrastructure and the environment could be achieved in the context of a private sector port system. The idea of Government established priorities for major ports projects has been abandoned, and this leaves the planning system to deal with Government objectives, including policies for sustainability, through the review of development applications. Major projects are generally dealt with at Public Inquiries called in by the Secretary of State. Government will take the final decisions on the proposals put forward, but should respect the integrity of the Public Inquiry process and give reasons where it departs from the Inspector's recommendations.

Over the last two years we have seen the Dibden Bay and London Gateway Inquiries grappling with port development issues, including the questions of economy, environmental protection, sustainability and integration with inland modes. Four main issues have emerged. The first concerns the workability of the

⁷e.g. Motorway service stations on the M25.

development approval process, given that this has been excessively lengthy in the case of major items of infrastructure like T5 at Heathrow. The second and third concern the impact of the new approaches in the form of NATA and the principle of clear need and the fourth relates to the particular problems of integration with in inland modes, given the lack of inland infrastructure and the targets established for rail.

Although the preparation period in the run up to the Dibden Bay Inquiry was very lengthy, a thorough Inquiry was completed in about one year, with a further year for reporting. The London Gateway scheme was prepared much more quickly. The Inquiry, presumably operating under the simplified system, took just less than six months, and the Inspector's report is likely to be available in a further six. This indicates that the process itself is manageable, although there are continuous difficulties arising out of the complexities of the planning system, the time required for the full investigation of environmental issues, and the variety of the conflicting interests which have to be accommodated.

Some progress has been made in respect in the application of the principle of clear need it being accepted that this does not prevent a scheme from being evaluated simply because there are alternative possibilities. However, the principle of clear need also controls the relationship between overall supply and demand and can subdue competition. This could help in the mobilisation of capital for large projects, but is at odds with competition policy and the operation of market forces.

The approach to the application of NATA has also been clarified so that alternative schemes do not have to be evaluated in excessive detail, and (as indicated in Modern Ports) will be considered independently on their own merits. However, the issue of the choice between competing schemes does not go away. In the event the Inspector's reports from both the Dibden Bay and London Gateway Inquiries will be available to Government within a few months of each other, and they might both contain positive recommendations. In this case, unless both are approved, there will inevitably be at least an implicit choice between them, simply because the rejection of one would be made in the knowledge that the other is available. There is a further issue (which also impinges on the application of the principle of clear need) that when a project is rejected there is no guarantee that the option to develop at that particular site will remain open. If it does not, then a choice is also being made between the rejected site and the other possibilities, not yet appraised, that would be available to meet longer term needs.

A serious problem at the Dibden Bay and London Gateway Inquiries concerned the question of integration with the inland modes and the fact that objectives for rail share have been informed by plans for the development of a core rail freight network which are now on hold. The port appraisal process can not solve the problem of lack of inland infrastructure, but it should take account of it, and it was difficult to follow a realistic approach in the context of SRA objectives for rail share.

The appraisal system has considerable strengths. There is detailed analysis of major projects, which forms part of the design process. Arguably this goes well beyond what Government itself would be able to achieve in any internal process of establishing priorities for major infrastructure. It can also accommodate measures of environmental mitigation and compensation and generally seeks such agreement between opposing interests as is likely to be available. There is also the scope for forensic examination of projects in the public domain, and thus a degree of independence. These characteristics help in achieving the overall objective of finding

an accommodation between commercial, economic and environmental needs. Nevertheless, I am finally inclined to the view that the influence of market forces is too subdued for a private sector system. Specifically, I suspect that the principle of clear need, will in practice prove to be incompatible with the operation of market forces and, although the principles of NATA are acceptable, its application should be confined to the local optimisation of the scheme under consideration.

Appendix

Application summary

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- 25. Mitigation and Monitoring Strategies

Source: Port of Southampton - Dibden Terminal Website

www.dibdenterminal.co.uk/SUMMARY/index.htm

For daily transcripts from the Dibden Bay Public Inquiry see. www.planning-inspectorate.gov.uk/dibden/

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