

POTENTIAL APPLICATIONS OF A ‘SUSTAINABLE LIVELIHOODS APPROACH’ TO MANAGEMENT AND POLICY DEVELOPMENT FOR EUROPEAN INSHORE FISHERIES

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Abstract

The ‘Sustainable Livelihoods Approach’ (SLA) has been widely applied to inform the design of policy and development interventions aimed at reducing poverty in less developed countries. This paper introduces the SLA, reviews recent experiences with its application to management issues in small-scale fisheries in developing countries, and examines its potential as a framework to guide policy and management in the inshore fisheries of northern Europe. The paper proposes that livelihood strategies that include diversification and risk-spreading behaviour have been common features of inshore fishing in Europe, just as they are in low-income countries in the tropics. These adaptive livelihood strategies have, however, often been undermined by inappropriate sectorally-based policies. Similarly, a range of ‘traditional’ informal resource conservation, resource allocation and conflict resolution mechanisms that existed in inshore fisheries have been eroded by lack of recognition in state and EU fisheries law. With the trend towards withdrawal of the state from inshore fisheries management and a new EU Common Fisheries Policy that emphasises regional decision-making and greater participation by fisherfolk, the informal institutional arrangements and livelihood strategies that have survived may now grow in importance and once again emerge to help secure the continued viability of inshore

fishing. The paper concludes that using the SLA as a framework for thinking about management and policy can help to build a better understanding of the role and function of the inshore fisheries sector in the wider coastal economy in northern Europe.

1. Introduction

A framework known as the Sustainable Livelihoods Approach (SLA) has recently proved to be very helpful in bringing a fuller understanding of fisherfolk's adaptive strategies into the policy arena of small-scale fisheries management in low-income countries. This paper proposes that the SLA approach can be similarly useful in improving policy-makers' understanding of the inshore fisheries sector in Northern Europe and can thereby provide a basis for improved management decision-making and policy formulation.

The livelihoods approach (Carney, 1998; Scoones, 1998) is increasingly being used by development agencies and NGOs in order to achieve a better understanding of natural resource management systems (Ashley and Carney, 1999). Its chief point of departure is to avoid undue preoccupation with a particular component of individual or family livelihood strategies, in this instance fishing, to the neglect of other components that make their own demands on the resources available to households involved in natural resource-based activities (Ellis, 1998; Bebbington, 1999). The livelihoods approach seeks to improve rural development policy and practice by recognising the seasonal and cyclical complexity of livelihood strategies, helping to remove access constraints to assets and activities that complement existing patterns,

and identifying ways of making livelihoods as a whole more able to cope with adverse trends or sudden shocks. A fundamental precept of the approach is that it seeks “to identify what [people] have rather than what they do not have” and “[to] strengthen people’s own inventive solutions, rather than substitute for, block or undermine them” (Moser, 1998; p 1).

There is no prescribed livelihoods ‘method’ though the core principles that underlie SL thinking can be summarised as:

- Putting people’s social and economic activities at the centre of the analysis (rather than, for example, just their ‘fishing effort’).
- Taking a view of the options for management and development intervention that transcends traditional sectoral boundaries such as fisheries, agriculture and tourism and that incorporates over-arching issues that affect all people, irrespective of occupation, such as access to social services (e.g. health, education, social security, legal and judicial services).
- Making links between local issues and wider concerns such as national policy and economic or social change.
- Being responsive and participatory in addressing management priorities. This normally involves working in partnership with fishers and other stakeholders in the public and private sectors and promotes a dynamic, adaptive approach to management.
- Taking a wide view of sustainability: there are four key dimensions to sustainability - economic, institutional, social and environmental sustainability. All are important, and a livelihoods approach seeks a balance between them, which will often mean compromises and trade-offs will need to be made.

The Food and Agriculture Organisation (FAO) of the United Nations, the UN Development Programme (UNDP) and most of the European bi-lateral agencies have recently put these principles into their development practice and recognise that, taken together, they represent a new way of working. Many examples of the SL approach in practice (and in peer-reviewed publications) can be found on the 'Livelihoods Connect' website (<http://www.livelihoods.org>), sponsored by the UK Department for International Development.

The livelihoods approach centres on the links between individual or household assets, the activities in which households can engage with a given asset profile, and the mediating processes (institutions, regulations etc.) that govern access to assets and to alternative activities. The concepts and methods of livelihoods analysis have recently been applied to understanding the role that fisheries play in the rural economy in coastal, lakeshore and floodplain areas in developing countries (e.g. Allison & Ellis, 2001; Béné et al., 2003; Nettleton and Baran, 2003; Whittingham et al., 2003; van Oostenbrugge et al, 2004; Allison, 2004;). This paper proposes that this framework could also provide a means by which to better understand the relationships between small-scale fisheries and the wider socio-economies of coastal Northern Europe. It should be emphasised that there is no reason why the livelihoods framework should be applied only in development programmes focused on poverty alleviation in low-income countries, although that was its original purpose. Indeed, the livelihoods framework has already been applied to analyse processes of agricultural diversification and rural development in northern Europe (e.g. Kinsella et al., 2000). It

should also be noted that rural poverty and deprivation also occur in some of Europe's wealthier countries (e.g. Cloke et al., 1995).

The paper proceeds, first, by setting out in more detail what a livelihoods approach entails. Second, it briefly reviews recent experience in applying the livelihoods framework as a means of informing management and policy development in the small-scale fisheries of low-income countries in the global 'South'. Next, I consider whether small-scale fishing in the low income countries of Africa and Asia have any structural features in common with those of the wealthy countries surrounding the North Sea. Finally, I assess whether using a livelihoods-type framework may be helpful to organisations responsible for management and policy development in European inshore fisheries.

2. The sustainable livelihoods approach

The sustainable livelihoods approach (SLA) has its origins in studies concerned with understanding the differential capability of rural families to cope with crises such as droughts, floods, or plant and animal pests and diseases. The approach also borrows ideas from an ecological literature concerned with the sustainability of ecosystems or agroecological systems (Holling, 1973; Conway, 1985; 1987). Here, sustainability is defined as "the ability of a system to maintain productivity in spite of a major disturbance, such as is caused by intensive stress or a large perturbation" (Conway, 1985). The concepts of resilience and sensitivity as livelihood attributes also originate in this context (Bayliss-Smith, 1991). Resilience refers to the ability of an ecological or livelihood system to "bounce back" from stress or shocks; while sensitivity refers

to the magnitude of a system's response to an external disturbance. It follows from these ideas that the most robust livelihood system is one displaying high resilience and low sensitivity; while the most vulnerable displays low resilience and high sensitivity.

The concept of 'a livelihood' seeks to bring together the critical factors that affect the vulnerability or strength of individual or family survival strategies. These are thought to comprise, chiefly, the assets possessed by people, the activities in which they engage in order to generate an adequate standard of living and to satisfy other goals such as risk reduction, and the factors that facilitate or inhibit different people from gaining access to assets and activities. These considerations result in the following definition of a livelihood [Ellis, 2000; p.10]:

“A livelihood comprises the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household.”

The livelihoods approach is typically set out in the form of a framework that brings together the principal components that are thought to comply with the livelihoods definition, as well as demonstrating the interactions between them. There are many different diagrammatic representations of this framework, all of which seem to confuse rather than illuminate! The version used by the UK Department for International Development is given in Figure 1.

The reference social scope of this framework is typically considered to be the household. In many developing countries, the extended household includes members

who are away from home but send remittances back to the resident homestead. In

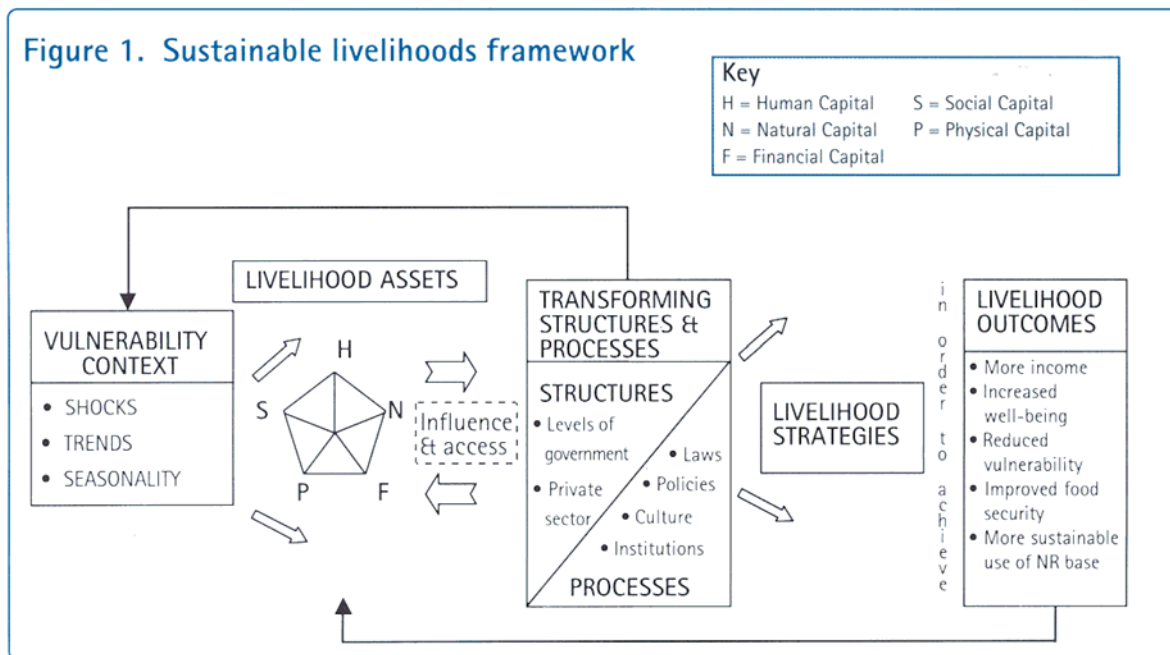


Figure 1. The rural livelihoods framework as a means to understand natural resource management systems (Source: UK Department for International Development). Livelihoods are built on a platform of capital assets that individuals or households can draw on. These assets are divided into five categories (the Asset Pentagon). Sustainability of livelihoods is threatened by external shocks, trends and seasonality of activities (the **Vulnerability Context**). The way that people are able to access and use assets is regulated by policies and institutions, both formal and informal (**Transforming Structures and Processes**). People put together a livelihood on the basis of their response to their vulnerability context, their available assets, and within the constraints or opportunities provided by the institutional environment (**Livelihood Strategies**). To be sustainable, livelihoods should improve the standard of living and reduce vulnerability while maintaining the natural resource base, in this case fish stocks (**Livelihood Outcomes**). One way of doing this is for households to build their capital asset base. The framework points to several possible means of intervention to support livelihoods: reducing vulnerability (e.g. through social service provision), creating enabling policies and institutions or building on households' or individuals' existing asset base or **livelihood strategies**.

income (e.g. elderly relatives in care, children studying at college). The starting point

of the framework are the capital assets owned, controlled, claimed, or by some other

means accessed by the household. The livelihoods framework recognises five main

asset categories, comprising physical capital (at household level – boats, house, cars

etc, but also includes, at community or citizen level, access to infrastructure such as

harbours, road networks etc); financial capital (savings, credit), natural capital (fish

stocks, areas of seabed leased or accessed by licence, land owned, crops cultivated

etc.); human capital (people's 'capabilities' in terms of their labour, education and health); and social capital (the kinship networks, associations, membership organisations and peer-group networks that people in a household can use in difficulties or turn to in order to gain advantage). The simplest way to think about the difference between human capital and social capital is that human capital is related to what members of the household can do for themselves (drawing on their good health, education, experience and skill) and social capital is the value of what others can do for the household (thanks to household members' efforts to maintain networks of friends and colleagues, join clubs, societies and unions, put themselves forward for prominent positions in the community etc). These capitals are often shown as an 'asset pentagon' in the livelihoods framework (Figure 1). Access to both assets and activities is enabled or hindered by the policy and institutional context (or transforming structures and processes) of livelihoods, including social relations, institutions and organisations. For example, it may only be possible to access fishing as a livelihood source if you have a licence, or are a member of a producer organisation, or come from a local fishing family. The licence is an example of a formal institution, enshrined in national law or local bye-laws, and enforced through formal organisations such as fishery management organisations of government. The other examples are of informal institutions that use social pressures to ensure compliance. In some cases, social pressures regulating access to resources may be very strong – the 'lobster gangs' of Maine, USA (Acheson, 1988), the Prud'homies of Mediterranean France and the Cofradía of Andalusia and Catalonia (Collet, 1998) are all examples of local, informal (i.e. not recognised in law) fisheries management institutions that regulate access to resources. Access regimes and how they work – or don't – are of course at the heart of fisheries management. The livelihoods approach

helps to ensure that any fisheries or coastal policy and management intervention gives full consideration to the range of resources that people may be able to draw on and the factors that may help some from doing so, while hindering others.

Livelihood sustainability is also affected by external factors, sometimes referred to as the vulnerability context, comprising trends and shocks that are outside the control of the household. In the context of European inshore fisheries, trends might include decreasing catch rates, increasing prices for fish, and a number of non-fishing related trends that nevertheless impact on fishing households, such as degradation of critical coastal habitats, the increase in the price of coastal property or increased restrictions imposed by planning authorities on coastal building and infrastructure development. Shocks might include storm events that damage shore facilities, an outbreak of paralytic shellfish poisoning or, at a household level, illness or death of a family member.

Many European inshore fisheries are of course seasonal. Seasonal jobs in other sectors of the European economy, such as tourism and agriculture, are recognised as a potential source of vulnerability for the people and communities that depend on them. Policies to encourage economic diversification are often a feature of regions where these activities are important. Understanding how people succeed or fail in sustaining their livelihoods in the face of shocks, trends and seasonality can help to design policies and interventions to assist peoples' existing coping and adaptive strategies. These interventions may include, at various levels, social service provision, insurance and compensation payments and promotion of diversification – all issues seldom considered by fisheries management and policy analysts.

Capital assets permit livelihood strategies to be constructed by individuals or households. These may be composed of a portfolio of activities only some of which may be related to fishing. Strategies can also relate to people's consumption choices (e.g. 'doing without' or the sale of assets). Many households involved in inshore fishing also have other income sources. Examples of the livelihoods strategies of small-scale fisherfolk are discussed later in the paper.

Finally, this framework points to outcomes of livelihood strategies. A sustainable livelihood is one in which people are able to maintain or improve their standard of living (related to satisfaction or 'well-being' and income), reduce their vulnerability to external shocks and trends, and ensure their activities are compatible with maintaining the natural resource base (in this case the fish stocks). A sustainable livelihood is therefore likely to be one in which people are able to build their capital assets – e.g. through savings and access to credit, access to education and training, or investment in their own boat and house. They should also be able to at least maintain the natural capital that they share with other households – the fish stocks and the quality of the marine environment. Quality of life is also enhanced if 'social capital' is maintained or enhanced. Fishing livelihoods are sustained partly through fishing community solidarity but links to the wider community are also important. Ideally, issues affecting fishing households become the concern of others who live near, visit, or influence the management of the coast. Policies, institutions and organisations can help by supporting the design of appropriate access regimes and by providing an 'enabling environment' comprising good, responsive public services to fishing communities.

3. Using the SLA in practice

The livelihoods approach is utilised in different ways, according to the goal of the study or programme. In development practice, it is often used as a ‘process’ tool to enable participants in development programmes who come from different sectors (e.g. local government, business development, health, transport, natural resources) to work together to identify key constraints and opportunities for development intervention (Ashley and Carney, 1999). The SLA is also widely used as a project and programme design framework. Management programmes or development projects can be re-focused on sustaining livelihoods by appropriate definition of their aims and objectives, the means of verifying achievement of these objectives and indicators for monitoring progress. Standard project cycle management procedures (e.g. Eggers, 1994; MacArthur, 1994) are an appropriate way of incorporating SL thinking into project design and implementation. Examples of the use of the SLA approach in project design and management include the Chars Floodplain Livelihood Project in Bangladesh and the Andhra Pradesh Rural Livelihoods Programme in India .

The livelihoods framework also forms the basis for recent policy-relevant empirical research that seeks to capture the cross-sectoral nature of rural people’s income-generating and subsistence activities and identify how their pursuit of improved livelihoods is helped or hindered by change in central government policy and global policy shifts such as market liberalisation and political and fiscal decentralisation (e.g. Ellis and Freeman, 2004). Livelihoods research combines qualitative and quantitative methods drawn from a range of disciplines. Once again, there is no standard

'method', but there is an emerging consensus that at the core of the methods are household income, asset and expenditure surveys, as used in micro-economics research, combined with a range of qualitative methods of enquiry designed to analyse peoples' concerns and perceptions of change (vulnerability context) and their local institutional context. These qualitative tools are largely drawn from the range of participatory methods developed in the context of community development programmes (e.g. Mikkelsen, 1995). Added to these are the methods used by geographers, institutional analysts and political scientists to map out policy linkages from local to international level (e.g. Pasteur, 2001). Consulting Freeman et al (2004) and van Oostenbrugge et al (2004) gives an indication of how 'livelihoods analysis' has been conducted in two specific cases and for different purposes. A generalised summary of methods used in a recent research project covering four African countries, which included, but was not limited to, fishing communities can be found from a project website (<http://www.odg.uea.ac.uk/ladder>). This methodology has, to date, been used in a book, seven peer-reviewed papers and around 34 working papers, so it has been reasonably well tested and accepted, but it should not be regarded as 'standard'. Methodology should be adapted to purpose, not the other way round!

The livelihoods approach may imply the collation of a daunting quantity of information but in fact it is best thought of as a checklist of issues and concerns that need to be thought about when designing interventions for policy. Often, much of the information is already available but has not been appropriately synthesised. In many cases, management and policy change can be based on existing understanding of livelihood issues, synthesised from key informants and from representatives of

different stakeholder groups, rather than investment in detailed research to quantify all the boxes and linkages in Figure 1.

Many people erroneously see the livelihoods framework as a mathematical model for which it is necessary to quantify stocks (boxes) and flows (arrows). It is usually neither possible nor useful to quantify the value of all asset categories in the ‘asset pentagon’. Important social concepts such as ‘agency’ (the ability of an individual to influence others, or their own circumstances) are not always better understood by reducing them to quantitative indicators. In the asset pentagon, the categories of capital (physical, natural, social etc) are most useful as a conceptual tool – to remind us that people use not only money, boats and fish to support their livelihood, but may also draw on inputs from their family labour, their educational and professional skills, their political

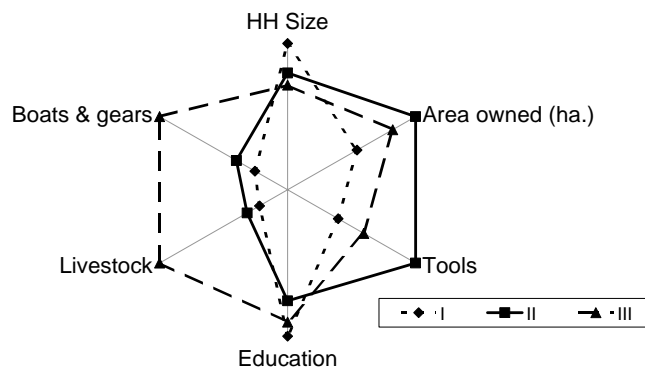


Figure 2. Example of an asset polygon, for households engaged in fishing on the shores of Lake Chilwa, Malawi (Allison & Mvula, 2002).

Six asset categories have been measured. Household size (number of people, with adults of working age given greater weighting) is an indicator of ‘human capital’ in the form of labour resources that the household can draw on. Education, measured in years of school attendance by adult members of the household, is also part of the household human capital. Land area owned, and livestock owned (in cattle equivalent units) are measures of natural capital, while the monetary value of tools (agricultural implements and other productive assets such as bicycles for transportation) and boats and fishing gear are examples of physical capital at the household level. The sample was divided into income terciles and the average asset value or indicator calculated for each tercile. All asset indicators are standardised as a proportion of the highest

value. In this case, the wealthiest group (income tercile III) are distinguished from the other two groups mainly by the greater value of livestock and fishing-related assets that they own. Household size, educational level and land-area owned are not clearly related to livelihood outcome in terms of higher household incomes. The middle income group tend to be more engaged in farming and trading than the wealthiest group, who are more involved in fishing. Qualitative research, including life histories and institutional analysis, is then used to understand the factors that led to some households being able to successfully access fishing opportunities and others not (e.g. through the interplay between social capital and local level political and social institutions).

influence, their physical strength, the social services provided by the state, the infrastructure funded by taxpayers, and a host of other 'assets' that policy and management intervention can help to support, redistribute or undermine.

It is possible to use indicators of different elements of the asset base of households, where such indicators are useful for quantitative comparison (e.g. to identify different groups of people within a fishery, to make comparative assessments over time). An example of indicators that can be relatively easily measured are given in Figure 2, which shows how certain assets can be used to differentiate the poorest, middle and highest income terciles among households in a Malawian fishing village. In that case, the poor are clearly differentiated, by their lack of ownership of livestock and fishing-related assets, suggesting that large family size and low education are not the primary correlates or determinants of poverty in these communities, as is often suggested.

4. New insights into small-scale fisheries in low-income countries using the livelihoods framework

Although some of the work derived from recent livelihoods projects in fishing communities has recently been published in peer-reviewed journals and books (see section 1 of this paper for references), much is currently only available in working papers, student theses, websites and internal technical documents. Despite the lack of consensus over methods and the preliminary nature of some of the research output, this work is already having an impact on how the role of small-scale fishing is conceived and how fisheries policy and management are being designed.

First, these studies have challenged the prevailing wisdom that small-scale fisherfolk are invariably 'the poorest of the poor' and that fishing is the 'occupation of last resort' for those with no education, skills and access to other livelihood sources (e.g. Allison & Mvula, 2002; Allison, 2003; 2004; Béné, 2003; Neiland and Béné, 2004). These new findings are likely to shift the emphasis of future fisheries development from attempts to improve fisherfolks' income towards interventions aimed at reducing vulnerability of fishing-dependent populations. Despite often having higher incomes than people mainly engaged in other sectors of the rural economy, small-scale fisherfolk are often vulnerable due to insecurity of tenure over both land and water resources and to political and social marginalisation. Poverty is not measured by income alone.

All the livelihoods studies conducted thus far have also indicated that maintaining a diverse portfolio of activities in addition to fishing is important to coastal, river

floodplain and lakeshore households. Fishing is a high-risk occupation, and one prone to seasonal and cyclical fluctuations in stock size and location, some of which are highly unpredictable in occurrence. Diversification reduces the risk of livelihood failure by spreading it across more than one income source. It also helps to overcome the uneven use of assets (such as a fishing boat) caused by seasonality, to reduce vulnerability, to generate financial resources in the absence of credit markets, and it confers a host of other advantages in the presence of widespread market failures and uncertainties.

Recognition of this cross-sectoral mobility is overturning previous notions that fisherfolk were marginal specialists stuck in their present occupation and unable to turn to others (e.g. Panayotou, 1982). It also challenges policies that seek to 'professionalise' part-time or 'subsistence' fisherfolk, as the diverse livelihood strategies observed are often sensible adaptations to the uncertainties of fishing. These adaptations have the useful by-product of reducing dependency on fishery resources. Specialisation promotes dependency, which is obviously undesirable in the face of declining stocks, as some of Europe's fishing fleets are now discovering.

Livelihoods analysis has also shed light on how local-scale, informal institutions work in practice. This is most clearly seen in the cases where mobile fish stocks are exploited by migrant fisherfolk, with informal reciprocal access agreements being the main means of controlling movement and exploitation patterns. Fisheries management agencies, unaware of these arrangements, have sometimes sought to impose a system of fixed, territorial boundaries on these highly adapted, flexible management systems (Allison & Ellis, 2001). Early idealism over 'community-based management' has

also been tempered by studies that show community organisations are sometimes dominated by elites that are more concerned with perpetuating existing power structures than they are in ensuring fair and sustainable access to resources (reviewed in Ellis & Allison, 2004). This is not to dismiss the current trend towards devolved management of fisheries by stakeholders (including fishers themselves), from which there is a great deal of positive experience in both developed and developing countries (reviewed in Wilson et al., 2003).

Adopting a livelihoods view of small-scale fishing in Africa, Asia and Latin America is leading to policy-makers now seeing small-scale fisherfolk, not as poor, backward, marginal and problematic, but as important contributors to the rural economy and potential focal points for market development in areas otherwise remote from the cash economy. Migrant fisherfolk are often revealed to be welcome trading partners of resident communities rather than transient marauders. Livelihoods analysis has thus contributed to revealing and quantifying the hidden role of small-scale fisheries in the rural economies of other parts of the world and should also be able to do so around the North Sea.

5. The livelihoods approach applied to inshore fishing in Northern Europe

Although there are obvious differences between Ireland and India or Sweden and Sierra Leone, small-scale, inshore fishing has many structural similarities, wherever you are. For example, many of the adaptations to fishery resource fluctuations and other uncertainties, described from around the world by Allison & Ellis (2001) can

also be found in European fisheries, past and present (Table 1). It follows, therefore, that livelihoods perspectives might also help to reappraise the role of fishing in local or regional economies in Europe, as is occurring in developing countries (Section 4, above).

A review of some of the available writings on European inshore fisheries (Table 1) reveals a range of livelihood strategies and responses to uncertainty at individual, household and community level.

Table 1. Past and present livelihoods strategies and responses to uncertainties or 'vulnerability context' employed by individuals, households and communities involved in inshore fishing in Europe

Fishery & time period referred to (and source of study)	Observed livelihood strategies
Lofoten Islands, 1801 – 1920 (Dyrvik, 1993)	<ul style="list-style-type: none"> • Fishermen are often actually Fishermen-farmers. Concealed in this combination of livelihoods was a life-cycle pattern: youths participated very actively in fishing, adults less so and elderly people hardly at all. • Full-time specialist fishermen had small, simple households that they were able to sustain in times of fish scarcity, while farmer-fishers typically had larger families allowing them to draw on more household labour to diversify as a response to downturns in fishing or farming.
Lofoten Islands winter-spawning cod, 1992 (Pettersen, 1996)	<ul style="list-style-type: none"> • Four household-level responses to a downturn in the fishery were found: expansion, diversification, retrenchment and withdrawal. Expansion strategies often involved more family members (including women) turning to fishing, diversification usually meant the woman doing more paid work and becoming the primary family earner, retrenchment involved cutting back on expenditure and withdrawal meant sale of fishing boats, or change in occupation for crew members, or even emigration.
Sweden, early 20 th Century (Rogers & Tedebrand, 1993)	<ul style="list-style-type: none"> • Different patterns of occupation and community structure were found in coastal communities in Sweden: full-time fishermen, fishermen-farmers and farmer-fishermen. Government policies on land ownership and resource access had influenced these strategies.
Danish small-scale fisheries, up to 1990s (Vestegaard, 1996)	<ul style="list-style-type: none"> • Switching between different target species, gear types and fishing areas retains flexibility • Income uncertainties buffered by supplier credits • Families are willing to reduce their levels of spending or to earn supplementary incomes outside fishing • Fishers are able to mobilise cheap or unpaid assistance within the fishing enterprise in times of need
N. Norfolk, UK, 1999 – 2003 (Allison, unpubl.)	<ul style="list-style-type: none"> • Diversified marine harvesting activities – mussel-growing; crewing on boats potting for crabs, lobsters, whelks; netting for sea bass and sea trout in coastal creeks; seining for whitebait off the beach; shrimping and cockle dredging; bait-digging, winkle-picking and samphire gathering in the intertidal zone. • Supplementary income-generating activities by both fishermen and other family members – e.g running tourist boat trips; pleasure boat repairs; looking after holiday homes; painting and decorating; working in bars and restaurants; farming a small-holding; renting property, producing and selling paintings and crafts; car mechanics.
Artisanal	<ul style="list-style-type: none"> • Diverse pattern of fishing activities with respect to the species exploited, location of

Fisheries, Galicia,
NE Spain (Friere
and García-Allut,
2000)

- fishing grounds and gear used
- Seasonal fishing supplements incomes of a range of people – e.g. retired persons, taxi drivers, shopkeepers, the unemployed

There are indications that some of these responses have survived at least 100 years of change – a strong indication of sustainability. At the level of the individual fisher or fishing enterprise, responses to changes and uncertainties in fishing can be characterised as flexibility within fisheries (targeting different species according to availability), geographical mobility and livelihood diversification.

Diversified livelihoods are also a feature of household strategies, with members of fishing households often being involved in different economic sectors to smooth the effects of resource variations. A variety of within-household responses are also evident, such as allocation of family labour in time of need, or acceptance of income variation and modification of consumption patterns.

Although maintaining livelihood diversity appears to have been an important element of sustaining inshore fisheries throughout Europe, the attitudes of fishery managers and policy makers to diversification and other adaptive strategies has been mixed. Until a few years ago, modernisation was the goal of many national fisheries policies and a key element of the EU Common Fisheries Policy (CFP). Under these policies, small-scale and often part-time fisheries were seen as an inefficient use of capital resources, as well as being difficult to regulate. In most of Northern Europe's inshore fisheries, large fleets of part-time fisherfolk have been replaced by much smaller, full-time specialist fishers (e.g. Norway: Årland and Bjørndal, 2002). Representing the Scottish inshore fishermen, Thomson and McIntosh (1998) provide an impassioned critique of these types of fisheries policies, claiming that “centralised government and big-business control have sacrificed social and environmental considerations at the

altar of narrowly conceived monetary objectives”. They go on to criticise the Scottish Governments’ recent scheme to permit white fish landings at only 19 designated ports that would close off the future for fishing communities in many smaller ports and they end with a call for “vibrant, sustainable and self-reliant coastal communities” as the main policy objective for fisheries in Scotland.

Small-scale, inshore fishing as a part of diversified coastal livelihoods also seems threatened elsewhere in Northern Europe. At the ‘Who Owns the Sea?’ (WOTS) conference (this volume), we heard of on-going debate over new shellfish fishing legislation in England and Wales that would effectively make part-time fishing illegal. In Ireland, concern over the large number of part-time, small-scale, unregistered fishing boats is leading for a call to have them regulated out of existence. While no doubt motivated by a well-intentioned concern for resource sustainability, these initiatives are likely to force reduced flexibility and increased resource-dependency and levels of capital investment on inshore fisherfolk. The aim of these policies has been to develop a smaller fleet of efficient vessels landing to centralised landing points, large processing companies and major retail outlets, such as supermarkets. While this has some advantages in terms of reducing the cost of government monitoring, control and surveillance programmes and increasing overall sectoral economic efficiency, these policies, if implemented, will reduce the value that local-scale fish landing, processing and sales bring to coastal communities, not least with their links to local businesses and tourism. A livelihoods perspective might well have led policy makers to provide alternative solutions to the problems of resource over-exploitation.

By contrast, diversified livelihoods as a key element of small-scale fisheries sustainability are well-recognised in Southern Europe: “Multi-purpose, small-scale fishing, combined with other minor sources of employment, has become a well-established feature of employment structure in Mediterranean France, Italy and Greece, where it accounts for 89, 77 and 75% of the fishing fleets respectively. Collet (1998, p169).

Diversification is now also seen as a key strategy to cope with change in Europe’s agriculture sector (e.g. McNally, 2001), with diversification implying the addition of further income-generating activities to existing agricultural ones. This contrasts with fisheries, where diversification is often taken to mean complete withdrawal from fisheries to pursue other income generating activities (e.g. the EU PESCA programme). Diversification or ‘pluriactivity’ is helping to maintain and strengthen rural communities threatened by decline in farming and other traditional rural activities (Kinsella et al., 2000). This phenomenon goes largely unrecognised and unremarked in fisheries, although diversified livelihoods are widely accepted as a structural phenomenon of late industrial society, prevalent throughout the European countryside. In Kinsella et al’s study, the widely-held view that people who diversified were ‘on their way out of farming’ was not supported by evidence. There is no comparable data for fishing – we do not know whether full-time fishermen becoming part-time fishermen means they are more, or less, likely to stay in fishing, given the opportunity to do so.

There is little doubt that overall fishing effort in many inshore waters needs to be reduced, but there is more than one way to achieve this reduction. It is here that

informed policy can make choices that are best for coastal livelihoods as a whole. A livelihoods perspective can help policy makers broaden their vision of fisheries and draw on a wider range of options for management.

Diversified livelihood strategies are often supported by flexible and adaptive institutions ('rules of the game') that govern who gets to fish where and when. It is only recently that such 'property rights' issues have received sustained attention in European fisheries (Symes, 1998). As with fisheries in developing countries, the institutions governing access to inshore resources are often not formally recognised by governments, and are characterised by their flexibility and adaptability to change. In some cases, rules of access to fishery resources have been operating for hundreds of years. Institutions of a professional and religious nature have controlled access and defined technological means of fishing in the Western Mediterranean since at least the 14th Century (Collet, 1998, p170).

While the conservation ethic of traditional sea tenure regimes and inshore fisherfolk persists in some northern European fisheries, national and European policies have conspired to undermine these. In France, for example, enforced modernisation at the outset of the 1960s, involving the structural breakdown of the local-regional markets through competition from low priced fish products imported in large quantities, has threatened the durability of this ethic (Collet, 1998).

The influence of changes in policies and institutions (including the introduction of ITQs) on elements of fishermen's livelihood strategies is clearly demonstrated in a study of strategic responses of Dutch fishermen to changing regulatory systems

(Davidse, 1998). The influence of policy on livelihood sustainability is also seen in the Norwegian Salmon fishery, where in 1989, drift net fishing was banned, effectively ending commercial salmon fisheries and making a social policy choice to favour the interests of sport-fishing (Otterstad, 1998).

Fisheries policy in Europe has tended to view fishing as a full-time occupation taking place within a single, well-defined, economic sector. This provides great scope for misunderstanding how people conduct their lives, and for pursuing policies that are rendered irrelevant by the cross-sectoral livelihood strategies actually pursued by individuals and families. Cross-sectoral or integrated ways of looking at social and economic organisation are, however, becoming more common. In England and Wales, the replacement of the Ministry of Agriculture, Fisheries and Food (MAFF) with the Department for Environment, Food and Rural Affairs (DEFRA) could herald a more cross-sectoral view of rural livelihoods and in other sectors of the rural economy, diversification or 'pluriactivity' has become well recognised.

After nearly fifty years of a strong 'modernisation' imperative that put economic and regulatory efficiency high on the policy agenda for fisheries, the policy environment is gradually becoming more conducive to sustaining inshore fisheries. At global level, the FAO Code of Conduct for Responsible Fisheries, with its provisions to protect small-scale fishers' livelihoods from conflict with larger-scale commercial interests, provides the necessary framework for sustaining the small-scale fishing sector (Allison, 2001). Many of its other provisions related to use of non-destructive fishing gear, withdrawal of subsidies for commercial fisheries etc, are also supportive of the sustainability of small-scale fisheries.

The recent round of reforms to the European Common Fisheries Policy (e.g. Fischler, 2002) have promised that fishermen and other interest groups would now be better integrated into the decision-making process. They also promise to support measures to restructure the fisheries sector to include specific measures in favour of small-scale fishing and a strategy to support sustainable coastal development by encouraging diversification of activities for fishermen who could combine fishing with other economic activities (EU, 2003).

6. Conclusions

“Inshore fisherman: A self-employed person who makes a substantial part of his income from the marine environment. He often works alone or with the family. Over the years he is flexible as the nature of fishing follows the cycles of the sea. He tends to use low-key traditional methods. He does not look for a fortune, just a living”

Inshore Fisherman’s wife, North Norfolk, U.K., 28th October 2000.

The sustainability of inshore fisheries must take account of the goals of many inshore fisherfolk and recognise livelihood flexibility as a characteristic of this mode of production. By organising production around the human resources of the household (and not around an industrial type ‘firm’), the goal of the household is often the social reproduction of the family and its economic enterprise (Symes, 2002). People want to pass on their skills, culture and way of life if possible, either to their children or to other members of their communities. By contrast, policy makers in European fisheries have usually had rather different goals: to maximise economic efficiency of harvesting and meet resource conservation needs, or even to trade off fishing interests against more important economic sectors. If policy makers fail to recognise inshore fishing households’ own objectives and try to change the fundamental nature of inshore fishing then this adaptable way of life will disappear, along with its contribution to our maritime cultures.

With a better understanding of how small scale fisheries relate to the wider coastal economy, it may be possible for resource managers (including fisherfolk) to use the SLA to identify appropriate entry-points for development intervention or policy

support to maintain appropriate levels of fishing activity. Without being prescriptive, and mindful of the diversity of inshore fisheries around the North Sea, such interventions may include:

- Ensuring that fisheries legislation supports strategies that fisherfolk are themselves undertaking to reduce dependence on fishing income, such as reducing their capital investment (buying smaller boats) and diversifying into non-fishing occupations;
- Promoting vertical integration of small-scale enterprises, or community-level organisation of processing and marketing, to make more efficient use of landed product and as an alternative to centralisation based on the notions of economies of scale and ease of management control.
- Facilitating access to small-scale, local markets and ‘niche’ markets for high-value products. Much inshore fishing in Europe already targets high-value species or particular market sectors, and some of these fisheries are winning certifications for sustainability from organisations such as the Marine Stewardship Council.
- Enlarging the scope of fishery development interventions, principally by integrating with other rural development strategies, to ensure that complementary livelihood activities are supported (e.g. fishing and tourism)
- Supporting local-level fishery organisations (producer organisations, cooperatives, community groups) in efforts to develop greater stewardship over fishery resources (e.g. through creation and support of community property rights and stakeholder involvement in management decision-making).

At the level of informing and organising policy, the livelihoods framework could be used, for example, as a means of coordinating the activities of the North Sea

Commission's six thematic groups - business development, transport and communications, culture and tourism, education and research, environment and fisheries – (NSC, 2002). It could also be used as a means of framing the deliberations of the Regional Advisory Committees on fisheries that are proposed by the new Common Fisheries Policy.

Many of the problems in managing fisheries have been blamed on limited understanding of how fisheries work. Economists have accused biologists of ignoring economic concerns. Sociologists and anthropologists have blamed economists for failing to understand that people's decisions can be socially or culturally determined, rather than being 'economically rational' in the narrowest sense .

Fishermen have blamed scientists and politicians for failing in their self-appointed duties as resource managers. Scientists have blamed fishermen for wilfully ignoring inconvenient advice on conservation measures. The livelihoods approach is one way in which all the possible issues and concerns that may affect fisheries are explored and that important dimensions are not overlooked. In this sense, it has proved to be a useful tool for getting different specialists, administrators and managers, as well as industry representatives, to recognise that decisions about fisheries do not occur in a vacuum, sealed from the rest of society. The SLA can help us to identify existing strengths in the inshore fisheries sector and build upon those to ensure that inshore fishing continues to be a viable way of life. But it is not a 'magic bullet' that can solve existing problems of overcapacity and declining fish stocks, it can merely help to broaden and deepen the search for solutions to this overriding problem.

6. References

- Acheson, J. M. (1988). *The Lobster Gangs of Maine*. University Press of New England, Hanover, CT, USA.
- Allison, E.H., (2001). Big laws, small catches: global ocean governance and the fisheries crisis. *Journal of International Development* **13**: 933-950.
- Allison, E.H., (2003). Linking national fisheries policy to livelihoods on the shores of Lake Kyoga, Uganda. *LADDER Working Paper No 9*, Norwich, U.K.: Overseas Development Group, University of East Anglia. (<http://www.uea.ac.uk/dev/odg/ladder/>)
- Allison, E.H. (2004). The fisheries sector, livelihoods and poverty reduction in Eastern and Southern Africa. In: *Rural Livelihoods and Poverty Reduction Policies* (eds: F.Ellis and H.A. Freeman). Routledge, London. (publication due September 2004).
- Allison, E.H., and Ellis, F., (2001). The livelihoods approach and management of small-scale fisheries. *Marine Policy* **25**: 377-388.
- Allison, E.H. and Mvula, P.M., (2002). Fishing livelihoods and fisheries management in Malawi. *LADDER Working Paper No 22*, Norwich, U.K.: Overseas Development Group, University of East Anglia. (<http://www.uea.ac.uk/dev/odg/ladder/>)
- Årland, K., and Bjørndal, T. (2002). Fisheries management in Norway – An overview. *Marine Policy* **26**: 307-313.
- Ashley, C., and Carney, D., (1999). *Sustainable Livelihoods: Lessons from Early Experience*. Department for International Development, London.
- Bayliss-Smith, T., (1991). Food security and agricultural sustainability in the New Guinea Highlands: vulnerable people, vulnerable places. *IDS Bulletin* **22**: 5-11.
- Bebbington, A., (1999). Capitals and capabilities: a framework for analysing peasant viability, rural livelihoods and poverty. *World Development* **27**: 2021-44.
- Béné, C., (2003). When fishery rhymes with poverty: a first step beyond the old paradigm on poverty in small-scale fisheries. *World Development* **31**: 949-975
- Béné, C., Neiland, A.E., Jolley, T., Ovie, S., Sule, O., Ladu, B., Mindjimba, K., Belal, E., Tiotsop, F., Baba, M., Dara, L., Zakara, A., and Quensiere, J. (2003). Inland fisheries, poverty, and rural livelihoods in the Lake Chad basin. *Journal of Asian and African Studies* **38**: 17-51.
- Carney, D., (Ed.), (1998). *Sustainable Rural Livelihoods: What Contribution Can We Make?* Department for International Development, London.
- Cloke, P., Goodwin, M., Milbourne, P. and Thomas, C. (1995). Deprivation, poverty and marginalization in rural lifestyles in England and Wales. *Journal of Rural Studies* **11**: 351-365.
- Collet, S. (1998). The communitarisation of coastal resources or the common ownership for fish resources in Europe: the future for coastal fishing societies in 2002. In: *Property Rights and Regulatory Systems in Fisheries* (ed. D. Symes). Fishing News Books, Oxford, pp165-174.
- Conway, G.R., (1985). Agroecosystem analysis. *Agricultural Administration* **20**: 31-55.
- Conway, G.R., (1987). The properties of agroecosystems. *Agricultural Systems* **24**: 95-117.
- Davidse, W., (1998). Property rights and regulatory systems, the strategic response of Dutch fishermen. In: *Property Rights and Regulatory Systems in Fisheries* (ed. D. Symes). Fishing News Books, Oxford, pp57-66.
- Dyrvik, S., (1993). Farmers at sea – A study of fishermen in North Norway, 1801-1920. *Journal of Family History* **18**: 341-356.

- Eggers, H., (1994). Integrated project cycle management – roots and perspectives. *Project Appraisal* **9**: 59-65.
- Ellis, F., (1998). Household strategies and rural livelihood diversification. *Journal of Development Studies* **35**: 1-38.
- Ellis, F., (2000). *Rural Livelihoods and Diversity in Developing Countries*. Oxford University Press, Oxford.
- Ellis, F. and Allison, E.H. (2004) Livelihood diversification and natural resources management. *Working Paper No. 6, Livelihood Support Programme*, FAO, Rome.
- Ellis, F. and Freeman, H.A., editors, (2004). *Livelihoods and Rural Poverty Reduction Policies*. Routledge, London.
- EU (2003). The Social Dimension of the Common Fisheries Policy. *The European Commission (Fisheries)*, 27/05/03.
http://europa.eu.int/comm/fisheries/reform/social_en.htm
- Fischler, F., (2002). A New and Sustainable Fisheries Policy. Speech to a Press Conference on the new Fisheries Policy. Brussels, 20th December 2002.
http://europa.eu.int/comm/fisheries/news_corner/discours/speech34_en.htm
- Freeman, H.A., F. Ellis and E. Allison, (2004), Livelihoods and rural poverty reduction in Kenya, *Development Policy Review*, **22**: 147-171.
- Freire, J., and García-Allut, A. (2000). Socioeconomic and biological causes of management failures in European artisanal fisheries: the case of Galicia (NW Spain). *Marine Policy* **24**: 375-384.
- Frey, B.S., and Stutzer, A. (2000). Happiness, economy and institutions. *Economic Journal* **110**: 918-938.
- Holling, C.S., (1973). Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics* **4**:1-23.
- Kahneman, D., and Tversky, A. (1979). Prospect theory: An analysis of decisions under risk. *Econometrica* **47**: 313-327
- Kinsella, J., Wilson, S., de Jong, F., and Renting, H., (2000). Pluriactivity as a livelihood strategy in Irish farm households and its role in rural development. *Sociologia Ruralis* **40**: 481-496
- MacArthur, J.D., (1994). The logical framework: A tool for the management of projects planning and evaluation. In: *The Realities of Managing Development Projects* (ed, F. Analoui). Ashgate Publishing Ltd., Avebury, Hants, U.K., pp xx-xx.
- McNally, S. (2001). Farm diversification in England and Wales – what can we learn from the farm business survey? *Journal of Rural Studies* **17**: 247-257.
- Mikkelsen, B., 1995. *Methods for Development Work and Research – A Guide for Practitioners*. Sage, New Delhi, India.
- Mill, J.S., (1848). *Principles of Political Economy*. [reprinted by Prometheus Books, London, 2004]
- Moser, C.O.N., (1998). The asset vulnerability framework: reassessing urban poverty reduction strategies. *World Development* **26**: 1-19.
- Neiland, A.E. and Béné, C., editors, (2004). *Poverty and Small-Scale Fisheries in West Africa*. Kluwer and FAO, The Hague, Netherlands and Rome, Italy.
- Nettleton, D. and Baran, E. (2003). *Fishery stakeholder groups and livelihood variation around the Tonle Sap Great Lake, Cambodia*. World Fish Center, Penang, Malaysia (mimeo.)
- North, D.C. (1990) *Institutions, Institutional Change, and Economic Performance*. Cambridge University Press.
- NSC, (2002). *From Vision to Action*. North Sea Commission, Viborg, Denmark.

- Otterstad, O. (1998). The exclusion of professional fishermen from Norwegian Salmon Fishing: the distribution effects of Fisheries Management. In: *Property Rights and Regulatory Systems in Fisheries* (ed D. Symes). Fishing News Books, Oxford, pp101-112.
- Panayotou, T., (1982). Management concepts for small-scale fisheries: economic and social aspects. *FAO Fisheries Technical Papers* No 228, FAO, Rome.
- Pasteur, C. (2001). *Tools for sustainable livelihoods: Policy analysis*. DFID, London and Institute of Development Studies, Brighton. (<http://www.livelihoods.org/info/tools/pas.PA01.rtf>)
- Pettersen, L.T., (1996). Crisis management and household strategies in Lofoten: a question of sustainable development. *Sociologia Ruralis* **36**: 236-248.
- Scoones, I., (1998). Sustainable rural livelihoods: a framework for analysis. *IDS Working Paper*, No. 72, Institute of Development Studies, Sussex, U.K.
- Sen, A., (1999). *Development as Freedom*. Oxford University Press.
- Rogers, J. and Tedebrand, L.G., 1993. Living by the sea – farming and fishing in Sweden from the late 18th to the early 20th Century. *Journal of Family History* **18**: 369-393
- Symes, D., (1998). *Property Rights and Regulatory Systems in Fisheries*. Fishing News Books, Oxford.
- Symes, D., (2002). Executive Summary – Inshore Fisheries Management in England and Wales. *English Nature Research Reports* No. 448. English Nature, Peterborough, U.K.
- Thomas, A., Chataway, J and Wuyts, M., eds, (1998). *Finding Out Fast. Investigative Skills for Policy and Development*. Sage, London.
- Thomson, D., and McIntosh, A., (1998). Tide must turn for fishing. *The Herald, Glasgow*, 17th December 1998, p14.
- van Oostenbrugge, J.A.E., van Densen, W.L.T., and Machiels, M.A.M. (2004). How the uncertain outcomes associated with aquatic and land resource use affect livelihood strategies in coastal communities in the Central Moluccas, Indonesia. *Agricultural Systems* **82**: 57-91.
- van der Ploeg, J.D., Renting, H., Brunori, G., Knickel., K. , Mannion, J., Marsden, T., de Roest, K, Sevilla-Guzman, E. and Ventura, F. (2000). Rural development: from practices and policies towards theory. *Sociologia Ruralis* **40**: 391-408.
- Vestergaard, T., (1996). Social adaptations to a fluctuating resource. In: *Fisheries Management in Crisis?* (eds K Crean and D Symes). Fishing News Books, Blackwell Science, Oxford, pp 87-91.
- Whittingham, E., Campbell, J., and Townsley, P. (2003). *Poverty and Reefs. Volume 1 – Global Overview, Volume 2 – Case Studies*. DFID-IMM-IOC/UNESCO, Paris, 260 pp.
- Wilson, D.C., Nielsen, J.R., and Degnbol, P., eds, (2003) *The Fisheries Co-management Experience: Accomplishments, Challenges and Prospects*. Kluwer, Boston, Mass.