## SECTION II – OBJECTIVE REVIEW

4   Rationale

This section summarises the results of the data gathering and analysis stages of this study. In order to provide a sensible structure to this section of the report, the following steps have been taken:

1. A series of core functions of estuary management in general have been defined, these have been suggested in order to provide a reference point for assessing the degree to which estuary management accords with the underlying principle of sustainable development.

2. A series of key outputs of estuary management have also been presented. These have been put forward in order to help provide a baseline against which the information collated on estuary management during this study can be examined.

3. Data collated during this study has been grouped, as far as possible, according to key outputs. **By comparing the outputs of estuary management with the core functions an assessment has been made of whether or not progress is being made towards sustainable development.** Any conclusions that have been drawn on the basis of qualitative information are more prone to cross-examination.

Section 5 below presents the core functions of estuary management, and section 6 presents the key outputs. Estuary management inputs are set out in section 7.6 on the funding of estuary management.

Figure 3 below demonstrates the relationship between core functions, inputs and outputs.
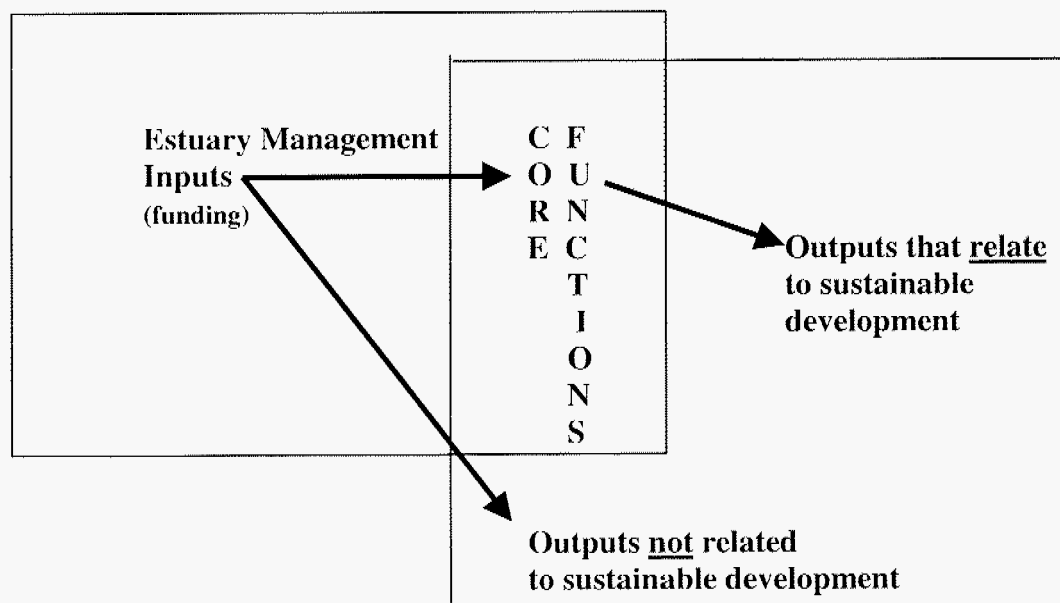
When reading this report, it is important that time is spent understanding this rationale as it sets the context for the remainder of Section II of the report.

5 Core functions of estuary management

The core functions of estuary management are set out in Table 2.

Table 2. The core functions of estuary management.

The processes adopted in, and outputs generated by, estuary management initiatives should directly relate one, or more, of the following core functions:

Core Function 1:
To influence the statutory planning system and the regulation of activities below low water.

Core Function 2:
To promote a common understanding of the objectives, beliefs and activities of the organisations reliant upon estuarine resources.

Core Function 3:
To inform decision-makers about the status of the estuary and what progress is being made / needs to be made towards sustainable use.

Core Function 4:
To act as a mechanism for agreeing the short, medium and long term priorities for an estuary.

Core Function 5:
To help prevent conflict by providing a balanced framework for resource allocation, objective setting and decision-making.

Core Function 6:
To be aware of the initiatives and plans of others and to communicate their implications to those organisations who are reliant on the estuary.

6 Outputs of estuary management

Key outputs of estuary management are set out in Table 3.

Table 3 Key outputs of estuary management.

A. Awareness raising (of economic, social and environmental issues of estuaries).	• Communication materials produced by estuary management partnerships. • Awareness raising events. • Communication of the values, legislation (constraints), operations and beliefs of the organisations reliant upon estuarine resources
B. Conflict prevention	• Examples of conflict prevention and resolution that can be directly attributed to the estuary management process.
C. Assisting the plans and initiatives of others	• Assisting and providing a mechanism to influence other plans and initiatives e.g. Local Environment Agency Plans, Shoreline Management Plans, Special Areas of Conservation. • Identifying and communicating the potential for integration and conflict between plans and initiatives on estuaries.
D. Financial	• Identifying funding needs and mechanisms.
E. Partnerships	• Involvement of stakeholders. • Level of commitment of stakeholders to the process. • Forms of endorsement.

7   Results

7.1   Awareness Raising

It is clear from data analysis that all estuary management projects operating in England are engaged in activities that aim to raise awareness about estuaries and the role of different organisations in estuary management.

What is less clear is the degree to which estuary management projects are raising awareness on matters relevant to the core functions of estuary management. Awareness raising relates to the core functions 2 and 3.

Table 4 provides a summary of the degree to which awareness raising is viewed as a strength of estuary management. This information has been extracted from telephone interview data (see paper 3 of the supporting papers).

Table 4   Degree to which awareness raising is viewed as a strength.

Raising the profile of the estuary: 52% of stakeholders interviewed believe estuary management is raising the profile of estuaries. 69% of estuary project chairs and estuary project officers interviewed believe estuary management is raising the profile of estuaries.
Raising the profile of the partners engaged in the estuary management process: 41% of stakeholders interviewed believe raising the profile of partners is a strength of estuary management. 23% of estuary project chairs and estuary project officers interviewed believe raising the profile of partners is a strength of estuary management.
Holding events and initiatives: 4% of stakeholders interviewed see awareness raising events and initiatives as a strength of estuary management. 38% of estuary project chairpersons and estuary officers see these as a strength of estuary management.

Table 5, which also originates from telephone interviews, summarises data on awareness raising activities of the estuary management projects. Two case studies, the Solent Forum and the Morecambe Bay Strategy, examine in more detail the nature of awareness raising information (see Box 1, Appendix 1 of the Evidence of Analysis Report).

Table 5   The type of outputs from estuary management.

Output	% of projects producing this output	Output	% of projects producing this output
Newsletter	67	Action Plan	33
Leaflets	75	Events calendar	17
Posters	25	Progress reports	33
Events	100	Website	33
Media / Press	100	Projects	67
Presentations	100	Workshops	83
Meetings	100	Conflict Resolution	50
Annual Report	42	Piggy back on other publications	100

7.2   Conflict prevention

Conflict prevention relates to the core function 5.

The amount of information provided during data gathering on conflict prevention and conflict resolution is limited, and both this section and the later discussion section should be viewed with caution.

During consultations carried out as part of this study, reference was made to the terms conflict prevention, conflict resolution, and consensus building. In order to attempt to clarify the meaning of each of these terms, the following definitions are used in this report:

Conflict prevention

Stopping an estuary management issue actually becoming a problem by working in partnership to agree policy / strategy for the estuary. Putting in place a system that sets out ways of addressing potential areas of conflict within a framework of sustainable development. Identification of issues and common goals may be classed as part of the conflict prevention process.

Conflict resolution

The process of mediating an agreed way forward on an estuary management issue about which individuals / stakeholder organisations have opposing views.

Consensus building

Very similar to conflict resolution, but dealing at a more general level working on beliefs, values and philosophy rather than resolving site / activity specific problems.

Useful information on this topic that has been collected via telephone interview is set out below. In addition the discussion section on conflict prevention refers to some of the views put forward by English Nature during one to one consultations.

77% of estuary stakeholders saw conflict prevention as a strength of estuary management. Only 31% saw conflict resolution as a strength, with fewer being able to cite examples of a successful conflict resolution process.

Table 6 below summarises some examples of where coastal zone management initiatives that have resolved conflict. This information was provided during telephone interviews, and written consultation on Best Practice.

Table 6   Examples of conflict resolution.

Dorset Coast Project:
- Conditions of operations of ship-to-ship transfer area in Lyme Bay.
- Handling local input to the common fisheries policy reform and retention of 6/12 mile limit.
- Backing for possible World Heritage bid.

Sefton Coast Management Scheme
- The underlying 'conflict' between access for recreation and nature conservation (which led to the establishment of the scheme) has been very much solved. Currently the scheme is trying to set out the need for a balance between woodland habitats and open dune habitats, and also trying better to explain the need to work with coastal processes.

Duddon
- Bait digging problems solved.

Morecambe Bay
- Disagreement over *Spartina* addressed via public debate.

Lune
- Resolution of waterskiing problems.

In order to provide information on the process of conflict resolution a case study on Water-skiing on the River Lune is provided in Appendix 2 of the Evidence of Analysis Report.

RSPB casework data identifies that estuaries are the most frequently affected habitat for casework between 1995 and 1997, being more than double the second ranked habitat, lowland wet grassland. This is evidence of the on-going pressure that estuaries are under. Such a large casework load suggests that the potential for conflict remains, and it is therefore questionable whether English Nature's objective to reduce casework has been satisfied.

7.3   Influencing and co-ordinating the plans of others

This section presents information on the relationship and degree of integration between estuary management and the other initiatives and plans affecting estuaries. This directly relates to core functions 1 and 6. Underlying data is summarised in Tables 3, 4a and 4b in Appendix 3 of the Evidence of Analysis Report.

Influencing Local Environment Agency Plans

Three forms of linkage were identified between Local Environment Agency Plans and an estuary management plan:

- As a seamless process with the estuary management plan providing the policy framework. This avoids the need to publish a separate Local Environment Agency Plan e.g. Thames.
- A formal memorandum of understanding to facilitate close working and integration e.g. Severn.
- A close working association whereby the timescales are mutually adjusted to fit e.g. Tamar.

Influencing Shoreline Management Plans

The integration between estuary management plans and Shoreline Management Plans is similarly variable, with linkages including:

- The production of a memorandum of understanding between the two e.g. Severn.
- Direct policy influence via representation of the Estuary Project Officer / chair and Shoreline Management Group Chairperson at management group level on both initiatives e.g. Dee.
- Formal consultation e.g. Dart.

Natura 2000 Sites

Telephone interview data indicates that, where they overlap, Special Areas of Conservation (SAC) have usually benefited from the established estuary management process. It is however important to note that a number of stakeholders have reservations about the benefits of the linkage between estuary management and SAC management:

- The management of Natura 2000 sites is a statutory process and the statutory duty placed on the Relevant Authorities occurs irrespective of an estuary management plan (comment by Associated British Ports – see telephone interview data in supporting paper 3).
- On some estuaries, the existence of an estuary management plan has confused the process and created the potential for duplication, especially in setting up Relevant Authority groups. This was particularly evident in the early development of SAC mechanisms (see telephone interview data in supporting paper 3).

The estuary management process has completed much of the groundwork in raising awareness of the role of the different organisations using and managing estuaries, and provides the framework for consultation and the development of Relevant Authority groups.

A variety of approaches have been taken ranging from the estuary management process being superseded by the SAC management scheme (Fal Bay), to the SAC process 'piggy-backing' the estuary management process (Morecambe Bay).

No arrangements have been put in place or tested for Special Protection Areas.

Local Plans

Local Plans are influenced by estuary management plans in terms of:

- Consistency in the definition of the coastal zone e.g. Dee.
- Policies associated with the nature conservation importance of estuaries e.g. Tamar.

A key success factor in influencing local plans is that estuary management partnerships provide a mechanism to facilitate close working with local authority officers during planning policy development. Examples of this include:

- Local authority officers attending management group meetings e.g. Mersey.
- Using the estuary management plan to influence organisational policy e.g. Morecambe Bay.

- An Estuary Project Officer working closely with planning officers e.g. Tamar.

Some estuary management plans are yet to influence the local plan process because of a time lag between the plan preparation process and formal Local Authority adoption review.

Influencing structure plans and unitary development plans

The degree of influence on structure plans and unitary development plans is variable, with only a few examples of direct influencing e.g. Wirral Unitary Development Plan by the Mersey Strategy. Generally, policy at county level is restricted to strategic issues e.g. definition of the coastal zone in Cheshire, whilst the responsibility for estuary planning policy is largely devolved to district and borough level.

Regional Planning Guidance

Direct influence on regional planning guidance is restricted to one example on the Thames, where the estuary management process influenced the content of sub regional planning guidance (RPG9a) for the Thames Gateway.

Comparison with the 1997 English Nature data

English Nature surveyed estuary project chairs in 1997 (*English Nature unpublished data, 1997*). A comparison between this study and the English Nature survey reveals that:

- Local Environment Agency Plans and estuary management processes are increasingly working together, with frequent examples of integration and joint objective setting e.g. Mersey.
- The influence of estuary management plans on the development planning system has increased since 1997 e.g. Tamar.
- Shoreline Management Plans remain largely isolated from estuary management plans e.g. Fal.

Added value

The following are evidence of added value delivered by estuary management processes:

- Improved sectoral objective setting by utilising the policy and management framework provided by the estuary management process (e.g. Humber).
- A single management plan or two integrate plans are more cost efficient and integrated than separate estuary management plans and Local Environment Agency Plans (e.g. Thames).
- Economies of scale at joint events (e.g. the estuary management partnership helping to organise a joint launch for the Fal Bay estuary management plans and Local Environment Agency Plan).
- Accelerating the process of developing management schemes for Special Areas of Conservation (e.g. Morecambe Bay).
- Utilising the frameworks developed by estuary management plans for consultation over plans and proposals (e.g. Local Authority countryside management strategy on the Dee).

7.4 Estuary management partnerships

This section relates to all of the core functions of estuary management. The following features of the estuary management process have been used to provide an indication of the strength (or otherwise) of existing partnerships:

- The degree of involvement of stakeholder groups.
- Endorsement of the estuary management plan.
- Seniority of representation.

All of the data was collected via telephone interview (see supporting paper 3 for complete dataset).

Involvement of Stakeholder Groups

57% of respondents believe their estuary management project involves all stakeholder groups.
19% believe that key stakeholders are involved, but smaller interest groups are missing.
24% believe that key stakeholders are missing.

Of those stakeholders thought to be missing, 75% of respondents listed small and medium enterprises, 56% listed community interests, and 25% listed Ministry of Agriculture, Fisheries and Food and its agencies.

A qualitative assessment has been made of what factors encourage or motivate stakeholders to become involved in the estuary management process. These include:

- In order to directly influence the policies in the estuary management plan.
- As a damage limitation exercise and to protect self interest - it is better to be involved than not.
- To be seen to be taking part.
- In order to pursue organisational agendas e.g. nature conservation agendas.
- In order to influence estuary management plan content
- To work in partnership and better understand organisations.
- To access useful information and intelligence.
- In order to adopt a sustainable and holistic approach to managing estuaries.

Endorsement of the estuary management plan

The formal endorsement of an estuary management plan by relevant stakeholders is a useful indicator of commitment to implementation of an estuary management process. The assumption being that plan guidance and recommendations are more likely to be reflected in the policies of the partners. Endorsement procedures vary from letters of endorsement to signed protocols, and tend to give the estuary management plan "material consideration" status particularly in Local Authority planning processes.

Table 7 summarises data provided on plan endorsement.

Table 7   Examples of endorsement.

Estuary management plan	Form of endorsement
Dart	Endorsed by local authorities at committee level. Also formally endorsed by key stakeholders.
Dee	Letter of endorsement signed by the majority of regulatory agencies and local stakeholders.
Fal	Plan formally endorsed by stakeholders. Now superseded by the Special Area of Conservation process.
Humber	Stakeholders have endorsed the strategy through working groups. Environment Agency has made a formal commitment to implement elements of the strategy via its statutory functions and by working in partnership.
Mersey	Endorsement protocol signed by many stakeholders and regulatory agencies
Morecambe Bay	Letter of endorsement signed by most stakeholders and regulatory agencies
Tamar	Estuary strategy endorsed by each Local Authority at committee level. All 16 bodies on the management forum have endorsed the strategy.

Seniority of representation

The seniority of representation on the estuary management group is another indicator of the level of commitment the partners have to estuary management process. Table 8 summarises current levels of representation:

Table 8   Current representation of key stakeholders in estuary management.

Level of representation on an estuary management group	Proportion of estuary management plans with this level of representation
Elected member	36%
Tier 1	27%
Tier 2	91%
Tier 3	55%
Tier 4	18%
Via events only	9%
Via forum only	36%
Via working group only	18%
Tier 1 – Director / Regional Officer / Harbour Master	Tier 2 – Assistant Director / Service Head
Tier 3 – Senior Planning Officer / Team Leader	Tier 4 – Planning Officer / Site Manager

7.5   Wildlife and environmental gain

Wildlife and environmental gain has not been included as a key outcome of estuary management (see discussion section 8.5). This section does however form part of core function 3.

Examples of wildlife / environmental gain attributable to or assisted by the estuary management process are identified in Table 9 below (see also Table 6 in Appendix 6 of the Evidence of Analysis report).

Table 9   Examples of wildlife gain / damage avoidance.

Influencing the plans and initiatives of others'	Influencing / promoting Biodiversity Action Plans. Assisting in Local Nature Reserve designations. Pursuing Heritage Coast definition.
Management of activities	Assisting in recreational vessel registration. *Spartina* debate and agreed action plan
Conservation projects	Consensus gained on measures to protect a sensitive tern habitat. Assisting in dune and beach management / restoration project by providing advice and helping to deliver shared objectives. Assisting in the objective setting for managed re-alignment schemes. Bat roosting boxes set up. Reedbed management / creation project. Organised volunteers for salt marsh management. Salt marsh creation / management project initiated. Identification of alternative access route to a National Nature Reserve.
Clean-up, pollution prevention	Organise beach cleans.
Education Awareness raising	CD-ROM. Events. Leaflets. BMIF Navigate with Nature. Code of conduct publication. Conferences. Web site. Generic signage project with environmental information. Seal awareness. Local Nature Reserve signage.
Conflict prevention / avoidance	Access and rights of way. Bait digging. Personal Water Craft – assisting in conflict prevention. User group support. 4WD access management. Wildfowling management plan.
Research / monitoring	Improved co-ordination of wildfowl counts. Bait digging research. Habitat and species mapping. Litter monitoring scheme. Sand dune erosion project. Sediment budget project. Survey of recreational use.

Note: Shaded text is examples that are a direct result of the estuary management process. Those in normal text are examples of where the estuary management process has assisted and co-ordinated initiatives that have <u>indirectly</u> benefited wildlife and conservation interests.

7.6 Funding of estuary management

This section presents the background data on **inputs** to the estuary management processes. A summary of the financial analysis is given in Table 7 and Figures 1 – 5 in Appendix 7 of the Evidence of Analysis Report. Further financial data is given in Tables 8 – 12 of the Evidence of Analysis report, and in supporting papers 3 and 7.

Detailed financial information was collected during the telephone interviews from a sample of 11 estuary management partnerships (Colne, Dart, Dee, Duddon, Fal Bay, Mersey, Morecambe, Severn, Tamar, Tees and Thames).

An assessment has been made of the following funding parameters:

1. Number of funding bodies.
2. Types of funder.
3. Level of core funding and expenditure.
4. Level of partnership funding and expenditure.
5. Direct costs of officer employment.
6. Types of funding in kind.
7. Notional cost of partner officer time.
8. Level of draw down funding.
9. Success of fundraising.

On the basis of these data, the total financial input to estuary management has been estimated. Comment is also made on the direct and indirect economic benefit of this expenditure.

Number of funding bodies

A total of 116 funding partners support estuary management in the above 11 estuaries, with an average of 11 funding partners per estuary (range 2-25). The total figure includes multiple entries for agencies that fund a number of partnerships.

Types of funder

Currently the following range of bodies are funding estuary management processes:

- Statutory and regulatory bodies (including government agencies, Local Authorities, port and harbour authorities).
- UK development agencies.
- European funds.
- Commercial organisations.
- Voluntary bodies.
- Grant making trusts.
- Private donors.
- Other (Sea Fisheries Committees, Ministry of Defence).

Level of core funding and expenditure

Average core funding and expenditure in 1997/98 was £34,193 (range £7,780 - £55,000).

On the basis of 35 estuary management processes in England, this gives a total annual core expenditure of £1.2 million, two thirds of which (£0.8 million) is directly used in employing an Estuary Project Officer. Assuming an average period of plan preparation

of 3 years, this gives a core expenditure to date in the order of £3.6 million. On the basis of 29 estuary management processes in England in implementation for one and a half years, this gives a total annual implementation expenditure of £1.0 million. Assuming an average period of plan preparation and implementation of four and a half years, this gives a total core expenditure to date in the order of £5.1 million.

Level of project funding and expenditure

Average estuary management process project funding and expenditure in 1997/98 was £40,027 (range £0 - £300,000). This average is distorted by an outlier of £305,000 project expenditure on the Tamar estuary. With this outlier excluded, average expenditure amounts to £16,530.

On the basis of 35 estuary management processes in England, this gives a total annual expenditure of £578,550.

Funding in kind

The partners in estuary management contribute in many ways. Contributions in kind include:

- Providing office space.
- Providing secretarial / administrative support.
- Providing meeting rooms and venues.
- Specialist officer support (e.g. press and PR).
- Reprographics, publication and printing costs.
- Undertaking survey and data management.

Direct costs of employing an estuary officer

For the 11 estuary management processes, the average officer employment cost in 1997/98 was £23,053 (range £6,660 - £35,000).

This represents 67% of average core expenditure, suggesting that two thirds of the core funding of an estuary management process is needed to pay for officer employment. The remaining third is required for core communication materials, office expenses, travel and subsistence.

Partner officer time

Partner organisations contribute to estuary management through staff involvement. The costs of this time input are significant, an attempt to quantify this has been made below.

On the basis of an estimated total time input of 839 partner officer days over a 3 year period in **plan preparation**, the cost to the employing organisations of estuary partners is in the order of £255,000 per estuary (see Table 9, Appendix 7, Evidence of Analysis Report).

On the basis of an estimated annual input of 220 officer days for **plan implementation**, the annual costs to the employing organisations of estuary partners is in the order of £67,000 per estuary (see Table 10, Appendix 7, Evidence of Analysis Report).

For 35 estuary management partnerships, this indicates an officer cost of around £8.93million to prepare the estuary management plans, and for 29 estuary management partnership, an annual implementation cost of around £1.94million.

Level of draw down funding

Draw down funding has been defined as the financial resources spent by the partners in an estuary management process that would otherwise have been spent elsewhere.

For the 11 estuary management processes sampled, draw down funding averaged £37,672 in 1997/98 (range £0 - £305,000). However, this figure is distorted by the £305,000 draw down funding on the Tamar. Excluding this, the average level of draw down funding was £10,940. For 35 estuary management partnerships, this would suggest a national figure of around £382,900 draw down funding per year.

For every £1.00 of core funding on estuary management, up to £5.50 has been drawn down. However, the modal average is only £0.20 drawn down per partnership.

Success of fundraising

On average, Estuary Project Officers spend 21% of their time fundraising (range 5 - 40%). This is a significant amount of time, with an average notional cost of £5,063 per project per year.

In comparing the cost of this fundraising effort with the amount of draw down funding secured, the balance of funding raised averages £32,609 per project per year. However, this is again distorted by the very high draw down funding secured by the Tamar estuary. If this outlier is excluded, the average balance of funding raised per year is only £5,895.

The total input to estuary management processes in England

An estimate of the total input in England has been calculated on the basis of the above expenditure figures.

The total cost of producing an estuary management plan (over a period of 3 years), calculated on the basis of estimated core expenditure and partner officer time, is in the order of £358,000 per estuary. This suggests a national cost of around £12.53 million for 35 estuary management processes.

The total cost of 29 plans in implementation, calculated on the basis of estimated initiative expenditure and partner officer time, is in the order of £105,455 per estuary per year. This suggests a total national yearly cost of around £3.06 million. This figure is likely to rise in future if implementation picks up speed.

The economic benefits of estuary management processes

The total annual expenditure on estuary management is estimated at around £1.20 million core and £0.58 million partnership expenditure (total £1.78 million). Of this, around £0.38 million is drawn down. This expenditure will have a direct economic impact, which can be quantified in terms of its impact on job creation.

In addition, indirect economic benefit will arise from the results of estuary management. This includes:

- More efficient and effective decision making.
- Conflict prevention.
- Synergies arising from the estuary management partnership.
- A reduction in the economic impact of poor environmental quality.
- Increased inward investment.
- Increased tourism and recreation revenue.

Quantifying the economic value of these benefits is beyond the scope of this study. However, these indirect benefits are likely to be very considerable.

Resourcing the estuary management process
Additional points that arise from the data gathering and consultation include:

- Local Authorities are the most common hosts for the estuary management process. They also provide a significant proportion of the support services to estuary management, such as printing costs, administrative support and meeting rooms.
- Harbour authorities and port companies provide significant contributions in kind, often in association with hosting an estuary management process.
- English Nature hosts fewer estuary management processes compared to 1994, when over 50% of the initiatives were housed within an English Nature office. Although the Environment Agency provides a venue for meetings and support in kind for estuary management e.g. data and report printing, though it is rarely the host organisation.
- Most of the organisations surveyed commented that although use had been made of their offices for meetings and events, more use could be made if the estuary management partnership demonstrated the need.
- The current core funding mix is fairly broad, but it is not deep - i.e. the bulk of the funding burden falls on Local Authorities, English Nature and the Environment Agency. Any problems with continued core funding from these three key sources will jeopardise the future viability of the estuary management process.
- There are over 116 partners funding estuary management throughout the country (including multiple funders), but only 10 have made a long-term commitment to funding.
- Over the last two years 5 funding partners have left estuary management funding partners and 33 have joined.
- The level of project funding, particularly funding drawn down by the estuary management process, is modest. With the exception of the Tamar, the estuary projects can demonstrate little success in securing significant funds for implementation.
- Fundraising is time consuming and is currently undertaken largely by Estuary Project Officers and chairpersons. The balance of funding raised is small when the costs of officer time are taken into account. Only on the Tamar and to a lesser extent the Tees does the officer time spent fundraising represent good value for money.
- It is not clear on what basis requests for funding from stakeholder organisations are made, particularly with regard to the anticipated outputs and consequent benefits to funding organisations. It appears that significant amounts of funding may be requested on the basis of good will rather than clear, demonstrable benefits.
- The cost of implementation in terms of partner officer time is much greater than originally predicted. It is not clear whether this additional burden represents value for money for partners, or whether it has distracted them from their core interests.

8 Discussion Section

8.1 Awareness Raising

Estuary management projects expend considerable time and resources in raising awareness of estuaries, estuary management, and the role and activities of different organisations. There are some important differences in the perception of awareness between the stakeholders, and Estuary Project Officers and chairpersons. The former are more concerned about raising the awareness of organisations, and the latter more concerned with raising awareness of the estuaries themselves and the estuary management process.

Crucially, there is an almost universal lack of monitoring of the quality and effectiveness of awareness raising. Here, the disparity between 4% of stakeholders valuing the events and initiatives as a strength of the estuary management process, compared to 38% of estuary project officers and chairs, is striking.

This raises a crucial question about the objectivity and value of awareness raising. If awareness raising is not perceived as a strength by the partners, it will not add value to the estuary management process. It is questionable therefore whether resources should be diverted towards initiatives and events unless the benefits can be related to the core function 2 *"To promote a common understanding of the objectives, beliefs and activities of the organisations reliant upon estuarine resources."* Clear, effective communication is a common theme running throughout the core functions of estuary management. The need for quality standards in the communication materials developed by the estuary management partnership is critical and should be taken on board as a priority.

Only one example has been identified of where an attempt has been made to measure changes in stakeholder awareness prior to plan publication, immediately after and during implementation (Dee, unpublished data).

Overall it would appear that, the estuary management process is beginning to deliver core function 2 in so far as estuary stakeholders appear to have a grasp of one another's objectives, beliefs and activities. It is unclear from the information collected in this study as to whether the estuary management process is fulfilling core function 3.

8.2 Conflict prevention

The context for conflict prevention in estuary management may be explored by looking at the background to English Nature's Estuaries Initiative. During the 1980's the Nature Conservancy Council had regular:

- Conflict with other sectoral interests.
- Public inquiries.
- Isolation from other users.

In taking a new approach in their work on estuaries, the following needs were identified:

- Defuse issues before they reach the conflict stage.
- Reduce casework
- Halt incremental habitat loss within estuaries by raising awareness.

So, the principle of conflict prevention underpins the Estuaries Initiative, and hence the predominant approach to estuary management in England.

Conflict prevention can be achieved through the development of joint objectives during plan preparation. Conflict resolution and consensus building are more tenuous, and need to be carefully considered in relation to statutory systems and the status, if any, that a voluntary estuary management plan has.

Conflict prevention is thus a core function of estuary management, whereas conflict resolution and consensus building are not. The latter are desirable 'add-ons' that may develop naturally as an estuary management process matures and proves itself.

Only English Nature made reference to conflict prevention during one to one stakeholder meetings. English Nature noted that it is hard to quantify the success of conflict resolution, but felt there has been an improvement in 'atmosphere' and a reduction in feelings of 'them and us'. There is also a fundamental question of who has the remit to assist the conflict resolution process. During consultation on English Nature's *Strategy for the Sustainable use of England's Estuaries* in 1993, the following points were raised in relation to conflict resolution:

- A methodology is needed for adjudicating between conflicting views, and the consensus voluntary approach has its limits. Local estuary managers need enhanced power to implement conflict resolution (consultation comment from Clwyd County Council and RSPB).
- It is necessary to accept that some issues are of overriding concern and that consensus may not be realistic. Estuary management plans need to clarify their relationship with the responsibilities of the statutory agencies. (Consultation comments from Department of the Environment, MAFF and the Royal Yachting Association).

At best, estuary management processes can provide a framework and partnership for bringing parties together to attempt to resolve a conflict, but has no power to impose will or a solution. The only examples cited of successful conflict resolution, directly assisted by the estuary management project, are related to recreational issues like bait digging. Here the estuary management project can provide a framework and guidance without recourse to the statutory system of control.

For larger, more substantive issues (i.e. where lots of money is involved), the statutory system is the appropriate mechanism and there are only examples of unsuccessful attempts at conflict resolution. It is however important to note that consultation during this study with staff working on the, very well established, Fraser River Estuary Management Plan, Canada indicated that there many conflicts between port-related land uses and conservation interests have been avoided, primarily via the introduction of systems for directing development away from valuable habitats.

As the data set for this element of the study is poor, it not possible to make an assessment as to whether estuary management is currently meeting core function 5.

8.3 Assisting the plans and initiatives of others

Local Environment Agency Plans and Shoreline Management Plans would be developed irrespective of the existence of an estuary management plan. There are many examples of where appropriate local partnerships have been developed irrespective of the estuary management plan e.g. Humber Estuary Shoreline Management Plan, Fal Local Environment Agency Plan.

The crucial observation is that voluntary mechanisms can be developed under the guidance of the estuary management process to encourage working in partnership, joint objective setting, co-ordination and integration between initiatives. This is particularly the case if the estuary management can provide a ready-made framework for working in partnership. If successful, this approach can lead to full integration between estuary management plans and the plans of others e.g. Mersey and Thames Local Environment Agency Action plan.

On the other hand, the existence of an estuary management plan can actually hinder the partnership approach and statutory procedures by creating confusion between responsibilities or duplicating meetings. If a joint approach is to be adopted, it is fundamental that all partners fully understand and abide by a partnership agreement.

The estuary management plan can add value to policy development by providing a policy baseline and a framework for joint objective setting. It is therefore directly related to core function 1 *"to influence the statutory planning system and the regulation of activities below low water"* and core function 6 *"to be aware of the initiatives and plans of others and to communicate their implications to those organisations who are reliant on the estuary."* It may not be essential to have an Estuary Project Officer in post to facilitate this process.

On the basis of information supplied to this study, it would appear that a few estuary management partnerships are successfully delivering core functions 1 and 6 (e.g. Mersey, Morecambe Bay and Tamar estuaries). But that these core functions are not being met across the board.

8.4 Partnerships

The strength of the estuary management partnerships has been assessed through the following indicators:

- Involvement of stakeholder groups.
- Seniority of representation.
- Endorsement of the estuary management plan.

Involvement of stakeholder groups

From the quantitative data, it appears that the degree of partner involvement is sufficient to deliver estuary management plans, but that some effort needs to be made in recruiting 'missing' stakeholders. Here, the question of who is a 'stakeholder' is a matter of perception. It seems that Estuary Project Officers, chairpersons and agency representatives believe small and medium enterprises to be key stakeholders, whilst this belief may not be shared by the enterprises themselves. There is thus a need to promote the benefits of estuary management to this sector in a way that they can relate to, and to emphasise that the estuary management process is not conservation led.

The local community is also poorly represented in the estuary management process. In terms of community involvement, the scale of the estuary is important. It may be feasible to directly engage the local community on smaller or rural estuaries, but it is much more difficult for larger urbanised sites e.g. Mersey and Thames. An estuary forum is one proven mechanism for local community involvement. However, concern was expressed at how representative spokespersons or "activists" are of the wider community.

Our key conclusion about the degree of involvement in estuary management is that those steering the process need to be aware of the motivations of their partner organisations. A key tactical and strategic aim should be to sustain this involvement over the long term. Ultimately, this will depend on the direct benefits that accrue to the partner organisations.

Seniority of representation

The estuary management process is largely seen as meriting middle to senior level representation by the key stakeholders. However, representation by elected members is limited. A number of issues arise from representation at mixed levels of seniority:

1. Membership of a management group should be as equitable as possible at all stages in the estuary management process. Stakeholder representatives should act as message carriers to, and decision makers for, their own organisations. When a group is formed from a wide range of management tiers, inequality is created because junior staff do not have the authority to make decisions. Here, senior staff, who are empowered to make decisions, can become frustrated at the lack of decisiveness.

2. Management groups function on a combination of trust, respect, personal ability and organisational power. Many management groups have acknowledged this latter point, and limit membership largely to statutory agencies and regulatory authorities (analogous to a Relevant Authorities Group under the Habitats Directive Regulation 33). However, during implementation, there may be a pull to widen the membership of the management group.

Junior representation on management groups is an indicator of potential lack of organisational commitment. There is a caveat however, that on smaller estuaries e.g. Duddon and Aln, where many of the groups and organisations are smaller, senior level involvement may not be necessary.

If the estuary management process is perceived as not delivering the goods or becoming less relevant, representation at senior level may be replaced with more junior staff. The focus on delivering change through practical action and improved decision making must therefore be sustained at all times.

Endorsement and implementation

The endorsement of an estuary management plan indicates that the partner organisation will pay due regard to its guidance, and is more likely support the implementation process. However, endorsement is a voluntary agreement and has no legal authority or power.

All estuary management plans so far produced have been endorsed in one way or another by their partner agencies. This is a sign that the plans are promoting policies and actions that are acceptable to partner agencies. However, it might also indicate that these policies and actions are uncontroversial.

Over 85% of the estuaries in English Nature's Estuaries Initiative now have completed plans, whilst others are well on the way to delivering the plan. This is an indicator of the commitment of the partnership towards preparing a plan, but says little about the commitment to implementation. A variety of approaches have been used to sustain interest and to continue to build commitment including:

- The development of Action Plans (e.g. Morecambe Bay).
- Implementation of Flagship projects (Dart) or a project portfolio (e.g. Mersey).
- Development of National and E.U. funding bids (e.g. Dart and Tamar).
- Attempts to resolve conflict (e.g. Lune).
- Influencing and co-ordinating the plans of others (e.g. Humber and Thames).

However, the most successful approach is being pursued on the Tamar, where the emphasis on action from the very beginning, combined with effective fundraising, has paid dividends in terms of strong partner support for implementation.

Although peer pressure from other members of the partnership can encourage commitment to action the activities need to be closely aligned to the objectives of stakeholders. Thus, gaining organisational commitment to a flagship project, may be a mechanism to give implementation a focus and help build longer term support for the estuary management process.

Overall, it would appear that, as far as partnerships are concerned, the core functions of estuary management are being met at estuary management plan production stage. Partnership success in implementation remains generally untested.

8.5 Wildlife and environmental gain

Few direct examples of estuary management projects delivering wildlife or environmental gain have been identified. This is not surprising because the underpinning philosophy of estuary management is sustainable development. The telephone interviews (supporting paper 3) identified that estuary management projects were neither good nor well equipped to directly deliver wildlife / environmental gain e.g.:

- "the estuary management plan provides an opportunity to address non core conservation issues."
- "we would like to see indicators of performance because we suspect there are few direct benefits to conservation."
- "estuary management plans have been very successful at raising the awareness of estuaries but we suspect there have been very few direct gains for wildlife."

The real value of the estuary management process is that it can indirectly help deliver wildlife and environmental gain through partnership working. When this leads to raised awareness of estuaries and the roles of organisations, especially during joint objective setting, potentially damaging decisions, including effects on wildlife, can be avoided. This was cited as a strength of the estuary management process during telephone

interview and in the submissions by English Nature Conservation Officers (English Nature, *unpublished data 1999*).

Thus, it is the estuary management process which provides mechanisms to prevent conflict and damage to wildlife sites by virtue of improved awareness e.g. events and leaflets and partnership working within management groups, and not the direct delivery of wildlife or conservation gain projects. Direct conservation action e.g. managed re-alignment scheme, remains the responsibility of the partner organisation(s).

In considering the delivery of wildlife and environmental gain, there is an important responsibility and resource issue. Some partner organisations have a direct responsibility to deliver wildlife / environmental gain. The value of the estuary management process is that is can add value to joint objective setting, lend the support of the estuary management partnership to particular projects if they accord with joint objectives, and encourage extra improvements above, for instance, the legislative minimum. Thus wildlife / environmental gain is partly related to core function 3 *"to inform decision makers about the status of the estuary and what progress is being made / needs to be made towards sustainable use"*, because sustainable development has social and economic dimensions also.

8.6   Funding estuary management

Clearly, the sustainable funding of the estuary management process is a major challenge that is only being partly met at present. It is encouraging that 33 organisations have joined estuary management funding partnerships in the last two years, compared to 5 leaving. Furthermore, when the reasons for those leaving are analysed, it is not through a lack of support or disillusionment for the process, but rather as a result of other factors such as policy changes, down-sizing and re-organisation (e.g. ICI), or severe funding constraints (e.g. borough councils).

However, securing adequate funding remains a perennial problem. Much of the fundraising effort by Estuary Project Officers appears to bring little financial reward (although other benefits will accrue in terms of increased ownership and commitment to the process). The most efficient way of fundraising appears to be for the partnership to focus on statutory agencies and development funds (including European). It may also be worthwhile considering engaging professional fundraisers to deal with the private and charitable sector, lottery funds and landfill tax.

Contributions in kind

Local Authorities are the most common host organisation for estuary management projects and as a consequence of this close association, frequently provide help such as report printing costs, administrative support and the provision of meeting rooms.

On some estuaries, harbour authorities and port companies are well placed to provide contributions in kind or host an Estuary Project Officer e.g. Poole. English Nature is now a less common host organisation compared to 1994 when over 50% of the Estuary Project Officers were housed within an English Nature office.

The natural home for an estuary management project depends on local circumstances. Local Authorities and harbour authorities / port companies are becoming increasingly important as the host organisations for estuary management projects and an officer (if in

post). Since the start of the Estuaries Initiative there has been a conscious move away from housing Estuary Project Officers within English Nature offices because of concerns about the nature conservation bias of the early estuary management planning process (30% of telephone interviews identified conservation bias as a weakness).

Better use can also be made of partners' resources such as offices for meetings and events. This may be a potentially useful way of involving organisations more closely in the estuary management process.

The nature of the funding challenge

There are a number of features of the estuary management process which, in its current state of development, present significant constraints to fundraising:

1. **The lack of statutory duty to deliver coastal zone management.** The funding climate is changing, particularly within Local Authorities, and discretionary grants are becoming scarcer. Estuary management cannot continue to depend on discretionary funding being provided by a limited number of organisations. The challenge is to structure estuary management processes to enable it to access the (mostly capital) funds that do exist, and then to handle the consequences of being successful in a way that will deliver revenue outputs.

2. **The lack of demonstrable benefit of estuary management.** Estuary management have so far completed little rigorous evaluation to show whether or not estuary management process is meeting its goals. Until such proof is forthcoming, funding agencies are likely to retain a degree of scepticism about the value of estuary management, especially given other urgent calls on their resources.

3. **The lack of practical action on the ground.** In general, the estuary management process has focused on planning and strategy development, rather than on practical action on the ground. It is the practical results of estuary management which will, ultimately, pursuade partner agencies, local people and their political representatives to support continued funding for estuary management.

4. **The lack of professional fundraising expertise within estuary management.** Much fundraising by local projects is undertaken by the Estuary Project Officer both detracting from time better spent on their core estuary management functions, and missing potential opportunities that could be better utilised by a specialist fundraiser. The balance of funding raised by estuary project officers is almost universally poor.

Clearly, some of these constraints are outwith the scope of estuary management partnerships or English Nature to influence. It will be necessary therefore to accommodate these and work around them to the maximum extent.