



# LEARNING LESSONS FROM THE CYCLONE

**A STUDY OF DFID'S SUPPORT FOR POST-CYCLONE  
LIVELIHOODS REHABILITATION IN ORISSA, INDIA**

**MARCH 2001**

**A STUDY IMPLEMENTED BY:**

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## LIMITATIONS OF THE STUDY

The figures used in the text are approximate and are intended to convey the size and scope of the events described. Much of the information was gained from interviews with key informants in villages, NGOs, government and in DFID. This was complemented by reviews of what literature was available. Such an approach was considered to be the most effective in the time available. However, it does have some limitations regarding coverage and accuracy but the team has made efforts to cross reference material where possible and it is felt that picture described conveys the broader reality of the events that took place. Reference to specific support agencies, NGO or government, is done so to illustrate the concepts discussed and should not be seen as an endorsement or criticism of the agency concerned.

It has not been the role of the team to verify the size and sustainability of the impact of the DFID or other funded interventions and this has not been attempted.

## TERMINOLOGY

The report uses the terminology of DFID's Sustainable Livelihoods Approach (SLA), however it deviates from this in one sense: the term "Transforming Structures and Processes (TSP)" is used instead of "Policies, Institutions and Processes (PIP)". This is done because it was felt that it is a more inclusive term and more easily analysed.

## AUDIENCE OF THE REPORT

As requested, this report is written for DFID internal purposes.

## STUDY TEAM

The study team consisted of the following people:

<u>NAME</u>	<u>ROLE</u>	<u>INVOLVEMENT</u>
Jock Campbell	Team leader	Involved throughout
Philip Townsley	Social development adviser	Involved in phase 1 and part of phase 2.
Gomathi Balasubramanian	Gender specialist	Involved throughout
Binod Mahapatra	Facilitation	Involved throughout
M.C. Muralidharan	Fisheries specialist	Involved in Phase 1, but was forced to step down before phase 2 as a result of injuries sustained in a car accident.

## **ABBREVIATIONS USED**

BGVS	Bharat Gyam Vigyan Samiti
CBDP	Community based disaster preparedness
CFW	Cash for work
CPR	Common pool resources
CRS	Catholic Relief Service
DEC	Disaster Emergency Committee
DFID	Department for International Development (UK government)
DFIDI	Department for International Development India
DMU	Disaster Management Unit (of OSDMA)
ECHO	European Commission Humanitarian Office
EFICOR	Evangelical Fellowship of India Commission on Relief
FFW	Food for work
INGO	International non-governmental organisation
NGO	Non-governmental organisation
NIMHAMS	National Institute of Mental Health and Neurosciences, Bangalore
ODMM	Orissa Disaster Mitigation Mission
OMFED	Orissa Milk Producers Federation
ORSAC	Orissa Remote Sensing Application Centre
OSDMA	Orissa State Disaster Mitigation Authority
PIP	Policies, institutions and processes (element of the SLA Framework)
PMU	Project management Unit (of OSDMA)
SLA	Sustainable Livelihoods Approach
SLSO	Sustainable Livelihoods Support Office (in DFID London)
SRC	Special Relief Commissioner
TSP	Transforming structures and processes (element of the SLA Framework)
UNDAC	United Nations Disaster Assessment and Coordination
UNDMT	United Nations Disaster Management Team
VHAI	Voluntary Health Association of India

## **BACKGROUND TO THE STUDY**

Orissa is one of DFID India's partner states, in which DFID is committed to working with government and civil society towards poverty elimination. In October 1999 a super cyclone hit the Orissa coast causing extensive loss of life and severe damage to the natural and physical environment and to the livelihoods of many thousands of people. DFID's initial response was to give immediate relief support through its Conflict and Humanitarian Affairs Department in London. Given DFID India's partnership with the state it was decided that DFID India should follow up with rehabilitation support, through government and non-government agencies.

Much of DFID's support to date has been towards the rehabilitation of livelihoods, mainly through the NGO sector. DFID several years ago began adopting a Sustainable Livelihoods Approach (SLA) as one method for understanding people's lives and the factors that affect them. This initiative for developing and working with this SLA is managed through the Rural Livelihoods Department in London. The Sustainable Livelihoods Support Office (SLSO), within this department, has particular responsibility for learning about the framework and its application to DFID's work. In India the implementation of the SLA was largely through DFID's Rural Development Group.

There are many lessons for DFID to be learned from the events of, and after, the 1999 Orissa cyclone and in particular from its own response. It was considered that the livelihoods approach provided a useful analytical tool for structuring a study to draw out these lessons. In addition, it was considered that the process and outcomes of the study would increase understanding of the framework itself and contribute to its development as an approach.

Understanding of the element of the framework that relates to the interaction of the poor with government, NGO, and private sector agencies, and with wider society, is the least well understood and needs to be developed further as its importance for impact and sustainability becomes recognised. A post-disaster situation also provides the opportunity to increase understanding of the "vulnerability context" element of the framework. It is also hoped that these lessons on using and understanding the framework will be useful for both SLSO in London and Rural Development Group in India.

In addition, the exceptional circumstances of supporting post-cyclone rehabilitation have involved DFID India, and in particular the Rural Development Group, in issues and processes that are significantly different from its usual development activities. It was considered that an analysis of DFID's response to the cyclone situation would provide lessons more broadly for DFID India.

The aim of the current study is to draw out practical lessons for DFID from the events of and after the 1999 Orissa cyclone, in particular DFID's response, using the livelihoods framework as an analytical tool and contributing to its development as an approach.

## METHODOLOGY

The terms of reference for the study are included in **Annex 1**. The study was implemented in two phases using a process approach. The first phase of the study was a scoping study:

- To understand the potential extent of the study,
- To develop a methodology for phase 2,
- To begin to develop a *framework for cyclone analysis* which would guide the main section of the study,
- And to discuss the phase 1 findings with DFID.

The *framework* is based on DFID's Sustainable Livelihoods Framework, which forms an integral part of its Sustainable Livelihoods Approach (SLA). Phase 1 was carried out in December 2000.

Phase 2 consisted of a review of secondary data and meetings with institutional stakeholders carried out using the *framework for cyclone analysis* as a basis for enquiry. The findings from this analysis were then added to and validated in the field through observation and stakeholder meetings both with groups and with key informants. An itinerary of the study and a list of persons met are provided in **Annex 2**. Documentation relating to the cyclone and to the projects supported by DFID were also consulted. A list of documents is provided in **Annex 3**. The findings were then further checked through a consultation meeting of key people from DFID's partner NGOs and through discussions with government of Orissa and DFID staff.

This process allowed an analysis of what existed before the cyclone and what happened during the relief and rehabilitation phases of support. More specifically the role of DFID was used as an example of one donor's involvement in the support process to illustrate experiences and lessons learnt. Phase 2 was carried out in January 2001.

The study was implemented over a limited time period and thus represents more of a rapid assessment than an in-depth study. It is hoped, however, that the results provide a useful starting point for more effective support for post-cyclone support in the future and that they will assist in evolving the practical application of the SLA in disaster situations.

## STRUCTURE AND CONTENT OF THE REPORT

A *framework for cyclone analysis*, based on the SLA framework, was developed to review and compare the situation in Orissa before and over the period since the cyclone. Under each of the elements of the SL Framework the position of the poor is considered for three time phases of the cyclone: 1) pre-cyclone, 2) immediately post-cyclone and, 3) 2-12 months after the cyclone.

The elements of the SLA Framework are as follows:

- The assets (Human, social, physical, natural and financial)
- The transforming structures and processes (or Policies, Institutions and Processes)
- The vulnerability context
- Livelihood strategies
- Livelihood outcomes

Each of these was then analysed in relation to the cyclone and the lessons learnt. In the pre-cyclone situation, consideration is also given to the usefulness to the poor, of the different elements, in the event of a cyclone happening. In both the case of the immediate post-cyclone situation and that of the situation 3-12 months later, consideration is given to the role of the support organisations (international, government, NGO and wider society). The pre-cyclone situation deals very much with the vulnerability of the communities. The post-cyclone situation deals with how the different transforming structures and processes have responded to the situation.

The report first summarises the lessons learnt from this analysis, bringing out the specific lessons for DFIDI, those related to the SLA's application and wider lessons from the cyclone. The bulk of the report provides the findings from the analysis in more detail. This part of the report provides background detail to support the main conclusions in the summary. It involves a review of the situation for each of the SLA Framework elements for each of the three time intervals. This is not comprehensive but rather focuses on the areas where lessons can be learnt. Specific lessons are highlighted in the text. The subjects of the review are those projects funded by DFID. This is not meant to imply that DFID-funded activities were the only, or the most important, responses to the cyclone. It is done to enable an analysis of that response.

## SUMMARY OF THE LESSONS LEARNT

### Introduction

In October 1999 a super cyclone hit the coast of Orissa. An estimated 10,000 people died and the livelihoods of many of the survivors were shattered.

The UK government gave immediate support to the people of India in the form of relief aid provided through a diversity of NGO and UN agencies. It was also realised that longer-term support was required to rebuild the lives of the people who had suffered during the cyclone. In response to this need, the UK government's Department For International Development (DFID) allocated a further £25 million to target the rehabilitation of the livelihoods of the poorest affected people. This money was administered through DFID's India office (DFIDI) based in Delhi. Much of this money was channelled through international NGOs and Indian national NGOs working with local partners. DFID also provided support to assist government plan interventions through line ministries and state-supported agencies. The projects funded under the DFID rehabilitation programme varied in duration from 10 to 24 months and are being implemented over the period from February 2000 until December 2002.

The provision of disaster rehabilitation funds through one of DFID's country office with a focus on using a livelihoods approach that targeted the poor had not been tried before. DFID therefore wanted to find out what could be learnt from this process. Firstly there was a need to understand how channelling *rehabilitation funds* through a country office, that was designed for handling *development funds*, would work. Secondly, DFID has been developing the use of the Sustainable Livelihoods Approach (SLA) as a development methodology for poverty eradication; vulnerability to disasters is an important, but poorly understood, component of this approach. DFID wanted to understand what lessons could be learnt about the use of the SLA in disaster situations and what an understanding of a disaster situation could contribute to evolving the SLA. Thirdly, DFID wanted to know what could be learnt about wider responses to a disaster by looking at it from a livelihood perspective.

In December 2000 and January 2001 a team of UK and Indian consultants carried out a study of the partnership between DFID, the NGO and government agencies it worked with, and some of the communities that were supported with rehabilitation funds, to identify lessons that emerged from the work. These lessons are summarised below under three headings:

- Lessons specific to DFIDI's involvement in livelihoods rehabilitation
- Lessons concerning the value of the SLA in rehabilitation situations
- Lessons concerning support for the rehabilitation of livelihoods generally

These three sets of lessons are summarised below.

### Lessons Specific To DFIDI

The following points relate specifically to the intervention by DFID using a livelihoods focus to the Orissa cyclone rehabilitation.

Whilst the SLA itself was not rigorously applied in the implementation of the rehabilitation work, its broad principles were adopted by both DFIDI and its partner agencies. DFIDI adopted a **flexible and adaptive approach** to project identification, and also accepted the need to be able to evolve the detail of projects as they progressed and as knowledge of the situation improved. This not only reflected the dynamic realities of the situation, but was also much appreciated by the partner institutions. It also facilitated the incorporation of the needs, aspirations and



capacities of the poor in the planning of interventions that were carried out under the rehabilitation programme.

The **speed of response** from DFID to NGO requests was regarded, in the main as excellent when compared with development project procedures. However, when compared with the urgency of the need of communities undergoing rehabilitation, the procedures were considered to be slower than ideal. In most cases timing was not a critical issue as the INGOs (international NGOs) could cover expenditure from their own resources. However, some projects have suffered from significant delays that have affected their work. Under relief situations there are internal DFID procedures for rapid response but these do not extend to rehabilitation. There is a need to review current procedures to assess ways of facilitating faster responses under a rehabilitation situation.

Qualitatively, the **support from DFID was considered excellent** but there was general agreement amongst the NGOs that a **greater level of continuous, localised (i.e. in Orissa) support, with decision-making powers**, in the early stages of project planning and approval would have been beneficial. This may also have been enhanced by systematically taking a two-phase approach to bigger projects where some funds could have been released before approval for the second larger component had been approved.

The **SLA's holistic nature and the sectoral focus of government** do not always fit easily together and no project submitted by government line ministries was funded under the programme. This needs to be considered carefully for future interventions in Orissa and elsewhere. However, there are facets of both systems where some harmony could have been achieved and built upon. For instance, taking a geographical approach, which brought a range of line ministries together through the district or block administrations, could have provided an opportunity to build on the strengths of government. If the SLA is to be used more widely as a development approach within the state, then this issue will be crucial to both the success of proposed interventions and their sustainability. Had the government projects gone ahead under the rehabilitation programme they would have provided an opportunity to acquaint government with the approach and to set the foundation for SL development activities in the future. They would also have been useful to start informing and influencing policy to move in a more poverty-focussed and integrated direction.

The close link that was established between the livelihoods approach and NGO activities may influence the approach's future uptake by government. Whilst there has been good **cooperation between government and NGOs** at the district level, there are indications that, at a more political level, the access that NGOs had to outside funds is seen less favourably. This feeling may influence the process of establishing a good local level foundation of collaboration between government and NGOs that builds on their relative strengths of each.

DFID **provided funds through a diversity of NGO agencies** each using slightly different approaches. This was a low risk strategy in a potentially high risk situation. Whilst such an approach would have increased administrative costs it provided significant benefits by a) generating a diversity of strategies and specific interventions which progressively led to at least some learning between agencies, b) allowing greater scope for intervention measures to develop which reflected the local diversity of needs, c) increasing efficiency and better planning of interventions through perceived competition between agencies.

Working through INGOs in partnership with local NGOs can also give greater financial flexibility combined with local experience. However, the large influx of funds and the sudden change in the make-up of the NGO community has influenced

staffing, funding and activity levels in some of the smaller NGOs. The balance between support to local NGOs and larger, non-local, NGOs needs to be carefully considered to ensure the **continued effectiveness of the local NGO** in the long term.

Whilst diversity of approaches was beneficial, **a lack of norms for designing specific interventions** (such as food for work and cash for work, agricultural inputs etc.) has led to some difficulties between NGOs and their respective communities in adjacent areas. In addition the feasibility, viability and sustainability of some inputs is unclear. A greater level of sharing of information and experience and the agreement of some standardisation/norms of interventions early in the programme would have assisted. However, this would have required a larger role by DFIDI than was actually provided for. It was also felt by some partners that **information flows back from DFIDI** on both general issues and ongoing lesson learning would have been helpful.

Rehabilitation work is invariably lower profile than relief work as the media attention dies down. The continued **role of DFID through both stages has been particularly appreciated** by the different agencies. If DFID had not provided this level of support it is likely that many of the coastal poor would now be in a far worse situation. However, this effect needs to be translated into sustainable impacts. This study has not had the opportunity to study these potential impacts partly because it is too soon for them to be assessed and because it was not the aim of this study to do so. The urgency of the situation has meant that DFIDI has taken much on trust from its partners. Continuous monitoring by DFIDI-recruited local consultants has done much to reinforce this trust and to ensure some accountability. However, the relative impact of the different interventions will not be well understood until an **independent and participatory impact assessment** is carried at some stage in the future.

Although the urgency of the situation dictated a balance between rapid response and detail of planning, **the level of rigour which DFIDI insisted on** did encourage partners to think more carefully about their planned inputs and probably improved the effectiveness of the rehabilitation process. The partners appreciated this.

The general **understanding of DFID aims, objectives, planning methods** (especially logframe planning) and the Sustainable Livelihoods Approach, amongst partner agencies is low. Whilst such understanding was not essential in the early stages of the programme, it would have contributed to improved ongoing dialogue and possibly (in the case of the SLA) to improved implementation.

The sustainability of changes brought about through the rehabilitation process is linked into the continuum that exists between relief, rehabilitation and development. **Relief and rehabilitation needs to be smoothly linked, as do rehabilitation and development.** But rehabilitation can be more than returning to the situation that existed before the cyclone. It also offers an opportunity to bring about change in a way that is not always possible through the normal development route.

The cyclone created circumstances that changed the whole shape of the livelihoods framework of the poor. The change increased their vulnerability in the short-term but the rehabilitation process has allowed that change to be an opportunity for development to occur on the back of rehabilitation. The support that DFID and other donors have provided has created a “hot-house” of innovative approaches which **can provide valuable lessons for the development process elsewhere.** It has also provided a momentum in the rehabilitation process that has brought about some quite remarkable changes in people’s lives in a relatively short-term. This momentum offers an opportunity for the partnership between the poor and the support agencies to move beyond rehabilitation and into development but it is a partnership which needs to move beyond the relationship between the poor and the

NGOs and form a tripartite relationship that includes government in a much stronger way.

Ensuring the sustainability of such changes is essential and the longer term **funding of development beyond the current rehabilitation phase** needs to be considered.

### **Lessons Specific To The SLA**

The Sustainable Livelihoods Approach is an important development methodology used by DFID in some of its work. The Orissa cyclone study provided some insights into that approach that have wider implications.

An important lesson from this study is that the SLA, and in particular the structured format of the SL framework, **provides an excellent tool for understanding how people can and do respond to a disaster** and how they interact with the structures and processes of government, NGOs and wider society to transform their livelihoods. This is partly because the SLA reflects the reality and the complexity of people's lives. The poor are involved in multi-sectoral activities that are linked through diverse relationships. In a disaster situation the whole of the system of people's livelihoods is affected and trying to look at specific sectoral elements in isolation is bound to miss some of the complexity of the situation. The SLA benefits from providing a crosscutting and holistic perspective and thus gives a clearer perception of that complexity. This in turn is likely to have produced a greater level of balance in the rehabilitation process. The study team evolved a *framework for cyclone analysis* from the SLA framework that looked at the lives of the poor over three time periods: before the cyclone, immediately after it, and 3-9 months later. A comparison of how the SLA framework had changed over this time period provided a useful diagnostic approach.

The ability of the SLA to deal with the situation holistically allows it to not only respond to disaster but also be a useful **tool for planning disaster preparedness and mitigation measures**. If it is to be effective in this role, the SLA will need to be converted into **tools and language** that are easily assimilated and used by different groups of practitioners.

Another key element of the SLA is that it encourages a focus on the **linkages** between the component parts of the SL framework. In particular the linkage between assets and livelihood options that is so important to the poor. In so doing the SLA targets poverty but also encourages positive and pragmatic responses to change that foster inclusion of the poor in that process. Prior to the cyclone, all levels of society were poorly equipped to deal with it. As a result the hazard became a disaster. Whilst the cyclone did not discriminate between the rich and the poor, it left people with different capacities to respond to that disaster. The poor may lose less materially than the rich but they lose more of their capacity to recover. The support for the poor, in the form of relief, brings them to a position where they are able to survive but generally in a far worse condition than before the disaster. The opportunities for growth that are created after a disaster are not available to all people equally. The asset profile of the poor means that, in general, they are least able to take up the opportunities offered and so the post-relief phase can result in greater wealth and power disparity arising. The livelihoods projects supported by DFID, **positively encouraged the development of livelihoods assets and livelihood strategies that could help the poor to benefit from those opportunities**.

A central point of the SLA is its focus on poor people and in many ways the whole SLA is a process of understanding the livelihoods of those stakeholders. An important element to come out of the study has been the diversity of livelihoods of the poor and the need to treat them separately and not group them as a

homogeneous whole. Whilst many users of the SLA would take a stakeholder analysis as the starting point, the SLA itself does not make this explicit. The importance of understanding the **different needs, aspirations and capacities of different groups of the poor** is essential to the whole analysis and this needs to be explicitly addressed in advance of detailed analysis.

Good sequencing of interventions is crucial to ensuring that those interventions are complementary to each other and not antagonistic. They also need to be complementary to the coping strategies of the poor and to the changes occurring in the natural, social and economic environment. The **importance of sequencing of rehabilitation inputs** became apparent as the projects progressed. This awareness arose, at least in part, because the different NGOs were generally taking a holistic and location-specific approach, and could see the wider implications of one type of intervention on other activities of the poor e.g. irrigation systems linking into planting seasons, and FFW (food for work) for road building linking into harvesting season and thus local food availability. Understanding the importance of sequencing is closely linked to the use of the SLA because it highlights linkages between livelihood components.

The holistic approach of the SLA, and its **focus on participation**, encourages involvement of the poor in the planning process. This process underscored the complexity and the diversity of the responses needed. It also built those responses on the existing capacities and strengths of the poor e.g. building roads and houses with local skill, constructing fishing craft with local boat builders, and rehabilitation of the destitute through community-level centres. The involvement of the poor in the decision-making process, the building of human capital to engage in that process, and the building of social capital to enable working together for communal good, have encouraged a greater involvement of the poor in the wider democratic processes of the village. This ability to vocalise needs and wants and to affect the response of support agencies has, at least, begun to **strengthen vertical linkages between the poor and the policy makers**.

Whilst elements of the SLA were used in the design and implementation of the projects, a more systematic application of its use would have encouraged greater emphasis on **sustainability of the interventions in economic, social, environment and institutional terms**.

The sectoral focus of most government systems means that relating to the wider remit of a livelihoods approach requires greater change than is the case in NGOs where a more holistic approach is more common. This means that the use of the approach with governments will need to focus more on **seeking out the synergies** between the way government does things and the SLA, and building on these.

The comprehensiveness of the response to a disaster situation, which is encouraged by the SLA, combined with the urgency of the response and the reduced rigidity of the structures and processes that normally govern the potential for change, have allowed the complementarities and conflicts between activities and interventions to be seen more clearly in the rehabilitation process. This in turn has led to some innovative approaches and interventions to arise that could **inform and influence wider development strategies**.

Rehabilitation is of necessity, a progressive learning experience. As such a process-type approach to interventions is required where the affected people contribute to the ongoing understanding of the situation and evolution of responses. The **dynamic nature of the SLA allows and encourages this very flexible approach** to project implementation.

The vulnerability of the poor is often seen as a series of shocks that affect them periodically. The SLA **enables a more comprehensive perception of vulnerability** that links these shocks into longer-term trends and seasonal change. It also relates this vulnerability to different capacities of people to respond to, survive and recover from hazards. In addition the use of the SLA to analyse a disaster highlights the linkages between the poor and the support agencies and the policy framework in which they operate. **It thus strengthens an understanding of the vertical linkages between the community and the policy-makers.** In so doing the SLA emphasises the **importance of vulnerability to the definitions of poverty** and the responses to it.

One of the key elements of the structures and processes of government, NGOs and wider society that aim to transform the lives of the poor after a disaster, which is often overlooked, is the **individual human commitment** and effort. The Orissa cyclone showed that the best policies, institutions and processes are no substitute for the efforts of committed people.

### **Lessons Concerning Support For Rehabilitation Generally**

Many general lessons also emerged from the study; some are fairly obvious but need to be said. Some of these were identified by the NGO, private sector, government and DFID staff involved. Others emerged more specifically as a result of the study. They concern the conditions that the poor lived in before the cyclone and how it prepared them for the hazard to come. They also relate to the interaction between the poor and the support agencies that came in to help them. An important area of lesson learning dealt with the relationship between these different support agencies, how they cooperated, conflicted, overlapped and communicated. DFID's role in the cyclone support process was used as an example to demonstrate the weaknesses and strengths of those different relationships.

A key element of hindsight from the study is **the need for good disaster preparedness.** Good baseline vulnerability and capacity data prior to a disaster is a major component of a successful relief and rehabilitation response. However, vulnerability affects different people in different ways. It is possible to map these different vulnerabilities and to prepare for hazards that affect them. The situation highlighted by the cyclone and the increased information about the poor resulting from the rehabilitation work has suggested that previous perceptions in the coastal region may have been inaccurate. The overlying and obvious layer of wealth in the coast disguised the underlying poverty of many of the people living there. When vulnerability is included in the perception of poverty many of the coastal people are seen to be some of the poorest. This needs to be reflected in both disaster preparedness plans and development efforts.

The response to any disaster will have elements of chaos but **establishing relief and rehabilitation response mechanisms** before, rather than after, a disaster can greatly speed up support efforts. Ideally these should be established as part of a disaster preparedness programme. Hazard and disaster preparedness are important **at all levels from the community to the government**, and through the donor and support agencies. Such preparedness should have the built-in capacity to accommodate common hazards and those that do not occur very often.

Disasters are often seen in isolation from the **underlying trends and seasonality** that regularly affect people's lives, but these can conspire to worsen their individual impacts upon the poor, e.g. drought following a cyclone can seriously undermine rehabilitation efforts. It is important to view a disaster in this wider vulnerability context and to plan accordingly.

Different people have different abilities to respond to disaster preparedness measures. For example, the **supply of good and timely information about potential hazards** is an essential part of preparation but its dissemination needs to be tailored to the diverse needs and capacities of the intended audience. The poor (women in particular) who do not have access to good information services are severely disadvantaged.

The situation immediately after a hazard has passed **is not necessarily the disaster's lowest point**. Unless a rapid and effective response occurs the situation, particularly with regards to health, may deteriorate even further.

In the immediate aftermath of a cyclone, the **rapid establishment of coordination mechanisms** is essential if efficient, effective and well-planned relief is to be provided. This is particularly so because, in the enthusiasm to get to the most affected areas after a disaster, the less affected areas, but those equally deserving of support, can be left out. In addition, in the absence of good baseline data, support agencies should collaborate in understanding the situation and thus avoid costly duplication.

**Targeting during relief is important** and, in spite of the urgency, it is possible to achieve. This may require some innovative thinking and should form a part of disaster preparedness plans. **Food-for-work and cash-for-work (FFW and CFW) can be very useful for specifically targeting the poorest groups**, but other interventions need to be considered for people who may be equally destitute after a cyclone but who cannot participate in such measures. Following a disaster, **the knowledge that the poor have** about their lives and livelihoods is often the most comprehensive and accurate information available. Using **local knowledge to identify the poor** can be a rapid and effective method of targeting. The **participatory planning** of interventions, such as agriculture, fisheries and livestock inputs is likely to generate the best conditions to help the poor to replenish their natural capital in ways that address local needs and capacities. Likewise, the **skills and capacities of the local people** are well suited to the local situation. Using these capacities (in such activities as road building, house reconstruction, tree and crop planting) is an important part of ensuring that the people can contribute meaningfully to the rehabilitation process and sustain gains made into the future. However, participatory planning **needs to be balanced by the need for speed of implementation** and to be supported by a flexible approach from donors to changes in project plan implementation.

Food and water are essential elements in the relief phase, but getting the right **type of food to the right people** is important. Men, women, children and the aged may have different priorities. The supply of food can also be linked into measures, such as FFW, which motivates active participation in the rehabilitation process thus addressing mental, as well as physical, health. During rehabilitation support agency staff are often in short supply; recruiting and **training local volunteers** from the villages can provide a vital link between the support agency and the community and ensures that some of the skills gained remain after the support leaves.

The **sequencing of interventions** to match the realities of local agricultural planting and harvesting activities, and the realities of local markets for labour and goods, is crucial. However, such sequencing should not be so standardised as to exclude consideration of the specific needs of vulnerable groups, especially women, children, the old and the ill. In addition, the sequencing of the **rehabilitation of different sectoral components** of people's livelihoods has different impacts on the post-cyclone situation. Fisheries is often one area where food security can be improved and livelihoods restored very quickly as harvesting occurs as soon as vessels and gear are provided.

Disasters can significantly **weaken social structures** and processes in communities. This can provide opportunities for new types of social organisation to develop. If appropriate support is provided these changes can benefit the poor. If not, the poor are likely to become worse off than before the cyclone. Support for social capital development should recognise and **build on the positive strengths of existing social structures** and processes to both enhance synergies and to encourage sustainability.

The rebuilding of physical capital through FFW and CFW has been a vital step towards rebuilding physical assets. The **replacement of physical assets** with more efficient and effective alternatives may appear desirable but the viability and sustainability needs to be carefully considered.

**Relief, rehabilitation and development** are often thought of as distinct phases but they need to work side-by-side and can often complement each other. Rehabilitation is an important bridge between relief and development but it is a form of support that must be seamlessly linked into these other two if sustainable benefits are to be achieved. In many cases rehabilitation is seen as offering the opportunity to get back to the state before the disaster; however, it can also create the momentum to go beyond this into new development directions. These new directions need to be sustainable.

The novel and high profile nature of rehabilitation efforts can often overshadow background activities. **Government programmes** continue through a disaster and provide a central core of ongoing support to the poor. It is important to ensure that rehabilitation work meshes with these ongoing programmes and complements them.

One of the key points to emerge from the study is that experiencing a disaster teaches **many lessons but these have to be acted upon** if they are going to reduce vulnerability in the future. In many cases the, often obvious and simple, lessons noted here are quickly forgotten and have to be learnt again at great expense next time.

## MAIN TEXT: LESSONS LEARNT FROM THE CYCLONE

### Assets

One of the features of the poor in the coastal environment of Orissa is their diversity, particularly in relation to their asset profile. There was a wide range of wealth and poverty in the coast that was often obscured by the aggregate nature of the available data. Even within villages there was a range of asset profiles. The lack of currency of the data and the recent economic and social changes occurring in the coast rendered the accuracy of much of the data suspect. There was thus a limited knowledge of the wider social economic profile of the poor. This lack of information on the assets of the poor was to be significant during the post-cyclone period particularly in respect of targeting people's particular needs. Some of the most vulnerable people, living directly on the coast, do not register in the statistics because they are migrants from other parts of the country (West Bengal and Andhra Pradesh), or from other countries such as Bangladesh.

The key human, natural, social, physical and financial assets that affected people's ability to respond to the cyclone are discussed below.

### Human Assets

#### Human assets: Prior to the Cyclone

Although up-to-date information, on the different groups of people affected by the cyclone, was limited it can be said that the levels of formal education were generally low amongst the poor. However, the diversity of livelihoods followed by the coastal people meant that their practical knowledge about agriculture, fisheries, livestock, trade etc. was high but specific. The wide range of formal education levels in the villages did mean that there were some young people with good formal education around after the cyclone who could assist in mobilising the community. They were to prove a vital source of volunteers for the NGO agencies during the rehabilitation process.

The high dependence of the poor on primary production meant that they had a good knowledge of their environment as far as it impinged upon their lives. The poor also had good knowledge about the social systems that affected their lives and that provided access to the different assets that were important to them. This knowledge base was to prove important in enabling people to respond to the different rehabilitation measures that were introduced after the cyclone. The poor were also in a position to be able to contribute meaningfully to planning interventions designed to help them.

**1. LESSON LEARNT: *The knowledge that the poor have about their lives and livelihoods is often the most comprehensive and accurate information available after a cyclone. Where possible, it should be fully utilised.***

Language diversity was a significant element separating and uniting people. Along the coast there are communities traditionally from Orissa, from Andhra Pradesh, from West Bengal and from Bangladesh. Whilst there might have been overlaps and a sharing of languages between these groups, language and cultural traditions also led to barriers to markets and to services from support agencies.

Knowledge of the outside world was also variable. Those with access to radios and television sets had up-to-date information on an hourly basis. Poorer communities relied on word-of-mouth and interaction with government officials. In some communities where road connections were bad, even communications with officials were poor. This was to prove very important to the different levels of awareness, amongst people, about the impending cyclone. Those people with recent and reliable



information about the impending cyclone were more able to respond to it. Very marginalized people such as women heads of households had limited access to information systems and thus limited warning of the cyclone. This access to information, and knowledge of what to do with it, clearly affected people's survival rates. However, even when the information was made available through warning systems some people were unable to understand what was being said. For example, information on wind speeds, as a measure of potential destructiveness of the cyclone, may not have held much significance for many local people.

**2. LESSON LEARNT: *The supply of good and timely information about potential hazards is essential but its dissemination needs to be tailored to the diverse needs and capacities of the intended audience.***

Health was again very variable but the diversity of crops, fruit, livestock and fish in the coastal environment would suggest that nutrition in all but the very poor was reasonable. However, there were doubtless groups of old, very young and disabled people for whom health was a major issue.

The ability to provide labour to the market was a major feature of the capital of the poor. In some cases this was self-employed labour either through agriculture, fishing, livestock rearing or secondary and tertiary activities. In other cases labour was provided to others in similar sectoral activities. There was also some movement of poor labour into the new industries developing in the coast. The ability of many of the poorer people to engage in hard physical labour proved a vital resource after the cyclone when much work was required to rebuild the physical infrastructure of the communities.

#### **Human assets: Immediately Post Cyclone**

The major change immediately post-cyclone was the loss of life. The recorded death toll is around 10,000 people but the incomplete data on the people living in the coastal area suggests that the actual number to have died may be more. The lack of clarity on numbers had implications for compensation awards to families: those who could not prove that relatives had died found it difficult to claim compensation. This is likely to have had particularly profound effects on migrant communities from other areas outside of the state.

Other major changes were mainly related to health (physical and mental), motivation, leadership and knowledge. The health situation deteriorated as a result of the cyclone because of the physical forces to which people had been exposed. There were also localised outbreaks of illness but in the main major outbreaks were avoided. This was in part due to the rapid response of the support agencies in clearing the dead bodies, providing access to freshwater, sterilising water bodies and common areas, and providing public health and hygiene information. It was also aided by a period of dry, calm, weather for several weeks after the cyclone. Another key factor was that many of the communities mobilised themselves immediately after the cyclone to dispose of the bodies of their dead.

**3. LESSON LEARNT: *The situation immediately after a hazard has passed, is not necessarily the disaster's lowest point. Unless a rapid and effective response occurs the situation, particularly with regards to health, may deteriorate even further.***

Food and good water (much of the water locally available was contaminated by salt water and the presence of dead human and animal bodies) were essential to maintain the health of those surviving. This was not just a case of distributing any type of food to the communities. Considerable thought was required to supply the right type of food to satisfy the particular needs of different people (especially the old, the very young and pregnant women). There were examples early in the relief where food that was unacceptable to the recipients was provided. There was also a need to

ensure that people had the capacity to prepare the food. In the early stages food kitchens were set up so that food could be centrally prepared. Water treatment plants were installed and many tubewells were repaired quickly to ensure adequate water supply.

One of the main health problems for the living related to their mental health. Post traumatic stress disorder set-in and deeply affected people's ability to help themselves. One of the key interventions by government and the NGOs was food for work (FFW) activities. These encouraged people to get back to work and to stop focussing on what they had lost. Some NGOs recruited specialists in mental health to develop approaches and provide training, e.g. ActionAid India collaborated with the National Institute of Mental Health and Neurosciences (NIMHANS) to provide training to village counsellors<sup>1</sup>.

**4. LESSON LEARNT: Getting the right type of food to the right people is important but the supply of food can also be linked into measures, such as FFW, to address mental health as well.**

During the relief phase all affected people are in need of help but some are much less able to help themselves than others. In spite of the urgency to help everyone it is possible to target the relief efforts effectively. DFID contributed significantly to the relief operations through various NGOs and UN agencies and did so in a targeted way by supporting agencies with a specific focus on very vulnerable groups e.g. Save the Children and HelpAge International. UNICEF carried out training programmes on child rights and child protection through groups of women and girls. Apart from learning about health and hygiene, these groups focussed on security and emotional needs and contributed to avoiding exploitation. Specific targeting of food was done through measures such as the Integrated Child Development Scheme, implemented by WFP/Government of Orissa, which provided supplementary nutrition to 500,000 pregnant women, lactating mothers and children in affected areas.

**5. LESSON LEARNT: Targeting during relief is important and, in spite of the urgency, it is possible to achieve. This may require some innovative thinking and should form a part of disaster preparedness plans.**

#### **Human assets: In the Short to Medium Term**

The health in the affected communities remained fairly good and DFID-funded projects, such as Oxfam's public health and hygiene work, have contributed to this. Following the initial supply of food directly to people, FFW programmes (many funded by DFID) quickly came in to link food supply to work. Initially there were difficulties in getting the affected people back to work as motivation levels were low and the expectation of free food had already begun to develop. Considerable amounts of awareness raising and motivation were required to generate the

#### **Box 1: Restoring Mental Health**

The Voluntary Health Association of India (VHA) is an apex body of state-level health associations, it received DFID funding for rehabilitation work that included support for health under its "Aparajita" project. Their concern for the mental health of the cyclone-affected people came early on in the relief work and continued through rehabilitation. They focussed on providing skills for their staff so they were better aware of mental health needs. They also provided packets of vegetable seeds with rapid growth rates. This provided both vitamin-rich food quickly and demonstrated to people that the massive inundation of salt water had not completely destroyed the potential of the soil. This was designed to have the affect of raising spirits in the community.

<sup>1</sup> See: ActionAid India (2000). "Psychological Care for Individuals". Information Manual 1 produced by ActionAid India and NIMHANS. Books for Change, Bangalore, India. And: ActionAid India (2000). "Psychological Care for Community Level Helpers". Information Manual 2 produced by ActionAid India and NIMHANS. Books for Change, Bangalore, India.

support for this. There were also early cases where the dumping of free food onto communities after FFW schemes had started, undermined the work ethic.

Many of these activities, such as FFW to rebuild houses, also helped to rebuild people's lives. In some cases there were specific interventions that were designed to address mental health issues (see the DFID-funded example in box 1). In spite of all these efforts many of the people remain traumatised by the cyclone and the slightest increase in wind speed sends them in search of shelter.

The sort of interventions that were used in the FFW programmes generally built upon the skills of the affected people themselves e.g. house building (see box 2), road construction and pond clearance. The shortage of brick supplies locally encouraged some NGOs to develop village-level skills in brick making. A DFID-funded initiative through ActionAid has developed a programme of village-based "brick banks" to ensure sustainable supplies of building materials.

The medium-term food supply was also addressed early on and FFW was used to encourage planting of food crops such as rice and vegetable gardens, much of this was funded by DFID. Longer term access to good drinking water was also increased through the digging of wells.

**Box 2: New Houses**



A new house under construction in Shrivantapur village, Jagatsingpur district, supported by VHAI and funded by DFID.

**6. LESSON LEARNT: The skills and capacities of the local people are well suited to the local situation. Using these capacities is an important part of ensuring that the people can contribute meaningfully to the rehabilitation process and sustain gains made into the future.**

Immediate knowledge/awareness about both the potential health problems and opportunities for rehabilitation within communities was increased in a variety of ways. UNICEF and the NGO BGVS (Bharat Gyan Vigyan Samiti) organised street plays in villages to raise awareness on village reconstruction and housing programmes. Theatre was also used to increase knowledge about disaster preparedness. The longer-term needs of education of the community also started to be addressed through the re-development of schools damaged in the cyclone. Sixty transit centres for children not in school, called Child Labour Prevention Centres, were established jointly by the Government and UNICEF. One DFID-funded activity that was implemented by VHAI-Aparajita has encouraged and supported a group of marginalized and illiterate young women to construct their own teaching area and to begin literacy classes. The women built the school to replace the one lost by in the cyclone. It is used by the village children during the day and the women in the evening. The teacher is funded by the state, as are the lunchtime meals for the children (see box 3.).

Much of the effectiveness of the post-cyclone work carried out by the communities has come about through support for group formation. The support agencies, in the main, have also recognised the need to promote human capacity development of group members to allow the groups to function effectively. This has been particularly important in women's groups where they have often lacked the skills in group

organisation, decision-making and public speaking. Many of the DFID-funded NGO projects have promoted this development of attitudes, knowledge and skills. In some case the rehabilitation has begun to move into a development phase e.g. in the DFID-funded work, carried out though VHAI-Aparajita, women have been trained in fish processing methods to add value to the catches made by the men of the village.

### **Natural Assets**

#### **Natural assets: Prior to the Cyclone**

Prior to the cyclone the poor communities affected were reliant on a diversity of natural assets. The land was important for agriculture as was the ground water and rivers. Much of the coastal land is low lying and flat, and this was to limit safe havens after the cyclone and allowed the tidal wave from the cyclone to travel far inland.

Land ownership patterns were diverse with some people occupying land without registration; some people were sharecroppers on land owned by others. In some cases the land was communally owned or used. Some of the most vulnerable of the cyclone-affected groups did not own land but worked as day labourers for others. Land also provides important building materials for house construction and road works.

A diversity of crops were grown although rice was the main one. Some people depended on fruit and nuts from cultivated trees (such as cashew, coconut, mango) and rice was supplemented by vegetables from kitchen gardens. Livestock included cows, bullocks, chickens, ducks, and goats, and some fish were harvested from local ponds. Fisheries resources along the coast, rivers and creeks provided food and employment for many people, either as fishermen, or as processors and traders. Ancillary industries included boat building and net repairs.

Building materials and fuelwood were gathered from local forests, many of which also provided shelter from the winds from the sea. In some areas tree cover had been cut back before the cyclone to make way for coastal development such as shrimp farming, which has expanded to cover 12,500 hectares of the coastal area. Where the coastal tree belt was reduced, this is likely to have had a significant effect on the impact of the cyclone in those areas close to the shore. The Coastal Regulation Zone Notification is designed to limit developments in certain zones of the coast to ensure environmental protection. The application of this needs to reviewed in the light of the cyclone.

Some of the land, much of the forest and most of the fish are common pool resources (CPRs). These provide opportunities for the very poor who cannot afford to take legal ownership of resources. However, the reason that many resources are CPRs is because they are often the most difficult to exploit but are also subject to over-exploitation. The biological and ecosystem diversity in the coast provided a range of opportunities for Livelihoods of different people.

**Box 3: A Temporary School**



A temporary school built by the women's self help group in Shrivantapur village, Jagatsingpur district, supported by VHAI-Aparajita and funded by DFID.

### **Natural assets: Immediately Post Cyclone**

Most of the livestock was lost in the affected areas during the cyclone resulting in an immediate drop in the availability of eggs, milk and meat for food. The support agencies were able to substitute these through supplies of food from outside. The federation of milk producers (OMFED) was able to rapidly mobilise dried milk supplies from outside of the state and to distribute these. For those animals surviving, fodder and health treatment were provided to ensure their survival and continued contribution to both livelihoods and food security.

The bodies of many of the lost animals contaminated local water supply sources and contributed to the disease threat. The early response of the government and some NGOs and the villagers themselves to remove and destroy these carcasses did much to reduce the health threat.

The soil and water supplies in the coastal area were largely inundated with salt water and thus rendered temporarily unusable for drinking or for agriculture. The floods also hindered the use of communications systems.

The cyclone occurred around the time of the winter rice harvest and most of the crop was destroyed thus losing not only vital food reserves, but also rice for sale and for future seed stock. In addition crop trees, especially coconuts (see box 4), were damaged by the storms. However, the coconuts left on the ground and in the water provided a vital source of food and drink for people immediately after the cyclone. The fodder for livestock was also damaged threatening the survival of the remaining animals.

Much of the forest areas were also severely damaged but the fallen trees provided a source of fuelwood and building materials. The one kilometre-wide coastal shelter belt along the coastline was severely damaged by the cyclone leaving many of the 274 coastal villages exposed to the sea.

The fish resources were one of the key resources that offered the opportunity to provide instant sources of food and re-establish livelihoods. Whilst the fleet suffered substantially during the cyclone the larger commercial operators in Paradeep port were able to commence fishing reasonably quickly. However, the fact that bodies had been washed out to sea adversely affected some people's perception of fish as a food source immediately after the cyclone.

### **Natural assets: In the Short to Medium Term**

The supply of replacement livestock has been an important component of many DFID-funded projects after the cyclone. For example DFID funded OMFED to replace cows for the most vulnerable farmers who had previously operated within a centralised milk collection and marketing structure (see box 5). Many other DFID-funded projects provided poultry, goats and buffalo.

The heavy rain in the monsoon following the cyclone did much to reduce the adverse effects of saline intrusion into agriculture lands. As a consequence an early emphasis was placed on replanting rice and garden vegetables. The planning of

#### **Box 4: Destruction of Natural Assets**



Many villagers were helped with coconut saplings to replace lost stock.

replanting schemes was generally carried out in a participatory way with the recipients of the seeds largely defining what was required and when. This ensured that the crops would be of the type that suited the local geographical realities, the skills of the recipients, and the consumption needs of the communities and the local markets. However, it is unknown to what extent the level of biodiversity of the natural assets has returned to pre-cyclone levels or has been changed.

#### **Box 5: Rebuilding Milk Production**

The coastal area of Orissa supports many poor milk producers. In the cyclone many lost their cattle, cattle sheds and fodder supplies, and surviving animals were sick and hungry. The Orissa State Co-operative Milk Producers' Federation Ltd (OMFED) and the National Dairy Development Board (NDDB) immediately stepped in to provide food and veterinary support for the surviving animals. Later a DFID-funded project, implemented by OMFED, was designed to replace 5000 of the lost cattle, rebuild cattle sheds, train farmers in cattle care, rebuild damaged cooperative society buildings and provide veterinary services. This would allow the poorer farmers to reposition themselves back in the milk producers' network.

**7. LESSON LEARNT: Participatory planning of agriculture, fisheries and livestock inputs is likely to generate the best conditions to help the poor to replenish their natural capital in ways that address local needs and capacities.**

FFW was used by most DFID-funded projects to pay people to plant their own crops and to build or repair wells for irrigation. Fruit trees were also given to provide crops in the longer term. In some cases communal land was used by landless people to grow fruit and vegetables. Ensuring that seed was made available at the right time for planting was important.

Linking FFW to the local supplies of food from local traders and from harvested crops was an important consideration. It was necessary to ensure that FFW schemes progressively moved towards cash for work (CFW) as more food supplies came into the local markets. The sequencing of these changes was not always well coordinated and the needs of specific groups, who were less able to participate in the labour and commodity markets early on, were sometimes forgotten. There were also conflicts between different approaches used by different agencies in the FFW/CFW programmes concerning the number of days of work, the amount of food and cash paid, the times when they were provided relative to market needs. Some attempts to develop norms for FFW/CFW were developed (e.g. by ActionAid India<sup>2</sup>) but these were not widely taken up.

**8. LESSON LEARNT: The sequencing of interventions to match the realities of local planting and harvesting activities, and the realities of local markets for labour and goods, is crucial. However, such sequencing should not be so standardised as to exclude consideration of the specific needs of vulnerable groups, especially women, children, the old and the ill.**

Some developments were sensitively linked into the socio-cultural realities of the communities. In a DFID-funded, CARE-implemented, project in Naharana village, Balikuda block, a communal orchard was planted on common ground near a shrine frequented by the community. This has provided a pleasant park-area for people to sit and talk, and a communal activity for social cohesion that will also generate fruit for future income for communal projects (see box 6).

Recognising the importance of coconuts as a source of food immediately after the cyclone, many of the NGOs have encouraged coconut planting and have provided saplings for this. There have also been examples of protective belts of forest being planted to replace those felled by the cyclone. In the short-term, access to some

<sup>2</sup> ActionAid India/ BGVS (undated) "Norms and Standard for Disaster Project". Super Cyclone Reconstruction Project, Jagatsinghpur, Orissa.

**Box 6: The Orchard and the Shrine**



resources was sought elsewhere. For example, Machamara is a small hamlet of the village Sarangadarapur in Puri District, where bamboo resources were completely destroyed during the cyclone thus depriving local weavers of their supplies. Oxfam, with DFIDI funding, has helped to build their organisational skills so that they can jointly access markets for bamboo outside the area and purchase at reasonable prices.

DFID-funded projects such as those implemented by CARE,

VHAI-Aparajita and CRS, have started to rebuild the harvesting capacity of estuarine fishers and so fish is again entering the market. In these projects the design of craft and gear was decided with the local fishers to ensure that these were matched to the locally available natural capital (see Box 7). CARE and CRS have closely collaborated, with CARE providing the vessels and CRS providing the nets. The use of local boatbuilders and net supplies chosen by the fishermen has ensured that the equipment is well suited to local needs and fishermen can work closely with suppliers to ensure good quality.

The widespread availability of fallen trees after the cyclone helped boat building activities and the rapid replacement of boats in some communities increased food security and cash flow very quickly as, unlike plant crops, fish can be harvested immediately and freshwater and estuarine species are readily accessible all year.

**Box 7: Fishing Vessel Construction**



In Balipatana village, Balikuda block, VHAI assisted the community to rebuild some of their fishing capacity with DFID funding.

**9. LESSON LEARNT: Rehabilitation of different sectoral components of people's livelihoods has different impacts on the post-cyclone situation. Fisheries is often one area where food security can be improved very quickly as harvesting occurs as soon as vessels and gear are provided.**

### **Social Assets**

#### **Social Assets: Prior to the Cyclone**

The social cohesion within groups of the poor prior to the cyclone was based upon the hierarchical structures dictated by caste, religion and language, and was male dominated. Leadership within the community was spread across social systems, and caste groups, and within occupational groups, hamlets and households. Superimposed upon this were also government and market systems that further affected leadership patterns.

Within these structures collaborative action was weak and often imposed. There were some community-based groups but these were often dominated by the local elites. However, this ability to work in organised groups helped at least some people to begin to bring back some social organisation after the cyclone.

In many of the villages the poorest groups were isolated in their own hamlets and played little role in the wider village decision-making processes. In some ways these social groupings were to be useful in aiding targeting in relief and rehabilitation.

In spite of this hierarchical structure, there were examples of mutual support in the face of the cyclone with people sharing what shelter they had with the rest of the community.

#### **Social Assets: Immediately Post Cyclone**

The effect of the cyclone was to weaken or to break down many of the structures that operated in society. The leadership of the state and patronage systems were temporarily broken down and some of the traditional village leaders may have died or were more concerned with their own survival than with their social obligations.

The support role of government and the NGOs also shifted the immediate dependence of the poorer communities away from traditional power arrangements towards the outside agencies. Relief workers became the main source of survival and communication with the outside world.

For some, these changes presented a threat. Women, especially young women with no families, were particularly vulnerable. Orphans were left with little or no support as everyone struggled to keep their own families together. In the midst of this chaos there were examples of new forms of social capital. Some communities started to pull together immediately, seeing this as the only way of surviving. There are examples of relief food being brought to a community and the poorer members of the community insisting that it be given equally to the wealthier members of the community. In some communities special community houses were built for the orphans, the old and the weak to enable them to survive in the interim. In many cases the richer members of the village were the only ones with *pucca* housing capable of withstanding the wind and floods, and they provided shelter for many people.

**10. LESSON LEARNT: Disasters can significantly weaken social structures and processes in communities. This can provide opportunities for new types of social organisation to develop. If appropriate support is provided these can benefit the poor. If not, the poor are likely to become worse off than before the cyclone.**

#### **Social Assets: In the Short to Medium Term**

The DFID-funded NGOs were encouraged to take a livelihoods approach with a focus on the poorest, most vulnerable and marginalized people. As many of the NGOs were from other parts of India, local knowledge and language were often lacking. Likewise, those NGOs which were working with the poor in Orissa had tended to work in inland areas and knowledge of the socio-cultural background of the poor at the local level was limited. In response, some of the NGOs worked through local NGOs or mobilised local skills and experience within the village. Working with, and training, young educated volunteers from within the communities was a common practice which proved successful and acceptable to many of the villages. These young people took on an organising and mobilising role within the communities and helped to provide an effective interface with the outside agencies and to provide much needed leadership.

The targeting of the poor, marginalized and most vulnerable was partly done by adopting the hamlet, rather than the village, as the unit of planning, and partly



through participatory planning processes where the communities were encouraged to identify those people that were generally regarded as the poorest and least able to help themselves.

**11. LESSON LEARNT: Using local knowledge to identify the poor can be a rapid and effective method of targeting. Recruiting and training local volunteers from the villages can provide a vital link between the support agency and the community and ensures that some of the skills gained remain after the support leaves.**

Many of the NGOs insisted on working through groups of people rather than through individuals, at least in part, because they lacked the resources to work in other ways. Much of the initial focus was thus on group formation, awareness raising and capacity building. The group was the main unit through which FFW/CFW organisation, planning, inputs supply and social support were made.

Whilst the communities may not have found this process particularly easy, they generally seem to have benefited from it and now realise the advantages of more social cohesion in the communities. In Raskandapur village a young man described how group formation with DFID support through EFICOR had radically changed attitudes towards collaboration and a sense of unity (see box 8).

The work with women in the communities has been particularly beneficial. In many cases women were not socially organised and were clearly not effectively represented in decision-making processes. The formation of women's groups to channel inputs to the village, combined with the support required to work effectively, has given women a level of power over their lives which few had seen before. Whilst many of these groups are still very weak, they have taken some significant steps forward. In some cases (see box 9) these groups have advanced to the point where they provide group livelihoods to

**Box 8: Youth Group in Raskandapur Village**



In Raskandapur Village, DFID supported Eficor to develop groups within the community for a wide range of activities. This group of young men have found a new sense of purpose and confidence since working together. One man described how. Before the cyclone, he had needed an operation but could not afford it. He asked for help from the community but none came. After the experience of working in groups following the cyclone a new level of collaboration had developed. He described how the whole village had joined forces to help pay for his wife's recent operation.

**Box 9: Community Hall at Shrivantapur Village**



This women's group, formed after the cyclone, have assisted in the construction of their own community centre to act as a meeting point for joint activities and planning. It will also provide some shelter in the event of another cyclone.

the women which were not there before. In others they act as a focus for joint action for change.

Micro-planning has also been a significant step forward for many communities. Immediately after the cyclone support agencies were concerned that the right interventions needed to be made and that efforts needed to be prioritised. Community-level, or in some cases hamlet-level, planning was used to engage the affected people themselves. Amongst the DFID-funded NGOs this was targeted specifically at the poorest, marginalized and most vulnerable. Linked to this, some of the NGOs (e.g. CARE, CRS, Oxfam and ActionAid India) also carried out rapid appraisals to identify losses, needs and intervention possibilities. These helped to clarify what was needed most urgently and how to deliver it but in some cases the planning has slowed down implementation. It has also meant that the initial plans of some of the NGOs have had to be modified to accommodate the needs of the poor more accurately.

**12. LESSON LEARNT: Participatory planning is vital to ensure the right type of support but this needs to be balanced by the need for speed of implementation and to be supported by a flexible approach from donors to changes in project plan implementation.**

In the fisheries sector the ownership and operation of boats and nets was often sharply stratified, the crew often working for a share of the catch. In the estuarine fisheries supported by DFID-funded projects, there were insufficient boats to be provide for all boat owners so groups were formed to own and operate the craft. This enabled a larger number of people to share in the benefits of the resource. Complementary to this the fishers are receiving support to operate their vessels in a business-like manner, and to ensure the quality of their catch (see box 10).



In some DFID-funded projects the NGO partners have taken community mobilisation beyond a strategy for rehabilitation and have seen it as a stepping stop towards a change in the social structure of the village. For example, Action Aid has taken a rights-based approach to livelihoods which envisages a much longer-term relationship with the community than would normally be considered for rehabilitation. Gram Vikas, with DFID support, has tried to adopt an approach based on raising the capacity of the entire hamlet to move to a new livelihood level. These are significant steps towards improving the potential of communities but such social reorganisation needs to be balanced by its impact on the emergent democratic institutions such as the Panchayati Raj. Whilst these may well be currently operating at below optimal levels, they do represent a major step towards more direct forms of democracy within the Indian rural context. There is a need to ensure that community level social capacity building links into such structures in ways which adds value to both. Some NGOs who have been promoting social capital growth through self help groups have consciously tried to link these groups into existing government support structures so that the groups will continue to get assistance after the NGOs have left.

**13. LESSON LEARNT: Support for social capital development should recognise and build on the positive strengths of existing social structures and processes to both enhance synergies and to encourage sustainability.**

### **Financial Assets**

#### **Financial Assets: Prior to the Cyclone**

The detail of the financial assets of different groups of the poor in the coast was generally not well known to the support agencies prior to the cyclone. Given that many of them were below the poverty line it must be assumed that their income was generally low. The high dependence on primary production for their livelihoods means that income levels underwent seasonal variation. Much of the seasonal deficiencies were paid for through loans from traditional money lenders. Cashflow in many agriculture communities was also seasonal although less so in fishing communities where high and regular levels of cash turnover can give a false sense of wealth.

To offset seasonal variations many of the poor had several income sources including wage labour, weaving, share cropping, farming, livestock rearing and fishing.

Most of the poor who were able to invest, did so in housing, and in their income sources such as livestock, agricultural implements, boats and nets, and crop seed. Money was also saved for ceremonies, for weddings and for investment in jewellery. Mobile assets such as jewellery would have provided some security in the event of having to leave home quickly to avoid a hazard such as a cyclone. It is difficult to generalise about bride price and dowry because they differ between different groups in the affected area and have shown significant changes over time. However, they do constitute a major financial burden on families but ones that have to be dealt with.

Within the fishing sector there is considerable wealth stratification in communities, particularly amongst the Telugu people of the southern coast. In some communities the ownership of physical capital, and thus earning capacity is concentrated in a few hands. In some cases the owners are land-based and employ fishers to operate their craft<sup>3</sup>. For the migrant fishers of the coast, investments elsewhere would have lowered the risk of living close to the sea and reduced the vulnerability of survivors after the cyclone. The extent to which fishers from Andhra Pradesh migrated out of the region afterwards is unknown but it is reported to have occurred in some situations.

The dependence on moneylenders was high and has long been associated with a progressive transfer of physical, natural and financial capital into fewer hands<sup>4</sup>. Low levels of collateral, scattered location, lack of awareness and, in the case of fishers, a migrant tendency, limit access to formal credit<sup>5</sup>. Credit is sought for both production and consumption purposes especially during the lean period, for medicine during illness, for ceremonies and for the repair of physical capital such as housing. The indebtedness of the poor is particularly devastating when there is a cyclone. Not only can they not repay past loans, they frequently have to borrow more money just to get back to where they were. The potential to lose what little land is owned becomes very high under such conditions.

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<sup>3</sup> For a detailed description of the fishing communities of Orissa see: Tietze U. (1985). "Artisanal Marine Fisherfolk of Orissa". Vidyapuri, Balubazar, Cuttack.

<sup>4</sup> For a description of the situation in West Orissa see: Currie B. (2000). "The Politics of Hunger in India: A Study of Democracy, Governance and Kalahandi's Poverty". Macmillan India Ltd.

<sup>5</sup> See ODA-BOBP (undated). "Credit Availability for Fisherfolk: Andhra Pradesh and Orissa". Information Bulletin 6, BOBP, Madras.

There are various government schemes to provide credit to the poor such as the Economic Rehabilitation of the Rural Poor and the Scheduled Caste and Scheduled Tribe Financial Development Corporation which were to prove supportive after the cyclone.

#### **Financial Assets: Immediately After the Cyclone**

For many people the assets in which they had invested their financial capital were destroyed. Cattle, boats, fishing and farming gear, houses, cycles and crops were destroyed. For those who were indebted before the cyclone, the loss of productive assets would have been particularly difficult. Interest rates in the informal credit market were reported to have been very high because of the high demand and the limited supply. This was further exacerbated by the loss of collateral against which to secure a loan.

Immediately after the cyclone the requirement for cash for consumption was generally low as there was little in the way of goods to purchase. Food and water were provided through relief and FFW programmes, particularly through Panchayati Raj under the Employment Assurance Scheme and *Jawahar Gram Samruddhi Yojana*<sup>6</sup>. Gradually CFW also began to play a role and thus to enable the markets to begin to pick up. Initially there was a shortage of commercial work for people because agriculture land was flooded, productive assets were lost and few people had funds to hire labour or to buy the products of that labour. The government also initiated a programme of bank loans and subsidies to help people re-establish their livelihoods, and encouraged the payment of insurance for lost crops.

#### **Financial assets: In the Short to Medium Term**

Compensation for the loss of life and loss of housing is covered by the Orissa Relief Code of the government. This defines the types and levels of compensation that people are entitled to. The delivery of the compensation has certainly helped some people to begin to get back to a livelihood of sorts but delays in payments have not helped. In the case of people who were not formally registered with government, often the poorest, the landless and migrants, they could not be catered for under such schemes and so their surviving relatives have doubly suffered.

The demand for labour for house construction, pond clearing, well digging and road building was high and was funded through FFW from government and NGO sources. Gradually this was replaced by CFW when the markets began to supply goods for sale. Most of the DFID-funded projects also provided FFW/CFW to build up investments in natural and physical capital that would provide financial benefits in the longer term. In the case of the DFID-funded OMFED project, OMFED are providing cows as part loan and part grant to its poorer members who have lost their cattle. The loans will be paid back through the supply of milk from the cows to OMFED.

In many cases the pre-cyclone relationship between the poor and the rich was defined by debt. In some cases the DFID-funded projects have tried to break this link through initiatives such as FFW to produce goods that are then sold and the income is reinvested in the community (e.g. brick banks, basket weaving, boat supplies). Some of the DFID-funded projects also tried to address longer-term credit system deficiencies. By building on the social capital of the communities through women's self-help groups, and through training in savings and investment, they encouraged some of the groups to begin to save money. Formal registration of these groups within the system has ensured that they will continue to get at least some support and training into the future although many of these groups are at a very early stage of their development .

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<sup>6</sup> For details see the government of Orissa website: <http://www.orissagov.com/>

In some cases DFID-funded projects have encouraged improved income generating activities for people so that income increases in the future. The greater involvement of women in the cash economy has been an important part of this.

Government has also played an important role in financial readjustment. Initial responses included the removal of Sales Tax and Entry Tax on the materials used by NGOs assisting State Government in rehabilitation and reconstruction work in the cyclone-affected areas. The royalty on sand used in construction was also waived. Insurance claims relating to crop loss in kharif-1999 have been sanctioned<sup>7</sup>.

### **Physical Assets**

#### **Physical assets: Prior to the Cyclone**

Most housing in the villages were of mud construction with straw roofs. Electrification was to all but the most remote communities and drinking water was supplied through wells. The coastal region was generally well connected with road and rail links. In the main the villages were connected by dirt roads of varying quality. Some of the most remote locations were not accessible by car during any season, and many are not accessible during the monsoon. Poor access by road to some of the more remote villages, especially on the coast, was to be a major problem is getting relief to people after the cyclone.

Cyclone shelters were few and far between and *pucca* buildings were limited to a few private houses, and some public buildings such as schools, government offices, and health centres. These were to provide vital shelter when the cyclone hit.

Coastal embankments in some areas were to provide limited protection from saltwater inundation during the cyclone. The fishing port at Paradeep was to prove vital in the protection of the larger-scale fishing fleet.

#### **Physical assets: Immediately After the Cyclone**

According the Government of Orissa's White Paper on the Cyclone<sup>8</sup>, 1.6 million houses were destroyed or damaged during the cyclone. The power supply to 17,000 villages was severely damaged, the cold chain for the storage of vaccines was largely out of action, 18,000 education buildings and 7,000 government offices were damaged, and 12,000 km of road and 1,400 bridges were affected, many by fallen trees. The extent of this damage is unclear from the literature but is likely to have ranged from complete destruction (especially in the case of traditional village housing) through to minor. A CRS study<sup>9</sup> noted that 75% of traditional houses in the villages studied were destroyed.

In the water sector there were 2,000 breaches to river embankments and canal banks, 6 river dams were structurally affected and 5,600 lift irrigation points were damaged.

The army, the government administration and the local NGOs were immediately mobilised in clearing roads and providing temporary shelter, both for relief workers and for survivors. The State electricity board combined forces with staff sent from the Andhra Pradesh State electricity board to restore electricity connections. Ham radio specialists from Andhra Pradesh and from Bangalore, and satellite communications from the National Remote Sensing Application Centre restored

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<sup>7</sup> For details see the government of Orissa website: <http://www.orissagov.com/>

<sup>8</sup> From a translation of the Government of Orissa's White Paper entitled: "White Paper on Damage due to October 29-30 Cyclone and Flood", prepared by the Revenue Department, Government of Orissa.

<sup>9</sup> CRS (undated). "Baseline Livelihood Survey of CRS/DFID Livelihood Restoration Project". CRS Bhubaneswar.

essential communications links in the State and with the outside world. There was also an initial focus on reinstating the water supply system by clearing, repairing and disinfecting tubewells. Tankers also provided water to some areas.

Polythene sheets were provided as temporary shelters to 740,000 families who had lost their houses. Early efforts to get the affected people mobilised focussed on providing FFW for road and house construction. The government also initiated a programme of constructing *Mamata Gruhas* or temporary shelters for destitute women, uncared for aged, disabled people and orphans. This programme was designed to move away from the normal response of moving these vulnerable people away from their communities and into sheltered accommodation such as orphanages. *Mamata Gruhas* were set-up to allow the community to take responsibilities for rehabilitation of people from their own communities (see box 11)

*Mamata Kendras* were emergency shelters set up in villages for wider community use, initially as group housing and later as Integrated Service Delivery Centres. UNDP and UNICEF funded these.

The affected people were far from passive recipients in all of this. There are examples of some communities immediately assessing the situation and responding before help arrived (see box 12).

In addition to infrastructure losses, the communities lost many of the livelihood tools and household items. These included agricultural implements, cycles, cooking pots and utensils, lamps, clothing, and household furniture.

In addition 9,000 traditional fishing boats and 22,000 fishing nets were reported as lost or damaged. Basic household needs, including clothes, utensils and bed sheets, were provided during the relief stage and agriculture and fishing equipment have started to be replaced during the rehabilitation phase.

#### **Physical assets: In the Short to Medium Term**

Many of the buildings and roads have now been repaired through FFW programmes and through direct interventions. Government compensation has contributed to the rebuilding of some housing. DFID funding has contributed significantly to infrastructural rehabilitation at the community level through group-based FFW and CFW programmes. A major issue that has been raised concerning village

#### **Box 11 : Shelter for the Most Vulnerable**



Mamata Gruha shelter for the destitute of the village. Sarobhaphat village, Jagatsingpur District.

#### **Box 12: Village Road Construction.**

The village of Sarobhaphat in Jagatsingpur district was in a low-lying area with little or no protection when the cyclone hit. Many of the people died immediately, others were washed away only to return a few days later to find their village completely destroyed and the road to the rest of the world washed away.

Realising their complete isolation they decided to work together to re-establish the dirt road link between their village site and the remaining road some distance away. This would allow the support agencies to get to them. This they achieved by all surviving households contributing earth for the road's reconstruction.

infrastructure, especially housing, is whether it should be rehabilitated to the level that existed before the cyclone or to a better standard. For the poorest people their pre-cyclone housing was of a basic standard and of limited protection in the event of a cyclone or flood. However, replacing these with *pucca* houses would require a major long-term investment programme and would have maintenance cost implications.

**14. LESSON LEARNT: Replacing physical assets with more efficient and effective alternatives may appear desirable but the viability and sustainability needs to be carefully considered.**

ActionAid, with DFID support, has started to replace the very basic *Mamata Gruhas* shelters constructed under the relief phase, with more comfortable housing that at least offers a better environment for the most destitute in the short-term and allows their rehabilitation back into their own communities in the long-term.

There has been a considerable expansion in the availability of cyclone shelters since the cyclone (see box 13). These are funded by a diversity of government, NGO and private sector sources. In many cases the location and construction

have been planned following consultation with the communities. Often they are multi-purpose ensuring their continued use in periods between cyclones. The maintenance and repair of these shelters will be an issue that develops over time and some attempts have been made to address this from the start. CARE has encouraged participatory planning of future shelters linking these into sustainable income options through fish culture, horticulture and social forestry.

In terms of productive asset replacement, DFID funding has also contributed to boat and net replacement for some of the inland fishers. A project, to be implemented through the Department of Fisheries to replace many of the small-scale marine craft has undergone a participatory planning process and has been submitted to DFID but agreement has not been reached on funding.

Many of the water supply systems, used for irrigation and providing water for human consumption were damaged and initial work was carried out to reinstate these. DFID funding through the Adam Smith Institute, which is working on the reform of the Lift Irrigation Corporation, has provided funds for repair of lift irrigation points and the establishment of village level water users associations. DFID funding through Oxfam has been used to support the setting up of women's groups to maintain and repair tubewells as an income earning opportunity. Some attempts were made to improve health and hygiene in the communities through the building of latrine blocks. Oxfam started to do this with DFID-funding but found that the socio-cultural problems were too complex to address in a short project period.

There has also been some attempts to further reduce saltwater inundation in the future so that agricultural land can become more productive. Both FAO/UNDP and

**Box 13: Cyclone Shelter**



Cyclone shelter built with support from Paradeep Port Trust, in Raskandapur village Jagatsingpur District.

some of the NGOs initiated programmes of embankment repair through FFW (See box 14).

**15. LESSON LEARNT: The rebuilding of physical capital through FFW and CFW has been a vital step towards re-establishing livelihoods, stimulating markets, and provided much needed psychological and social benefits.**

## Transforming Structures and Processes<sup>10</sup>

### Transforming Structures and Processes: Prior to the Cyclone

The coastal area of Orissa is generally regarded to be the more developed part of the state and government in the past has provided much in the way of infrastructure and encouragement for industrial development in areas such as Paradeep. As a consequence few of the large national or international NGOs operated in the coastal area, tending rather to focus on the inland tribal areas. The institutional knowledge of how to respond to a disaster in the coast

was therefore limited and most of the larger NGOs went into partnerships with local NGOs who were more experienced in the area. However, both the Red Cross and Oxfam had long been involved in disaster preparedness work. The Red Cross had also built some cyclone shelters that were to be important in saving many lives during the cyclone.

The line ministries of government had a regular presence in the coast, especially those dealing with fisheries, agriculture, forestry, health and education. Most of these agencies, however, tended to have a narrow sectoral focus and this was to prove an obstacle to them preparing proposals for DFID support under a wider livelihoods umbrella. The Revenue Department and the Panchyati Raj institutions were also well represented and both take a much wider perspective. The Revenue Department was to prove crucial in spreading the warnings before the cyclone, and to participating in the planning and coordination of the relief and rehabilitation processes. Other agencies, such as the police, played an important role in getting people to move out of some of the most vulnerable coastal locations before the cyclone and to bringing about some semblance of order after it.

The Special Relief Commissioner (SRC) resides under the Board of Revenue. The SRC's role is to be directly responsible to the government for all kinds of relief operations in the affected areas. The Board of Revenue has got statutory power and responsibilities to exercise supervision of the work done by the Revenue Divisional Commissioners and Collectors. Following the cyclone of 1971 (when 10,000 lives were also lost), the Orissa state government prepared a report outlining a series of

Box 14: Saltwater Embankment



This saltwater embankment was built using DFID funds for CFW. It provides a barrier to saltwater intrusion into the adjacent lands and thus provides all year round agriculture.

<sup>10</sup> Transforming structures and processes are the government, NGO and private sector agencies, and wider society, and their policies, principles, laws and operational processes, the services they deliver, the people that work within them, and the relationships that they have with each other and with the poor, all of which go to influence the livelihoods of the poor.



measures to be taken to prepare for future cyclones<sup>11</sup>. The Orissa Relief Code provides the basic framework for the implementation of emergency measures under all types of emergency situations. The Relief Code details the specific responsibilities of the SRC and the different line ministries. However, the lack of available and current vulnerability maps, and databases on the conditions in the coast, was to prove a hindrance in planning responses. In addition, although there was warning of the cyclone's impending force, the scale of the damage was not envisaged. Warnings were given on the radio but some of the meteorological terminology used, meant little to the less educated of the poor for whom cyclones were a regular, but generally not a critical, occurrence. The Revenue Department passed the message as widely as possible but many people had nowhere to go to get away from the hazard or were afraid to leave their possessions behind.

**16. LESSON LEARNT: Experiencing a cyclone teaches many lessons but these have to be acted upon if they are going to reduce vulnerability in the future.**

The caste system also plays an important role in defining access to opportunities and livelihoods. For example, within the coastal area there is considerable spatial separation between different castes and social/language groups.

During the cyclone the wider social, class and caste barriers were greatly reduced in the upheaval. The lower castes sought rescue in the *pucca* houses of the wealthy and all were threatened with the disaster.

**Transforming Structures and Processes: Immediately After the Cyclone**

Many of the people living directly on the shore (e.g. fishing castes) or immediately behind the shore where the coastal forest belt had been cut back, suffered the most in terms of the immediate shock of the cyclone. It is believed by some of the agencies operating in the coast that there were many people living in these vulnerable

**Box 15: Caste in the Coastal Fishers.**

Immediately on the coast and to the south of the state are the Telugu speaking people from the Jalari and Vodabaliya castes. These people have links with communities in northern Andhra Pradesh. These people are also interspersed with Oriya speaking people and these extend into the mid regions of the coast. These castes include the Karibarta, Gokha and Rajbansi. The coastal men of the south are mainly fishers and the women are involved in fish processing and trade. These Telugu people have been involved in fishing activities for many hundreds of years. The Oriya speakers tend to be agriculturists who have turned to fishing more recently and the women are generally less involved in fisheries related activities. In the north of the State there are also many Bengali speaking people. These occupational distinctions are largely caste-based and they have many implications for the communities concerned in terms of their distribution of housing, proximity to the shore, dependence of a single or diversity of livelihood strategies. All of these were to have impact on those communities during and after the cyclone.

areas who were not registered with the authorities and who were lost during the cyclone but no record of them exists. This has prompted some people to suggest that the total figure for people lost in the cyclone is much higher than the official figure of 10,000. There is considerable uncertainty over these figures and the DEC (Disaster Emergency Committee) independent review of support to the cyclone "did not find evidence of a death toll significantly greater than the official figure"<sup>12</sup>.

Even immediately after the cyclone the caste barriers were still down. There was much collaboration across the divide to tend to the sick and needy, and to bury the dead. When relief food and water arrived, all were in need of it and all were included.

<sup>11</sup> Government of Orissa (undated) "Report of the Cyclone Distress Mitigation Committee". Irrigation and Power, Bhubaneshwar.

<sup>12</sup> Intrac (2000). "Independent Evaluation of Expenditure of DEC India Cyclone Appeal Funds" Volume 1

Gradually, however, as the rehabilitation process started and choices had to be made between who received support and who did not, the barriers started to rise again.

In some situations the rule of law did break down and some relief vehicles were looted. The price of materials also started to rise as demand and supply became out of step, and interest rates on the informal credit market increased.

Being largely based in Bhubaneswar, which was also hit by the cyclone, the government and NGO relief services were also victims. As a result, the relief efforts suffered from communication and coordination problems in the first week after the cyclone. The armed forces, however, played an immediate and effective role in clearing roads and distributing emergency supplies. Support from other state governments and from the central government also started to materialise, as did supplies from private companies, the general public and wealthy individuals. The focus of the government's initial support was in life saving emergency relief. These efforts were complemented by those of the United Nations (UN) agencies and the NGOs. The UN was quick to mobilise missions to assess the damage and to stimulate coordination efforts; the government and NGOs also carried out damage assessment missions. The focus on assessment was not well coordinated at first and this is reported to have wasted valuable time. A review of the UK Disaster Emergency Committee's (DEC) relief support after the cyclone recommends that a joint strategic assessment be implemented in future<sup>13</sup>. It also noted that much of the early relief was distributed with little participation of the people themselves and with a tendency to treat the affected people as victims rather than as partners. These difficulties reflected the sense of urgency felt by all concerned and a desire to "get something done".

**17. LESSON LEARNT: Good baseline vulnerability and capacity data prior to a disaster is a major component of a successful relief response. In its absence, support agencies should collaborate in assessing need to avoid duplication.**

The UN's office for Coordination of Humanitarian Affairs responded to the disaster by sending in a UN Disaster Assessment and Coordination (UNDAC) Team. It also coordinated the response of bilateral donors such as DFID, USAID, CIDA and funds from the governments of the Netherlands, Norway and Germany. Locally a UN Disaster Management Team (UNDMT) was established with different UN agencies (including UNDP, UNESCO, UNICEF, WFP, WHO, FAO, ILO and UNFPA) to ensure programme convergence and to avoid duplication. The UN agencies provide US\$ 19 million for work in Orissa during the relief phase.

The local NGO community quickly formed the Orissa Disaster Mitigation Mission (ODMM) to coordinate NGO inputs and activities. ODMM acted in a relief coordination function in the early days of the disaster, ensuring that the aid reached the affected areas.

**18. LESSON LEARNT: The rapid establishment of coordination mechanisms is essential if efficient, effective and well planned relief is to be provided.**

The DFID's relief aid, totalling £3 million, was channelled from London through international NGOs and UN agencies such as UNICEF and World Food Programme. Other UK funds came mainly through DEC and other NGO bodies. Other donors/lenders included the World Bank, ECHO (European Commission Humanitarian Office) and bilateral agencies.

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<sup>13</sup> Intrac (2000). "Independent Evaluation of Expenditure of DEC India Cyclone Appeal Funds" Volume 1.

During a mission in early December a DFIDI team, working closely with the World Bank, identified some areas of additional support that could assist the people of Orissa to move from a relief to a rehabilitation stage. A budget of around £25 million was provisionally allocated for this and, following discussions with both government and NGOs, possible interventions areas were identified. The World Bank mission developed a strategic framework within which the various bilateral agencies could work. Both DFIDI and the World Bank agreed that one component that was needed was support for livelihoods, taking a holistic, rather than a sectoral, approach to people's needs. This would, of necessity, require considerable involvement of the affected people themselves in the decision making process.

In November 1999, a series of meetings were held in UN house Bhubaneshwar to bring together all agencies to ensure coordination of efforts. Following a UN meeting on the 19<sup>th</sup> of November to begin to develop a coherent rehabilitation strategy, a state-level workshop was held in December on strategic planning in rehabilitation<sup>14</sup>. This laid down a broad framework for the rehabilitation phase of work.

As a result of the World Bank mission, the Government of Orissa set up the Orissa State Disaster Mitigation Authority (OSDMA) as a registered society. OSDMA took on a major coordination role from January 2000. OSDMA had two units a) Project Management Unit or PMU, and b) Disaster Management Unit or DMU. The PMU was charged with coordination between executing agencies and the funding agencies. It was to review technical proposals provided by the executing agencies, process the proposals, manage the disbursement of funds and monitor implementation. The DMU was charged with developing and implementing a disaster preparedness plan for the State<sup>15</sup>.

**19. LESSON LEARNT: *Establishing relief and rehabilitation response mechanisms after, rather than before, a disaster can delay support efforts. Ideally these should be established as part of a disaster preparedness programme.***

#### **Transforming Structures and Processes: In the Short to Medium Term**

The OSDMA and UNDMT initiated NGO coordination meetings at the State level (through the State Level Coordination Committee Meetings) and coordination at the District (through monthly District Level Co-ordination Committees), block and Gram Panchayat levels was achieved through both coordination meetings and by assigning "lead agency" status to the main NGO in each Gram Panchayat. Their function was to avoid duplication of effort and to facilitate co-operation. However, following the establishment of a livelihoods database by the UN, 38 areas of duplication of effort were identified and 150 cases of unrepresented Gram Panchayats were discovered. There is now an extensive database of all inputs into each village in the affected areas.

**20. LESSON LEARNT: *In the enthusiasm to get to the most affected areas after a disaster, the less affected areas, but those equally deserving of support, can be left out.***

Following DFIDI's expressed interest in funding elements of the rehabilitation process, some 30 proposals, mainly from the government, were channelled through OSDMA for consideration by DFIDI<sup>16</sup>. However, many of the initial proposals did not conform to DFIDI's criteria. DFIDI selection for short-listing of projects was based on

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<sup>14</sup> UN (1999). "Orissa Super Cyclone State Level Workshop on Strategic Planning in Rehabilitation Organised by the Government of Orissa & the United Nations, Bhubaneshwar, 11/12/99". [www.un.org.in/slwr.htm](http://www.un.org.in/slwr.htm)

<sup>15</sup> See: OSDMA and UN (2000). "Community Contingency Plan for Floods and Cyclones, Orissa". OSDMA, Bhubaneshwar.

<sup>16</sup> Dermot Shields (2000). "Report of Mission to Orissa as Part of the Orissa Livelihoods Rehabilitation Project, 31<sup>st</sup> January to 5<sup>th</sup> February 2000". Consultancy report prepared for DFIDI.

a) perception of greatest need, b) links to the poorest, and c) absorptive capacity. As a result DFIDI's focus of support was on health, education, irrigation and rural livelihoods.

The initial proposals were followed by inputs from DFIDI to assist government to refine these proposals and to take a more holistic poverty focus, incorporating participation by the intended beneficiaries in the planning. Attempts were also made to encourage the government to take a more integrated approach to the proposals coming from line ministries. These proposed changes were not, in the main carried out and DFIDI moved ahead with five of the most promising projects. To date one of these has been funded (milk cattle replacement through OMFED) and a second (boats and gear for marine fishers) has undergone detailed planning. It is reported that other donors have subsequently taken up some of the other projects.

Within most governments there are real difficulties in achieving integration between sectors at the administrative level. In India integrated planning does occur to a certain degree at the district levels where district and block level planning brings the line ministries together in a more coordinated and harmonised way. DFIDI did encourage a more geographical basis for planning but this did not emerge. Had this been taken forward with support to develop proposals on a district-by-district basis it may have created the conditions required for the desired level of sectoral integration. This in turn would have been a significant opportunity to build experience and awareness within government of a more integrated and holistic livelihoods approach that would have provided longer-term benefits in the implementation of the Western Orissa Livelihoods Project.

Likewise the language and techniques that DFID uses for project planning, whilst known in part by the NGOs, was not always well understood by government. Some assistance was provided by DFIDI through consultancy inputs but it is felt that a significant opportunity for substantial capacity building in government, that would have paid longer-term dividends to DFIDI in its relationship with the Government of Orissa, were lost by not pursuing these proposals over a longer period. A key reason for this was the time and resources it would have taken.

International NGOs also submitted a series of proposals. Some of these did not initially reflect the detail of the local realities or DFIDI's criteria. To bring these proposals closer to a livelihoods approach it was suggested that inputs would have to be made to help partners to rewrite their proposals. It was also recognised that few of the partners were aware of DFID procedures and would require support in areas such as logframe planning.

The rigour of planning imposed by DFIDI was largely adopted by the international NGOs who, after reconsidering their proposals, did start to focus much more on participatory planning, local needs assessment and more holistic approaches. The language of the livelihoods approach, if not the approach itself, was well understood by some of the NGOs and their staff were well versed in proposal writing, even if they did require some guidance on detail to conform with DFID procedures. Many of the partner NGOs were tending to adopt a wider livelihoods approach to most of their work anyway, they were also generally people-centred, and concerned with human and social capacity building. They also had much of the flexibility of the private sector in the ways which they approached their work. Continuous DFIDI consultancy inputs have gradually helped to overcome administrative problems. However, there is still little real understanding of the SLA amongst the NGO staff although their normal working practices do mirror many aspects of the SLA, particularly the principles.

The planning process for DFIDI projects during rehabilitation has been faster than that required for a development project but much slower than for relief. As a result

some of the NGOs have had to fund the gap between the end of relief and the beginning of rehabilitation with their own resources. For local NGOs this was less easy and in some cases there were considerable difficulties in continuing implementation. In some cases, such as with Oxfam, the approval time has led to the need to reschedule some of its activities and Gram Vikas was unable to build wells before the monsoon set in. The Adam Smith Institute has been seriously held up in its work on water user associations because it has not been possible to obtain clearances for expenditure under the project from the Department for Economic Affairs in Delhi. This delay has meant that the repairs for lift irrigation points will not be completed in time for the current winter planting season. Project staff feel this will have serious implications for the project's credibility in the eyes of those village water-user associations which have already been formed.

Given the number of DFIDI staff available to provide support to the projects it is generally agreed by the partners that the effort was excellent but there was widespread agreement that a greater level of continuous, localised (i.e. in Orissa) support in the early stages of project planning and approval would have been beneficial. This may also have been enhanced by taking a two phase approach to bigger projects where some funds could have been released before approval for the second, larger component, had been approved.

The partnerships between INGOs (international NGOs) and local NGOs were useful in some ways in building up local individual capacity. These partnerships also allowed greater and more informed local contact. However, the arrival of many INGOs and national NGOs into the area who lacked adequate staff with skills and local knowledge, caused (mainly through financial incentives) a drain of staff from some local NGOs to their larger partners. This is reported to have made it difficult for some of the local partners to function at the previous level or reduced them more to the level of subservient sub-contractors. This not only raises serious questions about the sustainability of some of these local NGOs after the INGOs move out, but may also threaten the longer-term relationships that the local NGOs have developed. There are, in turn, concerns for the quality and sustainability of the support that the local NGOs will be able to provide in their reduced state.

DFIDI is currently funding 12 projects, 10 NGO implemented and two others. The projects started at different times and are all of different durations ranging from approximately 10 months to 24 months. They vary in size from £350,000 to £4,650,000. All include elements of livelihoods such as house building, FFW/CFW, health support, road reconstruction, human and social capacity building, agriculture rehabilitation, re-establishment of water supplies, vulnerability reduction through disaster preparedness, and livelihood options rehabilitation and development. Whilst a poverty focus for these projects, and concentration on the most vulnerable and marginalized, is likely to have been the approach adopted by many of the NGOs anyway, DFIDI's insistence of these criteria has probably sharpened that focus and maintained its consistency. Likewise, adopting a livelihoods approach (rather than a sectoral one) to the rehabilitation has encouraged a more people-centred, holistic and poverty-focussed response which has ensured that support addressed people's lives in ways that reflect the reality of their situation. It has also encouraged a greater emphasis on support for people as a right rather than as a charitable activity and that access to sustainable livelihoods is a right that people should expect.

In many ways a disaster situation reduces the rigidity of social systems, and of transforming structures and processes. This provides opportunities for both understanding the systems in ways that are not normally available, and for changing the systems. Given that the poor are generally least able to take up development opportunities when they arise, due to their weak asset profile and their poor access to support and development mechanisms, changes in the systems are likely to leave

them worse off than before a disaster. However, adopting a livelihoods approach with multiple entry points (e.g. supporting the development of different assets and supporting the effectiveness of support agencies) offers the possibility of creating pro-poor opportunities and of helping the poor to develop the capacity to take up those opportunities successfully and sustainably.

DFIDI, operated through a diversity of agencies. Whilst this may have increased the administrative burden, it also reduced the risk. If one project failed to achieve its aims it would not have a devastating impact on the overall DFIDI programme. It is also likely to have had other benefits. The agencies have approached livelihoods activities in slightly different ways thus giving rise to a diversity of experience from which each can learn. Diversity that reflects local situations is also more likely to develop if different NGOs are used in different locations. Unfortunately, whilst lessons from diverse experiences have been shared through the different coordination forums of the UN and ODM, these lessons have not always been learnt. Also, whilst diversity of approaches may be beneficial, a lack of norms for designing specific interventions (such as FFW/CFW, agricultural inputs etc.) has led to some difficulties between NGOs and their respective communities in adjacent areas. In addition the feasibility, viability and sustainability of some inputs is unclear. Perhaps a greater level of sharing of information and experience and the agreement of some standardisation/norms of interventions early in the programme would have assisted. There was consensus between the NGO staff that sharing and harmonisation of approaches (especially in areas such as FFW) would have been useful but would have to have been led by an outside agency such as DFIDI if it was to be achieved.

DFIDI internal procedures for the management of inputs to rehabilitation projects are largely covered by those established for development projects. Whilst that may suit the latter stages of rehabilitation the early stages are more linked to relief operations. The normal development procedures are inadequate to deal with rehabilitation work.

DFIDI funds were specifically aimed at the poor. The level of targeting by the NGOs using these funds was generally good. The emphasis was on women and poorer groups for example ActionAid particularly focussed on scheduled castes, and the wide spread use of FFW and CFW had the effect of limiting that form of support to the lower caste people as higher caste people could not culturally become involved in the type of work required. Whilst a useful mechanism for supporting people who are normally the poorest in the community, FFW did exclude support to some people who may have been equally destitute in the initial stages or rehabilitation such as pregnant women, the old and the sick.

***21. LESSON LEARNT: Food for work and cash for work can be very useful for specifically targeting the poorest groups, but other interventions need to be considered for people who may be equally destitute after a cyclone but who cannot participate in such measures.***

DFIDI has played less of a role in the government funding, but government has played an important part in the rehabilitation process. Much of government's work has involved the continuation of line activities funded from normal budgets. Other activities have involved changes to the policy environment to facilitate relief and rehabilitation activities and specific initiatives funded through Orissa government funds, central government funds, funds from other states (notably Andhra Pradesh, Maharashtra and Delhi) through overseas sources. Much of the relief food and agricultural seeds for rehabilitation came through the state system. Agricultural credit and subsidies were earmarked for cyclone affected areas, and high yield varieties were distributed to improve production. Tractors and tillers were supplied at subsidised rates to replace the loss of cattle, and coconut saplings have been

provided to replace many of those lost. Insurance payments for the loss of crops have also been arranged for many people. Fiscal support measures were introduced for a limited time period. Compensation is in the process of being paid to the next of kin of the deceased and to those whose houses were lost or damaged. The forestry Department provided large numbers of sapling to replace trees lost in the cyclone. Food supplies, after the initial free distribution, were distributed by the government at subsidised rates to poorer people. A programme to distribute free foodgrains to 64,800 senior citizens has been initiated. The Panchayati Raj institutions have been provided with funding for food for work programmes under the Employment Assurance Scheme and *Jawahar Gram Samruddhi Yojana* and roads, bridges, electrification and telecommunications have been largely restored. In some areas new cyclone shelters have been built and tubewells have been sunk. There are plans to replace and repair schools and to provide for lost teaching materials. A review of progress on these and other areas of government intervention is provided on the Government of Orissa website.

The relationship between the government and NGO agencies at the operational level seems generally to have been a positive one. Many of the NGO activities linked into government systems both to avail themselves of skills and inputs, and to ensure consistency and sustainability.

**22. LESSON LEARNT: Government programmes continue through a disaster and provide a central core of ongoing support to the poor. It is important to ensure that rehabilitation work meshes with these ongoing programmes and complements them.**

## **Vulnerability Context**

### **Vulnerability: Prior to the Cyclone**

The vulnerability to cyclones, of the people in the coast of India more generally, is well understood from past disasters e.g. the Orissa 1971 cyclone<sup>17</sup> and the Andhra Pradesh cyclone of 1996<sup>18</sup>.

The vulnerability of people is affected by numerous factors including their access to assets, their interaction with government, NGOs, the private sector and wider society, and their livelihood strategies. These are described above under the respective sections. They are also subjected to a series of shocks, trends and seasonal changes that further affects these other factors.

Cyclones are not the only shock to which the coastal people of Orissa are exposed. Floods and drought are also common, and more frequent. Often they follow on from each other as in the case of the drought affecting the coast following the 1999 cyclone. Loss of life at sea for fishermen is also a continuous threat to both the fishermen and to their families who are left behind. Fires are very common in villages and particularly affect the poor who live in thatched houses.

The cyclone showed how vulnerable certain groups were. Those living directly on the coast, mainly fishers, suffered very badly. Those with access to *pucca* housing were largely able to survive. Those with access to money in the bank could start to replace their assets and restart their livelihoods. The poor, the old, single women, the disabled and the very young were the most vulnerable. However, many did not know how vulnerable they were until it was too late. Likewise most of the support

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<sup>17</sup> Government of Orissa (undated) "Report of the Cyclone Distress Mitigation Committee". Irrigation and Power, Bhubaneshwar.

<sup>18</sup> See Reddy AVS, Sharma, VK and Chitoor M (2000). "Cyclones in Andhra Pradesh: A Multidisciplinary Study to Profile Cyclone Response in Coastal Andhra Pradesh, India". Oxfam, Hivos and ECHO.

agencies did not know enough about this vulnerability to prepare appropriately for potential hazards.

**23. LESSON LEARNT: Vulnerability affects different people in different ways. It is possible to map that vulnerability and to prepare for hazards that affect it.**

There are numerous trends that also affect the vulnerability of the poor. Some of these relate to localised resource depletion such as inshore fisheries and forests. There is also a progressive increase in pollution of coastal waters and rivers, and of the air around industrial sites such as Paradeep.

The trend towards greater infrastructural development within the coast creates opportunities, but not equal opportunities for all. The poor are often the least able to take up opportunities and may become worse off because of them. Whilst electrification, roads, rail and embankments reduce overall vulnerability and attract inward investment, unless such changes are targeted at the poor they are likely to be excluded from the benefits. Greater access to outside markets has changed demand for traditional products such as those produced by weavers. The expansion of ice in coastal areas has steadily improved fish processing, storage and distribution but may have removed opportunities from some of the poorer processors.

The age structure of the population is also changing as a result of improved health care, more people are surviving childhood, and they are living to a greater age. This puts pressure on resources and on services in the coast.

Seasonality affects the occurrence of different disasters like cyclones and droughts, which are closely linked to climatic cycles and to the monsoon. Seasonality also affects the availability and type of work. Marine fishing and agriculture closely follow the seasons, and thus there are periods when work is available and when it is not. Below is shown a timeline for agriculture activity based on rice production:

ACTIVITY	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC
Ploughing & sowing						■					■	
Transplanting	■						■	■				
Inter cultural activities									■			
Harvesting			■	■						■		
Lean season					■	■					■	■

Because of this seasonality of resources and economic activities there is also seasonality of employment, income and food security. There are also seasons for ceremonial activities such as weddings and religious festivals. The weather conditions also affect the prevalence of illness.

The trends and seasonality interact with the shocks to affect their quality. For some people who may be already adversely affected by seasonal deficiencies or growing adverse trends, a shock such as a disaster can be particularly harmful.

**24. LESSON LEARNT: Shocks, trends and seasonality can conspire to worsen their individual impacts upon the poor. It is important to view a disaster in this wider vulnerability context.**



### **Vulnerability: Immediately After the Cyclone**

The vulnerability of people changed dramatically after the cyclone, mainly in relation to the change in assets described in the appropriate sections above. In particular the health situation after the cyclone was extremely vulnerable. People were susceptible to a major outbreak of disease but fortunately this did not occur.

The exploitation of the most vulnerable became a problem in some locations. Those who had lost a parent or spouse had additional workloads to fend for the remaining family and female-headed households were the most vulnerable.

Following the loss of food production during the cyclone, drought was to further add to the difficulties faced by the people. Shortages and delays in delivery of seeds and other agricultural inputs interacted with the local seasonality of activities and opportunities. When sequencing of interventions was not right, inputs were wasted or opportunities lost.

### **Vulnerability: In the Short to Medium Term**

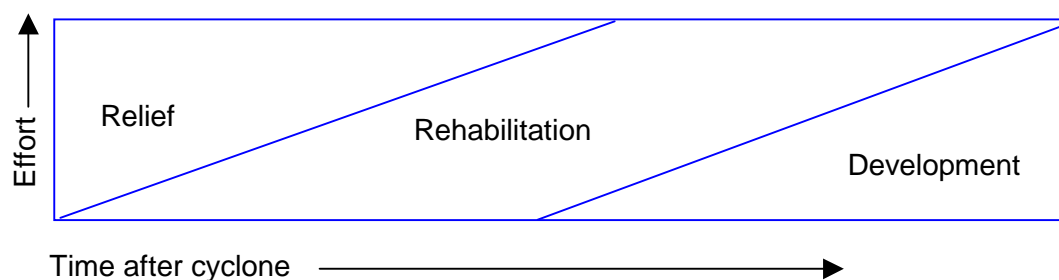
In some areas the rehabilitation process has increased the human capacity to respond to future disasters. Community Based Disaster Preparedness (CBDP) has started to emerge as an important issue. The UN has brought together all NGOs with plans in disaster preparedness to provide a coordinated approach to CBDP. Some of the most vulnerable communities along the coast have been identified with the help of the Orissa Remote Sensing Application Centre (ORSAC) so that these could be divided up amongst the NGOs for CBDP training. With DFID funding, Oxfam is currently reviewing the Orissa Relief Code and providing advocacy for change. Oxfam is also preparing vulnerability maps for different types of disasters and developing strategies to inform and influence other agencies in the preparation of a comprehensive CBDP programme for Orissa. They have already carried out training for CBDP in some villages. In December 2000 OSDMA and the UN jointly organised a consultation with representatives from NGOs, civil society, and government bodies to start to draw up a comprehensive disaster preparedness plan for the state. This was the second in a planned series of Civil Society Networking meetings. As part of this initiative different groups have been established to deal with different tasks in a disaster. Each group has a lead agency and support agencies with specific skills. There have also been remembrance day festivals on the anniversary of the cyclone. These are designed to reinforce preparedness in people's minds. In spite of this, it may be some time before there is a need to respond again to the level of disaster that was experienced in October 1999. If so, many of the lessons learnt could be lost if methods are not found to institutionalise preparedness in a very effective way. The OSDMA has already taken steps to assess the possibility of forming a disaster mitigation institute for the state. This would aim to generate information about disasters of all forms, develop strategies to prepare for them and to cope with them, and to act as a operational arm to coordinate relief and rehabilitation after their occurrence.

***25. LESSON LEARNT: Hazard and disaster preparedness are important at all levels from the community to the government, and through the donor and support agencies. Such preparedness should have the built-in capacity to accommodate hazards that do not occur very often.***

A consequence of the relief and rehabilitation phases has been a progressive change in technology. New designs and construction methods for housing have evolved to provide more protection. Irrigation of land has expanded and the control of irrigation has started to move from the state to the community. Tractors and power tillers have been used to replace some of draught animals that were lost in the cyclone. Seed banks have been established, cyclone shelters built, forest breaks planted, and new varieties of plants have entered the farming cycles. Perhaps the most noticeable

trend has been the move towards greater interaction between the communities and the support agencies. In the short to medium term these interactions have reduced the vulnerability of the poor but the long term effects on vulnerability will depend on how sustainable these changes are, how effective they are without rehabilitation assistance, and how they function after the NGO support is removed.

In many cases the changes that have taken place are still at an early stage of being assimilated and as funding for rehabilitation comes to an end so it is possible that at least some of these will revert to a previous form or cease to operate at all. Rehabilitation offers the opportunity to provide a bridge between relief and development but one that also offers the opportunity for that development process to change course in ways that reduce the vulnerability of the poor. Paradoxically, in doing so, they may initially expose the poor to greater vulnerability as a necessary, but interim, stage. In some of the situations in Orissa the poor have been given the opportunity to radically change their social and economic positions; to be rehabilitated to something that goes beyond what was there before. In such situations it is necessary to ensure that the linkages between relief, rehabilitation and development are seen for what they really are: complementary and parallel activities that are interlinked. They are not distinct and separate and sequential stages that can be funded as packages that are divorced from each other. The relationship between these phases can be shown diagrammatically as seen below:



At present there is a tendency to think of the transition lines between phases as being vertical. The transition points between these three stages are different for different activities and for different people. In many cases relief and rehabilitation, and rehabilitation and development, will occur simultaneously as shown above. It is important to recognise and accommodate these overlaps in the planning and funding of interventions. The transition from rehabilitation to development is a particularly important phase where much of the good previously achieved can be undone if sustainability is assumed too early in the process. Adequate time needs to be given to ensure that the changes (particularly social and governance changes) are firmly established before support is withdrawn.

**26. LESSON LEARNT:** *Relief, rehabilitation and development are often thought of as distinct phases but they often need to work side-by-side and can often complement each other. Rehabilitation is an important bridge between relief and development but it is a form of support that must be seamlessly linked into these other two if sustainable benefits are to be achieved.*

## Livelihood Strategies

### Prior to the Cyclone

As discussed above, there was a wide diversity of access to different assets within the communities affected by the cyclone. A key component of this that greatly affected people's lives, is the distribution of land. Some of the poorest people are the landless and marginal farmers (having 1 hectare or less). Farming communities

made up 82% of the affected people studied by CRS in their baseline livelihoods study. Off-farm (livestock, and fisheries) activities were carried out by 57% of the households, 57% were engaged in labour, and 17% in the service sector (barbers, drivers, cleaners, weavers, caretakers, teachers, fish selling etc.). This demonstrates that each household tends to have several income generating activities. However, in some of the fishing communities, especially the Telugu speaking fishers, the men tend to focus only on fishing and the women on fish processing and trading.

Paddy rice is the main subsistence crop of the poor although according to the CRS study only 9% of farmers studied could ensure food security from paddy for half of the year from their own production.

The diversity of income sources reflects the realities of the local growing season. For richer farmers with good irrigation the winter rice crop is generally assured, as is the spring vegetable crop. This allows a greater focus on agriculture. For poorer farmers on more marginal land with less access to irrigation, the winter rice crop may fail and the spring vegetable crop may not be an option. As such they depend much more on selling their labour to other farmers or to non-farm sectors.

There is a distinct gender differentiation in some forms of income generating activities. This is most noticeable in fishing communities. In agriculture communities the opportunities for women are less than for men as they are restricted in their ability to travel to sell their labour. The CRS study showed that there were 8% female-headed households in the area studied, these are confronted with particularly difficulties as their income diversity is often low. Many of these, in common with many other women, have low literacy rates, which further reduce their income earning options.

Some of the fishers from West Bengal, Bangladesh and Andhra Pradesh engage in migratory activities with linkages with other livelihood activities elsewhere.

The changes of assets and access to assets over time are difficult to assess as few studies have been made. In some areas of the coast there has been a progressive expansion of industrial activity that has increased employment opportunities for some people. However, the progressive take over of communal, especially marginal, lands has led to a reduction in common pool resources on which many of the poor depend. In the south west of the State, where land ownership pattern have been studied there has been a progressive movement towards greater land division and smaller plot sizes. As a consequence there has been a progressive increase in the percentage of marginal plots from 17% in 1970 to 40% in 1995<sup>19</sup>.

### **Immediately After the Cyclone**

As discussed above, income-earning options immediately after the cyclone were virtually nil. In fact the achievement of basic needs was largely impossible for most people: food, water and shelter were non-existent. Basic relief support did address these concerns and FFW and CFW programmes were introduced to overcome some of the income earning difficulties. FFW and CFW programmes built up the infrastructure to enable a restart of some forms of employment but as these were largely based on agriculture they required a lead-in period to allow for crops to grow.

One livelihood strategy adopted by at least some people after the cyclone was to break away from the extended family group and settle more on the nuclear family<sup>20</sup>.

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<sup>19</sup> Currie, B. (2000). "The Politics of Hunger in India: A study of Democracy, Governance and Kalahandi's Poverty". MacMillan India.

<sup>20</sup> CRS (undated). "Baseline Livelihood Survey of CRS/DFID Livelihood Restoration Project". CRS Bhubaneswar.

### **In the Short to Medium Term**

Some of the DFID-funded NGOs did specifically focus on short-cycle plants that might allow an early source of food, and poultry and cows were introduced for egg and milk production. FFW programmes focussed on rebuilding shelter and ensuring secure water supplies so that basic needs were addressed in more sustainable ways. Fishing, one of the few activities that could start to generate food and a source of income immediately, was re-started with the inland fishers.

Self-help groups were formed amongst some of the women to address livelihood options. Collaborative approaches to production and trading were initiated by some of the NGOs. In some situations new livelihood options were initiated e.g. VHAI-Aparajita started improved fish processing activities with some of the women in fishing communities. In some weaver communities where bamboo stands had been lost in the cyclone, groups were formed to allow group purchasing of bamboo from outside of the region. Oxfam, with DFID funds, supported the production of woven baskets that were then purchased by the NGO to be used for carrying soil in its FFW activities thus providing a short-term, but much needed, market outlet.

Many of these new options offer opportunities for change and the group mechanisms that have been developed aim to encourage their sustainability but many of them have had a short time scale within which to prove their viability and longevity. It remains to be seen how they will survive after the support from NGOs is withdrawn.

**27. LESSON LEARNT: Rehabilitation offers opportunities to get back to the state before the disaster, it can also create the momentum to go beyond this into new a new development direction. These new directions need to be sustainable.**

### **Livelihood Outcomes**

#### **Prior to the Cyclone**

The coastal area of Orissa is generally regarded as wealthier than the western area of the state. There can be little doubt that there is a greater number of opportunities in the coast and that greater levels of wealth exist there. However, the cyclone has demonstrated that underneath this appearance of well-being there is a large group of very poor people living side-by-side with a relatively well-off group.

This layer of poverty is not well understood but the CRS study suggests that 53% of the coastal people living in the area studied were living at a subsistence level. Some of the poorest groups were farmers on marginal lands, sharecroppers, labourers and fishers. Due to the indebtedness amongst the poor farmers and the regularity of seasonal threats such as drought, they have a high level of vulnerability. Low productivity of the land also reduced their food security. Indebtedness and risks at sea also threatened the livelihoods of fishers. In many cases, pollution and over-exploitation of the natural resource base also posed a threat to long-term security. The high level of vulnerability of coastal people is not fully reflected in the definitions of poverty. The outcomes of the cyclone suggest the need to revisit the ways wider poverty, is currently measured to include this strata of poverty, to incorporate relative vulnerability more intrinsically into such measurements, and to reconsider development targeting accordingly.

In terms of inclusion within decision-making systems the Panchyati Raj process has started to offer opportunities for involvement in decision-making and the reservation of positions specifically for women does, on the surface, offer a more balanced approach. However, there seems to be a widespread belief that the wealthier and more powerful members of the community largely control decision-making and women's involvement is often reduced to tokenism.

**28. LESSON LEARNT:** *The situation highlighted by the cyclone suggests that the overlying layer of adjacent wealth disguised the level poverty in the coast and that when vulnerability is included in the perception of poverty many of the coastal people are shown to be very poor.*

#### **Immediately After the Cyclone**

Whilst most people lost out in the cyclone, the poor lost relatively more. Many richer people may have lost more materially but if they had access to savings or to formal support mechanisms they were able to get back on their feet fairly quickly. The poor on the other hand, might lose little in absolute terms but they may lose all that they have, and have little opportunity to rebuild their lives. Whilst government compensation has gone some way to replace people's assets, the post-cyclone situation has left them in a worst situation than before the cyclone.

#### **In the Short to Medium Term**

The support agencies have tried to re-establish basic needs and to rebuild livelihood options. But where people's asset base is low, these opportunities are easily captured by the better equipped and more able.

Some of the NGOs have tried to build up local capacity to overcome these problems and to raise awareness about people's rights. This has helped the poor in some situations to begin to exert those rights. Where these work to build on and reform the local decision-making bodies they have a chance of surviving. Where they are in conflict with those bodies they will depend on the NGOs' support from some time to come.

The formation of self-help groups has doubtless provided collaborative opportunities for increasing incomes and the innovative use of FFW/CFW to build up community funds for future development has been a positive step forward. Certainly group formation has helped to increase a sense of well-being amongst the group members but continued support will be required to ensure that this translates into sustainable livelihood outcomes.

The community-based disaster preparedness measures and the increased building of cyclone shelters will contribute to a reduction of vulnerability even if the perception amongst the poor of their own vulnerability has increased.

## **ANNEXES**

### **Annex 1: Terms of Reference**

#### **1. Objective**

1.1 To draw out practical lessons for DFID from the events of and after the 1999 Orissa cyclone, in particular DFID's response, using the livelihoods framework as an analytical tool and contributing to its development as an approach.

#### **2. Background to the Consultancy**

2.1 Orissa is one of DFID India's partner states, in which we are committed to working with government and civil society towards poverty elimination. In October 1999 a super cyclone hit the Orissa coast causing extensive loss of life and severe damage to the natural and physical environment and to the livelihoods of many thousands of people. DFID's initial response was to give immediate relief support through its Conflict and Humanitarian Affairs Department in London. Given DFID India's partnership with the state it was decided that DFID India should follow up with rehabilitation support, through government and non-government agencies.

2.2 A special agency, the Orissa State Disaster Mitigation Authority (OSDMA), was set up by the Government of Orissa soon after the cyclone, part of its remit being the planning and co-ordination of rehabilitation activities. In practice, the state government capacity for effective rehabilitation activities has been rather poor. Co-ordination has mainly taken place outside government and has been managed through the United Nations office. As a result, most of DFID's support has so far been channelled through non-government organisations.

2.3 Much of our support to date has been towards the rehabilitation of livelihoods. DFID several years ago began adopting a Livelihoods Framework as one approach for understanding people's lives and the factors that affect them. This initiative for developing and working with this framework is managed through the sustainable livelihoods department in London. The Sustainable Livelihoods Support Office, within this department, has particular responsibility for learning about the framework and its application to DFID's work.

2.4 There are many lessons for DFID to be learned from the events of and after the 1999 Orissa cyclone and in particular from our own response. The livelihoods framework seems to provide a useful analytical tool for structuring a study to draw out these lessons. In addition, the process and outcomes of the consultancy will increase our understanding of the framework itself and contribute to its development as an approach.

2.5 Understanding of the "Policies, Institutions and Processes" element of the framework is the least well understood and needs to be developed further as its importance for impact and sustainability becomes recognised. A post-disaster situation also provides the opportunity to increase understanding of the "vulnerability context" element of the framework. These lessons on using and understanding the framework will be useful for both SLSO in London and Rural Livelihoods Advisery Group in India

2.6 In addition, the exceptional circumstances of supporting post-cyclone rehabilitation have involved DFID India in issues and processes which are significantly different from our usual development activities. An analysis of our response will provide lessons more broadly for DFID India.

### **3. Scope of the Work**

3.1 The consultants will work with DFIDI to distil lessons and to develop the practical use of the Livelihoods framework through the following broad tasks:

I. Design a framework for areas of enquiry, based around the DFID livelihoods framework. Agree this with the team in Delhi . The focus is likely to include:

A. **Polices, Institutions and Processes**

The dynamics of links between the roles and responses of DFID, other donors, Government of Orissa, NGOs, community groups etc

B. **Linkages between “PIP” and other livelihoods elements:**

e.g. the effect of different organisations and institutions on the process of restoration of livelihoods/assets; the effect on their vulnerability; the way in which elements of peoples livelihoods (vulnerability/assets) have affected their access to rehabilitation processes

C. **the vulnerability context:**

e.g. understanding who the vulnerable are and how the “shock” of the cyclone affected their livelihoods

II. Undertake primary and secondary research to draw out issues and lessons

III. Present the findings to DFIDI, identify relevant and important issues, highlight difficulties or gaps, and agree a structure for the report

### **4. Specific Tasks**

These will include, but are not limited to:

1. to undertake a preliminary scoping of issues through discussions with key individuals and organisations in Delhi and Orissa and reference to secondary data;
2. to prioritise themes for further analysis through discussion with the Orissa Livelihoods Rehabilitation Team;
3. to explore further these prioritised themes through a combination of field visits, case studies, focus discussions etc;
4. to analyse information within the context of the livelihoods framework and draw out practical (and where possible replicable) lessons for DFIDI and the Sustainable Livelihoods Support Office.

### **5. Expected Outcome and Deliverables**

1. A final report, the broad structure of which to be agreed;
2. The main lessons, structured as far as possible according to the framework;
3. A section on internal issues which will feed into a separate DFIDI “internal processes” learning consultancy;
4. Summarised materials for a variety of communication purposes in a format to be agreed.

### **6. Conduct of the Work and Reporting Requirements**

6.1 In conducting this consultancy the consultants should:

- adopt a process approach with a focus on learning and strive to ensure that they are not seen in Orissa as evaluators;

- consult a wide range of stakeholders, ensuring that there is full but not over-representation of NGOs and the views and procedures of government and other donors are incorporated.

6.2 The main contact point for the consultancy team will be Peter Reid: as member of the Rural Livelihoods and Environment Division; head of Rural Livelihoods Advisory Group, DFID and co-ordinator of the Orissa Livelihoods Rehabilitation Team for the purposes of this consultancy.

6.3 The consultants will also:

- work closely with the advisory and programme staff of the DFID livelihoods rehabilitation team;
- link with the consultancy team working on lesson learning from DFID India's internal processes post-cyclone;
- maintain regular contact with Jo Yvon, APO Rural Livelihoods, whilst in Orissa;
- liaise with the following individuals/organisations on using some of the key findings of the study for wider communications purposes:
  - Omar Sattaur - consultant to DFID's Sustainable Livelihoods Support Office in London who is compiling lessons on the livelihoods framework in practice;
  - WREN media - production of video/audio materials on livelihoods for SLSO;
  - Sonal Bhatt - Head of Press and Information, DFID India.

## **7. The Consultancy Team**

7.1 A 3-member team with combined experience in:

- the DFID livelihoods framework, particularly policies, institutions, processes;
- livelihoods in coastal Orissa;
- government, NGO, donor organisations in India (preferably Orissa);
- social issues in India (preferably Orissa) including gender;
- understanding of DFID procedures and processes.

## **8. Timing**

Total of up to 100 person days

*(This is based around 3 people 30 days each, plus some extra time for linking in with SLSO, Wren media, the DFID internal process lesson learning consultancy etc)*



## Annex 2: Itinerary and Persons met

Date	Activity
Monday 4/12	<ul style="list-style-type: none"> <li>Meeting with Peter Reid and Harshad Sarvia in Delhi and was briefed on some of the areas where DFID provided funding.</li> </ul>
Tuesday 5/12	<ul style="list-style-type: none"> <li>Travel to Bhubaneshwar and briefing by Jo Yvon, DFID.</li> </ul>
Wednesday 6/12	<ul style="list-style-type: none"> <li>Meeting with Saroj Jah, UN Inter-sectoral Team Leader</li> <li>Meeting with DFID staff</li> <li>Attempted to meet Secretary of Finance and Head of OSDMA</li> <li>Meeting with Mahadevan, DFID monitoring consultant</li> </ul>
Thursday 7/12	<ul style="list-style-type: none"> <li>Meeting with George Thomas of CRS</li> <li>Meetings with Basant Mohanty and Debasis Mohapatro of CARE</li> <li>Meeting with Jo Yvon, DFID</li> </ul>
Friday 8/12	<ul style="list-style-type: none"> <li>Field visit to Paradeep and villages along the coast and inland accompanied by Debasis Mohapatro from CARE.</li> </ul>
Saturday 9/12	<ul style="list-style-type: none"> <li>Team brainstorming on themes for the study and the framework for enquiry for Phase 2.</li> </ul>
Sunday 10/12	<ul style="list-style-type: none"> <li>Team brainstorming on themes for the study and the framework for enquiry for Phase 2.</li> </ul>
Monday 11/12	<ul style="list-style-type: none"> <li>Meeting with Aurobindo Behera, ex-head of the NGO co-ordination Unit (previously Secretary for Scheduled Castes/ Scheduled Tribes Department) during the cyclone</li> <li>Meeting with Chinmai Basu, Secretary of Panchayati Raj Department.</li> <li>Further development of Phase 2 methodology</li> </ul>
Tuesday 12/12	<ul style="list-style-type: none"> <li>Travel to Delhi</li> <li>Further development of Phase 2 methodology</li> </ul>
Wednesday 13/12	<ul style="list-style-type: none"> <li>Meeting with Peter Reid and Jo Yvon to discuss progress so far</li> <li>Meeting with Kate Alexander, Harshad Sarvia and Shouvik Datta of DFID to discuss implementation of the rehabilitation, funding and documentation</li> <li>Meeting with Jo Yvon and other DFID livelihood specialists to discuss progress</li> </ul>
Thursday 14/12	Travel to UK

DATE	Activity
Monday 8/1/01	<ul style="list-style-type: none"> <li>Travel to Bhubaneshwar</li> </ul>
Tuesday 9/1/01	<ul style="list-style-type: none"> <li>Team members arrived Bhubaneshwar</li> <li>Briefing meeting with Jo Yvon, DFID</li> </ul>
Wednesday 10/1/01	<ul style="list-style-type: none"> <li>Planning meeting</li> <li>Meeting with A.Mahadevan, DFID consultant, to discuss project monitoring</li> </ul>
Thursday 11/1/01	<ul style="list-style-type: none"> <li>Meeting with Roy Alex, EFICOR Coordinator</li> </ul>
	<ul style="list-style-type: none"> <li>Meeting with B. Jass (Additional Emergency officer), MrJonathan (Assistant Emergency Officer) &amp; Mr Alok (Assistant Emergency Officer) CASA.</li> </ul>
	<ul style="list-style-type: none"> <li>Meeting with Basant Kar (Team Leader), Ravindra Gouda, Sanjeev,&amp; Debabrata, ACTIONAID</li> </ul>

DATE	Activity
Friday 12/1/01	<ul style="list-style-type: none"> <li>Meeting with Chrisse Gale (Humanitarian Project Coordinator) &amp; Sarthak (Project Officer) OXFAM</li> </ul>
	<ul style="list-style-type: none"> <li>Meeting with Will Lynch (Delhi manager) Jolly Abraham (Consultant), Saritha Pradhan (Woman in Development Officer) CRS</li> </ul>
Saturday 13/1/01	<ul style="list-style-type: none"> <li>Meeting with Taposh Roy (Secretary), Dr.P.K.Mohanty &amp; Dr.Shalu, VHAI-Aparajita</li> </ul>
Sunday 14/1/01	<ul style="list-style-type: none"> <li>Report writing</li> </ul>
Monday 15/1/01	<ul style="list-style-type: none"> <li>Meeting with Prabodh Mohanty (Programme Coordinator Rehabilitation), CARE</li> </ul>
	<ul style="list-style-type: none"> <li>Meeting with D.K.Dash (Deputy General Manager, MIS), OMFED</li> </ul>
Tuesday 16/1/01	<ul style="list-style-type: none"> <li>Field visit to Jagatsinghpur District with: Roy Alex &amp; Field Team (Eficor), Sashikant .&amp; Field Team (ActionAid), Mr. Thomas, Pramod &amp; field Team (VHAI-Aparajita)</li> </ul>
Wednesday 17/1/01	<ul style="list-style-type: none"> <li>Meeting with Aurobindo Behera (Managing Director) &amp; Siddhanta Das (Executive Director) OSDMA</li> </ul>
Thursday 18/1/01	<ul style="list-style-type: none"> <li>Discussion of field trips and write up</li> </ul>
Friday 19/1/01	<ul style="list-style-type: none"> <li>Preparation of NGO meeting</li> </ul>
Saturday 20/1/01	<ul style="list-style-type: none"> <li>Consultation meeting with NGO Partners from Oxfam, CARE, CASA, Eficor, ActionAid and CRS.</li> </ul>
Sunday 21/1/01	<ul style="list-style-type: none"> <li>Field visit - Puri district with Jolly Abraham, Sudipta (Puri District Team Leader) and Field Team (CRS), S. Gomathi (Field Officer, Rehabilitation Project, Puri District) &amp; Field Team, Oxfam, Puri District Disaster Mitigation Forum (NGO forum)</li> </ul>
Monday 22/1/01	<ul style="list-style-type: none"> <li>Meeting with Daniel Musson (ASI Resident Project Manager) &amp; Terry Green (Senior Policy Adviser), Adam Smith Institute</li> <li>Meeting with A.K.Behera (Managing Director, Agriculture Promotion and Investment Corporation of Orissa Ltd)</li> </ul>
Tuesday 23/1/01	<ul style="list-style-type: none"> <li>Meeting with A.Mahadevan (DFIDI consultant)</li> </ul>
Wednesday 24/1/01	<ul style="list-style-type: none"> <li>Field Visit- Jagatsinghpur District with Pramod (District Coordinator) , S . Misra (Finance Manager) VHAI- Aparajita, and Dilip Kar (Field Officer), CARE</li> <li>Meeting with Peter Reid (DFIDI) in Bhubaneswar</li> </ul>
Thursday 25/1/01	<ul style="list-style-type: none"> <li>Meeting with Joe Madiath (Executive Director), &amp; Libby T. Johnson (Programme Manager, Livelihoods) Christian Aid/GRAM VIKAS</li> <li>Meeting with Nitin Chandra (Director Of Fishery)</li> <li>Meeting with Chrissie Gale, Humanitarian Project Coordinator, Oxfam</li> </ul>
Friday 26/1/01	<ul style="list-style-type: none"> <li>Report writing</li> </ul>
Saturday 27/1/01	<ul style="list-style-type: none"> <li>Team depart Bhubaneshwar</li> </ul>
Sunday 28/1/01	<ul style="list-style-type: none"> <li>Report writing in Delhi</li> </ul>
Monday 29/1/01	<ul style="list-style-type: none"> <li>Delhi, DFIDI Meeting with Peter Reid</li> <li>Meeting with Kate Alexander, Souvik Datta, DFID</li> <li>Meeting with Sonal Bhatt, DFID</li> </ul>
Tuesday 30/1/01	<ul style="list-style-type: none"> <li>Travel to UK</li> </ul>

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## Annex 4: Case Studies

### CASE STUDY 1: THE BAMBOO BASKET WEAVERS OF MACHAMARA

Machamara is a small hamlet of the village Sarangadharapur located in Othoka Gramapanchayat of Kakatpur Block-Puri Dist. The hamlet consists of 21 households belonging to schedule caste (Dalit) community. They live in huts and there is no road link to this small settlement.

Their traditional occupation is weaving bamboo strips to make baskets and other items, which are in demand in the local market. Before 1982 there were many bamboo bushes within the village and the nearby villages, and this may have been one of the reasons the village was established here 70 yrs back. Bamboo was cheaply available and the residents depended largely on the natural resource to earn a living. In 1982 there was a big flood and after that all the bamboo bushes were destroyed. After this they were forced to buy bamboo from the market thus raising their production costs. The community decided to diversify its employment in order to survive and gradually they bought small pieces of land where they grow rice, some vegetables and betel vines.



This village was severely affected by the super-cyclone that occurred in October in 1999. The weaving work stopped for 3 months, as there was no money to invest in bamboo and people struggled to survive. Oxfam decided to include this village in its DFID-funded Livelihood Rehabilitation Programme, under its Coastal Orissa Rehabilitation Programme (CORP). There are 21 households in the hamlet and from each household there are 2 beneficiaries.

Through Cash For Work (CFW) Oxfam provided 6 pieces of bamboo to each family and Rs. 42 per family per day as wage for one week. With in a week they were able to begin to revive their traditional occupation of making bamboo products. For the first time they were able to begin saving some of their income. They started by putting Rs. 500 in the bank in a joint account. They felt this amount would be helpful for them to meet their short-term needs such as medical assistance and also this would enable purchase of sufficient bamboo raw materials for taking bulk orders. As a result their previous dependency on the rich farmers and shop owners, who were buying their products at lower prices than those prevailing in the wider market, has reduced.

Bamboo items are of various types - those used to winnow rice and millets, small baskets to keep dry food, bamboo plates, small baskets with holes which are used for washing fish, baskets for washing rice and vegetables, stronger baskets that are used for carrying earth during construction work, and baskets for packaging the betel leaves produced on a large scale in the surrounding area. Some of these items have a high demand during marriage season, some sell throughout the year and the baskets for packing betel leaves are in high demand during rainy season.

The products are sold in the three local weekly markets which operate over five days of the week and some times the products are taken by foot or on bicycle and sold in nearby villages. From a piece of bamboo which costs Rs.90, the product can achieve a profit of Rs. 100. A person can complete a big basket in two days. The profit per person per day works out to be around Rs. 50/- which is the current wage rate in the area.

Working as a group has helped the weavers. They have been able to buy larger quantities of raw material at cheaper prices, they have also started to transport their products communally and thus incur lower costs whilst accessing better markets. The savings provide a safety net to cover medical costs and reduce the need to sell their



Taking baskets to market.

products when the price is low. The savings have also allowed them to purchase raw materials in bulk and thus to take up bulk orders.

The DFID supported Oxfam food for work programme requires many of these baskets to carry materials for construction work. This has provided an opportunity for the basket weavers to access a new market and to assist in the wider rehabilitation process.



## CASE STUDY 2: FISHING FOR A LIVING

Balipatana, was a hamlet of fisher folk is part of the village Dasavatia in Jagatsinghpur District. Balipatna consisted of 600 households that primarily depended on fishing and related activities for their livelihood. In the village there were around 90 flat bottom wooden plank boats (called Oriya dongas) used for fishing in the local estuary and river. Each boat had a crew of three and the benefits were shared between them. Close to the hamlet is a weekly market where dry fish are sold.

During the 1999 cyclone many people in the hamlet lost their boats and fishing gear. In the initial period after the cyclone the villagers tried repairing a few of their damaged boats to earn their income, but most fishermen resorted to working as wage labourers. Attempts were made to hire boat from outside but as the cost was high, they gave up the hope of ever getting back to fishing.



Boatbuilding in Balipatna.

The fishing community required help to regain their livelihood. They contacted VHAI-Aparajita who were working in adjacent area and asked for assistance. In October 2000, using DFID Funds, the needs of the community was assessed and rehabilitation work was started. Given the limited rehabilitation resources available, the people realised they needed to work jointly if there was to be a fair distribution of the funds. So collaboratively they planned for rehabilitation of the hamlet. Getting back to their fishing occupation was their priority but they realised that, with the resources available from VHAI-Aparajita, they could only build 25 replacement craft. This was less than a third of the original fleet. To overcome this they decided to share a boat between 5 families. The villagers set up a committee that was responsible for selection of beneficiaries and management of boat building activity. The community decided that they would provide space and labour for the

construction of a shed for boat building. They also selected volunteers for supervision of the boat building activity and assured the safety of the boat building materials. To ensure that the boats were made to the design and quality required by the fishermen, local carpenters were brought together for the construction work. Aparajita also arranged for net suppliers to visit the village and for fishermen to select the type and quality of nets they required. This would ensure that each fishing group had the appropriate gear for the target species and operational environment.

The committee manages the vessel production and the weekly payment to carpenter. Boat distribution to the 5 member group is with the agreement that 50% of the total cost of Rs. 16000/- incurred for boat and net would be repaid in 18 instalments once the fishing activity started. Some have already started repaying and the repaid amount will be deposited in the bank and used for further investments in the community.

The community has already started looking to the future. They have plans to form linkages with other committees in the adjacent areas so that a federation of fishermen can be formed at the block level. They have also started using ice boxes to preserve their catches and reduce losses due to spoilage. Their cooperative working is also beginning to indicate ways of avoiding future dependency on the middlemen for credit. This they hope will reduce their indebtedness and improve incomes.



Fisherman Jogendra Behera with one of the new boats.

### CASE STUDY 3 : MALLI'S STORY

Malli Behera is a 50yrs old widow who lost her husband as a result of cyclone. When she recalled the cyclone she was in tears whilst recounting the difficulties she faced, and the depression and subsequent death of her aged husband. Malli has 3 sons: one is a fisherman, the other a wage labourer and the youngest son in school. Moli's left hand was injured when she was a child and this has left her handicapped. Her main income source was fish processing and she was helped by her second son who had set up a small snacks stall. During the cyclone their house and the food stall were washed away.

After the cyclone they lived under a tarpaulin sheet, this provided limited, but much needed, shelter. Slowly her eldest son was able to reconstruct his little hut but it was too small for the whole family to live in. Malli had to start rebuilding her own hut but having lost her income sources she had to resort to wage labouring. Malli's was one of the 12 most vulnerable families identified by the local women's group. Through Aparajita, DFID funds were made available for reconstruction of her house.



Malli Behera (left) with her new home.

She is thankful for the Rs. 2500/- assistance provided for material and labour for constructing her house. She is relieved that she has a proper roof over her head. In addition she gets psychological support from the women's group that have motivated her to start to save Rs. 50/- month and that provided Rs. 1000/- loan for her to start a small dry fish processing business. The funds come from a revolving fund of Rs. 10,000 provided, through DFID's assistance, to the women's self help group in the village.

Her middle son Raju also received a Rs 2,000/- grant from the DFID funded VHAI-Aparajita project to restart his small tea shop. This has further contributed to the family's income.



Raju's tea shop.

#### **CASE STUDY 4 : DYNAMIC WOMEN**

The Mahila Samithi (women`s group) of the village Srimantapur in Jagatsinghpur District is a source of inspiration for women wanting to get organised to achieve development. The women here are dynamic and have realised the strength of working in a group. The leaders of the group share the view that it is difficult to work in a group but at the same time collaborative efforts provide potential for promoting the development process.

As a result of the cyclone, Srimantapur village lost its cattle and houses, rice yields were reduced, roads were washed away and trees uprooted. Relief supplies were provided but as these began to decline the villagers realised the need to get the village back to normal. So they decided to get together and reconstruct the approach road and remove silt from the pond in the village. They had not carried out work with such unity before.

With VHAI-Aparajita`s assistance, they decided to extend this collaboration by forming 3 small groups with a total membership of 54 people. DFID funds were used for Cash For Work to clean water bodies, excavate the pond, planting 7000 tree saplings, and reconstructing houses for the most vulnerable families. The women have contributed labour in reconstruction of a temporary school that is used by the village children and by young illiterate women to learn reading and writing.



Women`s group with the temporary school.

The groups were encouraged to become involved in saving money. They started saving RS.10/month from May 2000. Now they have Rs.12,000/- in their joint bank account which includes the revolving fund of Rs.10,000 provided as a grant to the groups. To build on this co-operation within the village, and to provide a cyclone resistant building for future protection, the community requested VHAI-Aparajita to provide DFID funds to build a community centre. The village women take pride in showing the village centre to visitors. They intend to grow ornamental plants in front

of the community centre in addition to the vegetable plantation that has already been started. The women look after the plants in front of the centre with much care. In a recent incident a vehicle drove over part of the garden and damaged the plants. The women stopped the vehicle, held it for a day and collected a penalty of Rs.500/- for the damage caused.



The new community centre.

The unity and sense of purpose that DFID assistance has encouraged has helped the women to discuss and develop alternate income generating options for themselves. They have invested in two grinders for processing spices for sale. Some of the most vulnerable families, especially those headed by single women, have been provided with replacement livestock (such as goats) for earning their livelihood. In the future they intend to revive coir production, an activity for which they already possess skills. This alternate income would help them manage during the drought period that occurs regularly in the area.

The dynamism and enthusiasm of the groups has meant that they have started to graduate from the rehabilitation to the development phase. To ensure sustainability, however, linkages with Government programmes for overall development will be essential.

## CASE STUDY 5: POND EXCAVATION

Bajapur hamlet of Samaraipathna village consists of 47 households. The local NGO, called the *Society for women and development* (SWAD), is working in this hamlet. The hamlet was identified by SWAD when it was attempting to target the vulnerable groups of the community who required assistance to cope with the loss incurred during cyclone. This was supported with DFID funding through Oxfam.

In September 2000, with the NGO assistance, the women in the hamlet from 47 household formed two self-help groups (SHGs) with memberships of 20 and 27 people respectively. These women in the SHGs were encouraged to start to save Rs. 10/- per month. After saving for 6 months, they plan to open a bank account.

Under cash for work the community was provided with assistance to rebuild its physical assets. Re-excavated of the pond in the hamlet was given priority by the women's SHG as the people found it difficulty to get water for domestic use and bathing. The work is almost completed and women intend to supplement their incomes by taking up fish culture in the pond. Fruit trees and other tree varieties are planned for the embankment of the pond and this would be another resource created for the community.



The SHGs have also taken up joint vegetable cultivation and they intend to revive coir making activity which is their traditional activity. The women's SHG was primarily focussing on creating community assets. They have contributed their labour and constructed a common shed. The men in the hamlet assisted this project by providing the roofing. This common shed provides the women privacy and a comfortable place to have their meetings.

## CASE STUDY 6: A FOREST BY THE RIVER

Village Gandakula, Balikuda block of Jagatsingpur district consists of 65 households. When the cyclone passed through the village it destroyed much of the village and greatly reduced income opportunities. Devastation was followed by relief but people became dependent on this support and lacked the drive to help themselves. The group assisting the community was the People's Forum, a body consisting of local youth volunteers. CARE started working in partnership with the local forum and provided assistance for rehabilitation work in the village using DFID funds. The forum worked with the village community to plan for rehabilitation. They identified the need for recreating the riverside forest lost in the cyclone. 44100 plant saplings were supplied and 1764 person days of labour from the village were provided to plant the



The beginnings of a casuarina forest by the river.

trees over several weeks. Watch over the forest area rotates amongst youngsters of the villages. They have forbidden grazing of cows, sheep and other animals on this patch of land.



## **CASE STUDY 7: WORKING IN GROUPS**

Raskandapur village in Erasama Block was very badly affected during the cyclone. The organisation Evangelical Fellowship of India Commission on Relief (EFICOR) provided relief services to the village. The villagers carried out the relief activities jointly with EFICOR. An early focus of the work was to build the social assets of the community to enable them to work collaboratively. This had not been a strong element in the community before the cyclone and co-operative working did not come naturally.

The priority concerns of the community were cleaning up existing water bodies, and the construction of new ones, for domestic purposes; reconstruction of individual houses, and construction of embankments to stop saline water entering into agricultural lands. All of these activities were carried out under a Food For Work (FFW) programme with one member from each family participating in the programme. The work was carried out in groups of ten people who were overseen and coordinated by local volunteers. Using FFW, local food security was ensured and people were engaged in meaningful rehabilitation activities. Following this the community contributed their labour for further activities for the reconstruction of school building and a communal building for conducting meetings. The community primarily depends on agricultural for their income and recurring droughts have



New house constructed under the food for work programme..

affecting them badly. With their new assets, such as ponds, and embankments, they were able to obtain better yields from their land.

The new organisational skills of the village volunteers were well demonstrated on the anniversary of the cyclone. The volunteers organised and implemented a large-scale festival which included all the villagers and people from outside. The British High Commissioner also attended. The success of the event has boosted their confidence and willingness to do more for their community.

Two Women Self Help Groups (WSHGs) have been formed with EFICOR's assistance. One is Jaganath SHG, consisting of 20 members, it was started August 2000. The other is the Barunei SHG that was started in the month of May 2000 consisting of 16 members.

They have been saving Rs.30/month (one rupee per day saving). In addition to saving, they are involved in joint vegetable cultivation, rice processing, and other business ventures. These women's groups have helped to build a sense of cohesion in the community and to extend the role of women to participate more in contact with the outside world. Small measures like the training in the use of signatures has been a small but significant step up from using thumb prints. Some of the women have undergone Women's Development training conducted by another NGO, Catholic Relief Services (CRS). In this, child care training programme was conducted and the women gained awareness and knowledge about group formation and its advantages.



The women's groups talk to the study team.

Whilst they feel that they have developed considerably they recognise there is still a long way to go. Looking to the future they recognise the importance of schooling for their children and they plan to have one of the volunteers take over the role of teacher. They also want to diversify their sources of income by taking up tailoring, keeping poultry and growing rice.

## CASE STUDY 8: SEA SHELL PRODUCTS

The human capacity of the people in the coastal communities of Orissa was one of its greatest assets in rebuilding livelihoods after the cyclone. There are many examples where people who had very little had made the best use of their limited resources to achieve significant advances in their lives. People of this nature were to provide vital leadership after the cyclone.

Snehalatta Patra, of Korana village in Konark NAC was not encouraged by her family to pursue education but in spite of this she developed her own skills in handicraft. She sought assistance from a local NGO, Arkashree to gain further training in producing craft items using sea shells to market in the nearby tourist places. Following this she trained up a group of women in her village in this economic activity and was instrumental in formation of WSHG in the village in 1996. This group has continued to the present time and has progressively developed its skills and the markets for its products. The success of the group and her own economic independence gave her the confidence to continue her education and she completed her Master's degree through a correspondence course. She was also instrumental in channelling funds into the village to start a village school. Education is now given priority and WSHG provides assistance for education purpose.



Snehalatta Patra (in blue) shows traditional crafts made from sea shells.

The skills and cooperation that Snehalatta had helped to develop in the community proved vital after the cyclone. Relief assistance was channelled through the WSHG. Later Snehalatta helped other women to form more small groups to distribute assistance under the cyclone rehabilitation programme, to redevelop agricultural activities and to produce fruit from their gardens. These groups involved 160 women. They are now involved in group-based economic activities such as shell ornament making, and coir and wire products. They are also collaboratively buying raw materials at lower rates and marketing their products. These joint efforts are

beginning to substantially improve their livelihoods. This in turn has increased the opportunities for other young women in the community to develop their education.